

ESSE EST PERCIPERE

Ingo Günther

esse est percipi; to be is to be perceived
George Berkeley (1685-1753)

The work I am presenting here comes in the authoritative shape of a globe. *Worldprocessor* is a series of thematic globes (see p 50). *Worldprocessor* is something like the data-jacket for the common globe. I am interested in the incomprehensibility of the world's totality. No matter how much data we have and how much more we know, we never see enough and most often miss the big picture – dimension, the proportions of the possible, of reality. Leibniz is said to have been the last man to hold the entire body of knowledge of his time. Today, we as individuals only know a fraction of the body of knowledge, therefore we need the artificial overview and navigational tools to grasp our world intellectually and emotionally. For years we have dealt with 'planetary technology' (to make use of an ancient Heidegger term). I simply set out to enlarge the global perspective. I see my work as a kind of journalism using visual aesthetic means. I am proud to report that my works end up not only in the realm of art, but also on the cover

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Ethnicity and Race by Countries

Micronesia	nine ethnic Micronesian and Polynesian groups
Moldova	Moldavian/Romanian 64.5%, Ukrainian 13.8%, Russian 13%, Gagauz 3.5%, Jewish 1.5%, Bulgarian 2%, other 1.7% (1989 figures)
Monaco	French 47%, Monegasque 16%, Italian 16%, other 21%
Mongolia	Mongol 90%, Kazak 4%, Chinese 2%, Russian 2%, other 2%
Morocco	Arab-Berber 99.1%, other 0.7%, Jewish 0.2%
Mozambique	indigenous tribal groups 99.6% (Shangaan, Chokwe, Manyika, Sena, Makua, and others), Europeans 0.06%, Euro-Africans 0.2%, Indians 0.08%
Myanmar	Burman 68%, Shan 9%, Karen 7%, Rakhine 4%, Chinese 3%, Mon 2%, Indian 2%, other 5%
Namibia	black 86%, white 6.6%, mixed 7.4%. Note: about 50% of the population belong to the Ovambo tribe and 9% to the Kavangos tribe; other ethnic groups are: Herero 7%, Damara 7%, Nama 5%, Caprivian 4%, Bushmen 3%, Baster 2%, Tswana 0.5%

Source: <http://kids.infoplease.lycos.com/ipka/A0855617.html>

pages of economic and UN publications. Soon they will even grace the very official pages of Japanese schoolbooks.

Initially it was an attempt to do justice to the terms 'political' and 'geo-political' globe, as most commercially available globes are sold. Political means that Russia is green and China is yellowish. Something had to be done about the globe.

Art has been described as 'The lie that tells the truth'. I have felt exactly that predicament and challenge. Even the scale of the globes used spells imprecision (1:42 million). I constantly fail to depict, or even remotely represent, the global scale of important, yet somehow difficult to quantify issues, such as elegance, temptation, hope. 'International Trade Data' or 'Fresh Water Reserves' appear more straightforward. Easily recorded in numbers, these data sets do not necessarily come in color or form and shape. There is no such thing as visual Esperanto. (And I try to avoid the use of icons at all cost.) Many attempts to use the ubiquitous color code of cartography (brown mountains, blue oceans and green lowlands) in conjunction with the country's unique shapes yielded only conceptually interesting results.

Most topics require a degree of decision-making that has me caught between aesthetics, visual effects, symbolism and an often personal interpretation of the data. Further reductions, selection and regrouping of data are almost always necessary. Take the distribution of population: black dots on a white globe or white dots on a black one? The effect on the viewer is fundamentally different, yet not conclusive enough to suggest a choice of one rendering over the other. I ended up simply making two globes instead of a decision. Other themes prompted as many as five globes: (AIDS deaths/infection/in total number by country/as percentage of the population/increased infection in % based on a national average rate of increased numbers/infection by region. And here rela-

Ethnicity and Race by Countries

Nauru	Nauruan 58%, other Pacific Islander 26%, Chinese 8%, European 8%
Nepal	Newars, Indians, Tibetans, Gurungs, Magars, Tamangs, Bhotias, Rais, Limbus, Sherpas
The Netherlands	Dutch 96%, Moroccans, Turks, and other 4% (1988)
New Zealand	European 88%, Maori 8.9%, Pacific Islander 2.9%, other 0.2%
Nicaragua	mestizo (mixed Amerindian and white) 69%, white 17%, black 9%, Indian 5%
Niger	Hausa 56%, Djerma 22%, Fula 8.5%, Tuareg 8%, Beri Beri (Kanouri) 4.3%, Arab, Toubou, and Gourmantche 1.2%, about 4,000 French expatriates
Nigeria	Hausa, Fulani, Yoruba, Ibo, Kanuri, Ibibio, Tiv, Ijaw
Norway	Germanic (Nordic, Alpine, Baltic), Lapps (Sami)
Oman	Arab, Baluchi, South Asian (Indian, Pakistani, Sri Lankan, Bangladeshi), African
Pakistan	Punjabi, Sindhi, Pashtun (Pathan), Baloch, Muhajir (immigrants from

tive proportions are just too extreme: there is no way to actually show the proportion of infections in Africa vs. America. The mapping of infections in Africa appears as a wide swathe cutting the African continent and leaving barely enough territory for it to be recognizable, whilst the same process would produce only a 1/10 of a hairline to represent infections in the Americas.)

Even though I try to rely as much as I can on publicly available and established data, I am constantly confronted with incompatible and incomparable datasets: the statistical methods are different from culture to country and, most often, the timeframe covered as well. Criteria are likely to vary from year to year and, worse still, there is a lack of data for a few countries and entire regions – many of which did not exist only a few years ago and, thus, do not even have a statistical history.

Worst of all, the moment I get enough data for every corner on earth, I know that it is already outdated. Data collection, its analysis and publication have a built-in time lag, which increases every year, even though we collect data faster than ever and disseminate the information even faster than that. The speed of change is arguably increasing at a greater rate than our ability to be well-informed. Thus, my project, though intended to be as instant an interface to the world as possible, is basically outdated the moment I show the work – the issue being exacerbated by the time it takes to actually arrange an exhibition. So, for all intents and purposes, I have two products here: a substantial archive of outdated globes and the few ones which are fresh enough to be actually useful (offering a bit more than a historic reference). I thought of putting an expiration date on them – 'Note to Beholder: Do not exhibit/sell/view after this date!' Which is also a reason why I am reluctant to sell them. With few exceptions, I started to lease or rent them, then retrieve them in order to constantly update them. Which is way too much work.



Ethnicity and Race by Countries

	India and their descendants)
Palau	Palauans are a composite of Polynesian, Malayan, and Melanesian races
Palestinian State	(proposed) West Bank: Palestinian Arab and other 83%, Jewish 17%; Gaza Strip: Palestinian Arab and other 99.4%, Jewish 0.6%
Panama	mestizo (mixed Indian and European ancestry) 70%, West Indian 14%, white 10%, Indian 6%
Papua New Guinea	Papuan, Melanesian, Negrito, Micronesian, Polynesian
Paraguay	mestizo (mixed Spanish and Indian) 95%, whites plus Amerindians 5%
Peru	Indian 45%, mestizo (mixed Indian and European ancestry) 37%, white 15%, black, Japanese, Chinese, and other 3%
The Philippines	Christian Malay 91.5%, Muslim Malay 4%, Chinese 1.5%, other 3%
Poland	Polish 97.6%, German 1.3%, Ukrainian 0.6%, Belorussian 0.5% (1990 est.)
Portugal	Homogeneous Mediterranean stock in mainland, Azores, Madeira Islands; citizens of black African descent who immigrated to mainland during

My works become very old very fast, right in front of my eyes. Which in turn has forced me to do new renderings of the same subject (since technically one cannot really add on to a globe or erase and change information). I ended up making very different versions of the same topic, thus there are several totally different ways of saying factually the same thing (which I guess is a very obvious point to make), but constructing a very very different perception through a variation of aesthetic connotations. The *Terror Globe* (the first was made after the U.S.S. Cole was bombed in 2000) went through a few mutations, among them, one which shows the operation areas, and you might think that the entire world is a staging ground for terror activity.

On a personal level, I am motivated by my own private construction of global reality (hoping I am coming close on a level or two). And, despite the substantial amount of decision-making I mentioned before, globes in general present themselves as authentic (*and* authoritative, to the point that in some South American countries any globe entering the country needs official sanctioning from the respective Ministry of Education). And then there is a book published a few years ago entitled: *How To Lie With Maps*. Data, however knitted and presented, carry the aura of authenticity and the objective. As much as I like to take credit for the work, I am equally glad to be off the hook in relation to defending the 'content'. It's just data, taken and reconstituted from the best sources. If you doubt or don't like what you see, I am here to hide behind the data. Complain to the UN, The Economist ...

When I started the project in 1988 I figured that I was among the very very few who were dealing with mapping and attempting a sort of objectivity (while trying to get away with it in an art context no less) Seems I am in much broader company now. Over the last decades, archives and toolkits have become very popular. More and more collaborative groups appear on the art horizon (mostly men for some reason). That reminds me of the same strategy behind the success

Ethnicity and Race by Countries

	decolonization number less than 100,000
Qatar	Arab 40%, Pakistani 18%, Indian 18%, Iranian 10%, other 14%
Romania	Romanian 89.1%, Hungarian 8.9%, German 0.4%, Ukrainian, Serb, Croat, Russian, Turk, and Gypsy 1.6%
Russia	Russian 81.5%, Tatar 3.8%, Ukrainian 3%, Chuvash 1.2%, Bashkir 0.9%, Byelorussian 0.8%, Moldavian 0.7%, other 8.1%
Rwanda	Hutu 80%, Tutsi 19%, Twa (Pygmoid) 1%
St. Kitts and Nevis	black African
St. Lucia	African descent 90.3%, mixed 5.5%, East Indian 3.2%, white 0.8%
St. Vincent and the Grenadines	African descent, white, East Indian, Carib Indian
Samoa	Samoaan 92.6%, Euronesian 7% (persons of European and Polynesian blood), Europeans 0.4%

of hedge funds. I sense an avoidance of responsibility, judgment and decision-making in the face of a world that changes so rapidly that our databases might be neutral, but our analysis may always be somehow wrong. The issue of archives is one of the relevance of the middle man who accesses 'the archive' (or statistics) and who has to choose the question/topic in a certain way, then read the archive 'correctly' and finally digest it and re-present it. Behind that neatly knitted data blanket there is no naked truth, as much as we would want it.

Years ago when working with satellite photography, the issues were the same: a robotic camera in outer space calmly circles earth and records everything in its path. The user chooses the date, time and the area covered and there you have a very objective dataset. But, once you want to look at the data and transform them into an image, everything changes. In order to see anything, colors need to be assigned to the different channels (from infrared to UV) and a process begins which is nothing less than the re-construction of what a human would see or would expect to see in order to recognize anything, or what you want it to see. It would ideally be a false color composite that mimics content: the infrared channel (otherwise not visible to the human eye) would be assigned to green, as vegetation is green, but real green from outer space looks a lot more like grey and nondescript. This image processing will mostly not stop here; in the absence of any real-world reference of the terrain in question, it can be turned into night, danger, harsh or soft landscape. A robotic perspective that comes with the notion of objectivity and scientific accuracy is actually far from it. And then, consider that just by visualizing you can make issues telegenic. And by using an archive or 'just facts' you represent neutrality, that, however, lends you more authority than one actually ought to have, resulting in a responsibility you, in the end, may not enjoy having or wanting to bear. Visuals still create reality. It is worthwhile considering The Grand Old Man of documentary filmmaking from 1921, Robert Flaherty, who would arrange every scene in his documentary, because reality and truth need to be created specifically for the medium that documents it.]

Ethnicity and Race by Countries

San Marino	Sammarinese, Italian
São Tomé and Príncipe	mestico, angolares (descendants of Angolan slaves), forros (descendants of freed slaves), servicais (contract laborers from Angola, Mozambique, and Cape Verde), tongas (children of servicais born on the islands), Europeans (primarily Portuguese)
Saudi Arabia	Arab 90%, Afro-Asian 10%
Senegal	Wolof 36%, Fulani 17%, Serer 17%, Toucouleur 9%, Diola 9%, Mandingo 9%, European and Lebanese 1%, other 2%
Seychelles	Seychellois (mixture of Asians, Africans, Europeans)
Sierra Leone	18 native African tribes 99% (Temne 30%, Mende 30%, other 39%), Creole, European, Lebanese, and Asian 1%
Singapore	Chinese 76.4%, Malay 14.9%, Indian 6.4%, other 2.3%
Slovakia	Slovak 85.7%, Hungarian 10.7%, Gypsy 1.5%, Czech 1%, Ruthenian 0.3%,

If tagging data and the meta-data is the realm where the values are attached and real meaning is built, by defining the interrelationship of data and data, and data and reality, then this is where we might have to look for blunders. In this complex web of interdependencies, a misplaced meta-tag (the right tag in the wrong place) will throw the results off, and give us a shifted view on reality. In this sense it would be easy to argue that the dot-com boom (and bust) is simply an issue of misplaced meta-tagging. Nothing has really changed since Mark Twain complained: 'There are lies, damned lies, and statistics!'

The Site of the Archive

I am thinking of history as an archive, a convoluted memory. Culture/Civilization can be seen as the encoded and enshrined long-term repository of present reality condensation. The beauty of an encoded archive (no Random Access here) is that it comes with restrictions and programmatic use. Culture can be seen as such, and the genetic code even more so. In as much as both are in some sense an intelligent archive of history and chance, culture can be seen as an extension of the genetic code. And we do share at least 50% of our genetic code with other animals.

While the decoding and reusing of the genetic code is being undertaken and both current and paleontological DNA is being re-configured, it clearly goes beyond the scope of my own work. But the tinkering with history does not. The issues of history, genetics, culture, and archival and non-archival memory are all closely interrelated. A definition of memory requires considering its function. In a global context, memory is history.

Two fundamentally different perceptions of time condition the importance of

Ethnicity and Race by Countries

	Ukrainian 0.3%, German 0.1%, Polish 0.1%
Slovenia	Slovene 91%, Serbo-Croatian 6%, other 3%
Solomon Islands	Melanesian 93%, Polynesian 4%, Micronesian 1.5%, European 0.8%, Chinese 0.3%, other 0.4%
Somalia	Somali 85%, Bantu, Arabs
South Africa	black 75.2%, white 13.6%, Colored 8.6%, Indian 2.6%
Spain	composite of Mediterranean and Nordic types
Sri Lanka	Sinhalese 74%, Tamil 18%, Moor 7%, Burgher, Malay, and Vedda 1%
Sudan	black 52%, Arab 39%, Beja 6%, foreigners 2%, other 1%
Suriname	East Indians, also known locally as Hindustanis (their ancestors emigrated from northern India in the latter part of the 19th century) 37%, Creole (mixed European and African ancestry) 31%, Javanese 15.3%, 'Bush Negroes', also known as Maroons (their ancestors were brought to the country in the 17 th and 18 th centuries as slaves) 10.3%, Amerindian 2.6%,

the recording, preservation and continuity of memory. One concept is that of ever-repeating endless circles. History takes shape as myth; historical experience is condensed into a culture-defining set of myths. This perspective presupposes eternity, without a beginning and an end. Break these eternal, perpetual circles and assume a beginning and a possible conclusion, and another concept of history emerges – history as development, as teleological destiny. A race beginning and leading to ...? Both justification and objective lie in the hands of historians and so does the future. Given that most of the world believes in some kind of progress and, thus, is in need of both justification and objectivity the world needs history, needs memory, needs improvement based on past experiences, so that history will not repeat itself. No re-runs on this system. In this sense, the earth is soaked with history. Even the most unassuming place is drenched in perspirations of the past. Consider sites as archives, sites as a way to access history.

Sites are the silent and perhaps unwilling witnesses. Each site will tell a different story and all stories told will produce a convoluted carbon print of truth. In the end, we may prefer the simple 'lies the experts agreed upon'. Unfortunately, sites are usually not forthcoming. (Will sites at one point refuse to yield the territory for anything significant to happen? Will a site simply reject being part of an infamous part of history in the making? If earth could just remember ...)

The nature of memory is that it fades with time. Each access or frequent visit to a memory tends to ever so slightly manipulate and shift the original memory's form, shape and content; the message and meaning dissipate and shift towards a dreamlike authenticity. Memory fades and so do sites, since they are conditioned and defined by memory. This is the playing field, the topic, the task and goal of politics and institutions, as well as their source of purpose and historic justification: the art of selective suppression and enhancement of memory.

We possess technology for the restructuring of historical experience and for ┌

Ethnicity and Race by Countries

	Chinese 1.7%, Europeans 1%, other 1.1%
Swaziland	African 97%, European 3%
Sweden	white 88%, Lapp (Sami), foreign-born or first-generation immigrants (Finns, Yugoslavs, Danes, Norwegians, Greeks, Turks) 12%
Switzerland	German 65%, French 18%, Italian 10%, Romansch 1%, other 6%
Syria	Arab 90.3%, Kurds, Armenians, and other 9.7%
Taiwan	Taiwanese 84%, mainland Chinese 14%, aborigine 2%
Tajikistan	Tajik 64.9%, Uzbek 25%, Russian 3.5% (declining because of emigration), other 6.6%
Tanzania	mainland: native African (95% Bantu, consisting of well over 100 tribes) 99%, Asian, European, and Arab 1%. Zanzibar: Arab, mixed Arab and native African, native African
Thailand	Thai 75%, Chinese 14%, other 11%
Togo	native African (37 tribes; largest and most important are Ewe, Mina,

breaking the perceptual restraints of time-linearity. History could be connected to a site, and site-casting equipment would tell the story of that site, at the site. Like people with magnetic sensors scanning the beaches for lost valuables, entire busloads of tourists would be able to scan the frequencies of historic sites with simple TV receivers and directional antennas. It would really work, if access to archives would be strictly limited to the actual site. It would not only be appreciated by the travel industry, it would make the geography of our planet something like a 1:1 map of history and knowledge. No more de-contextualized information, or so I try to imagine.

(I tried to demonstrate that in my project *ON AIR*, which was shown in 1994 in Tokyo; the audience was equipped with little LCD TVs, which had huge antennas and a grip. They went signal hunting in an otherwise empty space where TV transmitters or extremely short range would transmit site-related information.)

Instead we access history and contemporary reality by remote control: tele-technologies confront every citizen with the possibilities and responsibilities of global reach. But there is a clear lack of emotional capacity to deal with the artificially extended environment. The horizon has been broadened all the way to the loss of horizon. Behaviorist Konrad Lorenz made the point that our senses, as limited as they may be, deliver exactly the kind of information required for individual human survival. The question is how and if our emotional sensors and capacities can be extended just as much as a telescope or television or the range of a strategic weapon system.

Once the archive of culture can no longer be decoded, 'folklorization' will set in. This occurs when both usefulness and meaning is lost entirely; when something survives as a fleeting reference pointing nowhere, but being kept alive through tourism and purely on esthetic grounds. But folklore also lends random flavor to a world now largely consisting of a conglomeration of stratified locales. The

Ethnicity and Race by Countries

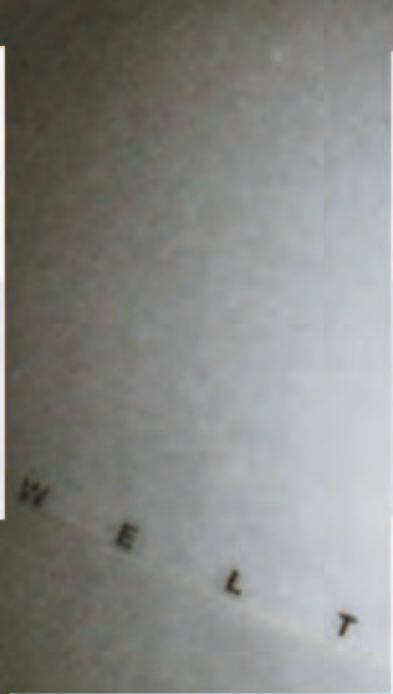
Tonga	and Kabre) 99%, European and Syrian-Lebanese less than 1%
Trinidad and Tobago	Polynesian, European (about 300)
Tunisia	black 43%, East Indian (a local term—primarily immigrants from northern India) 40%, mixed 14%, white 1%, Chinese 1%, other 1%
Turkey	Arab-Berber 98%, European 1%, Jewish less than 1%
Turkmenistan	Turkish 80%, Kurdish 20%
Tuvalu	Turkmen 77%, Uzbek 9.2%, Russian 6.7%, Kazak 2%, other 5.1%
Uganda	Polynesian 96%
Ukraine	Baganda 17%, Karamojong 12%, Basogo 8%, Iteso 8%, Langi 6%, Rwanda 6%, Bagisu 5%, Acholi 4%, Lugbara 4%, Bunyoro 3%, Batobo 3%, European, Asian, Arab 1%, other 23%
United Arab Emirates	Ukrainian 73%, Russian 22%, Jewish 1%, other 4%
	Emiri 19%, other Arab and Iranian 23%, South Asian 50%, other

Source: <http://kids.infoplease.lycos.com/ipka/A0855617.html>

desire for human communication, the desire to shrink the world, to extend the reach of every man's and woman's arms, voice, ears: has collapsed distances and has ultimately made us lose sight of the specificity of sites, their uniqueness en route to a site-less, streamlined world – non-distinct, but ripe with artificial and natural flavors of folklore.

Ethnicity and Race by Countries

United Kingdom	expatriates (includes Westerners and East Asians) 8% (1982) English 81.5%; Scottish 9.6%; Irish 2.4%; Welsh 1.9%; Ulster 1.8%; West Indian, Indian, Pakistani, and other 2.8%
United States	white: 211,460,626 (75.1%); black: 34,658,190 (12.3%); American Indian and Alaska Native: 2,475,956 (0.9%); Asian: 10,242,998 (3.6%); Native Hawaiian and Other Pacific Islander: 398,835 (0.1%); Other race: 15,359,073 (5.5%); Hispanic origin: 1 35,305,818 (12.5%)
Uruguay	white 88%, mestizo 8%, black 4%
Uzbekistan	Uzbek 80%, Russian 5.5%, Tajik 5%, Kazak 3%, Karakalpak 2.5%, Tatar 1.5%, other 2.5%
Vanuatu	indigenous Melanesian 94%, French 4%, Vietnamese, Chinese, other Pacific Islanders
Venezuela	mestizo 67%, white 21%, black 10%, Amerindian 2%



Ingo Günther (D) is artist and journalist. In the early 1980s he evaluated and publicized satellite data that dealt with political and military hotbeds. Since 1989, Günther uses globes as a medium for his artistic and journalistic projects.

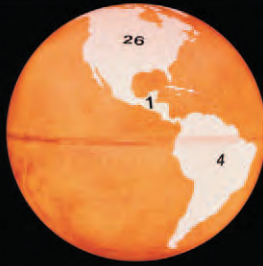
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Ethnicity and Race by Countries

Vietnam	Vietnamese 85%–90%, Chinese 3%, Muong, Thai, Meo, Khmer, Man, Cham
Western Sahara	(proposed state) Saharawi, Arab, Berber
Yemen	predominantly Arab; Afro-Arab concentrations in western coastal locations; South Asians in southern regions; small European communities in major metropolitan areas
Yugoslavia	Serbs 63%, Albanians 14%, Montenegrins 6%, Hungarians 4%, other 13%
Zambia	African 98.7%, European 1.1%, other 0.2%
Zimbabwe	African 98% (Shona 71%, Ndebele 16%, other 11%), white 1%, mixed and Asian 1%



ENERGY CONSUMPTION



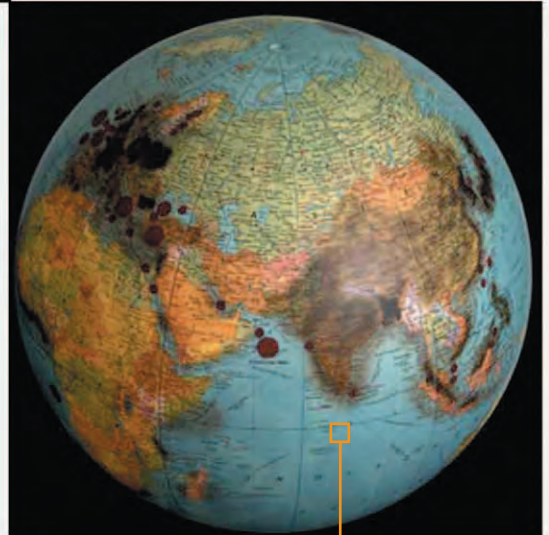
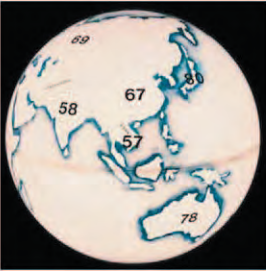
REFUGEE CURRENTS



POLLUTION



LIFE EXPECTANCY



Worldprocessor

Illuminated thematic globes by Ingo Günther (D), 1988–2003 <worldprocessor.com>
(see also p 112)

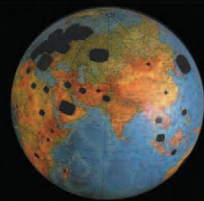
The world has always been represented by traditional codes: lines demarcate borders, colors symbolize water or forests, and numbers indicate differences in height. Such symbols provide political or geographical data that are mostly static; data about processes of change are not represented.

