

The Body as Interface

Dialogues
between
the Disciplines

Edited by
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Universitätsverlag
WINTER
Heidelberg

Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation
in der Deutschen Nationalbibliografie;
detaillierte bibliografische Daten sind im Internet
über <http://dnb.d-nb.de> abrufbar.

Druck mit freundlicher Unterstützung
der Philosophischen Fakultät der Universität Bonn.

UMSCHLAGABBILDUNG
Claudia Rogge, 2003



ISBN 978-3-8253-5391-9

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© 2007 Universitätsverlag Winter GmbH Heidelberg
Imprimé en Allemagne · Printed in Germany
Druck: Memminger MedienCentrum, 87700 Memmingen
Gedruckt auf umweltfreundlichem, chlorfrei gebleichtem
und alterungsbeständigem Papier

Den Verlag erreichen Sie im Internet unter:
www.winter-verlag-hd.de

Acknowledgments

Far-reaching in its transdisciplinary approach and long in the making, the book *The Body as Interface: Dialogues between the Disciplines* is the result of an intense and ongoing collaborative effort. Based on a conference that took place at the Rheinische Friedrich-Wilhelms-Universität Bonn from 24 to 26 June 2003, the present collection of essays has aimed to extend and to materialize exchanges between seemingly disconnected disciplines, exchanges that gained decisive impulses at the Bonn conference. Our gratitude therefore belongs to all contributors to this volume who shared with enthusiasm and patience our claim that the body as a major interface of cultural, social, and scientific practice requires the attention of scholars from a broad spectrum of disciplines.

For generous financial support of the conference we thank both the Deutsche Forschungsgemeinschaft and Ursula Mättig, *Gleichstellungsbeauftragte* of the University of Bonn, who made possible many projects on gender matters launched by the North American Studies Program in recent years. This book would not have seen the light of day without her backing and without the sponsorship provided by the *Philosophische Fakultät* of our university. We would like to extend our heartfelt thanks to Edmunda Ferreira for her whirlwind management of so many matters related to this project and for making the impossible possible, again and again. In addition, our work has heavily relied on the competence and skills of our student assistants, among them Daniel Holder, Rebecca Knechten, Evita Wagner, Christian Klöckner, and Ottilie Schmauss. As young colleagues rather than assistants, Theresa Huber and Sophia Komor generously invested their time, competence, and creative energy in the editing process, an endeavor that was proficiently endorsed by Simone Knewitz. For additional proof-reading we thank Katrin Amian, Michael Butter, and Patrick Stärke. Finally, our gratitude belongs to Alfred Hornung for his passion for and encouragement of transdisciplinary work in the field of North American Studies.

Sabine Sielke and Elisabeth Schäfer-Wünsche

3-9639/2007

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BRIGITTE WEINGART

Latent Agents: Visualizing HIV

Viruses are consummate border-crossers. This obviously holds true for their circulation as real objects, which reminds us that the body is to be considered an 'interface,' indeed. But it also applies to the widespread use of the notion of the virus as metaphor – most importantly, as will be shown, for invisible border crossing. Sprawling across disciplines and discourses, the term itself seems to be infectious.

While my 'diagnosis' is primarily based on images of HIV (Human Immunodeficiency Virus), the argument of this essay holds true for the cultural imagery of the virus in general. Focusing on imaginary and symbolic effects of the discourse on viruses in general and HIV in particular, I do not mean to suggest, though, that these effects have no reality.¹ Rather I argue that images and 'collective symbols' (in a sense of the term to be specified) play an important role in structuring our access to so-called reality. What I hope to demonstrate is firstly that – particularly since the emergence of AIDS – the term of the virus figures as a collective symbol and secondly that this phenomenon is of diagnostic value for contemporary body politics. In this context I will mainly focus on the notion of latency. Deriving from the Latin term *latens*, meaning 'secret,' 'hidden,'² latency refers to the invisible activity of a potentially pathogenic agent that is hidden from the self-perception of the subject – as well as from others – except when medical or biochemical procedures of visualization are applied.

The notion of latency blurs the boundary between health and illness. HIV's long phase of incubation drew attention to the fact that infection does not necessarily imply subjectively feeling or considering oneself ill

¹ This claim is based on research starting soon after the beginning of the AIDS crisis in the early 1980s and on the ensuing and ongoing debate. Anglo-American cultural studies in particular, often closely linked to AIDS activism and issues of counter-representation, contributed to establishing the fact that the reality of (living with) AIDS is shaped through its representations. For research that also deals with visual material, cf. Crimp; Kruger; and Treichler. For an analysis of the German AIDS debate see Düttmann; Pulver; and my study *Ansteckende Wörter*. For an extended version of my reflections on the visualization of viruses and popular culture, cf. Weingart, "Viren visualisieren."