The globes in *Worldprocessor*, however, present all sorts of statistical information relating to political conflicts, socio-economic processes, technologi-



REFUGEE CURRENTS

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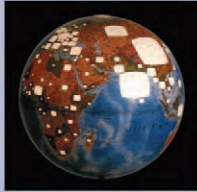


TV OWNERSHIP

cal developments and environmental issues – transnational information that is of huge importance to our globalizing world.

For 20 years now, Ingo Günther has been evaluating and interpreting data like those gathered by satellites from areas in political or economic crisis. Since 1989 he has been using globes to represent these data. *Worldprocessor* is a series of such globes that represent worldwide movements and processes like refugee streams, consumption patterns and air pollution. Surprisingly enough, the representation of such data often results in an aesthetic image.

The globes in *Worldprocessor* also raise questions about the ways statistical data are represented. For instance, should we mark overpopulation with black



POPULATION VOLUME



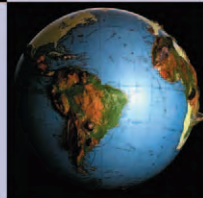
17TH-CENTURY WORLD



CRISIS ZONES



MOUNTAINS OF DEBT

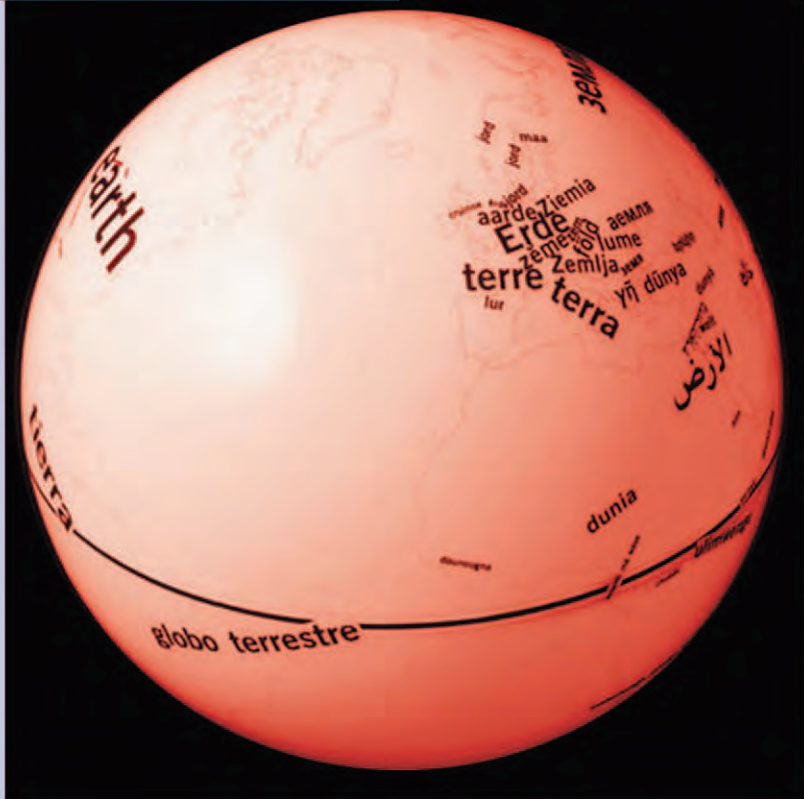


dots against a white background or with white dots against a black background? Globes can easily become a means to manipulate information and they always give a biased image. The ancient Romans, for instance, saw the Mediterranean as the center of the world, while in the Middle Ages, the Garden of Eden held that position. Nowadays as well there are various world maps in circulation. *World-processor* reveals information that has long been inaccessible to a wider public, and it emphasizes how relative and changeable the data are on which we base our world view.





WITTGENSTEIN'S WORLD



EARTH IN 80 LANGUAGES



AGENT RUBY

ruby
marinne
olive
rosetta

RECIPE FILES

- Birth of Intelligent MACHINES
- SYSTEM CELL CODE REPLICATION
- Composition - 50% Human 50% Machine
- Name - Self Replicating Automatons
- Profile - Cyborg
- Type - Female

WARNING

RUBY
OLIVE
MARINNE

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Agent Ruby.com

An online project by Lynn Hershman (USA), 2002 <www.agentruby.com>

Lynn Hershman introduced the seductive character of Agent Ruby for the first time in her film *Teknolust* (2002). Ruby was one of three female clones who were part robot, part human. Now she returns online as the artificially intelligent Web Agent, who develops her persona by meeting with and reflecting on chatters. Visitors to the website can engage Agent Ruby in a direct online dialogue or download and install her on the desktop of a PC, Mac or Palmtop. Being a seductive multi-platform 'chat bot', just like in the film *Teknolust*, she is looking to make contact, chatting up visitors, remembering their questions, their

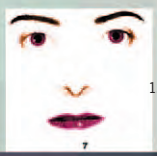
BY'S EDREAM PORTAL

"Hello there user, type to me. Lets connect."

submit

teknolustthemovie.com

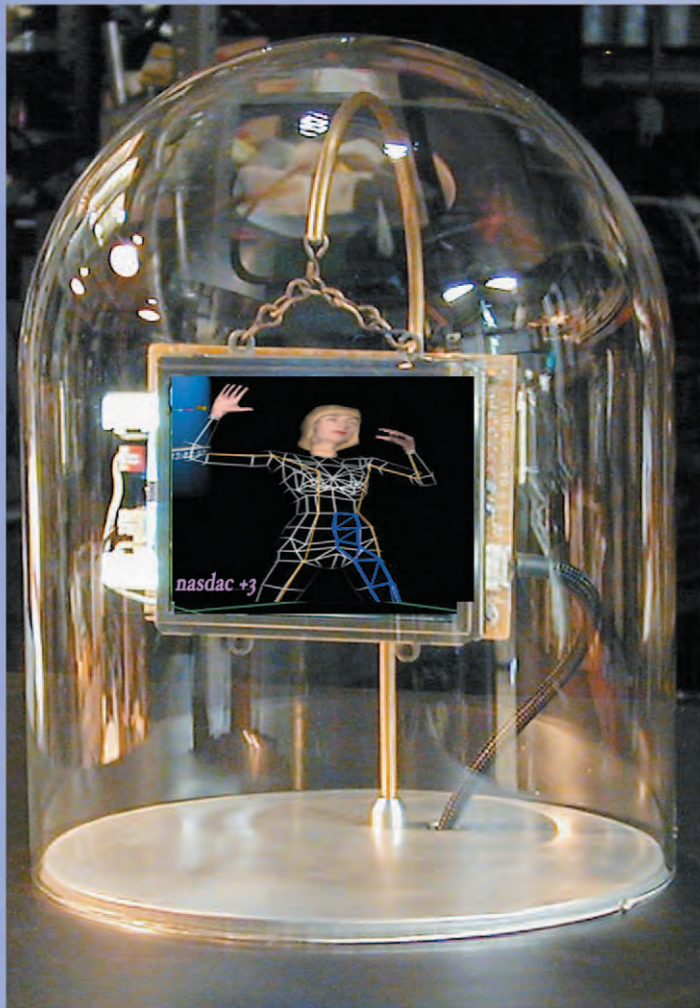
Botmaster rosettastone@edream.org [Credits](#)



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names and, eventually, even recognizing their voices.

Agent Ruby was coded in AIML (Artificial Intelligence Markup Language) and, like people, she learns through stimulus-response. The website is Ruby's home base from where she communicates. Visitors can download the application via a mobile server to a Palmtop and upload their own data to the site. From all of these data the basis of Ruby's identity is formed.



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Synthia

An installation by Lynn Hershman (USA), 2002

Synthia is a virtual character who represents fluctuations in the stock market online. Her behavior is triggered by the most recent information on stock prices from NASDAQ, Dow Jones and Russel 2000, and her mood depends on the atmosphere at the stock exchange. If prices go up, Synthia dances about; if they drop, she sits anxiously at her desk.

Synthia will be displayed on a plasma screen under a bell glass of an electronic



ticker tape inspired by Thomas Edison's design. Edison made a significant improvement to the electric exchange-rate telegraph by printing Wall Street's quotations on a paper tape in a legible format. Synthia takes it all a step further by personifying the market as an online set of economic patterns. She is a symbol of the symbiotic relationship between the market and people. ┌

Lynn Hershman (USA) was trained in the fields of education, museum policy and the fine arts, and is currently teaching digital art at the University of California, Davis. In 1995 she was awarded (with Peter Greenaway, the Vasulkas and Jean Baudrillard) the prestigious Siemens Media Prize by ZKM, which cited her as the 'most influential woman working in new media'.



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Phonic Frequencies

An audiovisual installation by Tamás Szakál (H), in collaboration with MARS Exploratory Media Lab, 2002 <© (010) 484-3839, (010) 484-9158 and (010) 423-1949>

Phonic Frequencies is an audiovisual data space with an interior that can be changed by means of telecommunication. Visitors are given three phone numbers to dial into this space. A voice on the other end then explains how the installation works and how they can change the room's look by using their telephones. When a caller enters the room, his or her shadow image is reflected in the background of colored grids on the wall. The result is an abstract audiovisual shadow game of lines, ring tones, fragments of conversations and



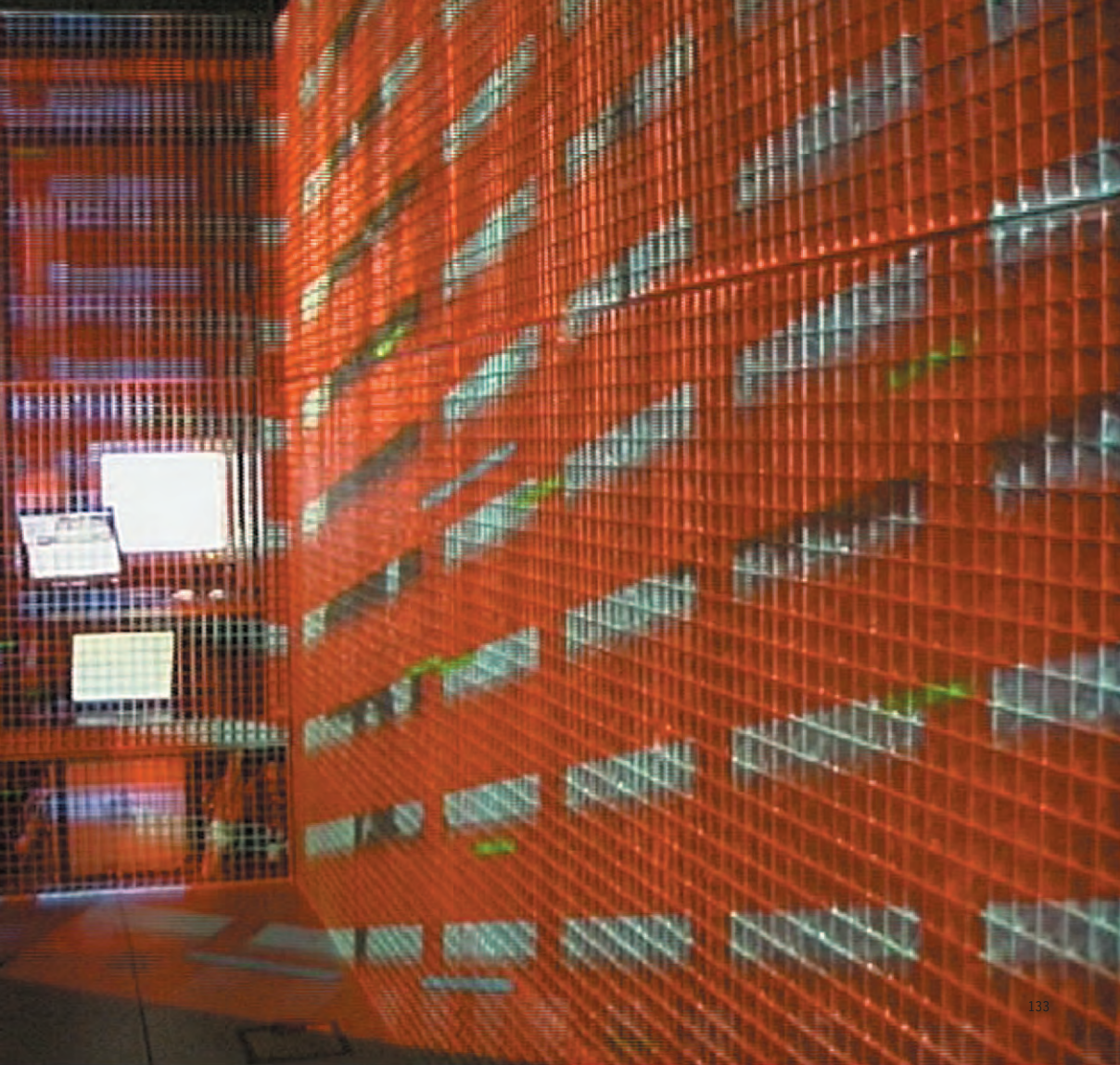
shadows, creating a new sense of presence and absence.

The installation's core is the physical space, equipped with an audio system and three video projections on separate walls, each one corresponding to one of the three phone numbers. Incoming calls can be heard inside the room, and are then converted live into graphics on the walls and stored in the installation's database. With the touch keys on their (cell) phones, callers may navigate this sound archive and compose a sound piece from previously recorded messages. They can also change the room's lighting in the same way. When callers hang up, they leave a trace inside the room: a colored line whose length corresponds to the duration of the call.

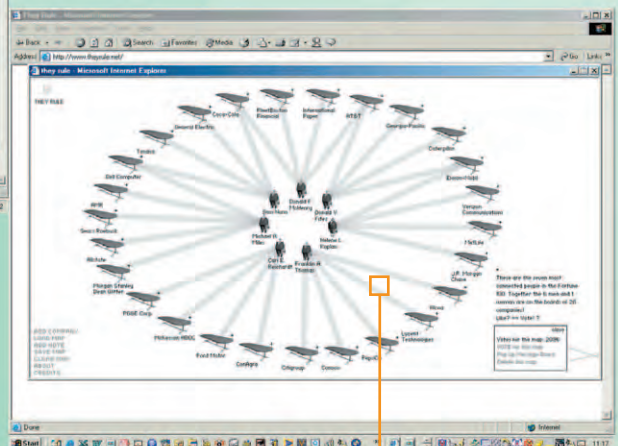
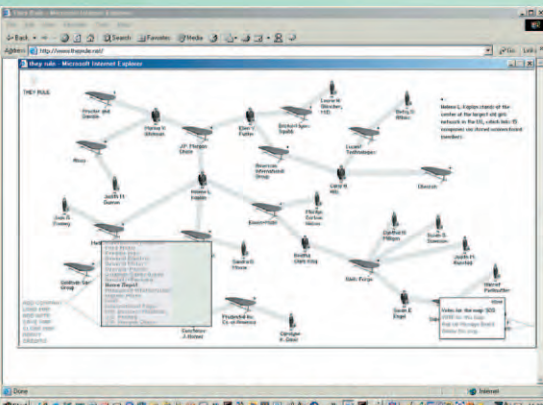
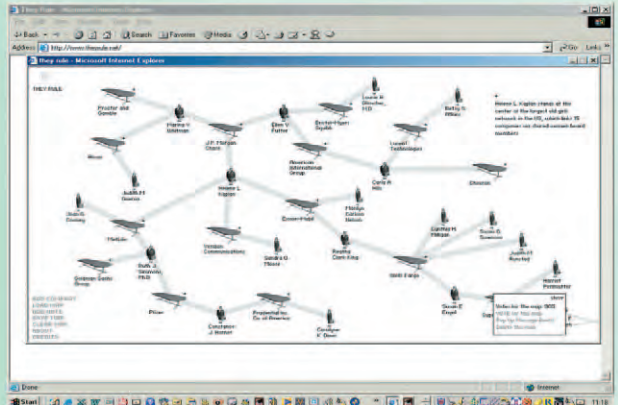
Not only can the results of these interactions be experienced within the space



itself, but the symphony of image and sound will also be streamed on the Internet, allowing callers from outside to look at and listen online to their own telephonic contributions to the design of the room. Aided by the audiovisual tools of the installation, visitors together create a hybrid space where the boundaries between verbal communication and digital information dissolve. *Phonic Frequencies* breaks the communicative circle of the two-way dialogue and builds up a new form of communication from the audio pieces (data from the database).



Tamás Szakál (H) studied Communication Sciences and Journalism at the University of Leipzig. Since 1998 he studies Media Art at the the Academy of Visual Arts at the Hochschule für Grafik und Buchkunst in Leipzig. In 2002 Szakál was Artist in Residence at MARS Exploratory Media Lab (D).

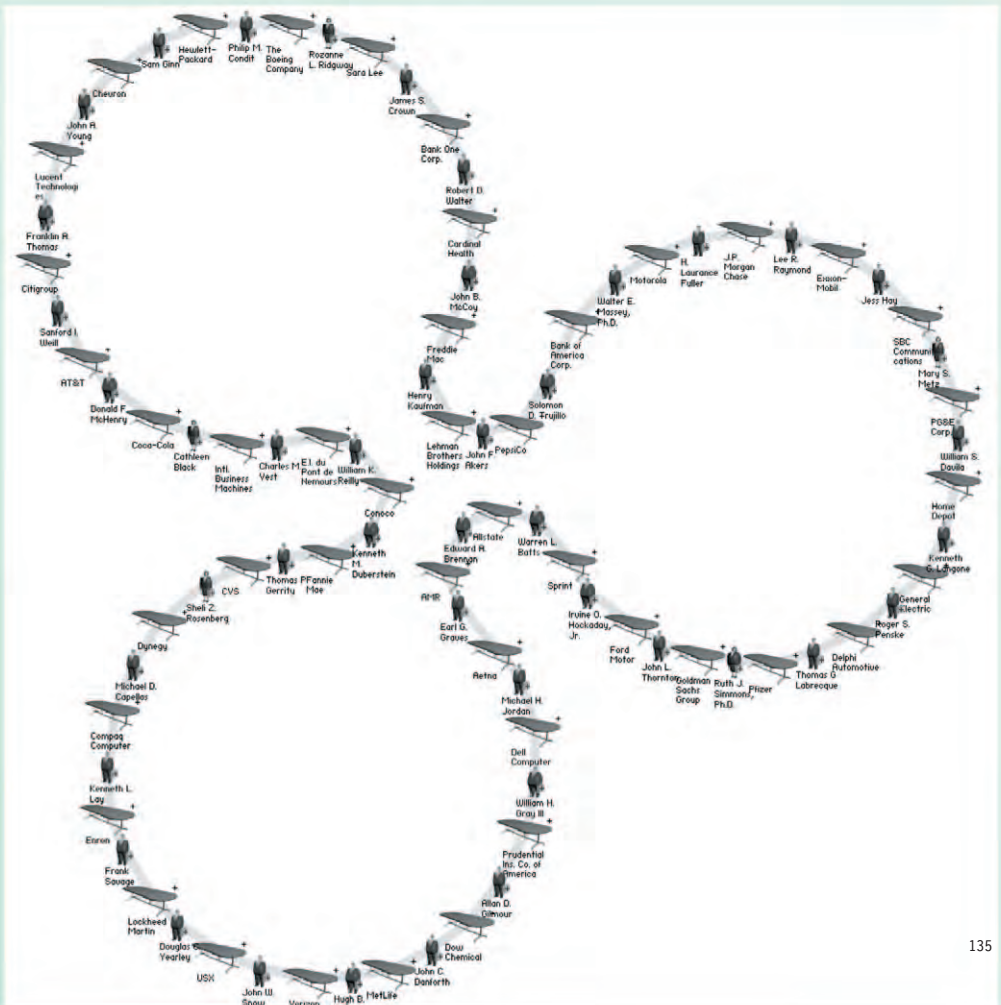


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They Rule

A website that documents power structures by Josh On & Futurefarmers (NZ), 2001
www.theyrule.net

In 1956 the sociologist C. Wright Mills, whose ideas were based on the thinking of Marxist philosopher Max Weber, published his book *The Power Elite*. Like Weber, Mills stated that reason was an important element in the organization of a society: knowledge leads to efficiency, to co-ordination and control over social processes and to a fair distribution of labor – all things that, since the Industrial Revolution, have been of major importance in a society that is increasingly governed by bureaucracy, technology and the principles of



a market economy. Corporations and industry play a crucial role in this, although many people are hardly aware of the enormous influence the multinationals have on their daily lives.

They Rule attempts to give us insight into these multinationals. The project consists of an online platform for critical research into the power structures of corporate America, and its website graphically visualizes the links between the big companies in a dynamic archive. Visitors to the website can browse this archive and execute search commands to find the corporations with the most influence. They can add data and leave behind an overview of the various relationships, with their comments, for other users who, in turn, may give their reaction to these URLs and overviews.

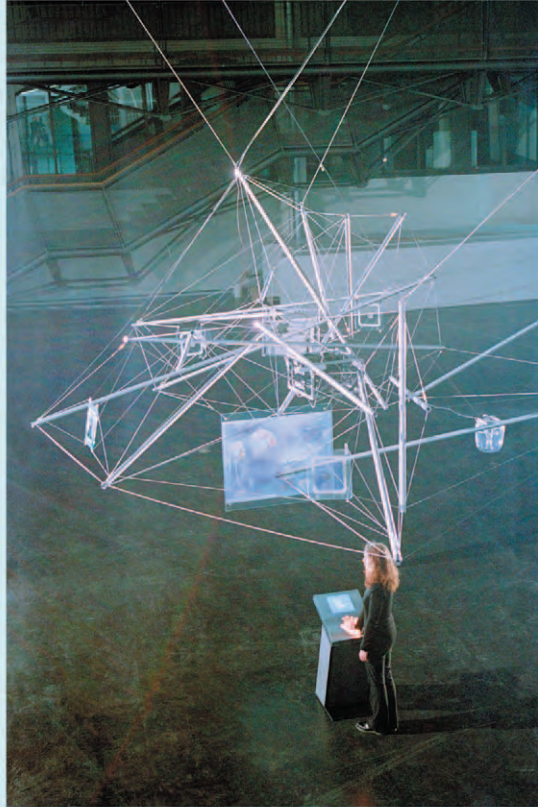


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Web of Life

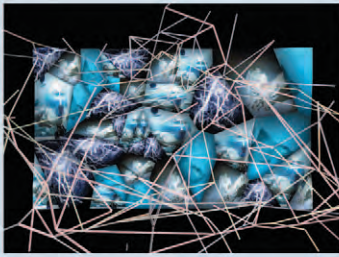
Network installation with stereo projection by Jeffrey Shaw (AU), 2002. In collaboration with ZKM Karlsruhe and FACT Liverpool. <www.web-of-life.de>

Web of Life is an interdisciplinary project that explores the possibilities of a 'living network' by means of a book, a website and five network installations at various locations. One of the project's many branches will be presented at the DEAF03 exhibition. In a separate room is a hand scanner against a silver-colored wall with organic patterns on it. When visitors put on a pair of 3D glasses the projection unfolds in the room like a holographic, pulsating honeycomb of images and sounds. By placing their hand on the scanner, visitors



activate and structure this web work and become a node in the all-encompassing *Web of Life*.

Web of Life draws from a database of computer graphics and video images. The spatial illusion is brought about by two projectors displaying the same image on the wall, with a slight 'error' in their overlap. Specially developed software then generates movements and patterns live within this kaleidoscopic stream of images. Because the images overlap both visually and thematically, structures are formed that are reminiscent of the neural patterns in the human brain, or that look like a river branching off in different directions. The spatial experience of this installation is enhanced even more by its audio system, whose six channels create a pulsating, three-dimensional environment.



The visitor's hand lines are scanned into the system and projected on the wall, together with the name of the place where the visitor has 'logged on' to the network, e.g. Rotterdam, Karlsruhe or New York. This unique pattern then fuses with the entire complex of connections within the *Web of Life* network. The visual composition changes, as does the musical web work accompanying the stream of images. A new kaleidoscopic network emerges, where every life line contributes to opening up images and sounds and social issues (the city, cloning, multiculturalism) take central stage.





Jeffrey Shaw pioneered the use of interactivity and virtuality in his numerous art works, which have been exhibited worldwide at international festivals and major museums. Since 1991, Shaw has been director of ZKM's Institute for Visual Media, and, since 1995, Professor at the Hochschule für Gestaltung (University of Media Art and Design) in Karlsruhe, Germany. Currently, he is Visiting Professor at the College of Fine Arts, University of New South Wales, Sydney, and co-director of the Center for Interactive Cinema Research at University of New South Wales, Sydney.

THE ARCHIVE OF EXPERIENCE

Brian Massumi

'We must assume', writes Walter Benjamin, 'that in the remote past the processes considered imitable included those in the sky'. People danced a storm. Benjamin is quick to add that the similarity that made it possible for the human body to imitate cloud and rain is different from what we normally think of today as a resemblance. It could only have been a 'nonsensuous' similarity, because nothing actually given to our senses corresponds to what our bodies and the heavens have imitably in common. Benjamin goes on to suggest that this nonsensuous similarity can not only be acted out, but that it can be *archived*, 'most completely' in language. But it is not just in language. For it is what 'establishes the ties' between the written word and the spoken word, and between them both, and what is 'meant' – meaning what is sensible. It is in the ins-and-outs of language. 'Ultimately it may be shown to be everywhere.' Tied to the senses but lacking sense content, it can nevertheless be *'directly perceived'*, but only *'in feeling'*. Direct and senseless in feeling, in and out of speech and writing, it ubiquitously evades both 'intuition and reason'. What is this paradoxical 'semblance in which nothing appears'? Simply: 'relationship'.¹

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□ *Endangered Species*

E	– Endangered
T	– Threatened
EmE	– Emergency Listing, Endangered
EmT	– Emergency Listing, Threatened
EXPE, XE	– Experimental Population, Essential
EXPN, XN	– Experimental Population, Non-Essential
SAE, E(S/A)	– Similarity of Appearance to an Endangered Taxon
SAT, T(S/A)	– Similarity of Appearance to a Threatened Taxon
PE	– Proposed Endangered
PT	– Proposed Threatened
PEXPE, PXE	– Proposed Experimental Population, Essential
PEXPN, PXN	– Proposed Experimental Population, Non-Essential
PSAE, PE(S/A)	– Proposed Similarity of Appearance to an Endangered Taxon
PSAT, PT(S/A)	– Proposed Similarity of Appearance to a Threatened Taxon

Whatever is he talking about? A good place to begin to find an answer is movement. The perception of the simplest movement responds in many ways to Benjamin's criteria for nonsensuous similarity. Movement has the uncanny ability, in the words of experimental phenomenologist Albert Michotte, 'to survive the removal of its object'.² For example, Michotte could show you a screen with a dot and a circle. The dot would start moving toward the circle. Then just before it was about to hit the circle, it disappears. That is what, objectively speaking, you would see. But that is not necessarily what you would feel you saw. In certain circumstances, you would report 'that the dot disappears while its *movement* continues right up to the circle, and then is lost "behind" it' (Michotte, 138). There would be no sensory input corresponding to that movement. Yet you would effectively perceive it. It wouldn't be a hallucination. A hallucination is seeing something that isn't there. This is *not* seeing something that isn't there, yet directly experiencing it nevertheless. It is in a category all its own: a felt extension of vision beyond where it stops and 'behind' where it stays; a *perceptual feeling*, without the actual perception. Movement, Michotte sums up, is 'phenomenon sui generis' which may 'detach itself from [the] objects' of sight (137).

This kind of effect is not limited to special controlled conditions. Whenever movement is perceived, we are presented with a '*double existence*', an objective registering of sensory input and a perceptual feeling of continuing movement (222). Think of a case as ordinary as one billiard ball hitting another and launching it forward. The sensory input reaching the eyes register two forms, each with its own trajectory. One moves toward the other and stops. The other then starts and moves away. That is what we see. But what we perceive is the movement of the first ball *continuing* with the second. We perceptually feel the *link* (14-15) between the two visible trajectories, as the movement 'detaches' itself from one object and transfers to another. We are directly experiencing momentum, to which nothing visible corresponds as such.

It would be more precise to say that we are presented with a *double existence* whenever we perceive a movement involving a change of state. With the dot, the change

Endangered Species

C	– Candidate Taxon, Ready for Proposal
D3A	– Delisted Taxon, Evidently Extinct
D3B	– Delisted Taxon, Invalid Name in Current Scientific Opinion
D3C	– Delisted Taxon, Recovered
DA	– Delisted Taxon, Amendment of the Act
DM	– Delisted Taxon, Recovered, Being Monitored First Five Years
DO	– Delisted Taxon, Original Commercial Data Erroneous
DP	– Delisted Taxon, Discovered Previously Unknown Additional Populations and/or Habitat
DR	– Delisted Taxon, Taxonomic Revision (Improved Understanding)
AD	– Proposed Delisting
AE	– Proposed Reclassification to Endangered

was a disappearance. With the balls, it was causal, an impact effecting a launch. It could be any number of other things as well, for example, a 'tunnelling' (one object 'seen' to pass behind another and come out the other side); an 'entraining' (one object approaching another and dragging or carrying it off); an 'ampliation' (a relay or spread of movement); an attraction, repulsion or resistance; or, suggestively, an 'animation' (a self-propulsion). The variations are endless. But what they all have in common is that accompanying a plurality of forms or a combination of sensory inputs there is a felt-perception of something unitary: a continuing *across* that seamlessly links the separate elements or inputs as belonging to the same change. A continuing-across is by nature a *nonlocal* linkage, since all of the separate elements participate in it simultaneously from their individual positions. It is a 'well-known fact' that these seamless linkages 'do not show any observable resemblance' to the objective combinations involved (225). How could they? The linkage is what the objects share *through* their combination – implication in the same *event*. The felt perception of continuing movement is *qualitative* because it directly grasps the changing nature of the shared event, 'behind', 'across', or 'through' its objective ingredients and their observable combinations. It is, simply, relationship, directly and 'nonsensuously' perceived.

Now, say that you walk out of the pool hall and instead of billiard balls you see a car approaching another car (this one stopped at a traffic light), then collide into it and launch it a few feet forward. The objective ingredients are obviously different. But so is the nature of the event. The perceptual feeling of the continuing-across of movement, however, would be unmistakably similar. The two continuings would share what Daniel Stern, working in a different field (experimental psychology) calls an 'activation contour': a continuous *rhythm* of seamlessly linked accelerations and decelerations, increases and decreases in intensity, starts and stops.³ The linkage that is the perceptually felt movement has 'detached itself' not only from the objects in the first combination, but from that combination altogether. It has migrated from one objective combination to another, neither of which it resembles in any observable way. What it resembles in migration is only itself, its repeated rhythm. Internal to each of the objective combinations, the unitary, perceptually-felt movement quali-

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Endangered Species

Mammals

Status	Species Name
E	Anoa, lowland (<i>Bubalus depressicornis</i>)
E	Anoa, mountain (<i>Bubalus quarlesi</i>)
E	Antelope, giant sable (<i>Hippotragus niger variani</i>)
E	Argali (except where threatened) (<i>Ovis ammon</i>)
T	Argali (Kyrgyzstan, Mongolia, Tajikistan) (<i>Ovis ammon</i>)
E	Armadillo, giant (<i>Priodontes maximus</i>)
E	Armadillo, pink fairy (<i>Chlamyphorus truncatus</i>)
E	Ass, African wild (<i>Equus asinus</i>)
E	Ass, Asian wild (<i>Equus hemionus</i>)
E	Avahi (<i>Avahi laniger</i> (entire genus))
E	Aye-aye (<i>Daubentonia madagascariensis</i>)
E	Babirusa (<i>Babirusa babirusa</i>)

fies the nature of the event as a launching. Jumping across the gap from one event to the next, it echoes *itself* in repetition. Behind, across or through its repetition, it qualifies itself as a species of movement-feeling. It is now a quality of *movement* beholden to neither car nor ball, as indifferent to the cue-stick as to the traffic light, inhabiting its own qualitative environment, in migratory independence from any given context. Pure self-qualifying movement; an autonomy of launching.

The ability of movement to achieve qualitative autonomy through repetition means that the double existence perceived in every change of state extends into a double ordering of the world. It is possible to follow the life-paths of objects as they move visibly from one combination to another, and from one event to another. This serial, objective ordering, hinged on the visible form of the object, is what Michotte calls a 'world-line' (16–17). But it is also possible to jump over the intermediate steps in the sensuous-objective series and directly 'yoke extremely diverse events' through the direct experience of the activation contour they repeat (Stern, 58). This linking can operate nonlocally across great distances in objective time and space, bringing, through its resemblance to itself, an extreme diversity of situations into qualitative proximity with each other. Its nonsensuous similarity brings differences together. By contrast, world-lines bring identity to difference, in the visual form the object conserves across the series of events determining its history. If nonlocal linkages were to be 'archived', they would weave together into a qualitative ordering of the world, doubling its objectively determined historical orderings and freed of their constraints. That it would be free of objective constraints does not mean that it would be free from *all* constraint. The qualitative order of experience has at least one major constraint all its own: its spontaneity.

Michotte insists that the felt-perceptions of movement-quality are not learned, but arise spontaneously. Normally, however, they are 'unrecognized'. They are still operative in all circumstances. If they weren't, there would be no continuing-across of movement. Continuity of movement would go on unfelt, fragmented into the discrete forms of the plurality of objects in combination. This would mean, among other things, that there would be no direct causal perception (only indirect logical associ-

Endangered Species

Status	Species Name
T	Baboon, gelada (<i>Theropithecus gelada</i>)
E	Bandicoot, barred (<i>Perameles bougainville</i>)
E	Bandicoot, desert (<i>Perameles eremiana</i>)
E	Bandicoot, lesser rabbit (<i>Macrotis leucura</i>)
E	Bandicoot, pig-footed (<i>Chaeropus ecaudatus</i>)
E	Bandicoot, rabbit (<i>Macrotis lagotis</i>)
E	Banteng (<i>Bos javanicus</i>)
E	Bat, Bulmer's fruit (=flying fox) (<i>Aproteles bulmerae</i>)
E	Bat, bumblebee (<i>Craseonycteris thonglongyai</i>)
E	Bat, Rodrigues fruit (=flying fox) (<i>Pteropus rodricensis</i>)
E	Bat, Singapore roundleaf horseshoe (<i>Hipposideros ridleyi</i>)
E	Bear, Baluchistan (<i>Ursus thibetanus gedrosianus</i>)
E	Bear, brown (Italy) (<i>Ursus arctos arctos</i>)

ation; Michotte, 19–20). Stern also emphasizes that the activation contour is ubiquitous, but normally operates 'outside of awareness' (Stern, 52). Fundamentally, it is a nonconscious operative 'trace' (Michotte, 19).

The example Stern gives is instructive, because it also illustrates the essential point that activation contours are *amodal*; being nonsensuous, they can jump, not just between situations, but also between sense modes. They are in no way restricted to vision, but also link vision to other senses, including touch and hearing, through which it connects to language. The linkage itself is in no particular mode. 'For instance, in trying to soothe an infant, the parent could say, "There, there ...", giving more stress and amplitude on the first part of the word and trailing off towards the end of the word. Alternatively, the parent could silently stroke the baby's back or head with a stroke analogous to the "There, there" sequence, applying more pressure at the onset of the stroke and lightening or trailing off toward the end. If the duration of the contoured stroke and the pauses between strokes were of the same absolute and relative durations as the vocalization-pause pattern, the infant would experience similar activation contours no matter which soothing technique was performed. The two soothings would feel the same (beyond their sensory specificity)' (58). This would be the onset of a spontaneous *self-organization of experience*. Instead of experiencing a spoken-word mother and a separate stroking-touch mother, the two mothering events would yoke together, across their sensory, spatial and temporal disparities, by virtue of the nonsensuous similarity of their activation contour. There would be one seamless soothing-mother. A new entity, the amodal mother-form, *emerges* as a function of the activation contour, whose 'quality' is *affective* (a soothing). The affective nature of the new form of life that emerges prompts Stern to rename activation contours *vitality affects*. The world is not reducible to the recognized ability of objective form to conserve its sensuous identity in each of its serial locations. That ability is the product of another power; that of unrecognized, nonsensuous, affective linkages to bring 'extremely diverse' nonlocal differences together qualitatively. Affect brings form qualitatively to life.

Vitality affects give rise to *forms of life* that are fundamentally *shared*. The soothing,]

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Endangered Species

Status	Species Name
E	Bear, brown (<i>Ursus arctos pruinosus</i>)
E	Bear, Mexican grizzly (Mexican) (<i>Ursus arctos</i>)
E	Beaver (<i>Castor fiber birulai</i>)
E	Bison, wood (Canada) (<i>Bison bison athabascae</i>)
E	Bobcat, Mexican (<i>Lynx (=Felis) rufus escuinapae</i>)
E	Bontebok (antelope) (<i>Damaliscus pygargus (=dorcus) dorcus</i>)
E	Camel, Bactrian (<i>Camelus bactrianus</i>)
E	Cat, Andean (<i>Felis jacobita</i>)
E	Cat, Asian golden (=Temminck's) (<i>Catopuma (=Felis) temminckii</i>)
E	Cat, black-footed (<i>Felis nigripes</i>)
E	Cat, flat-headed (<i>Prionailurus (=Felis) planiceps</i>)
E	Cat, Iriomote (<i>Prionailurus (=Felis) bengalensis iriomotensis</i>)
E	Cat, leopard (<i>Prionailurus (=Felis) bengalensis bengalensis</i>)

like a launching, is a unitary continuing-across, from voice to ear, hand to back, hearing to touching. It is all and only in the linkage, which is the separate province of neither infant nor mother. The emergent 'mother-form' is in fact an amodal coming to life of the *relation* between mother and child, through difference-yoking repetition. The word 'form' in this connection is premature; it is only much later that what lies objectively on either side of the continuing-across will take on a separate formal existence. The constraint of life's qualitative self-organization is that the autonomy of movement upon which it is predicated counter indicates the independence of the forms that originate from it. It is the separation of forms that is learned, not their dynamic relations. The child will eventually learn to separate out what s/he actually hears, touches, and sees from what is perceptually felt amodally. The aural, tactile, visual (not to mention proprioceptive) sense-inputs on either side will be yoked together, this time by proximity. The local linkages will be recognized in different times and places, solidifying into an identity. Objective organization comes, and with it the child's sense of its own independence as a separate, locally self-moving object. The constraint of shared differentiation in nonlocal linkage is slowly overcome. The stronger that the awareness of this objective organization of the world becomes, the more deeply will the vitality affect that made possible the emergence of its forms recede into the state of a trace. Its operations will continue unaware behind, across and through the world of objective forms.

It is in fact the objective order of the world that 'detaches' itself from the qualitative order, to which it owes its emergence. The discrete forms that recognizably populate the world with their identities are themselves traces of a sort. They are objective traces of their own detachment from the affective order that gave rise to them and which they continue to need, to the degree that they change. Objects may owe their identity to their sensuous forms, but the events they participate in are still qualified by their activation contours, or by vitality affect. Without it, their world would be one of fragments. With not nonlocal linkage, nothing could be directly experienced as happening; the world would present itself as an eventless collection. Objects may hang together formally on their own, but the events composing their form's life history are woven by vitality affect. When we see a form undergo change,

Endangered Species

Status	Species Name
E	Cat, marbled (<i>Pardofelis (=Felis) marmorata</i>)
E	Cat, Pakistan sand (<i>Felis margarita scheffeli</i>)
E	Cat, tiger (<i>Leopardus (=Felis) tigrinus</i>)
E	Chamois, Apennine (<i>Rupicapra rupicapra ornata</i>)
E	Cheetah (<i>Acinonyx jubatus</i>)
E	Chimpanzee (in the wild) (<i>Pan troglodytes</i>)
T	Chimpanzee (captive) (<i>Pan troglodytes</i>)
E	Chimpanzee, pygmy (<i>Pan paniscus</i>)
E	Chinchilla (<i>Chinchilla brevicaudata boliviana</i>)
E	Civet, Malabar large-spotted (<i>Viverra civettina (=megaspila c.)</i>)
E	Cochito (<i>Phocaena sinus</i>)
E	Deer, Bactrian (<i>Cervus elaphus bactrianus</i>)
E	Deer, Barbary (<i>Cervus elaphus barbarus</i>)

when we are cognizant of an event objectively having happened, we are perceptually feeling the world's qualitative organization, whether we are consciously aware of it or not. If forms are the sensuous traces of amodal linkage, then objects are a *self-archiving of the world of felt relation*. Tacitly, separate forms are an archive of shared experience.

Language makes it possible to share felt relations at any distance from the sensuous forms they yoke. Words are by nature nonlocally linked to their formal meaning, since they can be repeated anywhere and anytime. Words yoke to words, in a 'chain of derivations ... whereby the local relations' and their sense-perceived meanings may in the end be 'entirely lost'. At the limit, language can 'suppress intermediate links' and operate *only* with nonlocal linkages.⁴ The continuing of nonlocal linkage into language returns it to itself, at an extreme of its dynamic detachment from objects. Through the activity of language, the directly felt qualities of experience that are presented in objects in trace-form can cross over into each other with the greatest of ease, incomparably increasing their powers of self-organization. The activity of language is a becoming-active of nonlocal perceptual linkages in their own nonsensuous right. The more active they are in their own right, the greater the number of directly felt connections they can entertain among themselves. This expansion of their relational reach brings more and more distant events repeatedly into their orbit. Their ever-varied repetitions *produce* nonsensuous similarities – purely verbal 'associations' – to a degree that no sensuous forms could ever achieve among themselves, based on the objective resemblances. This associative power is what makes language the 'most complete archive' of 'semblances in which nothing appears'. (Writing seems to carry language to an even higher relational power than speech, by detaching it even from the human body-object. But the gain may be illusory, since it pays the price of falling back into trace-form on paper, requiring reaccess by the human body to come back to life.)

It is quite possible to activate relation nonverbally. If sensuous forms are the objective traces of qualitative experience, then any conscious construction or modification of form is a way of reaccessing vitality affect. Sensuous forms can be consciously

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Endangered Species

Status	Species Name
E	Deer, Calamianes (=Philippine) (<i>Axis porcinus calamianensis</i>)
E	Deer, Cedros Island mule (<i>Odocoileus hemionus cedrosensis</i>)
E	Deer, Corsican red (<i>Cervus elaphus corsicanus</i>)
E	Deer, Eld's brow-antlered (<i>Cervus eldi</i>)
E	Deer, Formosan sika (<i>Cervus nippon taiouanus</i>)
E	Deer, Indochina hog (<i>Axis porcinus annamiticus</i>)
E	Deer, Kuhl's (=Bawean) (<i>Axis porcinus kuhli</i>)
E	Deer, marsh (<i>Blastocerus dichotomus</i>)
E	Deer, McNeill's (<i>Cervus elaphus macneilli</i>)
E	Deer, musk (Afghanistan, Bhutan, Burma, China [Tibet, Yunnan], India, Nepal, Pakistan, Sikkim) (<i>Moschus spp.</i> (all species))
E	Deer, North China sika (<i>Cervus nippon mandarinus</i>)
E	Deer, pampas (<i>Ozotoceros bezoarticus</i>)

used as an archive for the expression of qualitative experience. Susanne Langer treats perspective in painting in just this way. In a painting, 'everything which is given at all is given to vision'. But we perceive more than we see. We see surface but perceive depth. There must therefore be in the painting 'visible substitutes for non-visible ingredients in space experience'; 'things that normally known by touch or [the proprioceptive sense of] movement'. This couching of the non-visible in visible form can only be achieved if the artist 'departs' from 'direct imitation'.⁵ The artist must falsify vision in just the right way to produce a viable connection to what cannot be seen. In other words, s/he must paint not the visible resemblances her eyes see, but rather the nonsensuous similarity between the different sense inputs that yoke together in the experience of movement. If painted with enough artifice, their linkage will be activated even in their actual absence. The painting archives an amodal, nonlocal linkage that operates through vision but is not contained in it.

The experience of space we feel when we view a painting, Langer emphasizes, is a real experience of space. It's just that the space is virtual. Visible form has been used as a *local sign* of nonlocal linkage activating a *virtual form*.⁶ The painting brings visibly to *expression* the amodal virtual form, or experiential quality, of the space. It should be noted that objective forms are already local signs, making the painting a second-order local sign (which makes these printed words about the painting third-order local signs – except that the intermediate link of the painting has been 'lost', since, as a fictional example, like the cars and billiard balls earlier on, it never existed outside the virtual space of this description).

Langer considers dance to be another amodal expression of virtual form. Instead of activating kinesthetic qualities of experience through vision, dance may activate visual and other qualities through kinesthesia. It must falsify gesture in just the right way to make a connection between the experience of bodily movement and what cannot be experienced in that mode. There is no reason why this nonlocal linkage cannot reach into the sky. Langer agrees with Benjamin: a ritual dancer may produce through gesture a nonsensuous similarity amodally linking his or her movements to

Endangered Species

Status	Species Name
E	Deer, Persian fallow (<i>Dama mesopotamica</i> (=dama m.))
E	Deer, Ryukyu sika (<i>Cervus nippon keramae</i>)
E	Deer, Shansi sika (<i>Cervus nippon grassianus</i>)
E	Deer, South China sika (<i>Cervus nippon kopschi</i>)
E	Deer, swamp (<i>Cervus duvauceli</i>)
E	Deer, Visayan (<i>Cervus alfredi</i>)
E	Deer, Yarkand (<i>Cervus elaphus yarkandensis</i>)
E	Dhole (<i>Cuon alpinus</i>)
E	Dibbler (<i>Antechinus apicalis</i>)
E	Dog, African wild (<i>Lycan pictus</i>)
E	Dolphin, Chinese River (<i>Lipotes vexillifer</i>)
E	Dolphin, Indus River (<i>Platanista minor</i>)
E	Drill (<i>Mandrillus</i> (=Papio) <i>leucophaeus</i>)

the visible form of celestial bodies. 'He sees the world in which his body dances' (Langer, 197). The amodal activation can even produce a visual experience of essentially invisible cosmic realms – spaces *only* visible virtually. In dance, everything that is given is given to gesture. Through gesture, dance can, under certain circumstances, produce a vision in and of a virtual space that was never actually experienced and never can be, that can only ever be gesturally *invoked*. This seeing of what isn't actually there might be considered a hallucination were it not for the years of hard training, the practiced technique and collectively prepared context necessary for the event of its ritual invocation. If this is a hallucination, it is a shared hallucination that might be better off called a fictive relational reality. In modern dance, there is often no such attempt to activate a virtual visible form. Gesture is used to produce only a direct experience of *rhythm*. Rhythm, it was said earlier, is the nonsensuous form of similarity. It is the experiential mode proper to amodal connection. By manipulating rhythm, dance can, in its own way, directly activate amodal connection as such. This gives it powers of nonlocal linkage beyond other nonverbal art forms, placing closest among them to language.⁷

In general, *art*, verbal or nonverbal, may be considered the conscious archival manipulation of local signs toward the creative activation of virtual form. It must be borne in mind that access to the amodal archive of experience is only possible *analogically*. What else is nonsensuous similarity, if not a lived analogy that brings relational differences together in the similarity of an event to its own repetition? Virtual form is the direct, analogical, differential, eventful experience of a 'semblance which does not appear', but is really felt. Being of the nature of an event, *it cannot be coded*. It can only be activated *through* codings – whether we are talking about the visual code of perspective painting, the 'language' of dance or the digital code enabling electronic art. In whatever medium, the art is a technique of nonlocal linkage. Its expression takes the form of a directly felt perceptual event that is relational in and of itself, whether it is explicitly 'interactive' or not. All art brings virtual forms of relation to expression. Relations are not made of zeroes and ones; they are qualities of experience. They are archivable, but only in reactivatable trace-form. It is important not to mistake the inert form of the trace for the archive of experience that it real-]

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Endangered Species

Status	Species Name
E	Dugong (except Palau) (<i>Dugong dugon</i>)
E	Duiker, Jentink's (<i>Cephalophus jentinki</i>)
E	Eland, western giant (<i>Taurotragus derbianus derbianus</i>)
T	Elephant, African (<i>Loxodonta africana</i>)
E	Elephant, Asian (<i>Elephas maximus</i>)
E	Fox, northern swift (Canada) (<i>Vulpes velox hebes</i>)
E	Fox, Simien (<i>Canis simensis</i>)
E	Gazelle, Arabian (<i>Gazella gazella</i>)
E	Gazelle, Clark's (<i>Ammodorcas clarkei</i>)
E	Gazelle, Mhorh (<i>Gazella dama mhorh</i>)
E	Gazelle, Moroccan (<i>Gazella dorcas massaesyala</i>)
E	Gazelle, mountain (=Cuvier's) (<i>Gazella cuvieri</i>)
E	Gazelle, Pelzel'n's (<i>Gazella dorcas pelzelni</i>)

ly isn't, but that it can rebecome, in the analog repetition of its event. It is also important to remember the duplicity of form; that it has a double existence, participating spontaneously and simultaneously in two orders of reality, one local and learned or intentional, the other nonlocal and self-organizing. If you cleave too closely to the sensuous side, you will err locally by imitation. If you falsify what is given to the senses with sufficient art, the sky's not the limit to the relational truths you may fictively invoke.

Notes

1. The quotations from Walter Benjamin are culled from three short texts in volume 1 of the *Selected Writings* (Cambridge, Mass.: Harvard University Press, 1996): 'On the Mimetic Faculty', 'Analogy and Relationship', and 'On Semblance'.
2. Albert Michotte, *The Perception of Causality* (London: Methuen, 1963), p. 138.
3. Daniel Stern, *The Interpersonal World of the Infant* (New York: Basic Books, 1985), p. 57.
4. Alfred North Whitehead, *Symbolism: Its Meaning and Effect* (New York: Macmillan, 1927), p. 83.
5. Susanne K. Langer, *Feeling and Form* (London: Routledge and Kegan Paul, 1953), pp. 72–73.
6. On the concept of local signs, see William James, *Principles of Psychology*, vol.2 (New York: Dover, 1898), pp.157–188.
7. On dance, amodality, and language, see José Gil, 'The Dancer's Body', *A Shock to Thought*, ed. Brian Massumi (London/New York: Routledge, 2002).

Brian Massumi (USA) teaches in the Communication Department of the Université de Montréal. He is the author of *Parables for the Virtual: Movement, Affect, Sensation*, *A User's Guide to Capitalism and Schizophrenia: Deviations from Deleuze and Guattari* and *First and Last Emperors: The Absolute State and the Body of the Despot* (with Kenneth Dean). His translations from the French include Gilles Deleuze and Félix Guattari's *A Thousand Plateaus*.