² Janssen, Brune, and Schönplüg provide an overview of the concept of latency in philosophy as well as in the histories of medicine and psychology.

– an aspect which becomes even more obvious once we consider so-called long term survivors. The invisible activity of the pathogenic agent identified as HIV can be verified by blood tests, yet it is not revealed by the body as long as the latter is free of symptoms. This aspect of latency is, of course, problematic, since the infected person is already infectious. Under these conditions, the fundamental inscrutability of the other, although a general epistemic problem in social contact, becomes a question of potential infection. This scenario unavoidably generates a chain of paradoxes,³ which, given the high stakes, cannot be easily overcome by confidence, the usual way out of such intersubjective difficulties.

Strategies leading out of this dilemma can be described both on a subjective and on a collective level by referring to a distinction between *danger*, as a feature located in the other, and *risk*, which is based on an individual's own decision.⁴ At the beginning of the AIDS crisis in the early and mid-eighties the German debate focused on the *danger* lurking in the body of the other, and the invisibility of this danger inevitably led to discrimination. However, the official political discourse eventually shifted from *danger* to individual *risk*-management, emphasizing that everybody can choose to avoid AIDS. This became the main message of safer sex campaigns, addressing people as subjects responsible for their own health. As strategies for avoiding the spread of infection in single bodies as well as in the collective body, both danger localization and risk-management needed to take into account the concept of latency – the former more so than the latter. The combination of invisibility and potential omnipresence helped to establish the virus as the powerful trope it is today, or, to put it more precisely: as a collective symbol.

Collective Symbols and Thought Styles

The concept of the 'collective symbol' was introduced by German discourse analyst Jürgen Link. As a result of the division of labor and the differentiation of knowledge into isolated areas of expertise, modern societies are in need of popular concepts, metaphors, and images that provide a repertoire for communication beyond specialization.⁵ Labeling

³ This has been shown in detail and based upon empirical research by Hahn.

⁴ Cf. Luhmann for an elaboration of this distinction.

⁵ Cf. Becker, Gerhard, and Link. One might find Link's use of the term symbol rather unorthodox: A symbol is usually characterized by its somewhat fixed meaning and its quality of being a symbol for something, while Link's approach allows for a more functional description of a term's figurative uses. The focus on the circulation – as opposed to the meaning – of signs is more often associated with metaphor and metonymy. As it allows for a precise description of the processes of transmission between discourses and the social function of a concept, I prefer Link's term despite the misleading connotations of 'symbol.'

the notion of the virus a 'collective symbol' emphasizes that the term has overcome the boundaries of its own domain and enables communication and exchange between different discourses. For centuries, 'virus' (Latin for 'poison,' 'sap,' or 'slime') referred to infectious matter in a somewhat unspecific sense. The modern concept of the virus was only developed in the middle of the twentieth century by molecular biology.⁶ From the late 1950s on, when virological research was able to pin down the specific qualities of the virus and its genetic features which differentiated it from other infectious agents, both the term and the imagery entered the field of popular culture: the modern semantics of the virus enabled it to function as a collective symbol.

From its origins in biology and medicine the virus not only spread into general everyday discourse, but literally infected other specialized discourses such as information technology where it has circulated ever since. So the changing concepts of the virus are injected into general discourse from the specialized discourse of what is now named life sciences. However, as science studies have demonstrated, this discourse is itself shaped by cultural assumptions.⁷ Yet this permeability – the infection of so-called hard sciences through culture and vice versa – does not mean that the different fields just coalesce.

Two of the most obvious intersections of hard sciences and general or everyday knowledge are popular science and journalism. Since both mediate between specialized disciplines and discourses they have to use collective symbols as well as their iconic equivalents – which could be called 'collective images.' This includes the design of visual material which is meant to directly address a so-called general public, such as infographics. Another example of this mediation is the use of scientific images, e. g. microscopic pictures or models which have to be re-addressed to the non-specialist – a process usually involving the addition of captions.

A few examples of popular science discourse and its use of metaphor may illustrate these practices: unperceived invasion, latent presence, subversion of the host organism, and mutation – these are some of the dubious characteristics attributed to viruses. They are part of the reason why, in the jargon of popular science, the virus is named "invisible killer" ("unsichtbare Killer," as in the title of Willen's book), "invisible invader" ("unsichtbarer Eindringling," Willen 30), "invisible enemy" ("unsichtbarer Feind," 43), "aggressor with a cloak of invisibility" ("Angreifer mit Tarnkappe," 10), "sophisticated survival artist" ("raffinierter Überlebenskünstler," 17), "master of metamorphosis" ("Meister der Ver-

⁶ Cf. Helvoort, who considers the modern conception of the virus the actual (re-)birth' of the virus.

⁷ Cf. Latour and Woolgar; Knorr-Cetina, among others.

wandlung," 39), or "insidious microbe" ("niederträchtige Mikrobe," 125).⁸ Thanks to these attributions, the virus is not just an object of research, but also of fascination. This is partly due to the fact that in comparison to other – I am tempted to say, more ordinary – microbes, viruses seem to have brains. Or to put it more aptly: the apparent intentionality of viral activities is wrongly interpreted as a form of intelligence. The purely functional construction of the virus, which basically consists of genetic material and protein envelope, evokes the analogy to the similarly functional design of military high-tech equipment. In addition, the "elaborate strategies" of the virus ("ausgefähte Strategien," Willen 10) are usually described using the terminology of genetics. Since virology and genetic research found their common language in the 1950s this style of representation is unsurprising. At the same time it conforms to a fashionable trend at a time when genetic research is established as a master discourse.⁹ The metaphors of writing and information technology (de-/recoding, transcription, etc.) make viruses appear to be clever little bio machines – an image that is reinforced by the apparent agency of computer viruses.

Due to this ascribed sophistication popular representations of viruses favor not only military metaphors, but particularly those figures of speech which stress the asymmetry of the battle – a battle that the weaker party (the 'teeny-weenie little virus') seems to engage in with strategic skills, tricks, and savvy. The virus appears to be an agent of subversion: a guerrilla fighter, pirate, spy, "secret ruler" ("heimliche[r] Herrscher," as in the title of Winnacker's book on viruses), or: a terrorist. Latency perceived as secrecy is at the center of this imagery.

Because of its size the virus used to be the 'big unknown' among the microbes, as it was too small to be identified with a light microscope. By the time viruses could be made visible, war imagery was by no means new to microbiology. Already in the 1930s historian of science and serologist Ludwik Fleck, taking the example of syphilis research, acknowledged the importance of 'thought styles' ("Denkstile") for the production of scientific facts. This became particularly evident in the images of warfare, widespread in what he called "Immunitätswissenschaft," the science of immunity.¹⁰ And as Donna Haraway, among others, has shown with reference to biomedical discourse on the immune system and its notorious macrophages and killer and helper cells, the

⁸ All translations mine. For a timely and clear-sighted account of narratives representing infection as invasion and the virus as particularly sly enemy in the discourse on HIV cf. the by now classical study of Sontag.

⁹ Cf. Kay.

¹⁰ Fleck traces this "thought style" back to "the myth of disease-causing demons that attack man. Such evil spirits became the causative agent; and the idea of ensuing conflict, culminating in a victory construed as the defeat of that 'cause' of disease, is still taught today" (Fleck 59-60).

'thought style' diagnosed by Fleck is by and large still intact.¹¹ As the body's defense headquarters, the immune system provides an efficient model for the distinction between self and non-self, and for related oppositional tropes: healthy/ill, familiar/uncanny, natural/unnatural. It is therefore no surprise that popular science follows 'hard science' in its use of military imagery.

Text/Image Relations

An ambitious visualization of the immune system in Michael G. Koch's book *AIDS – Vom Molekül zur Pandemie* (1987) illustrates both how the immune system is conceived as a site of warfare and how text and image interact to visualize this invisible war inside the body (fig. 1):