Endangered Species

Status	Species Name
E	Gazelle, Rio de Oro Dama (<i>Gazella dama lozanoi</i>)
E	Gazelle, sand (<i>Gazella subgutturosa marica</i>)
E	Gazelle, Saudi Arabian (<i>Gazella dorcas saudiya</i>)
E	Gazelle, slender-horned (<i>Gazella leptoceros</i>)
E	Gibbons (<i>Hylobates spp.</i> (including <i>Nomascus</i>))
E	Goral (<i>Nemorhaedus goral</i>)
E	Gorilla (<i>Gorilla gorilla</i>)
E	Hare, hispid (<i>Caprolagus hispidus</i>)
E	Hartebeest, Swayne's (<i>Alcelaphus buselaphus swaynei</i>)
E	Hartebeest, Tora (<i>Alcelaphus buselaphus tora</i>)
E	Hog, pygmy (<i>Sus salvanius</i>)
E	Horse, Przewalski's (<i>Equus przewalskii</i>)
E	Huemul, north Andean (<i>Hippocamelus antisensis</i>)

THE MEMORY AS LIVING ARCHIVE

Interview with Antonio Damasio

Antonio R. Damasio is the author of three fascinating books on the neurological basis of emotion and feeling, and on their importance in decision-making processes and the emergence of consciousness: *Descartes' Error: Emotion, Reason, and the Human Brain* (1994), *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (1999), and *Looking for Spinoza* (2003), which also deals with the question: what are feelings? Antonio Damasio is the M.W. Van Allen Distinguished Professor and Head of the Department of Neurology at the University of Iowa College of Medicine in Iowa City. He is also Adjunct Professor at the Salk Institute for Biological Studies in La Jolla. The interview is conducted by telephone.]

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Endangered Species

Status	Species Name
E	Huemul, south Andean (<i>Hippocamelus bisulcus</i>)
E	Hutia, Cabrera's (<i>Capromys angelcabrerai</i>)
E	Hutia, dwarf (<i>Capromys nana</i>)
E	Hutia, large-eared (<i>Capromys auritus</i>)
E	Hutia, little earth (<i>Capromys sanfelipensis</i>)
E	Hyena, Barbary (<i>Hyaena hyaena barbara</i>)
E	Hyena, brown (<i>Parahyaena (=Hyanea) brunnea</i>)
E	Ibex, Pyrenean (<i>Capra pyrenaica pyrenaica</i>)
E	Ibex, Walia (<i>Capra walie</i>)
E	Impala, black-faced (<i>Aepyceros melampus petersi</i>)
E	Indri (<i>Indri indri</i> (entire genus))
E	Jaguarundi, Guatemalan (<i>Herpailurus (=Felis) yagouaroundi fossata</i>)
E	Jaguarundi, Panamanian (<i>Herpailurus (=Felis) yagouaroundi panamensis</i>)

Arjen Mulder: In *The Feeling of What Happens* memory seems to be a central issue. On the one hand, you mention what you call 'conventional' or 'dispositional' memories, which are basically images of objects and events that are being linked in the working memory to what you call their 'obligate emotional reaction'. These images produce core consciousness, which is an awareness of how perceptions affect the state of one's body. On the other hand, you describe something called 'autobiographical memory', which retrieves images from past experiences. If combined in the working memory, these two types of images create extended consciousness, which is the main topic of your book. Extended consciousness is the feeling of what happens, and the feeling that it is happening to you. So, memory is the central issue in all this, but you talk about it only very briefly in the book. So my question is: how does memory work? Could one describe it as a matter of data storage or storage of information?

Antonio Damasio: Memory, the way we see it today, is a storage of codes that allow you to reconstruct information. It is of course information in the general sense of the term. But rather than making the storage of something in what one would call hard copy or lifelike copy, you actually do the storage in a coded form. So, after seeing me, the memory that you will have of my face, for example, will not be stored like a Polaroid picture of me, but rather in a form to be reconstructed when you need to reactivate that image. So, what gets stored is a set of codings. And once you apply the reconstruction mechanism, you have a chance of bringing to your mind some kind of image that approximates the image that you actually had in perception. The general principal of memorizing is that it always works in a coded or procedural form. It is the same thing in relation to a skill. If for example you learn to play the piano or drive a car, you do not have facsimile storage of the things you have to do, but you have codings and commands that will allow you to do them.

AM: And you also have codings and commands about emotions connected with these memories?

Endangered Species

Status	Species Name
E	Kangaroo, Tasmanian forester (<i>Macropus giganteus tasmaniensis</i>)
T	Koala (<i>Phascolarctos cinerus</i>)
E	Kouprey (<i>Bos sauveli</i>)
E	Langur, capped (<i>Trachypithecus (=Presbytis) pileata</i>)
E	Langur, Douc (<i>Pygathrix nemaeus</i>)
E	Langur, Francois' (<i>Trachypithecus (=Presbytis) francoisi</i>)
E	Langur, golden (<i>Trachypithecus (=Presbytis) geei</i>)
E	Langur, gray (<i>Semnopithecus (=Presbytis) entellus</i>)
T	Langur, long-tailed (<i>Presbytis potenziani</i>)
E	Langur, Pagi Island (<i>Nasalis concolor</i>)
T	Langur, purple-faced (<i>Presbytis senex</i>)
T	Lechwe, red (<i>Kobus leche</i>)

AD: That's absolutely true. The big difference is that in the case of emotion you have a mechanism that produces a phenomenon pretty much in the same way, whenever a certain kind of emotion is called for. Whereas in the memories you store of people or events or places, you have an enormous differentiation, because people and places and events are so different among themselves. In the case of emotions they are fairly stereotyped. So, when you have, say, the memory of a place that is being reactivated, and that place is associated with happiness, you have a very differentiated memory for the place that you reproduce, and then you have a stereotypical memory that will command you to have a certain class of emotion, more or less comparable to other instances of the same emotion. There will be degrees of variations, but basically it will be the same type of emotion.

AM: When is our autobiographical memory activated?

AD: It is activated all the time. It is just that it is activated in greater detail when you call for it. But, right now, in the back of our minds, so to speak, both you and I know that we are who we are. In order to do that, we need to have some reactivation of autobiographical memory that gives us that sense of personhood and identity, which is different from the core self. The core self is what any animal probably will have. The core self is caused and renewed again and again, thanks to anything you perceive or recall. But we have more than a core self. We have a sense of being you and being me. That sense is a constant, repeatedly activated autobiographical memory. It is very simple at the moment, because that is all we need now. But if you turn to me and say: 'Tell me about you, what are your goals in life and what are your likes and dislikes?' then I immediately start reactivating much more of the autobiographical memory, and start telling you, either in terms of events or in terms of categories, the things I like, the things I aspire to and so on.

Endangered Species

Status	Species Name
E	Lemurs (<i>Lemuridae</i> (incl. genera Lemur, Phaner, Hapalemur, Lepilemur, Microcebus, Allocebus, Cheirogaleus, Varecia))
E	Leopard (except where threatened) (<i>Panthera pardus</i>)
T	Leopard (Gabon to Kenya & southward) (<i>Panthera pardus</i>)
E	Leopard, clouded (<i>Neofelis nebulosa</i>)
E	Leopard, snow (<i>Uncia (=Panthera) uncia</i>)
E	Linsang, spotted (<i>Prionodon pardicolor</i>)
E	Lion, Asiatic (<i>Panthera leo persica</i>)
T	Loris, lesser slow (<i>Nycticebus pygmaeus</i>)
E	Lynx, Spanish (<i>Felis pardina</i>)
T	Macaque, Formosan rock (<i>Macaca cyclopis</i>)
T	Macaque, Japanese (<i>Macaca fuscata</i>)
E	Macaque, lion-tailed (<i>Macaca silenus</i>)

AM: In *Looking for Spinoza* you write that feelings are not just emotions made conscious. They are emotions being connected to thoughts and memories.

AD: The central theme of the book is that a feeling is a mental representation of what goes on in the body when you have an emotion. So, in a way the feeling is an idea. That is actually why I like Spinoza so much, because when Spinoza had the intuition that the mind is the representation of the body, I think he was keying into this idea. Of course he could not make it very much clearer, and nobody understood it at the time, but I think this is what he meant. Feeling is what goes on in the body, that gets transferred mentally, and there of course it comes together with other thoughts, with other aspects of the mind. At the same time though, feeling is of a different nature than thought, because it has a different source. When you look at a landscape you have images of that landscape, that is, thought or mind if you want to call it that, that comes from perceiving visually. But when you feel pleasure with that perception, what happens is that you have an emotion, and the mind represents that emotion. That is what allows you to feel pleasure.

AM: Does it also work the other way around? That if you have feelings, either happiness or sadness or whatever, they work like a sort of retrieval system for memories?

AD: Yes, in a way. Certain kinds of feelings are so associated with certain kinds of facts that they also work the other way. A fact can cause an emotion that causes a feeling, but then at many different levels of the process a feeling can bring back other facts. In *Looking for Spinoza* I call this 'the recall of related material'. The beauty of it is that it does not work just in one direction, but in circles, in loops that are constantly reverberating. The great richness of the human mind is that you constantly have all these loops, and they very often go sideways, they go astray and they bring back lots of information that is very important.

Endangered Species

Status	Species Name
T	Macaque, stump-tailed (<i>Macaca arctoides</i>)
T	Macaque, Toque (<i>Macaca sinica</i>)
E	Manatee, Amazonian (<i>Trichechus inunguis</i>)
T	Manatee, West African (<i>Trichechus senegalensis</i>)
E	Mandrill (<i>Mandrillus (=Papio) sphinx</i>)
E	Mangabey, Tana River (<i>Cercocebus galeritus galeritus</i>)
E	Mangabey, white-collared (<i>Cercocebus torquatus</i>)
E	Margay (Mexico southward) (<i>Leopardus (=Felis) wiedii</i>)
E	Markhor, chiltan (=wild goat) (<i>Capra falconeri (=aegrargrus) chiltanensis</i>)
E	Markhor, Kabul (<i>Capra falconeri megaceros</i>)
E	Markhor, straight-horned Entire (<i>Capra falconeri jerdoni</i>)
E	Marmoset, buff-headed (<i>Callithrix flaviceps</i>)
E	Marmoset, cotton-top (<i>Saguinus oedipus</i>)

AM: The memory as you describe it in *The Feeling of What Happens* and *Looking for Spinoza* is a very complex, dynamic, distributed machinery in the brain. How do we access this strange living databank, or, better said, imagebank?

AD: Over 10 years ago I wrote a set of papers about your question; it is cited in both books. The topic is convergence zones. There are certain parts of the brain where we store what I call 'dispositions' – when I talked about codes I really could have said dispositions. The information is there in the circuitry, and when, for example, you have a part of the visual cortex active, with say the perception of a landscape, that activity will send signals to a number of parts of the brain. Those parts of the brain that contain dispositions that are related to that particular perception do respond. So, the way you access memory, to answer your question, is that anything that is in the mind, whether it is being perceived now or being recalled, provokes activity in many parts of the brain. Those parts of the brain are those that have the storage of dispositions. If one of those stores has anything to do with the image that is now in perception, then it responds. When it responds it brings back other memories, or it causes emotions that cause feelings. It really is a matter of things being interconnected, and the network is so rich that when something happens in one point there are consequences at other points.

AM: Could one describe feeling as a kind of search engine in the memory? If you try to remember things you know to have happened, or if you have the feeling that something important happened at a certain point in your life and you try to figure out what it was, then feeling seems to be the search engine, to use that metaphor.

AD: I would not describe it primarily as a search engine. But there is no question that feelings can be a source of search for other memories. If you want to call it a search engine, that is fine.]

Endangered Species

Status	Species Name
E	Marmoset, Goeldi's (<i>Callimico goeldii</i>)
E	Marmoset, white-eared (=buffy tufted-ear) (<i>Callithrix aurita</i> (=jacchus a.))
E	Marmot, Vancouver Island (<i>Marmota vancouverensis</i>)
E	Marsupial, eastern jerboa (<i>Antechinomys laniger</i>)
E	Marsupial-mouse, large desert (<i>Sminthopsis psammophila</i>)
E	Marsupial-mouse, long-tailed (<i>Sminthopsis longicaudata</i>)
E	Marten, Formosan yellow-throated (<i>Martes flavigula chrysoaspila</i>)
E	Monkey, black colobus (<i>Colobus satanas</i>)
T	Monkey, black howler (<i>Alouatta pigra</i>)
E	Monkey, Diana (<i>Cercopithecus diana</i>)
E	Monkey, Guizhou snub-nosed (<i>Rhinopithecus brelichi</i>)
E	Monkey, L'hoest's (<i>Cercopithecus lhoesti</i>)
E	Monkey, mantled howler (<i>Alouatta palliata</i>)

AM: How do these feelings influence what we take or perceive from the present, and store in our internal archive?

AD: That influence is enormous. First, when you have a feeling in relation to something that is happening now, there are consequences in terms of the memory that can be constructed of the 'now'. In other words, having an emotion and having a feeling influences the learning of what is happening. Therefore, the dispositions that we store are influenced by what is going on right now in terms of feeling. Furthermore, feelings influence our decision making. What we do next is dependent on whether we are reacting to the moment with pleasure or pain, with joy or sorrow. There is an influence on what we store, and that, subsequently, has an influence on what we do in the future. But there is also an influence on how we act, on what we do next, immediately. It is a dual influence and it is very powerful.

AM: If a new feeling arrives, if ever, because you seem to think that the spectrum of feeling in human beings is rather small, your word for it was stereotyped ...

AD: Well, it is small compared to the scale of the universe. There is an infinity of things that you can see. If you go to the window you will see many objects and people and events, whereas there is no such infinity for feelings. There is a finite number of categories of emotions and feelings, although there are many variations on these categories. In other words, although sadness can have different intensities and different contours, it is still sadness. Emotion does not have the infinity of kinds that characterizes the facts of the world.

AM: But if you have a new feeling, like falling in love or mourning when someone dies, does that influence the structure of your memory?

AD: Yes, it influences it because it creates a differentiation regarding how much

Endangered Species

Status	Species Name
E	Monkey, Preuss' red colobus (<i>Procolobus (=Colobus) preussi (=badius p.)</i>)
E	Monkey, proboscis (<i>Nasalis larvatus</i>)
E	Monkey, red-backed squirrel (<i>Saimiri oerstedii</i>)
E	Monkey, red-bellied (<i>Cercopithecus erythrogaster</i>)
E	Monkey, red-eared nose-spotted (<i>Cercopithecus erythrotis</i>)
E	Monkey, Sichuan snub-nosed (<i>Rhinopithecus roxellana</i>)
E	Monkey, spider (<i>Ateles geoffroyi frontatus</i>)
E	Monkey, spider (<i>Ateles geoffroyi panamensis</i>)
E	Monkey, Tana River red colobus (<i>Procolobus (=Colobus) rufomitratatus (=badius r.)</i>)
E	Monkey, Tonkin snub-nosed (<i>Rhinopithecus avunculus</i>)
E	Monkey, woolly spider (<i>Brachyteles arachnoides</i>)
E	Monkey, yellow-tailed woolly (<i>Lagothrix flavicauda</i>)

or how little gets memorized of a certain event. In other words, if we did not have emotions and feelings everything would be equal to everything else. What emotions and feelings do, is give a value. They literally put a price on different things. So there are certain things that are not terribly affected, and things that are very affected, because they cause joy or sorrow. Emotion and feeling are a way of constantly giving a quality to things, because they constantly give value to things. And your memory will be expanded or contracted in proportion to those values.

AM: An extreme case would be a trauma.

AD: All memorizing is related to the intensity of the emotion and the kind of emotion. If, for example, something quite tragic happens in your life, up to a certain level of emotion you actually create memories that are incredibly detailed. But if the trauma is overwhelming, as for example in the case of some childhood traumas, the system actually shuts down. The memory is probably there, but it will be more difficult to retrieve. There is very interesting evidence showing that if you are affectively neutral when you are trying to learn something, say for an exam, it is not very good for making memory. If you have a little bit of emotion, positive or negative, that actually is very good. But beyond a certain point, if you are too happy or too sad, it is bad, and you start losing it again. There is an optimum to achieve good effects of emotion in memory.

AM: Memory is also active in producing desires or aspirations.

AD: One's desires come out of all sorts of different sources. First there are those desires that are engrained in our brain in terms of the regulation of life – desires that have to do with food and drink and sex and physical protection, and so on. Then there are desires that are acquired because of social interaction and culture, for example all the desires that advertisements cause in us and that certain kinds of culture cause as well. Those desires are of mixed origin, actually, because

Endangered Species

Status	Species Name
E	Monkey, Yunnan snub-nosed (<i>Rhinopithecus bieti</i>)
E	Monkey, Zanzibar red colobus (<i>Procolobus (=Colobus) pennantii (=kirki) kirki</i>)
E	Mouse, Australian native (<i>Notomys aquilo</i>)
E	Mouse, Australian native (<i>Zyomys pedunculatus</i>)
E	Mouse, Field's (<i>Pseudomys fieldi</i>)
E	Mouse, Gould's (<i>Pseudomys gouldii</i>)
E	Mouse, New Holland (<i>Pseudomys novaehollandiae</i>)
E	Mouse, Shark Bay (<i>Pseudomys praeconis</i>)
E	Mouse, Shortridge's (<i>Pseudomys shortridgei</i>)
E	Mouse, smoky (<i>Pseudomys fumeus</i>)
E	Mouse, western (<i>Pseudomys occidentalis</i>)
E	Muntjac, Fea's (<i>Muntiacus feae</i>)
E	Native-cat, eastern (<i>Dasyurus viverrinus</i>)

they are caused by the culture, but they connect with the basic desires. The reason why publicity is so tricky is because advertisement is based on creating certain desires for certain objects, but the new objects are associated with fundamental desires, to the desires related to food and sex for example.

AM: And connected with certain emotions of course.

AD: Absolutely. I like the word desire very much; it is actually a word that Spinoza used. Desire is a conscious appetite, and appetites are components of emotions. When we talk about emotions, they all have embedded in themselves aspects of drives and motivations and appetites.

AM: There is a question I always feel in the back of my mind when reading your books. You describe how the brain works on a neurological level, and on the level of emotions and of feelings, which goes a bit beyond the neurological level I suppose. But somehow I always wonder if there is a way in which you could make your kind of research productive, in the sense that you start to understand when or how you can deal with your emotions or feelings, and how you can turn them into desires, or prevent just that.

AD: In *The Feeling of What happens* and *Looking for Spinoza* the aim is to produce an account of what science currently gives you. I have tried not to go, at least not in detail, into the practical consequences. In fact, in my next book, I am going to talk about practical everyday consequences of knowing how the brain works in relation to emotion and memory. They are very important in terms of ethics, in terms of how you can govern what you attach yourself to, and what you do not. We do not have complete freedom, but at least we have some freedom that is given by reason, and liberates us from the tyrannical control of the emotions. It is never a complete liberation, but we can try.

Endangered Species

Status	Species Name
E	Numbat (<i>Myrmecobius fasciatus</i>)
E	Orangutan (<i>Pongo pygmaeus</i>)
E	Oryx, Arabian (<i>Oryx leucoryx</i>)
E	Otter, Cameroon clawless (<i>Aonyx congicus</i> (=congica) microdon)
E	Otter, giant (<i>Pteronura brasiliensis</i>)
E	Otter, long-tailed (<i>Lontra</i> (=Lutra) longicaudis (incl. platensis))
E	Otter, marine (<i>Lontra</i> (=Lutra) felina)
E	Otter, southern river (<i>Lontra</i> (=Lutra) provocax)
E	Panda, giant (<i>Ailuropoda melanoleuca</i>)
E	Pangolin, Temnick's ground (<i>Manis temmincki</i>)
E	Planigale, little (<i>Planigale ingrami subtilissima</i>)
E	Planigale, southern (<i>Planigale tenuirostris</i>)
E	Porcupine, thin-spined (<i>Chaetomys subspinosus</i>)

AM: But what is reason, neurologically speaking?

AD: It is the ability to think about facts, using logic, in ways in which you can understand the causes of events and the consequences of events. It uses the basic machinery of the brain in terms of perception and memory, but in a way in which logical relationships can be established among facts. What permits you and me to have this conversation? We are in a way controlled by our emotions and passions, but we also are doing something very different right now, namely analyzing clearly what is occurring in terms of facts and in terms of the relations among facts. Of course all of this also causes emotion, and we are producing these analyzes because you and I have an emotional interest in the subject. I, because it is part of my curiosity and my work, you because it is part of your desire to explain this to someone else, and to write about it. We are doing two things in fact: we are having a reasoning process, and we are also having emotions that influence that process, and are caused by it.

AM: Is reason a sort of neurological circuitry, or a way to use neurological circuitry?

AD: Reason is based on neurological circuitry. It is based on a manipulation of images. Instead of just having the machinery of perception and memory, which in essence makes images, organizes images and stores them, we have a way of manipulating them. In other words, when you reason, you pull up certain images that you place in certain relationships. That is what reason is about. It is about creating relationships among facts. Those relationships, rather than being arbitrary are logical. For example, I am looking at a chair. Now, somebody could come and kick the chair, and the chair would fall to one side. Reasoning allows you to see that the chair fell, not because God wants it to fall, but because somebody applied a lateral force to the chair and moved its center of gravity. Reason is a



Endangered Species

Status	Species Name
E	Possum, Leadbeater's (<i>Gymnobelideus leadbeateri</i>)
E	Possum, mountain pygmy (<i>Burramys parvus</i>)
E	Possum, scaly-tailed (<i>Wyulda squamicaudata</i>)
E	Prairie dog, Mexican (<i>Cynomys mexicanus</i>)
E	Pronghorn, peninsular (<i>Antilocapra americana peninsularis</i>)
E	Pudu (<i>Pudu pudu</i>)
E	Puma, Costa Rican (<i>Puma (=Felis) concolor costaricensis</i>)
E	Quokka (<i>Setonix brachyurus</i>)
E	Rabbit, Ryukyu (<i>Pentalagus furnessi</i>)
E	Rabbit, volcano (<i>Romerolagus diazi</i>)
E	Rat, false water (<i>Xeromys myoides</i>)
E	Rat, stick-nest (<i>Leporillus conditor</i>)
E	Rat-kangaroo, brush-tailed (<i>Bettongia penicillata</i>)

mixture of the utilization of facts and knowledge, and the logic that allows you to establish relationships of cause and effect, for example.

AM: And it makes it possible not to get angry when somebody does that.

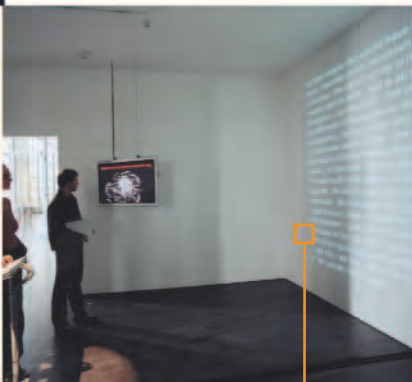
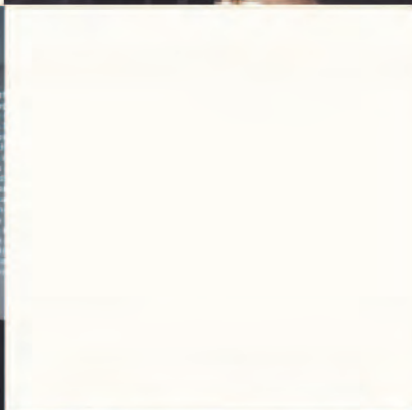
AD: Exactly. It makes it possible for you to think twice and say: 'Wait a minute, why am I doing this?' and try to stop it.



Endangered Species

Status	Species Name
E	Rat-kangaroo, desert (=plain) (<i>Caloprymnus campestris</i>)
E	Rat-kangaroo, Gaimard's (<i>Bettongia gaimardi</i>)
E	Rat-kangaroo, Lesueur's (<i>Bettongia lesueur</i>)
E	Rat-kangaroo, Queensland (<i>Bettongia tropica</i>)
E	Rhinoceros, black (<i>Diceros bicornis</i>)
E	Rhinoceros, great Indian (<i>Rhinoceros unicornis</i>)
E	Rhinoceros, Javan (<i>Rhinoceros sondaicus</i>)
E	Rhinoceros, northern white (<i>Ceratotherium simum cottoni</i>)
E	Rhinoceros, Sumatran (<i>Dicerorhinus sumatrensis</i>)
E	Saiga, Mongolian (antelope) (<i>Saiga tatarica mongolica</i>)
E	Saki, southern bearded (<i>Chiropotes satanas satanas</i>)
E	Saki, white-nosed (<i>Chiropotes albinasus</i>)

continue at p 178



Poetry Machine_1.5

An interactive installation by David Link, 2001

Unser Schreibzeug arbeitet mit an unseren Gedanken; Our writing tools co-produce our thoughts (Friedrich Kittler, Gramophone Film Typewriter)

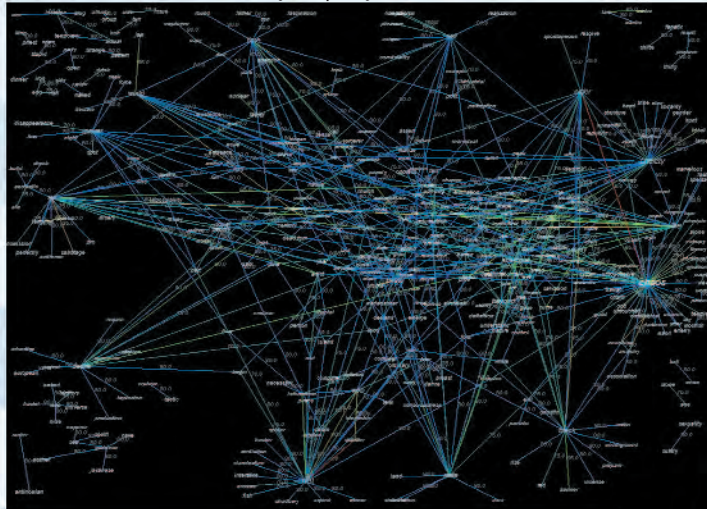
In a half-dark room a keyboard sits on a stand. On the wall behind it a flood of words appear, written by no-one. The keyboard's keys seem to automatically type along with the text. A monotonous, mechanical sounding voice reads the text aloud, sentence-by-sentence. Being curious, you approach the mysterious keyboard. Sensors pick up your movements and disrupt the text machine's rhythm.