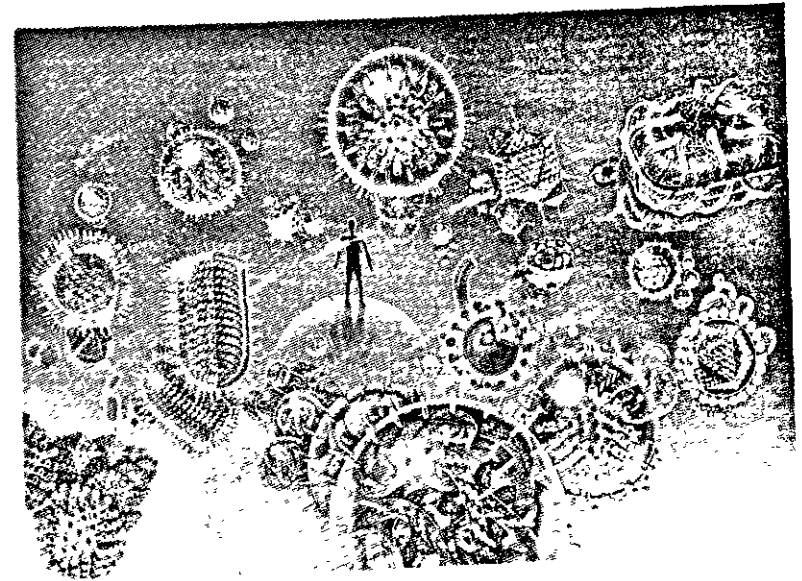


Fig. 1. "Immune System" (Koch 223)

¹¹ The immune system, as Haraway puts it, figures as "an elaborate icon for principal systems of symbolic and material 'difference' [...] [T]he immune system is a plan for meaningful action to construct and maintain the boundaries for what counts as self and other in the crucial realms of the normal and the pathological" (204; see also Löwy).

The peaceful serenity suggested by the planetary movement of microbe models around the center of a comparatively small human being is, if not deceptive, at least a privilege of the healthy. As the caption explains: "Our immune system ceaselessly and imperceptibly fights hundreds of infectious agents – unless it is paralyzed through infection with HIV" (Koch 223, my translation). Accordingly, the most popular image for latency in the discourse of AIDS is the imperceptibly ticking time bomb, an image which not only allows for unexpected 'outbreaks,' but also alludes to terrorism and processes of subversion.

Roland Barthes once described the function of captions in press photography as "anchorage" ("Rhetoric" 38) by means of which the polysemy of an image is reduced. The – semantically ambiguous – explanation accompanying the picture of a pox virus in Bernard Dixon's book on microbes which in its original English version is quite aptly entitled *Powers*



Fig. 2. "The Pox Virus [Das Pockenvirus]" (Dixon 196)

Unseen, demonstrates that such "anchorage" may take the form of projection.¹²

The caption of this image (fig. 2) reads: "The pox virus, a murderous microbe, which has threatened us for centuries. In nature it is eradicated by now. Should the virus now be destroyed forever? Magnification: 165,000 times" (Dixon 196, my translation). The technical detail pertaining to size does not facilitate the reading of the illustration, but contributes to its authority and to the authority of the texts it illustrates. What gets downplayed in such use of scientific illustration is the fact that within the scientific context images are *traces* in a continuous process of producing epistemic objects (cf. Latour 183; Rheinberger 110-11). This does not necessarily imply a denial of reference, but rather its severe complication, resulting in what Bruno Latour calls "transversal reference" (185): Although there *is* a referent generated in scientific visualization, it is constantly transformed and modified during the experimental and conceptual stages of its production, and thus cannot be located. As a consequence, a single picture will never 'show' a virus; it is just one element within a process of ongoing transformation and as such merely illustrates a transient paradigm. In the context of popular science, however, micrographs in particular are often presented as 'direct portraits' (of a virus, in our case) – much in the same way as a parasitologist might present you with a snapshot of a UFO (and couldn't *this* virus be a fleet of UFOs?).

Without going into detail about the rhetoric of evidence that popular representations of germs employ,¹³ one might recall the point Stuart Hall makes, arguing that "representation [...] implies the active work of selecting and presenting, of structuring and shaping: not merely the transmitting of already existing meaning, but the more active labour of making things mean" (64). The inclusion of inscriptions that connote specialized knowledge increases the aura of scientific rigor, precisely because they are not particularly meaningful for non-professionals. The same could be said for the round frame around an image that is used to simulate the view through a microscope. Considering such modes of projection, of 'making pictures mean,' the caption accompanying a picture in Willen's popular science book on viruses sounds almost ironic (fig. 3). The alleged view through the microscope showing "possible AIDS-agents in comparison with viruses which have already been identified" – hardly

¹² Cf. an earlier comment by Barthes on press photography: "Firstly, the text constitutes a parasitic message designed to connote the image, to 'quicken' it with one or more second-order signifieds" ("The Photographic Message" 25).