The flow of words falters, the keys stop, until you decide to type something yourself. *Poetry Machine_1.5* goes back to work by forming associations from the typed words.

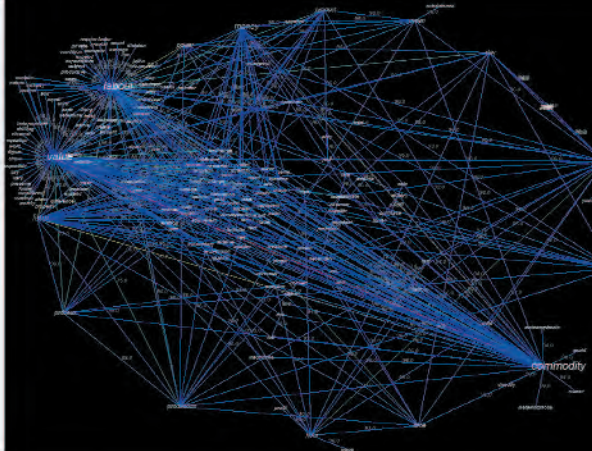
Poetry Machine_1.5 begins as a *tabula rasa*. David Link's installation starts out with an empty database, where words and the connections between the words have not yet been made. The built-in search engine retrieves texts from the Internet that are then processed by a program for analyzing text. From this analysis, the database abstracts associative word connections and syntactic structures. It then stores all of these data in its own lexicon of semantic networks, that define the meaning of the words in the form of a cluster of links with other words. The more connections between two words the database

Hakim Bey: *Temporary Autonomous Zone*



Karl Marx: *Das Kapital*

Images of the semantic networks inside *Poetry Machine_1.5*

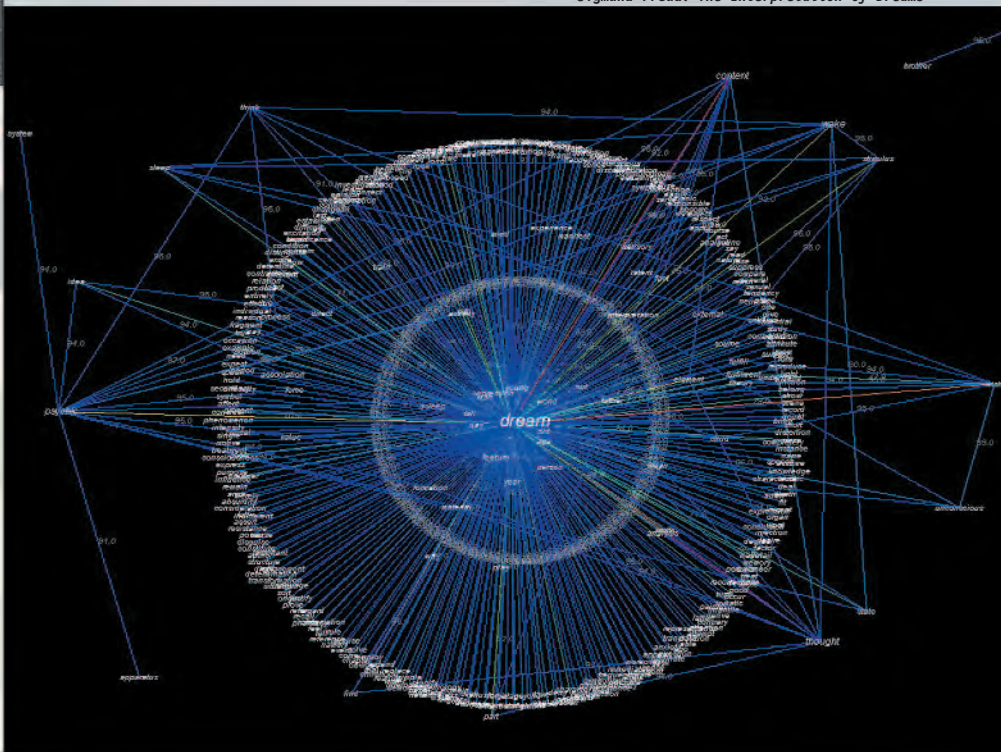


finds, the stronger their link and the greater the chance that they will surface from the flood of words.

When someone types a word, *Poetry Machine_1.5* activates the corresponding semantic network. Following the strongest links, the text generator finds words related by association that are then imbedded in part of a sentence. Video projectors display the result on the wall as poetry in words. When a word is typed that is as yet unknown to the poetry machine, the program will send out autonomous 'bots' to the Internet to collect texts in which the word in question occurs. This action of the bots, searching sites and documents, can be watched on a plasma screen by the side of the installation. In this interaction of machine words and human text, *Poetry Machine_1.5* creates a new *écriture*



Sigmund Freud: *The Interpretation of Dreams*



automatique, where language is no longer the exclusive domain of human thought but also that of the internal logic of computers. The writing machine tests our thought and those of the software word-by-word, until they literally coincide.

David Link (D) is a media artist and founder and editor of ARTIC, a journal for art and philosophy. He also founded Codelab, an artist group for the realization of media art projects in Berlin. He has made several interactive installations, which have been exhibited at international festivals.



She was passing time by counting the passing



TEXAS_02.txt

Soft Cinema

Semi-automatic film jockey by Lev Manovich (USA/RUS), 2002

*Time becomes spatialized, distributed over the surface of the screen.
(Understanding Media, Marshall McLuhan)*

Vacant office buildings, abandoned airports and anonymous railway platforms. Emails, phone calls and a surplus of information. The information society has changed our world and the way we see it. Our daily encounter with large amounts of data has created a new 'data subjectivity', with its own special blend of



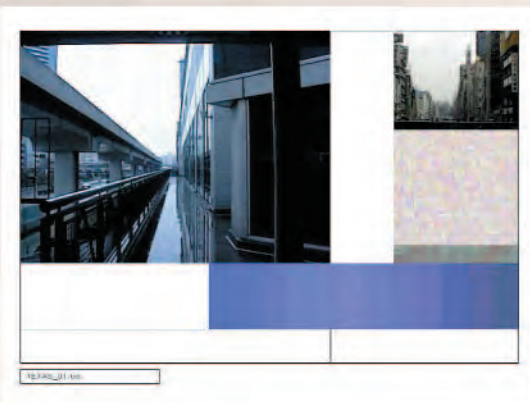
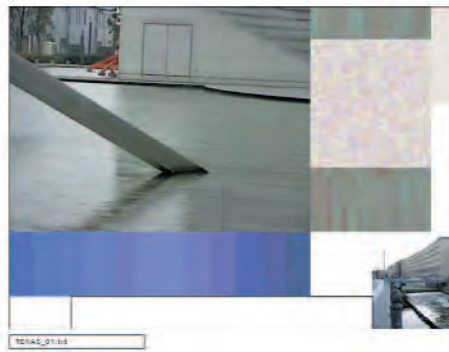
am going to be a stripper in Las Vegas or a stock

TEXAS_01.txt



imagination. *Soft Cinema* looks at new ways of visualizing this subjectivity. The project presents a series of film clips, based on a number of fictional stories by Lev Manovich. *Soft Cinema* was designed to be presented in various formats (installations, catalogues), exploring the boundaries of cinema.

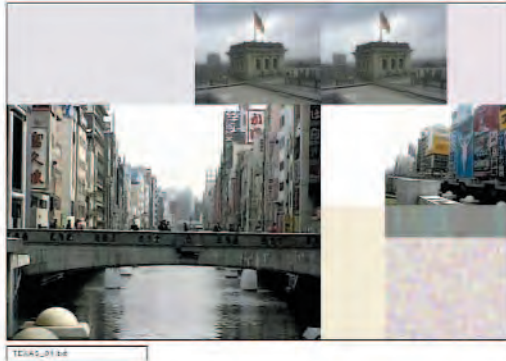
Soft Cinema consists of a number of databases containing a variety of audiovisual materials (city impressions, 2D animations, infrared images, music). Custom-made software retrieves the material from these databases by keywords and edits everything live into unique stories (algorithmic editing). The software decides what appears on the screen, where and in what order. The screen's lay-out is refreshed at the start of each new episode and the corresponding material is distributed across multiple windows. The resulting clips will be



shown on monitors and plasma screens, with a voice-over on the headphones guarding the overall storyline.

Soft Cinema bridges the gap between today's interfaces and tomorrow's cinema. Inspired by Mondrian, Windows and financial TV channels, the screens are subdivided into rectangular windows of various sizes. In the windows, the visual, graphical or textual data from a movie clip from the database is shown. Every clip in the database was shot on location in Berlin, Tokyo or Moscow with a digital camera, following the rules of Dogma '95. By its own internal logic and abstract aestheticism, *Soft Cinema* demonstrates how interchangeable the urban voids in the overfull information society really are.





TSUKA_01.04

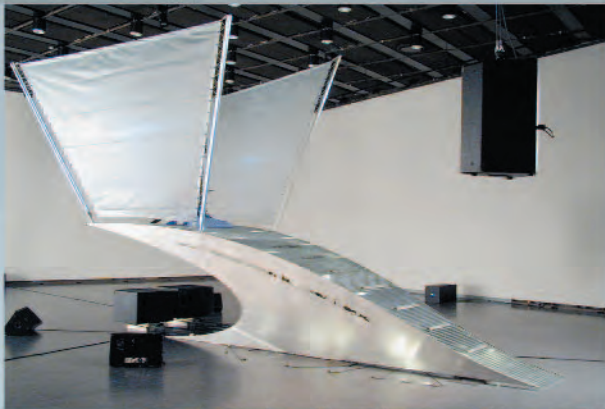


TSUKA_01.05



TSUKA_01.06

Lev Manovich (USA) teaches courses in new media art and theory at the University of California, San Diego. He has been working with computer media as an artist, computer animator, designer and programmer since 1984. Manovich is the author of *The Language of New Media* (2001).

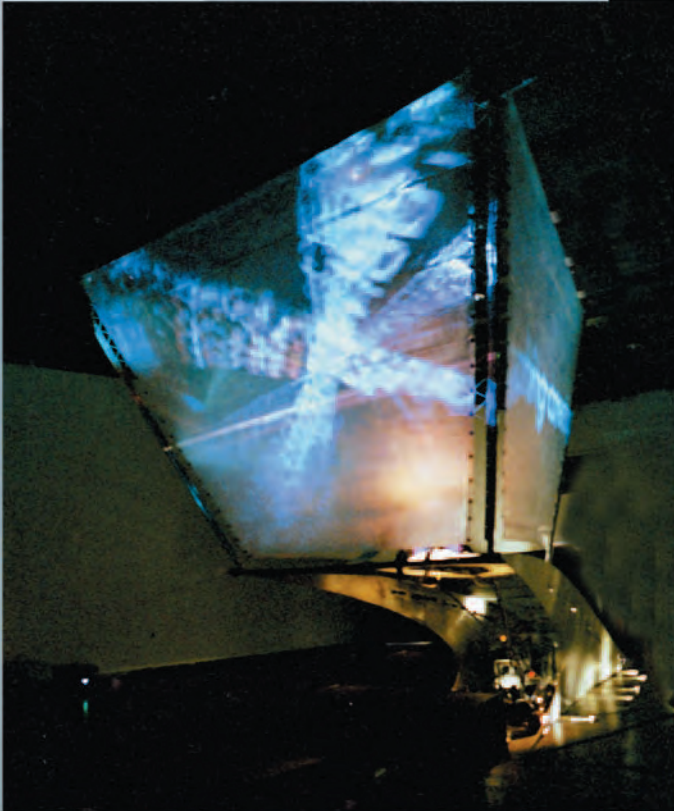


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Erotogod

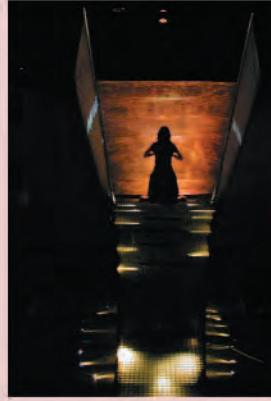
Interactive installation by Stahl Stenslie, Asbjørn Flø, Knut Skagen and Trond Lossius (N), 2001

Erotogod is a futuristic media altar linking auto-erotic touching to stories of Creation; a sensory fusing of religions. Starting from texts from the *Koran*, *Talmud* and *Bible*, the installation composes a new story of Creation, turning it into an intense multi-sensory experience. The human body functions as the catalyst in these compositions. By playing themselves, visitors rewrite these mythical texts to form a three-dimensional synesthesia of text, color, sound and sensation.



The ecstatic experience starts by putting on a sensor suit that has pressure sensors and physical stimulators, and divides the body along axes (pelvis, legs, and so on). The participant enters a steel construction that is seven meters long and kneels down in the sanctuary of the installation, enclosed by three transparent projection screens. On the front screen, an automatic text generator displays religious text fragments that float about in three dimensions, while 16 loudspeakers provide a spatial sound effect. When the sensor suit is stimulated, the text generator changes the multimedia hymn.

The text generator stores all the touching along the various axes, converting these patterns into sound, text fragments and physical stimulations. Each axis corresponds to a character from the story of Creation, e.g. Adam, Eve, Lillith



or Satan, and all points on the axis differ in intensity; the outer sensors are more forgiving, generating texts from the *Koran*, while the inner sensors are more erotically charged, borrowing from texts about the vindictive God of the *Old Testament*. All of the text fragments are also categorized according to their main character – scaled on the axis of revenge and forgiveness and marked as subject, verb or predicate. And so, on the intersection of the body and the word, a heavenly database of representations from all sensory realms is being formed.



Stahl Stenslie (N) is a media artist, curator and researcher. He is Professor of Media Art at the Academy of Media Arts (KHM) in Cologne and builds installations that work with cognition and perception manipulation. Stenslie is one of the founders of cybersex. He also co-founded mem_brane, a media lab.



100 000 STREETS

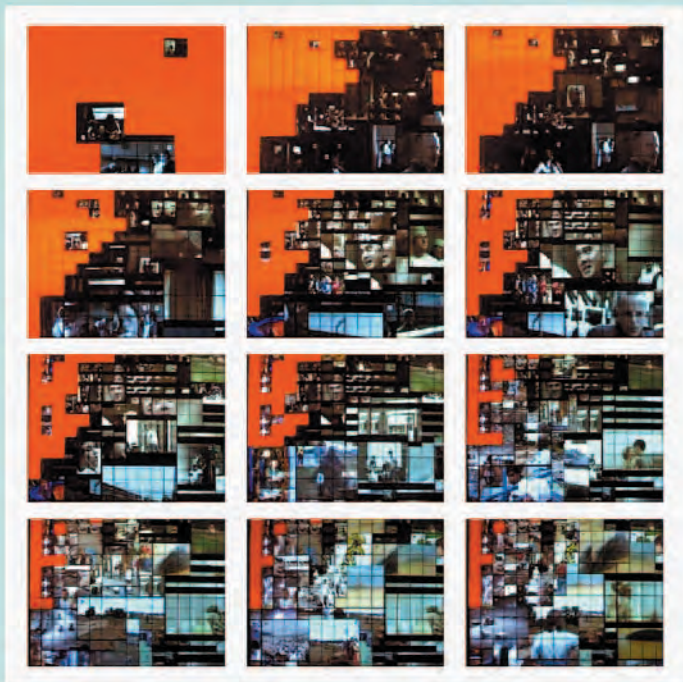
An interactive installation by Geert Mul (NL), 2002

Would you like to know what a mix of New York, Tokyo and Rotterdam would look like as a city? With his *100 000 Streets* image artist Geert Mul explores the visual overlap of cities all over the world. Visitors to this interactive installation are treated to a tour of a kaleidoscopic fan of urban images that are retrieved from the Internet and selected on visual quality by especially designed, visually intelligent software. On the rhythm of the visitor's movements, the installation threads this raw material into well-ordered strings of images in a demonstration of the impact of globalization on the city.



This interactive work-out along *100 000 Streets* takes off as soon as the visitor steps onto a platform equipped with a motion sensor, situated before a half circle of monitors. The sensor activates a database that contains images from the Internet and their corresponding image analyses. From this database the installation compiles a collage of image and sound, relating the sound to the visual characteristics of the images used. The visitor can influence this collage by moving on the platform. When the visitor stops moving, the collage disappears from the video wall.

For this visual analysis *100 000 Streets* uses the especially designed software *No-Ta-Ti-On*. Images are analyzed both by parameters of content (urban structure, migration, architecture, clubs, wealth and so on) and by parameters of



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form (color, contrast, brightness and movement). *No-Ta-Ti-On* needs this information in order to establish patterns, for instance of all the skyscrapers or streets in the database ranked according to brightness and color. The software also controls how these patterns move across the video wall and it can blow up or shrink the images. Using the Internet as an easily accessible archive of randomly organized audio and visual data, *100 000 Streets* also demonstrates the way digital applications/processes of data clustering allow for dynamic combinations and relations that generate information otherwise unimaginable/unperceivable: images of the global city.

These variables of speed and size are also influenced by the visitor's movements. The combination of parameters in the database with walk-o-meters of the visitor creates a dynamic visual poetry.





Geert Mul (NL) produces videos, interactive installations and performances. These works are shown at pop festivals, museums, art festivals and clubs. During trips and projects in Asia and Europe, he collects images and sounds of people and their urban surroundings. His works often relate to music.

WHAT CARRIES THE ARCHIVE – AND FOR HOW LONG?

Boris Groys

In this essay I would like to answer the question: with which energy does the archive carry our culture and grant it its longevity? As this question has disrupted my peace since writing the book *About the New* (*Über das Neue*, 1992), it seems essential to clarify the reasons that drove me to formulate it in the first place. In my book dealing with the 'New' I described the 'cultural economy' as the exchange that takes place between the archive of cultural values and the profane realm existing outside the archive. In an archive things are collected and held that are important, relevant and valuable for a particular culture – all other

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Endangered Species

Status	Species Name
E	Seal, Mediterranean monk (<i>Monachus monachus</i>)
E	Seal, Saimaa (<i>Phoca hispida saimensis</i>)
E	Seledang (<i>Bos gaurus</i>)
E	Serow (<i>Naemorhedus (=Capricornis) sumatraensis</i>)
E	Serval, Barbary (<i>Leptailurus (=Felis) serval constantina</i>)
E	Shapo (<i>Ovis vignei vignei</i>)
E	Shou (<i>Cervus elaphus wallichi</i>)
E	Siamang (<i>Symphalangus syndactylus</i>)
E	Sifakas (<i>Propithecus spp.</i>)
E	Sloth, Brazilian three-toed (<i>Bradypus torquatus</i>)
E	Solenodon, Cuban (<i>Solenodon cubanus</i>)
E	Solenodon, Haitian (<i>Solenodon paradoxus</i>)
E	Stag, Barbary (<i>Cervus elaphus barbarus</i>)

unimportant, irrelevant, worthless things remain in the profane realm, beyond the archive. However, the cultural archive is in a constant state of flux. Some elements of the profane realm become incorporated into it, while other elements within the archival inventory that are no longer relevant are sorted out. In *About the New I* I also tried to answer the question: what criteria does a culture use to identify something of importance within the profane realm, judge it and clear a place for it within its archive? And, above all: why does the archive not remain constant? Why is there always something new entering the archive?

The answer to this question of importance is usually defined as all that which is important for life, for history, for human beings. And things of such importance must necessarily be incorporated into the archive. Thus, the role of the archive comes to include the representation of life *outside* the realm of the archive. Opinion on what is important for life and human beings varies considerably, and, because archival representation seems primarily to be an aspect of the politics of representation, it also exists within the framework of the broader conflict of representation. Indeed, there is considerable argument about that which should be represented within an archive, and who should administer the archive and determine its nature. As such this seems primarily to be a question of power – a question of the position of power which allows one to decide what is important and, therefore, worthy of archiving, and to decide that which is unimportant, irrelevant and, so, should be left out. Discussion of the position of power within the archive, as well as the inclusions and exclusions determined by that power, brings forth a great deal of emotion, as is always the case when the question is one of politics – meaning that it is a question upon which one not only should have, but rather *must* have an individual opinion. In such heated discussions everyone holds something particular as being important – believing all the while that, that which their opponent holds as being important is actually completely unimportant. And when that which is unimportant seems to triumph over that

Endangered Species

Status	Species Name
E	Stag, Kashmir (<i>Cervus elaphus hanglu</i>)
E	Suni, Zanzibar (<i>Neotragus moschatus moschatus</i>)
E	Tahr, Arabian (<i>Hemitragus jayakari</i>)
E	Tamaraw (<i>Bubalus mindorensis</i>)
E	Tamarin, golden-rumped (<i>Leontopithecus spp.</i>)
E	Tamarin, pied (<i>Saguinus bicolor</i>)
T	Tamarin, white-footed (<i>Saguinus leucopus</i>)
E	Tapir, Asian (<i>Tapirus indicus</i>)
E	Tapir, Central American (<i>Tapirus bairdii</i>)
E	Tapir, mountain (<i>Tapirus pinchaque</i>)
E	Tapir, South American (=Brazilian) (<i>Tapirus terrestris</i>)
T	Tarsier, Philippine (<i>Tarsius syrichta</i>)
E	Tiger (<i>Panthera tigris</i>)

Source: <http://ecos.fws.gov/servlet/TESSWebpageForeign?&listings=1#A>

which is important, then the general consensus holds that secret intrigues, underhanded power plays and, beyond all else, money – lots and lots of money – are at play.

Once one has observed this entire spectacle, one is somewhat astonished when ultimately realizing that, de facto, the archive does indeed continue to replenish itself – indeed to a general level of satisfaction. The development of the archive thus seems to follow a logic that ultimately forces itself equally upon all those involved. And when someone, trusting too much in their own position of power with respect to the archive, begins to act against this logic, then they lose this power position relatively quickly. There exists no absolute power position with respect to the archives; the inherent logic of the archive's own development always prevails. The archives collect all that which they themselves had not yet collected. And so-called 'reality' is in effect nothing more than the sum of all that which has not yet been collected. Thus, reality is not something primary, which should be represented in the secondary realm of the archive, but, rather, reality is secondary, constituting all that which is left over, outside of the archive. This is the origin of the proposition posed in *About the New*: that the archive does not actually collect what is important for human beings, since nobody knows what is important for human beings. Rather, only that which is important for the archive itself will be collected.

The historically new, topical, lively and real can not be diagnosed in any manner other than in relation to the 'dead', archived and old. This means that the archive's function does not consist simply in portraying or representing history, that is, 'to fix the memory of history as it happened in reality'. Rather, the archive offers the precondition for something like history to actually exist, since only when the archive already exists can the comparison of the new with the old, which produces history as such, be executed. The archive is a machine for the

Endangered Species

Status	Species Name
E	Tiger, Tasmanian (<i>Thylacinus cynocephalus</i>)
E	Uakari (all species) (<i>Cacajao spp.</i>)
E	Urial (<i>Ovis musimon ophion</i>)
E	Vicuna (<i>Vicugna vicugna</i>)
E	Wallaby, banded hare (<i>Lagostrophus fasciatus</i>)
E	Wallaby, brindled nail-tailed (<i>Onychogalea fraenata</i>)
E	Wallaby, crescent nail-tailed (<i>Onychogalea lunata</i>)
E	Wallaby, Parma (<i>Macropus parma</i>)
E	Wallaby, western hare (<i>Lagorchestes hirsutus</i>)
E	Wallaby, yellow-footed rock (<i>Petrogale xanthopus</i>)
E	Whale, gray (<i>Eschrichtius robustus</i>)
E	Wolf, maned (<i>Chrysocyon brachyurus</i>)
E	Wombat, Queensland hairy-nosed (incl. Barnard's)

production of memories – a machine that produces history out of the uncollected material of reality. And this production process has its own laws, which must be observed by all those involved. For example, when a religious orthodoxy battles heretic teachings 'in life' to the point of extermination, then it is forced to repeat those teachings in its own archive in order to tell the story of its own emergence and prevalence.