¹³ Cf. Schlich; Weingart, "Viren visualisieren," for further analysis.

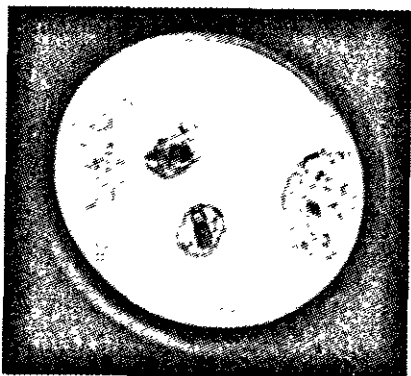


Fig. 3. "To Be in the Dark: Possible AIDS-Agents [...], 1984" (Willen 127)

identifiable and distinguishable for non-professionals – is accompanied by the caption: "In the dark" (Willen 127).¹⁴

Taken in 1984, the picture dates from a time when the fundamental epistemological crisis provoked by AIDS was at its peak. The image below, taken from the German magazine *Der Spiegel* (fig. 4), also dates from the early 1980s, a time when the identification of 'risk groups' appeared to be compensating for the lack of knowledge about origin, modes of transmission, and possible therapies.

This cover page exemplifies the production of evidence through the juxtaposition of images, a common practice in magazines. Paradoxically, it illustrates the *invisibility* of the infectious agent: the quasi-microscopic view of the alleged germ cells causing the "deadly plague" ("tödliche Seuche") represents little more than a diffuse laboratory aesthetics. 'Mysterious' ('rätselhaft') is indeed the right word here. Of course, the composition – in which the supposedly infectious agents correspond in color to the print of the word AIDS – leaves no doubt as to what is being visualized. However 'mysterious' AIDS may still be at this point, the localization of the infectious agent is quite clear. After all, the microscopic snapshot is not only projected onto the naked bodies of two men who are obviously, even if discretely, involved in sexual contact, but

¹⁴ My translation; the German text reads, "Tappen im Dunkeln: mögliche Aids-erreger im Vergleich mit bereits bekannten Viren."

onto a particular part of the body. The shift between micro- and macro-perspective, common in popular science models of viral invasion relying on science-fiction imagery, takes place on an 'intermediate' level, on the level of the social, the interpersonal or, in fact: the homosexual. I would like to suggest that this image not only tries to visualize latency, the secret and invisible presence of an infectious agent, but also attempts to make it visible as a problem of the social body. Anyone who had microscopic eyes could see through these beautiful male bodies – never judge a book by its cover, or: "außen hui, innen pfui," as a German proverb goes. And this is only one of a series of homophobic representations of AIDS published in *Der Spiegel* during the 1980s.



Fig. 4. "Deadly Plague AIDS: The Mysterious Disease [Tödliche Seuche AIDS: Die rätselhafte Krankheit]," *Der Spiegel* 6 June 1983 (Koch 195)

Pictures of viruses often appear in connection with attributes such as 'mysterious' or 'enigmatic,' a tendency that was also present during the emergence of SARS (Severe Acute Respiratory Syndrome). This emphasis on mystery and enigma corroborates an observation made by the epistemologist and historian of science Georges Canguilhem, according to whom the success of Pasteur's so-called microbiological revolution was largely due to the fact that it brought about the visualization of the cause of disease. After all: "Voir un être, c'est déjà prévoir un acte" (Canguilhem 12) – to see an agent is to anticipate an action. Canguilhem thus connects the identification of an infectious agent as the source of an illness with the archaic conception of an illness itself as 'evil' agent or demon. Visualization and seeing – from the safe distance of the spectator – mark the first steps on the way to domestication. This becomes even more plausible if we take into account the fact that popular science often uses anthropomorphic representations of viruses. Moreover, the virus is often portrayed as a criminal, a quasi-human "evil-doer" ("Übeltäter," Willen 18). Classified as a member of the "rogues' gallery," the object of a manhunt, the mysterious entity starts to resemble an ordinary mortal mind – as, for instance, in an interactive CD about *Bacteria, Viruses, and Prions* (fig. 5).