Thus the cultural archive finds itself in an internal contradiction, which produces its dynamic. On the one hand, the archive has a mandate for completeness: it should collect and represent all that exists outside itself. On the other hand, the things in the archive have a different fate to that of the profane things outside of the archive. The archive-things are looked upon as being valuable and worthy of retention, whereas the failure, the mortality and fleeting nature of the profane things is accepted without any further adieu. Therefore, there exists a significant difference between the things in the archive and the things beyond the archive that, from the very beginning, undermines any claim of representation – a difference in value, in fate; in relation to the ephemeral, to extermination, to death. If at first one accepts that the pictures collected in museums should represent the world beyond the museum, then one will very quickly realize that, on the contrary, these pictures find themselves there exactly because they differentiate themselves favorably from the broader realm of general opinion, since they have been particularly well painted by particularly good painters or they are particularly well framed or particularly expensive. The entire system of museums exerts itself in this way, specifically in order to prevent the loss of these pictures. On the contrary, nobody exerts themselves to prevent the loss of the real things depicted in these pictures. One wants to save, for example, a picture upon which a cow is particularly well portrayed, whereas the fate of the cow itself is of no interest to anybody. Therefore, that which exactly defines reality and its own ephemeral nature cannot be portrayed or represented in the archive. In contrast,

Endangered Species

Status	Species Name
	(<i>Lasiorhinus krefftii</i> (formerly <i>L. barnardi</i> and <i>L. gillespiei</i>))
E	Yak, wild (<i>Bos mutus</i> (=grunniens m.))
T	Zebra, Grevy's (<i>Equus grevyi</i>)
T	Zebra, Hartmann's mountain (<i>Equus zebra hartmannae</i>)
E	Zebra, mountain (<i>Equus zebra zebra</i>)

an art which seeks to stage its own past within the space of the museum will be documented, archived and stored.

However, the mandate for completeness forces the archive to search ever further for the real, and, therefore, fleeting, topical and insignificant. This search proceeds according to the criteria of formal dissimilarity: the priority of the collection process is all that which, on a formal level, appears different, thereby creating its 'reality'. However, formal dissimilarity isn't sufficient alone to produce the New. The newness of a piece of reality for the archive consists not only in its dissimilarity, but rather in its ability, at least for a short period of time, to represent the entire sphere of profanity beyond the archive and, thus, to suggest the achievement of the mandate for completeness. The whole archive does not represent reality, rather, that which is new to the archive does that, and, indeed the New, for a certain amount of time, retains the aura of transience, which refers to the fate of everything real. Thanks to this aura of transience the New seems to be able to represent all of ephemeral reality, until the moment at which its temporal length of inclusion into the archive, and its all too obvious longevity, makes this emerging aura of transience unbelievable and thus destroys it.

The example of Duchamp's Readymades is universally known: these Readymades were convincing in that, although few in number, they evoked the entire world of our everyday modernity that art had overlooked up until that point. Further, Marx's proletariat could specifically become the representative of real humanity, because it had been overlooked by the cultural archives until then. Just as, equally, a few dreams of a few neurotics were described by Freud as being manifestations of the concealed reality of the subconscious. These examples allow themselves to be reproduced easily. And the conclusion must be: the value of a new thing, a new sign, a new picture, a new text in the archive is a function of its worthlessness within profane reality. The more worthless, fleeting and profane a

□ *Languages by Countries*

Afghanistan	Pushtu, Dari Persian, other Turkic and minor languages
Albania	Albanian (Tosk is the official dialect), Greek
Algeria	Arabic (official), French, Berber dialects
Andorra	Catalán (official), French, Spanish
Angola	Bantu, Portuguese (official)
Antigua and Barbuda	English
Argentina	Spanish (official), English, Italian, German, French
Armenia	Armenian
Australia	English
Austria	German 98% (small Slovene, Croatian, and Hungarian-speaking minorities)
Azerbaijan	Azerbaijani Turkic, 82%; Russian, 7%; Armenian, 2%
Bahamas	English
Bahrain	Arabic (official), English, Farsi, Urdu

piece of reality is, the more able it is to represent the general worthlessness of the world within the archive, and the more it is credited with representational value in the archive. The creation of the New carries itself out through a combination of formal dissimilarity and profane worthlessness. Formal dissimilarity allows the selected thing – newly incorporated into the archive – to be differentiated from the previously collected archival wares. And profane worthlessness allows this thing not to be differentiated from the other profane things, through which it is elevated to being the representative of the whole of reality.

Incidentally, the tension that decides this value ratio is not a dialectic one, since it never leads to a synthesis of the absolutely important and absolutely unimportant, and the absolutely immortal and absolutely fleeting. Rather, this tension creates the frame for the cultural economy of the New, which is always evolving. The new thing in the archive is also new because it refreshes and newly confirms the archive's mandate for completeness. For a while the new thing receives – as a result of its worthlessness, its unimportance – the chance to represent within the archive the whole infinite, worthless, profane world. Hence comes the glamour, the charisma, the power of seduction of the New – the glamour of infinity. For a while the new thing seems to make visible the whole infinity of the world within the finite space of the archive. However, the right to such a representation of the infinite must be obtained in a hard fought competition of worthlessness. We know this competition primarily through the history of modern art, where the winner is the one who most radically robs the external importance and relevance of the artwork, thereby granting it the highest representational value. But the same mechanisms of innovation function in all areas of modern culture.

The experience of the infinite occurs, as mentioned, only when external cultural space is represented within the cultural archive. The archives are obviously

Languages by Countries

Bangladesh	Bangla (official), English
Barbados	English
Belarus	Belorussian (White Russian)
Belgium	Dutch (Flemish), 57%; French, 32%; bilingual (Brussels), 10%; German, 0.7%
Belize	English (official), Creole, Spanish, Garifuna, Mayan
Benin	French (official), African languages
Bhutan	Dzongkha (official)
Bolivia	Spanish (official), Quechua, Aymara, Guarani
Bosnia and Herzegovina	The language that used to be known as Serbo-Croatian but is now known as Serbian, Croatian, or Bosnian, depending on the speaker's ethnic and political affiliation. It is written in Latin and Cyrillic
Botswana	English (official), Setswana
Brazil	Portuguese

finite. And the non-cultural space of reality may be large, but not infinite. This fact, furthermore, is often missed, which accounts for the persistence of the proposition that it is enough to break out of the confines of the archives, institutions, high culture, libraries and museums to finally discover the infinite breadth of life. However this 'real life' is precisely the place of the finite, fleeting, mortal and, therefore, of the unimportant and uninteresting. Any brief visit to even the world's worst museums is a thousand times more interesting than all that one gets to see during an entire, lengthy lifetime in so-called reality. One can have the experience of the infinite only within the archive of high culture, such as the one Goethe's Faust famously had in the library, only to lose it later in real life. The effect of infinity is one which is completely artificial, created by the representation of the exterior within the interior. Neither the external nor the internal are infinite as such. Only through the representation of the exterior within the interior may the dream of infinity be created, and it is only this dream which is truly infinite.

Yet this glamour of infinity does not rest upon the new archival thing forever. At some point this thing will show itself to be simply any other important, valuable, though finite, thing. Then the time comes for the new New – for a new proclamation of archival value for representative worthlessness. At this point I would like to break from the description of the mechanism of cultural innovation undertaken in my book *About the New*. The above text is sufficient to clarify for me, as previously mentioned, all that which has disrupted my peace since the book's completion. It is clear that the economy of the New has as a prerequisite, a safe, stable differentiation between the archive of valuable culture and the external cultural realm of the profane. This differentiation must last so that the economy of cultural innovation may continue to develop, which means that this difference can always be undermined, deconstructed and made undifferentiated. The cultural economy requires, as with any other economy, time for its operation. ┘

Languages by Countries

Brunei Darussalam	Malay (official), Chinese, English
Bulgaria	Bulgarian
Burkina Faso	French (official), tribal languages
Burundi	Kirundi and French (official), Swahili
Cambodia	Khmer (official), French, English
Cameroon	French and English (both official); 24 major African language groups
Canada	English, French (both official)
Cape Verde	Portuguese, Criuolo
Central African Republic	French (official), Sangho, Arabic, Hansa, Swahili
Chad	French and Arabic (official), more than 100 tribal languages
Chile	Spanish
China	Chinese, Mandarin, also local dialects
Colombia	Spanish

In the case of the cultural economy, this time is the time of the archive; as long as the archive remains secure and lasting, the task of cultural innovation may also be completed. However, where is the guarantee that the archive will last? Where does the archive's time frame originate? How will the cultural economy be fed with time, so that it may function? In all these questions there exists really only one lone question, and this is of the temporal stability of the archive. How will the archive be carried and secured, and what can guarantee that it will persist over long periods of time? The archive thus, sits constantly under a basic suspicion of insecurity. And this suspicion can only be revoked when one is allowed a peek into the nature of the carrier medium of the archive. The question allows itself to be posed as follows: what carries the archive, and for how long?

This question obviously is in no way unique to the context of my own investigations. As in the case of the New, at first glance, it appears to be a highly current political question. According to general opinion it is ultimately society which carries the cultural archives and decides how long they shall last. The longevity of the archives is made dependent upon the money, the work and the technical know-how that society invests in the maintenance of the archives.

Of course, one could ask: to what extent can a stable society be interpreted as the archive's ultimate carrier? On the one hand, no society, whatever political line it follows, can prevent archival treasures from being destroyed by natural catastrophes or wars. On the other hand, some archival things may outlast the society in which they were produced. In such cases the archaeologist may create the possibility to view these artworks, which have been preserved by nature, not by society. The question regarding the ultimate carrier of the archive is then not as easy to answer as it appeared at first glance, and, thus, the archive's longevity will also be unknown. For Plato the divine archive of eternal ideas was

Languages by Countries

Comoros	French and Arab (both official), Shaafi Islam (Swahili dialect), Malagasu
Congo	French (official), Lingala, Kikongo, others
Congo, D. R.	French (official), Swahili, Lingala, Ishiluba, and Kikongo, others
Costa Rica	Spanish
Côte d'Ivoire	French (official) and African languages (Diaula esp.)
Croatia	What was once known as Serbo-Croatian is now known as Serbian, Croatian, or Bosnian, depending on the speaker's political and ethnic affiliation
Cuba	Spanish
Cyprus	Greek, Turkish (official), English is widely spoken
Czech Republic	Czech; Slovak minority
Denmark	Danish, Faeroese, Greenlandic (an Inuit dialect), small German-speaking minority

indestructible. And, for a Christian, the archive of divine remembrance, in which the memory of deeds and sins of an individual are stored, is also indestructible. Within the Modern there are also constantly emerging lessons that interpret the archive as indestructible. One such example is Freudian psychoanalysis of the subconscious as the medium of an indestructible archive; each forgotten and repressed memory is only engraved deeper and more securely into the subconscious. Language is also described by numerous structuralist theories as being indestructible, since, according to them, language predetermines any activity, including all acts of destruction. The question regarding the longevity of the archive is therefore also one of the carrier medium of the archive. The determination of the archive's longevity depends on whether the carrier medium is God, nature, the subconscious, language or the internet.

The archive's carrier remains fundamentally hidden behind the archive and, thus, inaccessible for immediate inspection. The archive's carrier media are often interpreted as the technical means of data storage, such as paper, film or computer. However, these means are in themselves things within the archive, behind which are placed specific production processes, electrical networks and financial transactions. And what is hidden behind these networks and processes? The answers become increasingly vague: history, nature, substance, reason, craving, the way things are, chance, subject. Behind the signs on the archive's surface one can imagine a darker sub-media space, within which carriers of signs lead declining hierarchies into dark opaque depths. This dark sub-media space creates the archive's 'Other', of course an 'Other' in relation to the profane realm beyond the archive, in which context the economy of the New was discussed.

At first glance the archival carriers of signs are found and topographically seen within the space of the archive, for example as books in a library, canvasses in a picture gallery or video machines and computers in a video installation. However,]

Languages by Countries

Djibouti	Arabic and French (both official), Afar, Somali
Dominica	English (official) and French patois
Dominican Republic	Spanish, English widely spoken
East Timor	Tetum, Portuguese (official), Bahasa Indonesia, English
Ecuador	Spanish (official), Quechua
Egypt	Arabic
El Salvador	Spanish
Equatorial Guinea	Spanish (official), French (2nd official), pidgin English, Fang, Bubi, Creole
Eritrea	Afar, Bilen, Kunama, Nara, Arabic, Totedawi, Saho, Tigre, Tigrinya
Estonia	Estonian (official), Russian, Finnish, English
Ethiopia	Amharic (official), English, Orominga, Tigrigna, over 70 languages spoken

this impression deceives. Books are not part of the archive, but texts are; canvasses are not, but paintings are; video accessories are not, but moving images are. The archival sign carriers do not belong to the archive, as they remain hidden behind the media surface offered to the archive's observers. Or put another way: the carrier of the archive does not belong to the archive, in that it carries the sign of the archive, without itself being a sign of the archive. The archival carrier forms, just as the profane realm does, the exterior of the archive. Therefore, the archive has not one, but two distinct exteriors. The first is the realm of all the profane, not yet archived signs – resolved through the cultural economy of the New, as discussed above. And the second consists of the archival carriers – the complicated hierarchy of archival carriers, which, through various levels, carry the archive's signs.

Between these two external realms of the archive there exists a fundamental difference. The profane realm remains visible – open for the observer – so that life's things may always be compared with the archive's things. On the contrary, the sign carriers remain hidden behind the signs they carry. The archival carrier is fundamentally removed from the observer's view. The observer sees only the media surface of the archive; one can only guess at the media carriers. Because of this, the relationship of the observer to the sub-media carrier space, according to its own character, is a relationship of suspicion – an essentially paranoid relationship.

This results in the observer wishing to know what 'in truth' is concealed behind the media surface – a media-theoretical, ontological, metaphysical wish. This question regarding the media carrier is likely to be a new formulation of the old ontological question regarding the substance – of the essence or the subject that is possibly hidden behind the image of the world. Media theory, as far as it must ask the question regarding the media carrier, is, as such nothing more than

Languages by Countries

Fiji	Fijian, Hindustani, English (official)
Finland	Finnish, Swedish (both official); small Sami- (Lapp) and Russian-speaking minorities
France	French, declining regional dialects (Provençal, Breton, Alsatian, Corsican)
Gabon	French (official), Fang, Myene, Bateke, Bapounou/Eschira, Bandjabi
Gambia, The	Native tongues, English (official)
Georgia	Georgian (official), 71%; Russian, 9%; Armenian, 7%; Azerbaijani, 6%
Germany	German
Ghana	English (official), Native tongues (Brong Ahafo, Twi, Fanti, Ga, Ewe, Dagbani)
Greece	Greek
Grenada	English
Guatemala	Spanish, Indian languages

the continuation of ontology under the condition of a world view. Classic ontology seeks out that which is concealed behind nature's appearance. Media theory seeks out that which is hidden behind media signs, and especially when these signs, including their carriers, are not 'natural' but 'artificial'. Now the question may be asked: what sense is there in inquiring into the artificial sign carriers in such a media-theoretical fashion, when we know just how these carriers are produced, what technical characteristics they have and how they function. One analogous objection can be made, however, when one compares the case of modern science, which has researched nature to such an extent that we know what nature looks like on 'the inside' and therefore the traditional ontological query has finally become unnecessary. Classic ontological, as well as media-theoretical questions, are replaced in this manner by a scientific-technical investigation.

In this scientific argument, however, a mix-up in two different external regions of the archive takes place: the profane realm beyond the archive and the sub-media space behind the surface of the archive. There is ample evidence that artificially produced sign carriers such as books, canvasses, the computer or videotapes exist within profane space, but within sub-media space we can only imagine them. When we see a painting in a picture gallery, we don't see the canvass carrying the painting; in order to see the canvass we must rotate the image, thereby leaving the realm of the archive. Thereafter, when we want to examine how a television or a computer looks and functions on the inside, we must first turn these machines off, thereby deleting the images which they carry. Therefore, neither carrier of media – canvass nor media accessory – are accessible to us. They are only accessible to us precisely when they are not acting as media carriers, but simply as things representing profane exterior reality. Whereby the question is asked once again: by which sign carrier is the machine itself represented and carried. The profane and the sub-media realm are not compatible with one another. We can either observe the signs or the things themselves, or

Languages by Countries

Guinea	French (official), native tongues (Malinké, Susu, Fulani)
Guinea-Bissau	Portuguese Criolo, African languages
Guyana	English (official), Amerindian dialects
Haiti	Creole and French (both official)
Honduras	Spanish (official), English widely spoken in business
Hungary	Magyar (Hungarian), 98.2%; other, 1.8%
Iceland	Icelandic
India	Hindi (official), English (official), Bengali, Gujarati, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Tamil, Telugu, Urdu, Kannada, Assamese, Sanskrit, Sindhi (all recognized by the constitution). Dialects, 1,652
Indonesia	Bahasa Indonesia (official), Dutch, English, and more than 583 languages and dialects
Iran	Farsi (Persian), Azari, Kurdish, Arabic

inquire into their carriers. The simple identification of profane or sub-media space, upon which the scientific-technical viewpoint is based, thus shows itself, in this case, to be impossible.

Sub-media space must therefore remain for us the dark space of suspicion, of conjecture, of apprehension, but also that of compelling revelation and urgent examination. Behind the sign-laden surface of the public archive and the media we do in effect unwaveringly suspect manipulation, conspiracies and intrigues. Thus it becomes clear what type of answer one expects to the media-ontological question; the procurement of this answer has nothing to do with any form of scientific description. More often, as an observer of the media surface, one hopes that the dark, concealed sub-media space will somehow surrender, betray, expose itself. The observer of the media surface awaits a voluntary or forced sincerity of the sub-media space. It deals with another reality of the sign, rather than those resulting from the relationship of the sign to the thing to which it refers. (This is not to do with the reality of the signification, but rather with the reality of the medial.) Each sign signifies something and directs towards something. But, at the same time, each sign also conceals something, and that is not the absence of the signified thing, as conjectured every now and then, but, rather straightforwardly and simply, a piece of the medial surfaces that this sign materially and medially occupies. Thus the sign obstructs the view of the media carrier that carries this sign. The medial truth of the sign shows itself only when this sign is eliminated, removed, and, in this manner, makes a view into the nature of the carrier possible. To experience the media reality of the sign means to eradicate and remove it, as one would wipe away a piece of dirt from the media surface.

The media-ontological query strives towards a clearing, an empty spot, an interval in the sign layer that covers the entire medial surface, to an unmasking, an

Languages by Countries

Iraq	Arabic (official) and Kurdish
Ireland	English, Irish Gaelic
Israel	Hebrew (official), Arabic, English
Italy	Italian; small German-, French-, and Slovene-speaking minorities
Jamaica	English, Jamaican Creole
Japan	Japanese
Jordan	Arabic (official), English
Kazakhstan	Kazak (Qazaq), official language spoken by over 40% of population; Russian, official language spoken by two-thirds of population and used in everyday business
Kenya	English (official), Swahili (national), and several other languages spoken by 25 ethnic groups
Kiribati	English (official), I-Kiribati (Gilbertese)
Korea, North	Korean

unlocking, a deconcealing of the medial surface. Or put another way: as observers of the medial surface we wait for the medium to become message, for the carrier to become sign. Surely one can say, that no such revelation of the hidden, no media-ontological supposition, no act of sincerity on the part of the carrier may forever eradicate the initial suspicion. The sub-medial space as such finds itself originally defined as the space of media-ontological suspicion, which is obviously why this suspicion may never be weakened and disposed of. But that does not mean yet that the wait for the event of sub-medial sincerity must be in vain. The effect of sincerity becomes clear, exactly when the media-ontological suspicion seems to be confirmed, when the observer receives a hint that the sub-medial interior is in fact constituted differently than the media surface. In this case, the observer gets the impression that, finally, an empty spot upon the media surface has been discovered, through which insight into the interior of the sub-medial space is won, and a confirmation of their suppositions and fears has been found. Therefore, the view into the sub-medial space only works credibly when it reflects the initial media-ontological suspicion. (For the suspicion, only its own image seems adequately convincing.) Therefore, the task of media theory consists not in proving that the observer is mistaken once again, as then the form of the suspicion is simply repeated. Neither the media-ontological suspicion itself nor its self-reflection in the sub-medial depths may be confirmed or disproved. More significantly, another question is posed here: why, how and under which conditions does a functional self-reflection of the media-ontological suspicion convince the observer? Or, posed differently: how does the effect of the sincerity, the medial reality, the (self)-unlocking of the medial become engaged?

The strategy of an analysis of this effect can only be briefly mentioned in this essay. It has to do with a search for the signs that give the observer the impression of being authentic messages of the medium, which means messages of suspicion. However, as in the case of the innovations mentioned above, such signs

Languages by Countries

Korea, South	Korean
Kuwait	Arabic (official), English
Kyrgyzstan	Kyrgyz (official); Russian is de facto second language of communication
Laos	Lao (official), French, English
Latvia	Latvian
Lebanon	Arabic (official), French, English
Lesotho	English and Sesotho (official); also Zulu and Xhosa
Liberia	English (official) and tribal dialects
Libya	Arabic, Italian and English widely understood in major cities
Liechtenstein	German (official), Alemmanic dialect
Lithuania	Lithuanian (official), Polish, Russian
Luxembourg	Luxembourgish, French, German

may only act relatively briefly as the empty spots allowing the view into sub-medial space. Soon they will be perceived to be 'habitual' signs once again, that obstruct and impede the view towards the medial. In the case of mediality, we then have the same economy to deal with as in the case of innovation. And even more so; both economies are intertwined in various ways with one another. In both cases this has to do with the creation of the effect of infinity, which actually only lasts for a short period, but then, using another sign, it may once again re-engage itself. However, in the case of mediality, this is not to do with the infinity of the supposed reality beyond the archive, but rather more with the dark, concealed infinity of the archive's carriers. The carrier of the archive denotes itself primarily through the fact that, as mentioned, it guarantees the longevity of the archive's signs. And that means only a glance into the sub-medial space – only a hint of suspicion – can inform the observer as to the longevity of the archive.

The archive is thus ultimately carried by suspicion, and thereby by the same media-ontological suspicion that threatens to undermine this archive. And as the media-ontological suspicion is endless, since it cannot be disempowered, the medium of suspicion opens the archive up to a potentially infinite temporal perspective. Above all, it is Western modernity that is traditionally being described as an era of suspicion, that undermines old values, traditions and certainties, which is why one attempts again and again to protect these old values from suspicion and give them a 'solid foundation'. However, the era of modernity is, not accidentally, also the era of archiving par excellence. When modernity has destroyed all the old foundations, because they all proved themselves to be too finite, too unstable, too fragile, then modernity also gave cultural values a new, much more stable foundation – that of suspicion itself. Suspicion can never be disempowered, eliminated or undermined, since suspicion is fundamental for the viewing of the medial surface. All that which shows itself makes itself automat-

Languages by Countries

Macedonia	Macedonian (official), which uses the Cyrillic alphabet, 70%; Albanian (official), 21%; Turkish, 3%; other, 6%
Madagascar	Malagasy and French (both official)
Malawi	English and Chichewa (both official)
Malaysia	Malay (official), Chinese, Tamil, English
Maldives	Dhivehi (official); Arabic, Hindi, and English are also spoken
Mali	French (official), African languages
Malta	Maltese and English (both official)
Marshall Islands	Both Marshallese and English are official languages. Marshallese is a language in the Malayo-Polynesian family
Mauritania	Arabic (official) and French
Mauritius	English (official), French, Creole, Hindi, Urdu, Hakka, Bojpoori
Mexico	Spanish, Indian languages
Micronesia	English is the official and common language; major indigenous languages

ically suspicious. And suspicion signifies, in that it allows the observer to presume that, behind everything visible, something invisible is concealed, which acts as a medium for that which is visible. Suspicion ruins therefore not only the old foundations, but replaces these with new foundations. Suspicion rewrites old signs onto new media. This is why it is, so to speak, the medium for all other media.

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Languages by Countries

	are Chukese, Pohnpeian, Yapese, and Kosrean
Moldova	Moldovan (official; virtually the same as Romanian), Russian, Gagauz (a Turkish dialect)
Monaco	French (official), English, Italian, Monégasque
Mongolia	Mongolian, 90%; also Turkic, Russian, and Chinese
Morocco	Arabic (official), French, Berber dialects, Spanish
Mozambique	Portuguese (official), Bantu languages
Myanmar	Burmese, minority languages
Namibia	Afrikaans, German, English (official), several indigenous
Nauru	Nauruan (official) and English
Nepal	Nepali (official), Newari, Bhutia, Maithali
The Netherlands	Dutch, Frisian
New Zealand	English (official), Maori
Nicaragua	Spanish

Boris Groys teaches Philosophy and Aesthetics at the Hochschule für Gestaltung in Karlsruhe, Germany. His books include: *Über das Neue* (About the New, 1992), *Die Erfindung Russlands* (The Invention of Russia, 1995, with Ilya Kabakov), *Die Kunst der Installation* (The Art of the Installation, 1996), *Logik der Sammlung* (The Logic of Collecting, 1997) and *Unter Verdacht, Eine Phänomenologie der Medien* (On Suspicion, A Phenomenology of the Media, 2000). This essay is the introduction excerpted from this last publication. Translated from the German by Stephen Kovats.

Languages by Countries

Niger	French (official); Hausa; Songhai; Arabic
Nigeria	English (official), Hausa, Yoruba, Ibo, and more than 200 others
Norway	Two official forms of Norwegian: Bokmål and Nynorsk
Oman	Arabic (official); also English and Indian languages
Pakistan	Punjabi 48%, Sindhi 12%, Siraiki (a Punjabi variant) 10%, Pashtu 8%, Urdu (official) 8%, Balochi 3%, Hindko 2%, Brahui 1%, English, Burushaski, and others
Palau	Palauan, English (official)
Palestinian State	(proposed) Arabic, Hebrew, English, French
Panama	Spanish (official); many bilingual in English
Papua New Guinea	English, Tok Pisin (a Melanesian Creole English), Hiri Motu, and 717 distinct native languages
Paraguay	Spanish (official), Guaraní
Peru	Spanish and Quéchua (both official), Aymara, and other native languages

INFORMATION FLOWS AND INVOLUNTARY MEMORY

Interview with Scott Lash

Scott Lash is Director for the Centre for Cultural Studies and Professor of Sociology at Goldsmiths College, London University. His books include *Sociology of Postmodernism* (1990), *Another Modernity, A Different Rationality* (1999) and *Critique of Information* (2002). He is co-author of *The End of Organized Capitalism* (1987) and *Economies of Signs and Space* (1994) with John Urry, and co-author of *Reflexive Modernization* (1994) with Ulrich Beck and Anthony Giddens. His research interests include information society, global media, continental philosophy, technology and culture, and the problem of 'flows'.

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Languages by Countries

The Philippines	Filipino (based on Tagalog) and English (both official); regional languages: Tagalog, Ilocano, Cebuano, others
Poland	Polish
Portugal	Portuguese
Qatar	Arabic (official); English is also widely spoken
Romania	Romanian (official); Hungarian- and German-speaking minorities
Russia	Russian, others
Rwanda	Kinyarwanda, French, and English (all official)
St. Lucia	English (official) and patois
St. Vincent and the Grenadines	English (official), French patois
Samoa	Samoan and English
San Marino	Italian
São Tomé and	

Arjen Mulder: The three central concepts which I would like to discuss with you are information, matter and memory. How do you see the relationship between these three?

Scott Lash: The matter-memory problem is a really important one. Information becomes material in a certain sense now. I'll talk about that in a second. First I want to go back to some idea of the ground, like in *Another Modernity, A Different Rationality*. I don't necessarily want to use the word 'the ground', but prefer something like it, which is 'involuntary memory'.

AM: Please explain.

SL: I use the term involuntary memory very much in the sense of Walter Benjamin, or Proust, or even of the Freudian unconscious, the Freudian symbolic. Voluntary memory is when you're trying to remember something. It's knowledge and cognition in a sense. Involuntary memory is usually something that you can't quite grasp – you're reaching for it. It is an *à la recherche du temps perdu* kind of thing: in search of lost times, in search of lost images. It's something that develops, that is inscribed in the unconscious, because it is usually unconscious, although it is not necessarily repressed. For Benjamin there is no notion of repression, whereas for Freud there is.

Involuntary memory works not logically, but analogically. It's like dreams, it's a reverie type thing. That is the idea of memory that I want to work with. It does connect to the symbolic *à la Freud* or Lacan or Zizek, but I differ from these authors. I will come back to the issue of matter and memory later – though, in a sense, this is about matter and memory. Remember Bergson's *Matter and Memory*, where he writes in chapter one that matter is a question of perception, which is purely biological, and then with memory you get culture, you get mind, spirit. There surely is a connection between that and what I am trying to say here.

Languages by Countries

Príncipe	Portuguese
Saudi Arabia	Arabic, English widely spoken
Senegal	French (official); Wolof, Serer, other ethnic dialects
Seychelles	English and French (both official), and Seselwa (a creole)
Sierra Leone	English (official), Mende, Temne, Krio
Singapore	Malay, Chinese (Mandarin), Tamil, English (all official)
Slovakia	Slovak (official), Hungarian
Slovenia	Slovenian; most can also speak Serbo-Croatian
Solomon Islands	English, Solomon Pijin (an English pidgin), over 60 indigenous Melanesian languages
Somalia	Somali (official), Arabic, English, Italian
South Africa	Xhosa and Zulu (official), English, Afrikaans, Ndebele, Sesotho sa Leboa, Sesotho, Swati, Xitsonga, Setswana, Tshivenda
Spain	Castilian Spanish 74% (official), Catalan 17%, Galician 7%, Basque 2%

What I am getting at is the opposite of Derrida's archive in his *Archive Fever*, and of Zizek. Derrida's archive is a symbolic, and he says that the symbolic is based on something else, or is constituted by something else, or is exploded now and then by something else, and that's the death-drive for Derrida. The 'fever in the archive' is the death-drive, and the death-drive is the real. It's the real, exploding into the symbolic, where the archive is the symbolic. The same goes for Zizek. For Derrida and Zizek, we live in the symbolic, and every once in a while the real explodes into it.

But I think we live in the real, and every once in a while we recall, or mournfully relate, or melancholically are in a position vis-a-vis the symbolic. I want to see the symbolic as involuntary memory. I don't think I said that in *Another Modernity*, but you can easily see how it follows from that.

AM: Does involuntary memory work with meaning?

SL: It does. For me involuntary memory is the symbolic. Totally. For Zizek and Derrida we live in the symbolic, and the real every once in a while bursts through. But I think we live in the real, and the symbolic has been broken down into fragments largely. It has been forgotten. We live in the real of information and communication flows. That real is an excess of the symbolic, but it has become banalized. It's a real that has become banalized information flows and communication flows. So, it's no longer just excess and invention, as Deleuzians might have it; it's also banal.

AM: Sometimes, suddenly, an involuntary memory or the symbolic pops up in this real, in these flows?

SL: It's like that. I think involuntary memory is our lost childhood. It's like when Bachelard in *The Poetics of Space* talks about these little nooks and crannies of your childhood that are forgotten, but are so incredibly important in forming

Languages by Countries

Sri Lanka	Sinhala (official), Tamil, English
Sudan	Arabic (official), English, tribal dialects
Suriname	Dutch (official), Surinamese (lingua franca), English widely spoken
Swaziland	English and Swazi (official)
Sweden	Swedish
Switzerland	German, French, Italian (all official), Romansch
Syria	Arabic (official), French and English widely understood
Taiwan	Chinese (Mandarin)
Tajikistan	Tajik
Tanzania	Swahili and English (both official), local languages
Thailand	Thai (Siamese), Chinese, English
Togo	French (official), Ewé, Mina (south), Kabyé, Cotocoli (north), and many dialects
Tonga	Tongan (an Austronesian language), English

what you are. It's inscribed in your unconscious, it constitutes your unconscious in a certain way. And we end up living in this – maybe the word isn't melancholic – but there's a lost something about childhood. It comes every Christmas, doesn't it? Whether you want it or not, it happens.

Collective memory is also involuntary memory largely. A lot of times it's forgotten, or it's something we have to reach for. I am not trying to be an old conservative here. It's also dreams, it's also the way that a lot of the surrealists worked. I don't want to push this too far, because basically I'm in the real too, which is, in any event, the medium in which we live. The contemporary *Weltanschauung* is thus very much one of flows, flux, and non-linear systems.

AM: What you are saying is that, once you're in the information flows, or in the real as you call it, information doesn't produce memories or a symbolic?

SL: It can't. Involuntary memory is something that is forgotten and from the past.

AM: But not like one forgets yesterday's newspaper?

SL: No, it's more like you forget the Mother. The forgetting of the newspaper from yesterday would be part of voluntary memory, the kind of memory that has to do with: how can I memorize something? Involuntary memory is something deeper; it's engraved. And it winds up taking the form of certain kinds of dreams. The way that dreams work with displacement, condensation, is the way that involuntary memory works. I'm not sure that it's always inaccessible. For example Benjamin's piece on Proust and his piece on Kafka are about involuntary memory; they are about the past, about Kafka and his father and Proust and *les temps perdus*. (And of course Proust is influenced by Bergson.) Benjamin's view on the city also has involuntary memory in it. Berlin is completely modern, so it doesn't matter for Berlin. But Paris has the ancient and the modern. And that

Languages by Countries

Trinidad and Tobago	English (official), Hindi, French, Spanish
Tunisia	Arabic (official), French
Turkey	Turkish
Turkmenistan	Turkmen, 72%; Russian, 12%; Uzbek, 9%
Tuvalu	Tuvaluan, English
Uganda	English (official), Swahili, Luganda, Ateso, Luo
Ukraine	Ukrainian
United Arab Emirates	Arabic (official), English as a second language
United Kingdom	English, Welsh, Scots Gaelic
United States	English, sizable Spanish-speaking minority
Uruguay	Spanish
Uzbekistan	Uzbek 74.3%, Russian 14.2%, Tajik 4.4%, other 7.1%
Vanuatu	Bislama (a Melanesian pidgin English), English, French (all 3 official)

ancient has to do with dreams and phantasmagoria, and things that are really part of involuntary memory. Some cities are more generic than others. The more generic a city is, the smaller the place of involuntary memory.

AM: In the information society we can make databases with all the information in the world, but when we do that, we exclude involuntary memory?

SL: Exactly. In the information society we tend to think of memory in terms of the irreversibility of systems. Systems, socio-techno systems, or any kind of systems have a path dependency. Take Prigogine and Stengers: their kind of vitalism – and they call it vitalism – breaks with Newtonian mechanism. Of course Prigogine is very Bergsonian. His reading of memory wants to make memory some kind of natural system, as in chemistry. But the same could apply to a socio-technical system, so that memory winds up being the path dependency of self-organizing systems. Memory is indeed, on the one hand, such a path dependency; I'm not saying it's not. But that is not the way we human beings experience it.

I do believe that non-human objects experience one another as images, as Bergson and Deleuze claim. But I don't think that the representations we humans, or even humans working through prosthetic extensions make, are logical representations. A number of contemporary vitalists reduce the idea of representation to a kind of logical representation, to Cartesian representations. Whereas, what I am talking about is a more analogical representation, like in dreams. I think that that kind of thing is lost if we conceive of memory as purely informational. I think it is even largely lost in people like Deleuze. Although I want to work out the problematic of self-organizing systems, of the city as self-organizing organism, as far as I can, still I think a city is more than just that. The city is something that has strata, different levels and things underneath it that can maybe be excavated, maybe get lost, maybe retrieved ...



Languages by Countries

Venezuela	Spanish (official), various indigenous languages in the remote interior
Vietnam	Vietnamese (official), French, English, Khmer, Chinese
Western Sahara	(proposed state) Hassaniya Arabic, Moroccan Arabic
Yemen	Arabic
Yugoslavia	Serbian 95%, Albanian 5%. What was once known as Serbo-Croatian is now known as Serbian, Croatian, or Bosnian, depending on the speaker's political and ethnic affiliation. It is written in Latin and Cyrillic
Zambia	English (official) and local dialects
Zimbabwe	English (official), Ndebele, Shona (85%)

AM: What is the value of involuntary memory in the information society? Is it just one of the stoppages in the information flows? Is it something that pushes the flows in a certain direction? Is it something that lets you fall out of the information and gives you a sort of transcendent experience?

SL: Neither. I think that the stoppages in the information flows tend to be non-linear systems. And although involuntary memory is not linear, it's not conventionally nonlinear either, nor even necessarily a system. The trick here is: how can you make the transition from matter to memory, from some kind of informational matter to the kind of memory I want to talk about? I'm not sure you can.

AM: Information flows and involuntary memory are two parallel worlds?

SL: They might be. I think Deleuze winds up making a bit of a mistake, the way he wants to understand memory. Memory is for Deleuze the virtual. The virtual is memory, the plane of consistency, or the plane of immanence. All those things are the same for Deleuze. Like for example in his cinema books when he writes about the movement-image and the time-image. The virtual is actualized in the shot, the cinematic shot, *le plan*. Hence, the shot is the movement-image, the actualization of the virtual. And it's a good thing, it's not mechanical, it's the proper actualization of the virtual. The time-image on the other hand is the virtual itself. The time-image is memory in the Bergsonian sense. The time-image is life, because Bergson says memory is life. Life for Bergson is always so incredibly cultural, as distinct from natural, from the natural-ness of perception.

The interesting thing with the information society – and this is where Bergson and Deleuze make all the sense in the world – is that previously in the old traditional dualist metaphysics of Descartes, which Bergson takes apart and Deleuze too, you've got matter and movement, which are physical, and then you have images and light, which come from consciousness. Bergson and Deleuze

□ Migration

Inflows

Each country has its own system of measuring migration, based on its own particular requirements. This can make it difficult to achieve strict comparisons across countries.

Some countries use population registers while others have a variety of different sources. There are also varying definitions of what constitutes an international migrant. With those reservations in mind, the tables that follow collect some of the more recently published information.

Inflows of foreign population, thousands, 1990-99 (based on population registers)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Belgium	51	54	55	53	56	53	52	49	51	58
Denmark	15	18	17	15	16	33	25	20	21	..

say, we need to talk about a movement-image, that is, an image that is not just in consciousness, but also physical. Thus the old kind of dualism gets collapsed into a plane that is in between, and that plane-in-between is comprised of matter-images, which are image and matter at the same time. So then in a sense you've got almost: light=matter=image=movement. You get Einstein too, in a sense, because light is not in contraposition to matter.

That's an exciting idea now, because the information society does that, doesn't it? In the manufacturing society it was easy enough to think in terms of base and superstructure, since matter was out there, and the material production formed the base, while images and culture formed the superstructure. But now we have this kind of immanent plane of consistency, this thing that is in between matter and light, and that is comprised of both. We're in a kind of an informational set-up, one which Deleuze characterizes as a primeval soup, which is cool – as in the cooling down of the universe. And when the universe cools down you get objects and bodies. Then the bodies have perceptions of each other, and eventually you get subjects. The movement that counts now is no longer the Newtonian movement of bodies in space, but it's the vibrations, or the excitement, or the communications, or the intensities that are always between objects, and sometimes these objects are human ones. That's where the movement is in the information society.

This is obviously an incredibly exciting position, and I can go along with it to a certain extent. But then memory comes in. And memory is clearly in the interval between reaction and action. So let's see: you're a body now in this cooled-off primeval soup, and you're in this world with other bodies, which are sometimes human and often not human. You are perceiving these bodies in terms of your interests, because you don't have an overall view, and they see you in terms of their interests, even if they are non-human bodies. The kinds of action and reaction, and the kinds of intensities that are coming, have to do with these interests. The interval then is between your reaction to what is coming off these other bodies and your action, which is after the reaction. That interval between

Migration

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Finland	7	12	10	11	8	7	8	8	8	8
Germany	842	921	1208	987	774	788	708	615	606	674
Hungary	37	23	15	16	13	13	13	12	12	15
Japan	224	258	267	235	238	210	225	275	266	282
Luxembourg	9	10	10	9	9	10	9	9	11	12
Netherlands	81	84	83	88	68	67	77	77	82	78
Norway	16	16	17	22	18	17	17	22	27	32
Sweden	53	44	40	55	75	36	29	33	36	35
Switzerland	101	110	112	104	92	88	74	73	75	86
Inflow data based on other sources										
Australia	121	122	107	76	70	87	99	86	77	84
Canada	214	231	253	256	224	213	226	216	174	190

reaction and action is memory, in Bergson. So the longer that interval gets and the more that interval is a question of self-organization, the more it's like memory.

That's where Bergson gets his dualism from. It's the transition from nature to culture, and from matter to memory. Bergson talks about it very much in terms of a human body. He doesn't have a primeval soup, as Deleuze does. And Bergson also talks about dreams. Bergson says he's a dualist, while Deleuze and the Deleuzians are all monists. I find the Bergson position so attractive, because, on the one hand, you've got this wonderful collapse of the matter/image/movement/light stuff, and, on the other hand, there still is space for dreams, for involuntary memory.

AM: But isn't involuntary memory the self-organizing part of the memory?

SL: It is in a way. It is self-organizing, but ...

AM: ... it is also organizing you in a way.

SL: That's what I think it is. And it's surely not consciously. It's definitely unconscious. And it works in analogical representations, and in terms of lost objects, like the Mother, the home. I'm not sure if it can't also work in terms of some kind of future dream. I'm not sure if it has to be as past-oriented as all the people I talked about make it, from Bergson to Freud. Having said all that, how do we make sense of the world? That's a huge question, for artists as well as theorists and ordinary people.

I think we make sense of the world through some sorts of mapping, and through some sorts of mapping on, I suppose, something like Deleuze's plane of consistency or whatever you want to call it. It's a mapping inside the real. It's a mapping in which we are mobile. I don't think it's primarily cognitive mapping at all. Cognitive mapping – Fredric Jameson had the concept in his book on post-

Migration

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
France	102	110	117	99	92	77	76	102	138	104
Greece	..	..	..	..	..	..	..	..	38	..
Ireland	..	..	..	..	13	14	22	24	21	22
Italy	..	..	..	..	..	..	..	..	111	268
New Zealand	27	27	26	29	37	47	59	52	39	36
Portugal	..	..	14	10	6	5	4	3	7	11
UK	..	..	204	190	194	206	216	237	258	277
USA	1,537	1,827	974	904	804	721	916	798	661	647

Source: SOPEMI (2001). Trends in international migration, Paris, OECD.

modernism – came from Kevin Lynch in *The Image of the City*. Kevin Lynch was in the first generation of cybernetics, with Wiener, Weaver and Co. The first generation had very much a 'Oh, I've got a bird's eye view' type of approach, 'and we're going to organize your system!' They were into an equilibrated control/command/communication/intelligence kind of approach. Whereas, the second generation of cybernetics and non-linear systems are more like Maturana and Varela: the mapping is autopoietic, in the world, it's no longer outside of us, and it's not cognitive.

We're doing something like, not cognitive, but tactile mapping. This tactile mapping is not very far away from what Michel De Certeau talks about in *The Practice of Everyday Life*, in terms of walking in the city. I think it's mobile, it can be fast, it can be slow. We're no longer making sense of the world so much in terms of narratives or in terms of logic. I think we're doing it in terms of some kind of mobile mapping. This mobile mapping is also, of course, micro-electronic; we're online all the time. We're doing mobile mapping to make sense of the world in the same way that we're doing it in contemporary cityscapes.

Then the question comes up: where does involuntary memory fit into this? Henri Lefebvre in *The Production of Space* starts with a spider, which I think comes from Roger Caillois, the old friend of Bataille from the Collège de Sociologie. So Lefebvre talks about this insect, a spider who moves in asymmetries and dissymmetries, making sense of space. And there you've got already proto-perception happening and the production of space. So you've got sense-making and production. It doesn't take a long time until we can work that through ourselves into some kind of transition from nature to culture. And then we're also producing space and are involved in this kind of mobile mapping. Making sense out of the world is web weaving, it's a matter of cartography, of tactile mapping.

The question then is: where is involuntary memory and where is the archive? I think that Derrida has got it very wrong. The archive is nowadays much more like a genetic archive, like a micro-electronic archive. That's the way I want

Migration

Outflows

Data on emigration are sparser and even less reliable than those on immigration.

Many countries do not collect this information in any form. A part of the problem is that people do not have much incentive to notify the authorities of their departure. And the emigrants more likely to do are nationals rather than foreign citizens. As a result, published statistics tend to underestimate emigration.

Outflows of foreign population, thousands (based on population registers)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Belgium	27	35	28	31	34	33	32	35	36	36
Denmark	5	5	5	5	5	5	6	7	8	..
Finland	1	1	2	2	2	2	3	2	2	2

to see it. The archive is memory; the archive is the plane of consistency. But, at the same time, it's the real. It's not Derrida's symbolic; Derrida is living in the past. And neither is it ideology à la Zizek. The archive is the real, it's the real as memory. But this kind of memory is not, I think, involuntary memory. It's the virtual.

AM: Basically your critique of Deleuze is that he is right about the information society, but he forgets exactly the part that the information society has forgotten, which is involuntary memory.

SL: Exactly. What is going on with Deleuze, and with a lot of us, is, we're trying to make sense of the virtual. Since the virtual is never directly graspable, we can only get in touch with it through certain kinds of actualizations, whether we're artists, media-artists or coders in IT, or sociologists, or philosophers, or curators or whatever. We make sense of the virtual through this kind of tactile mapping I'm talking about. The only problem is that I don't think that's sufficient, because the virtual that we're trying to make sense of, the archive that we're trying to make sense of, is the informational archive, is the real. Deleuzians all say: 'Don't be melancholic, affirm everything!' But you can't affirm everything. There is stuff that is lost.

AM: Does informationalization then entail radical forgetting, not so much of the flows, but of the part that makes sense of the world, the involuntary memory?

SL: I think that we do make sense of the world in the flows. But I think in Deleuze there's too much forgetting. Deleuzians tend to go with Prigogine and see memory as path dependency of self-organizing systems. So memory winds up being, not just an archive but an information archive. And I don't think that's enough. Yes, you can make sense of the world in the flows, but only in a limited way. There's also something else, and that something else is involuntary

Migration

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Germany	466	498	615	710	622	561	559	637	639	556
Hungary	12	6	6	5	5	5	6	6	6	6
Japan	166	181	205	201	204	194	160	177	188	198
Luxembourg	6	6	6	5	5	5	6	6	7	7
Netherlands	21	21	23	22	23	22	22	22	21	21
Norway	10	8	8	11	10	9	10	10	12	13
Sweden	16	15	13	15	16	15	15	15	14	14
Switzerland	60	66	80	71	64	68	68	63	59	58
Outflows based on other sources:										
Australia	..	..	49	45	43	44	45	47	50	47
New Zealand	12	12	14	12	11	11	13	15	16	16
UK	95	102	94	89	82	74	77	94	88	130

memory. That something else is a very ruptured symbolic with loads of problems, but it should not be totally forgotten, although it's never completely graspable. And even though I do love Daniel Libeskind, I don't think the answer lies in monumentalizing something, be it the Holocaust, as he did in Berlin or whatever. There are a million things in the past that we need to be melancholic about. For me, being born in the United States, that would be for example slavery. If I forget that I'm being ridiculous. It's even not just being irresponsible, there's something missing, there's a screw loose. Because of this I can never have the exact same relations to ethnicity and to black people as English people do that haven't got the same collective memory as Americans. I also wouldn't like to forget my father, who died three years ago. This is about roots, and roots is a past that somehow has to stay with us.

AM: You're talking about identity now, either of the individual or the group that you belong to.

SL: It is about identity, but so is the virtual about identity. The question is: how are we going to do identity. Deleuze's virtual is about the plane of consistency as identity that gets actualized in all sorts of ways. But it's an identity which I do think is too forgetful of the past. It is far too consistent. Maybe we need a plane of *in*consistency. And I think we have that already. I don't think identity should be just archival and just informational and just virtual. Identity has to be all these things. Identity is about dreams, it's about other types of representation. It's about analogic things. It's about lost objects, the past.

AM: So involuntary memory is basically the source of *Das Unbehagen in der Informationskultur*, as in Freud's *Civilization and its Discontents*?

SL: *Das Unbehagen ist die Kultur geworden!* The discontentment has become our culture. We're all living *das unbehagen* in a sense. But the trouble is that the dis-

Migration

Source: SOPEMI (2001). Trends in international migration, Paris, OECD.

Net migration

There may be large flows of migrants but since as many people may leave as arrive, net migration can be quite modest.

Since emigration data are often missing or unreliable it may be better to arrive at net migration from another direction. One option is to monitor changes in overall population size. So the difference between the population at the beginning and end of the year minus the difference between births and deaths can be taken as net migration.

Rates of population change, per thousand population

Source: http://pstalker.com/migration/mg_stats_3.htm

contentment has become much too easy, too banal. It's not only banal, there's lots of invention around. But in the information culture there is also all sorts of boring crap coming down. Obviously this stuff also winds up being part of our involuntary memory. How can it not be? Our dreams are of Madonna and Nike. Well, it's more complex than that. Daniel Libeskind said that there is no opposition between technology and memory, because memory is built into the technology. Maybe there's the answer to our problem. Libeskind works this out in a monumental architecture that is about the sublime and beauty. But I don't think we're in the age of the sublime and of beauty anymore. I don't even know if I want to remember them.

Involuntary memory is not sublime or an interior voice or the voice of emptiness. For me involuntary memory is much more an everyday thing. It's like these little bits of Paris that need excavating in Benjamin. It's like these figures of the pimp and the prostitute, the drug addict, the kiosk, the thrown-away newspaper, the disused novel in the secondhand bookshop – all these things that make our memory of where we've been and what we are. We make sense of the world through a sort of web-weaving in the real – and in archaic times sorcerers were characterized as web-weavers – a web weaving of the information flows. But we should stretch our webs to longer ago, farther away, and also deeper, to the memories of childhood, and the memories in the city and in space. If the archive becomes web, this web should always be reaching out to a sometimes irrecoverable involuntary memory.

Migration

	Natural increase			Net migration			Total increase		
	1980	1999	2000	1980	1999	2000	1980	1999	2000
EU	2.5	0.7	1.0	1.7	2.0	1.8	4.2	2.7	2.8
Belgium	1.1	0.8	1.1	-0.2	1.6	1.2	0.8	2.5	2.3
Denmark	0.3	1.3	1.7	0.1	1.8	1.9	0.4	3.1	3.6
Germany	-1.1	-0.9	-0.9	3.9	2.5	1.3	2.8	1.5	0.4
Greece	6.3	-0.3	-0.2	5.4	2.3	2.3	11.5	2.0	2.1
Spain	7.5	0.2	0.7	3.0	1.0	0.5	10.5	1.2	1.2
France	4.7	3.5	4.1	0.8	0.8	0.9	5.5	4.3	5.0
Ireland	11.9	5.8	6.1	-0.2	5.3	5.3	11.8	11.1	11.4
Italy	1.5	-0.8	-0.3	0.1	2.0	3.1	1.6	1.2	2.8
Luxembourg	0.2	4.1	4.5	3.7	10.9	8.3	3.8	15.0	12.8

THESE PEOPLE, WHERE ARE THEY?

Ryszard Kapuściński

They are supposed to be here – but where are they? Rain is falling and it is cold. The clouds hang low – thick, dark, motionless. As far as the eye can see: swamps, bogs, floodwaters. The single road leading here is also flooded. Our cars, although they are powerful all-terrain vehicles, have become stuck in the mud, buried in the black, viscous goo, and are now standing tilted at the most extraordinary angles, in ruts, puddles, narrow crevices. We have had to climb down and continue on foot, getting drenched in heavy downpours. We pass a high escarpment, from whose summit a flock of peacocks surveys us carefully and anxiously. I notice a man in the grass by the roadside. He is curled up, shriveled, shivering

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Migration

	Natural increase			Net migration			Total increase		
	1980	1999	2000	1980	1999	2000	1980	1999	2000
Netherlands	4.7	3.8	4.1	3.6	2.8	3.3	8.3	6.6	7.5
Austria	-0.2	0.0	0.2	1.2	2.4	2.1	1.0	2.4	2.3
Portugal	6.5	0.8	1.4	4.3	1.0	1.1	10.8	1.8	2.5
Finland	3.9	1.6	1.4	-0.5	0.7	0.5	3.4	2.3	1.9
Sweden	0.6	-0.7	-0.3	1.2	1.5	2.7	1.8	0.8	2.4
UK	1.6	1.1	1.2	-0.6	2.8	2.3	1.0	3.9	3.5

Source: Eurostat (2001). Statistics in focus (3-15/2001), Brussels.

with malaria; he does not extend his hand, does not beg, looks at us with eyes that ask for nothing, that are devoid even of curiosity. In the distance, far away, we spot several ruined barracks. Other than that, it is desolate. And wet, for this is the rainy season.

This place is called Itang. It is located in western Ethiopia, close to the border with Sudan. For several years now a camp has stood here housing 150 000 Nuer – refugees from the Sudanese war. There were still here just a few days ago. But today the place is deserted. Where did they go? What happened to them? The only thing that disturbs the stillness of these swamps, the only thing you hear, is the croaking of the frogs, a frenzied, toadlike uproar, loud, relentless, deafening.

In the summer of 1991 the United Nations high commissioner for refugee affairs, Sadako Ogata, was going to Ethiopia to visit the camp in Itang, and I had been invited to join her. I dropped everything and went. It was a rare opportunity: camps like these are located in remote places, difficult to reach; and, more frequently than not, there is no admittance. Life in them is sheer misery, a sad vegetative existence, perpetually on the brink of death. Yet other than a group of doctors and the employees of various charitable organizations, few people know much about these camps; the world scrupulously isolates such places of collective suffering, preferring not to know.

I always thought that it would be impossible to see Itang. First, you have to get to Addis Ababa. There, you must charter (but from whom?) and pay for (but with what?) an airplane to take you five hundred kilometers to Gambela, the only town near Itang with an airport. Since the town borders Sudan, securing permission to land would be indescribably difficult. But let us assume that you have a plane, and even permission. You arrive in Gambela. What now? Whom should you go see in this poor little town, where a number of Ethiopians stand motionless, barefoot in torrential rain in the empty marketplace? What are they thinking about? What are they waiting for? And where in the world are you

Migration

Stocks

Stocks are the total number of immigrants – the result of years of migrant flows.

Data on stocks usually come from population registers but also from censuses and other sources. European countries tend to keep more data on foreign citizens, while the traditional countries of settlement are more concerned with counting the foreign born.

Europe, foreign citizens, workers, and foreign born

	Foreign citizens as % of population		Foreign workers as % of workforce		Foreign born as a % of population	
	1990	1999	1990	1999	Year	%
Austria	5.9	9.2	7.4	9.5	..	..
Belgium	9.1	8.8	7.1	8.7	..	..

going to find a car in Gambela, or a driver, people to help you pull the car out of the mud, ropes, and shovels? And what about provisions? But let us assume you have all these. How long would it take you to reach your destination? Would one day be enough? How many sentries at roadblocks along the way would you have to chat up, placate, bribe, to be allowed to continue? All this only to arrive at the gates, and have the guard order you to turn back – because an epidemic of cholera or dysentery has just broken out in the camp, or the commander who must give his consent is not present, or there is no one to interpret for you with the Nuer. Or, as is now happening to us, you see no one on the other side of the gate, not a single living soul.

Sudan was the first country in Africa to gain independence after World War II. Prior to that it was a British colony, distinct entities artificially, bureaucratically glued together: the Arab-Muslim North and the black-Christian (and animistic) South. A long-standing antagonism and hatred existed between these two populations, because the northern Arabs for years had invaded the South, captured its inhabitants, and sold them into slavery.

How could these two hostile worlds coexist in one independent nation? They could not – and that is exactly what the British wanted. In those years, the European powers were convinced that they could formally give up their colonies, while continuing de facto to govern them – being needed in Sudan, for example, for continual reconciliation between the Muslims of the North and the Christians and animists of the South. Before long, however, these imperial delusions lay in tatters. As early as 1962, the first North-South civil war erupted in Sudan (already preceded by earlier revolts and insurrections in the South). When I was traveling to the South for the first time in 1960, I needed in addition to a Sudanese visa another special visa, on a separate piece of paper. In Juba, the largest town in the South, a border patrol officer took it from me. 'How can you do that?!' I snorted angrily 'I need it to reach the border with the Congo, which is still two hundred kilometers from here!' The officer pointed at himself and said, ⌋

Migration

	Foreign citizens as % of population		Foreign workers as % of workforce		Foreign born as a % of population	
	1990	1999	1990	1999	Year	%
Denmark	3.1	4.9	2.4	2.5	1999	6.3
Finland	0.5	1.7	..	1.2	2000	2.5
France	6.3	5.6	6.2	6.1	1990	11
Germany	8.4	8.9	7.1	8.7	..	..
Ireland	2.3	3.1	2.6	3.4	2000	6.8
Italy	1.4	2.2	1.3	3.6	..	..
Luxembourg	29.4	36	45.2	57.3	1991	30.2
Netherlands	4.6	4.1	3.1	3.4	2000	9.8
Norway	3.4	4	2.3	2.9	1999	6.5
Portugal	1.1	1.9	1	1.8	1991	4.6

not without a measure of pride: 'I am the border!' Indeed, beyond the town's tollgates unfolded an expanse over which the government in Khartoum exercised no significant control. It remains thus to this day: Juba is protected by an Arab garrison from Khartoum, and the province itself is in the hands of the guerrillas.

The first Sudanese war lasted ten years, until 1972. During the next ten years, a fragile, impermanent peace prevailed, but in 1983, following an attempt by the Muslim government in Khartoum to impose Islamic law, or sharia, on the entire country, a ghastly new chapter of the war began, and continues to the present day. It is the longest and largest war in the history of Africa, and probably the largest in the world right now, but because it is being waged in the most remote backwaters of our planet, and does not directly threaten anyone in, say, Europe or America, it does not arouse much interest. Moreover, the theaters of this war, its vast and tragic killing fields, are for all intents and purposes – both because of the region's inherent impediments to communication and Khartoum's draconian restrictions – inaccessible to the media. The majority of people in the world have not the slightest idea that a great war is being fought in Sudan.

It is being fought on many fronts, and also on many levels, and today the conflict between the North and the South is not even paramount. In fact, that old divide can confuse and distort the true picture. Let us begin in the north of this immense country of 2.5 million square kilometers. The North consists in large measure of the Sahara and the Sahel, which we associate with a boundlessness of sand and weathered rocky rubble. Northern Sudan is sand and rocks, but it is not only that. As one flies over this part of Africa from Addis Ababa to Europe, an extraordinary view presents itself below: passing through the golden-yellow surface of the Sahara, which stretches as far as the eye can see, is a great, shockingly green band of fields and plantations – the shores of the Nile, which flows here in wide, gentle semicircles. The border between the deep ocher of the Sahara and the emerald of these fields is as sharp as if it had been carved with a knife: there are no intermediate shades here, no gradations. Immediately

Migration

	Foreign citizens as % of population		Foreign workers as % of workforce		Foreign born as a % of population	
	1990	1999	1990	1999	Year	%
Spain	0.7	2	0.6	1	1991	2.2
Sweden	5.6	5.5	5.4	4.1	2000	11.1
Switzerland	16.3	19.2	18.9	18.1	1990	21.3
UK	3.2	3.8	3.3	3.9	1999	7.5

Source: Stalker, P. (2002). *Migration Trends and Migration Policy in Europe*, Centre for Development Research, Copenhagen.

beyond the last little shoots of a plantation begin the first small clods of the desert.

Once upon a time, these riverine fields supported millions of Arab fellaheen, as well as nomadic peoples who now and then stopped here. With time, however, and especially since the middle of the twentieth century and independence, the fellaheen started to be ousted by their wealthy kinsmen from Khartoum, who, together with the generals, and with the help of the army and the police, gained possession of these fertile lands along the Nile, creating on them gigantic plantations of export crops – cotton, rubber, sesame. Thus came into being a powerful class of Arab landowners, which in alliance with the generals and the bureaucratic elite seized power in 1956 and holds it to this day, waging a war against the 'Negro' South, which it treats like a colony and simultaneously oppressing its fellow ethnic countrymen, the Arabs from the North.

Dispossessed, dislodged, deprived of land and cattle, the Sudanese Arabs must find someplace to go, something to do, a means of livelihood. The Khartoum oligarchy folds some of them into its ever larger army, others into the ranks of its vast police and bureaucracy. But the rest? That multitude of the landless and uprooted? These the regime will try to direct toward the South.

The inhabitants of the North number around twenty million, those of the South around six. The latter are composed of dozens of tribes, speaking a host of languages, adhering to various religions and cults. In this multitribal ocean of the South, two groups nevertheless stand out; together they make up half the population of this part of the country. They are related (although sometimes also mutually embattled) peoples: the Dinka and the Nuer. You can mistake each for the other at a distance: they are both tall, (around the two-meter mark), slender, with very dark skin. A beautiful, well-built, dignified, and even somewhat haughty race. Anthropologists have long wondered how they came to be so tall and thin. They subsist almost exclusively on milk, sometimes supplemented by the blood of their cows, which they raise, worship, and love. Killing cattle is for-

Migration

Countries of settlement, foreign born as a % of total population

	1990/91	1996	1999
Australia	22.8	23.3	23.6
Canada	16.1	17.4	..
United States	7.9	9.3	10.3

Source: SOPEMI (2001). *Trends in International Migration*, Paris, OECD

The money that migrants send home is very important not only to their families but also to their country's balance of payments.

For many countries remittances represent a significant proportion of their Gross Domestic Product (GDP) as well as of foreign exchange earnings. The following table is derived from IMF statistics.

bidden, and women cannot touch them. The Dinka and the Nuer have subordinated their lives to the needs and requirements of their animals. They spend the dry season with them near the rivers – most importantly, the Nile, the Ghazal, and the Sobat – and in the rainy season, when grass turns the distant plateau green, they leave the rivers and head upcountry with their cattle. The lives of the Dinka and the Nuer pass in this immemorial rhythm, this pendulum-like, almost ritualistic wandering between the riverbanks and the pastures on the plateau of the Upper Nile. To exist, they must have space, land without boundaries, a wide, open horizon. Hemmed in, they sicken, turn into skeletons, wane, die.

I do not know how exactly the war began, it was so long ago. Did soldiers from the government forces steal a cow from the Dinka? Did the Dinka set out to retrieve it? Did shooting break out? Were there casualties? It must have happened something like that. Of course, the cow was just a pretext. The Arab lords in Khartoum could not tolerate the shepherds from the South having the same rights as they did. The people from the South could not accept as their rulers, in an independent Sudan, the sons of slave traders. The South demanded secession, their own state. The North decided to destroy the rebels. Massacres began. The war is said to have claimed a million lives by now. For the first ten years, a spontaneous, poorly organized guerrilla movement, Anya-Nya, operated in the South. Later, in 1983, a Dinka career colonel, John Garang, organized the Sudanese People's Liberation Army (SPLA), which now controls most of the region.

The war flares up, dies down, then explodes again. Although it has gone on so many years, I have heard of no one trying to write its history. In Europe, there are shelves of books dedicated to every war, archives full of documents, special rooms in museums. Nothing of the kind exists in Africa. Here, even the longest and greatest war is quickly forgotten, falls into oblivion. Its traces vanish by the day after: the dead must be buried immediately, new huts erected on the site of burned ones.

Documents? There never were any. There are no written orders, no ord-

Migration

Top 20 developing country receivers of remittances, 1999

Rank	Country	\$ millions	% of GDP
1	India	11,097	2.6 t
2	Philippines	7,016	8.9
3	Mexico	6,649	1.7
4	Turkey	4,529	2.3
5	Egypt	3,196	4.0
6	Morocco	1,918	5.5
7	Bangladesh	1,803	4.1
8	Pakistan	1,707	2.7
9	Dominican Rep	1,613	11
10	Thailand	1,460	1.1

Rank	Country	\$ millions	% of GDP
11	Jordan	1,460	21.2
12	El Salvador	1,379	12.3
13	Nigeria	1,292	3.5
14	Yemen	1,202	24.5
15	Brazil	1,192	0.2
16	Indonesia	1,109	0.8
17	Ecuador	1,084	5.8
18	Sri Lanka	1,056	6.9
19	Tunisia	761	4.0
20	Peru	712	1.2

Source: IMF *Balance of Payments Statistics* (2001) and *World Bank World Development Report* (2000).

nance maps, cryptographs, leaflets, proclamations, newspapers, letters. The custom of writing memoirs and diaries does not exist (most frequently, there is simply no paper). There is no tradition of writing histories. Most important – who would do this? There are no collectors of memorabilia, curators, archivists, historians, archaeologists. It is actually just as well there are no such people nosing about the battlefields. They would be quickly spotted by the police, imprisoned, and, suspected of spying, shot. History in these parts appears suddenly, descends like a *deus ex machina*, reaps its bloody harvest, seizes its prey, and disappears. What exactly is it? Why has it chosen us to cast its evil eye upon? It is better not to think about it. Better not to pry.

Getting back to the Sudan. The war, which began with lofty-sounding slogans, the drama of a young state (the North: we must maintain the country's unity; the South: we are fighting for independence), with time degenerates into a war waged by various military castes against their own nation, a war of the armed against the defenseless. For all this is occurring in a poor country, a country of hungry people, where someone reaching for a weapon, for a machete or a machine gun, is doing so first and foremost in order to grab some food, to get something to eat. It is a war over a handful of corn, a bowl of rice. All thefts are easier here, in this country of enormous distances and roadless expanses, of poor communication and transportation, of a small and scattered population – conditions under which robbery, pillage, and banditry go unpunished, if only for lack of any sort of control or supervision.

There are three types of armed forces conducting this war. There is the government army – an instrument of the Khartoum elite – commanded by the president, General Omar Hassan al-Bashir. Cooperating with the army are numerous official and secret police units, Muslim brotherhoods, the private regiments of large landowners.

Opposed to this ruling force are the guerrillas of John Garang's SPLA, as well as various units in the South that have broken away from the SPLA.

□ *Annual Book Title Production*

YEARS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	4.915	6.092	7.365	10.452	12.140	9.511	9.913	11.919	13.156	13.149	.
Australia°	6.676	7.991	9.742	8.831	13.741	.	6.841	.	6.935	.	.
Austria*	10.378	10.405	3.628	4.527	6.681	7.153	4.574	7.291	7.487	6.487	.
Belgium	8.420	9.319	9.654	9.994	9.751	9.835	.	.	.	9.816***	.
Brazil	13.684	13.893	28.450	33.508	38.253	40.503	41.455	51.460	49.746	43.697	45.111
Bulgaria	.	.	.	.	5.925	5.400	4.440	4.790	4.950	.	.
Canada	14.231	14.749	14.787	16.475	.	.	18.573	.	.	.	.
Chile	2.843	2.656	.	.	4.971	1.906	4.975	2.093	.	.	.
Colombia	.	2.139	2.420	5.812	6.940	4.686	4.514	6.447	6.351	.	.
Czech Rep.	.	.	.	.	.	8.994	10.244	11.519	11.738	.	11.965
Denmark	11.082	11.744	11.761	11.492	11.973	12.478	14.184	13.450	13.175	14.455	.
Ecuador	.	.	.	.	.	.	1.001	.	.	1.026	.
Egypt	.	.	.	.	.	.	.	.	.	.	18.000
Estonia	.	.	.	.	2.291	2.635	.	3.317	.	.	.
Finland	5.647	5.669	5.265	5.058	5.712	6.344	6.690	6.652	6.826	7.000	.
France	38.414	39.492	38.616	40.916	41.560	42.997	46.306	47.214	50.937	49.808	.

The third and final category of armed combatants are the countless so-called militias: paramilitary groups of young people (often children) of tribal origins, commanded by various local or clan chieftains, who, depending on the situation and the benefit therein, will cooperate with either the army or the SPLA (African militias are a product of recent years, an anarchistic, aggressive, and expanding force, which destabilizes states, armies, organized guerrilla groups, and political movements).

Who are all these armies, divisions, legions, posses, and corps – so numerous and so long embattled – arrayed against? Sometimes, it is each other. But most frequently it is their own nation they are fighting, in other words, the defenseless – which means, in particular, women and children. But why are they against women and children? Could it be that these armed men are governed by some kind of a biological antifeminism? Of course not. They attack and rob groups of women and children because women and children are the targets of international aid: it is they for whom the sacks of flour and rice are intended, the boxes of biscuits and powdered milk, things of no consequence in Europe, but here, between the sixth and twelfth degrees of latitude, priceless. One doesn't always actually have to dispossess the women of these treasures. It suffices simply to surround the delivery plane as it lands, confiscate the sacks and boxes, and carry or drive them over to one's regiment.

For years now the regime in Khartoum has availed itself of the weapon of hunger to defeat the South's inhabitants. It is doing today with the Dinka and the Nuer what Stalin did with the Ukrainians in 1932: it is starving them to death.

People are not hungry because there is no food in the world. There is plenty of it; there is a surplus, in fact. But between those who want to eat and the bursting warehouses stands a tall obstacle indeed: politics. Khartoum restricts the number of flights bringing supplies for the hungry. Many of the planes that reach their destination are robbed by the local chieftains. Whoever has weapons, has food. Whoever has food, has power. We are here among peo-

Annual Book Title Production

YEARS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Germany	61.015	67.890	67.277	67.206	70.643	74.174	71.515	77.889	78.042	80.779	.
Greece	2.870	3.400	.	.	4.500	.	.	5.364	5.914	.	.
Hungary	7.464	7.210	7.629	8.458	9.383	8.749	8.835	8.941	10.626	9.731	8.986
Iceland	.	.	1.670	1.328	1.513	.	1.692	1.695	.	.	.
India	55.000	53.394	52.508	55.562	58.342	54.251	55.426	57.386	.	.	.
Indonesia	.	.	.	.	.	.	.	5.000	.	.	.
Ireland	.	.	.	.	6.540	.	.	7.375	.	.	8.325
Israel	.	.	.	2.725	.	.	.	.	.	.	.
Italy	37.780	40.142	42.007	43.757	46.676	49.080	51.134	45.844	.	52.262	.
Japan°	40.576	42.345	45.595	48.053	53.890	52.528	63.054	65.438	65.513	.	.
Kenya	.	.	.	.	.	.	120	.	.	.	.
Korea S°	21.000	22.769	24.783	26.304	29.564	27.407	26.664	27.313	.	36.425	.
Latvia	1.564	1.387	1.509	1.614	1.677	1.968	1.965	2.320	2.596	2.652	.
Lithuania	2.499	2.482	2.361	2.224	2.885	3.164	3.642	3.827	.	.	.
Luxembourg	372	334	417	420	400	218	.	.	.	878	.
Macedonia	.	.	.	.	.	.	1.000	.	.	.	.

ple who do not contemplate transcendence and the existence of the soul, the meaning of life and the nature of being. We are in a world in which man, crawling on the earth, tries to dig a few grains of wheat out of the mud, just to survive another day.

Itang:

We walked over to where some barracks stood. This must have been the hospital, now ravaged, ruined. But by whom? The beds are turned over, the tables broken, the cabinets thrown open. The new X-ray machine smashed with rocks, twisted, its levers torn off, its control panel, with its dials and clocks, crushed. It must have been the only X-ray machine within a five-hundred-kilometer radius. Now someone has turned it into useless scrap metal. But who? And why? Next to it lies an electrical generator, also battered, broken. The only technological objects (besides, of course, weapons) for endless miles in every direction, now rendered useless, turned into junk.

We walked from there along a causeway to the only dry area. Stagnant water on both sides, the smell of rot, raging mosquitoes. Marshes and more marshes, and among them a few shanties, most of them empty, but some with people sitting or lying in them. In the water, then? Yes, in the water – I saw it with my own eyes. In the end, a hundred, two hundred people were assembled for us. Someone ordered them to stand in a half circle. They did so silently, motionless. Where have the others gone, those one hundred fifty thousand? Where did they all set off to one night? Into Sudan. Why? The leaders ordered it. The residents of the camp are people who have been hungry for years, no longer able to comprehend, disoriented, without will. It is good that someone still orders them to do something, that he realizes that they exist, wants something from them. Why did they not leave with the others? It is impossible to ascertain. Do they want something? No, nothing. As long as they continue to receive aid, they will live. If aid does not come, they will die. Yesterday they received aid. And the day before yesterday. So it really isn't so bad; there is nothing to ask for.]

Annual Book Title Production

YEARS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Malaisia	.	.	3.320	1.186	3.960	4.455	3.770	.	5.816	.	.
Mexico	.	.	.	16.055	12.469	11.917	11.570	15.505	.	.	.
Morocco	.	.	.	.	.	.	.	.	1.859	.	.
Netherlands	13.691	12.509	15.997	16.610	18.001	18.123	17.544	17.235	.	17.235	.
New Zealand	.	.	.	.	.	.	.	5.036	.	.	4.800
Norway	4.376	4.526	4.711	4.864	5.157	5.219	4.781	5.022	5.032	6.991	.
Peru	.	.	.	.	.	2.646	2.056	3.478	.	.	.
Philippines	.	.	3.320	1.186	3.960	4.455	3.770	5.093	.	.	.
Poland	.	10.991	11.064	10.071	11.194	.	14.234	15.996	16.462	.	.
Portugal	6.150	6.430	6.462	6.341	6.523	6.933	.	8.331	9.196	.	.
Russia	.	.	28.716	29.017	29.017	33.623	36.237	45.026	46.156	.	.
Singapore	.	.	.	.	.	3.000	.	.	.	.	.
Slovenia	.	.	.	.	.	.	3.441	3.647	3.722	.	.
South Africa	7.300	7.200	7.800	7.900	7.800	9.000	.	5.592	.	.	.
Spain	42.207	43.896	50.644	49.328	51.048	51.934	50.159	54.943	60.426	.	.
Sweden	12.034	11.866	12.937	11.191	12.114	12.700	13.496	13.210	12.547	3.683**	.

An older man gives them the signal to disperse. I ask if I might be allowed to take a photograph. Of course I am allowed. Here, everything is allowed. □

Ryszard Kapuściński is a Polish author, and has written books such as the *Shah of Shahs* and *The Emperor*. Kapuściński studied Polish history at Warsaw University, and subsequently was employed as a domestic reporter and a foreign correspondent for the Polish Press Agency. While working for the Polish Press Agency, he gained critical and popular praise for his coverage of civil wars, revolutions and social conditions in the Third World. This text is a chapter from his book *The Shadow of the Sun: My African Life*, published in 2001 by Alan Lane The Penguin Press. Translated from the Polish by Klara Glowczewska.

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Annual Book Title Production

YEARS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Switzerland	9.781	10.438	10.274	10.602	10.495	10.790	10.896	12.435	9.924	13.694	.
Thailand	.	.	.	.	.	.	.	8.000	12.000	.	.
U.K.	63.756	67.704	77.726	82.322	89.738	95.064	102.102	100.029	102.925	110.155	.
Uruguay	2.026	1.607	.	.	.	.	.	.	.	.	.
U.S.A.	46.743	48.146	49.276	42.217	51.863	62.039	58.465	64.711	.	.	.
Venezuela	.	.	.	.	.	2.504	.	.	.	.	.
Yugoslavia	9.797	5.485
Zimbabwe	.	.	158	123

* Austria: after 1992 academic duplicates not included

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INFORMATION IS ALIVE

The atomization of the archive in the database has made the whole Art of Memory into a technological, interactive art that suddenly becomes a highly urgent topic. First, for all those institutions that feel the need to 'open their archives', second for all those who describe and study modes of being, third for all those who design and use new archives, be it books, websites, cities or other forms.

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