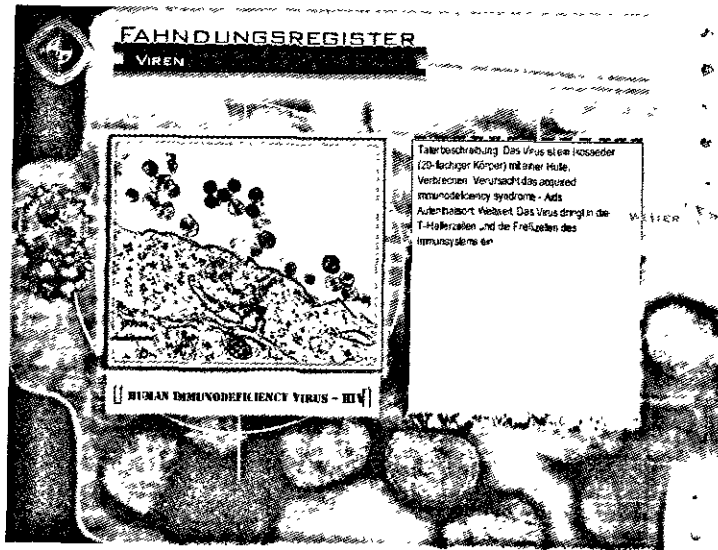


Fig. 5. HIV in the rogues' gallery, screenshot from the CD-Rom *Bakterien, Viren, Prionen: Forschung für ein langes Leben*. Prod. Target Film und Video Berlin (Heidelberg: Springer, 1999)

This demystification of – and pretense of control over – the virus is, however, always countered by the virus' frightening capacity for mutation: maybe what we now see is not what we will get with the next outbreak. Both in fiction, especially in virus thrillers such as the movie *Outbreak* (1995), and in reality, the flexibility of the virus demands flexible response and often preemptive action on the side of eradication experts. And if this language starts to sound familiar, then consider the current overuse of portraits of terrorists and potential 'sleepers.' The hi-tech, yet fuzzy surveillance camera aesthetics of such images strongly resemble the microscope images discussed above (while also fitting perfectly into a rogues' gallery).

Micro/Macro Logics

I would like to draw the following conclusion with regard to the topic of the present volume. The AIDS crisis has reinforced the figure of the virus as an efficient trope referring to the dissolution – or at least the permeability – of boundaries, especially the boundaries of our bodies. As latent agents viruses seem to represent the danger that something may be invisibly tampering with our borders, that an omnipresent, radical hostility may threaten 'us' any time. And the fact that the body itself is such a well-established metaphor – consider, for example, the traditional notion of the *body politic* – only enhances the power of the virus as both collective symbol and visual icon. This relationship between virus and body provides a continuum of metonymic shifts and can be depicted in both micro and macro perspectives. The galaxy of infectious agents moving around their human center (fig. 1) inverts micro and macro logics to a cosmology of contagion. If this marks one end of the scale, the anthropomorphization of the virus marks the other. The danger of invasion represented by the virus thus shifts between the border of the cell, the single body, the collective body, the globe as body, and the globe as virus (fig. 6). The globe as virus seems to be the ultimate icon for this metonymic shift. The blending of "molecule" into "pandemic" does not only rely on the traditional rhetoric of the *body politic*. It also reflects a socio-biological ideology which acknowledges that the fight for survival takes place at every level of biological existence, even among microbes – an ideology that tends to discriminate against all kinds of 'foreign bodies' and to naturalize violent conflict.

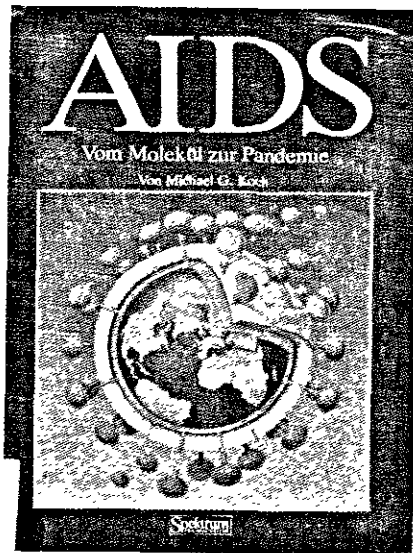


Fig. 6. Cover of Michael G. Koch's *AIDS – Vom Molekül zur Pandemie*

In the 1980s the AIDS crisis resulted in representations that projected bodies under threat, bodies whose boundaries seemed no longer safe. Neither the permeability of boundaries nor the trope of a collective body were entirely new. What we discover, however, as our bodies are extended by apparatuses connected to larger networks, is an additional dimension to this fundamental vulnerability most evidently represented by computer viruses. As Laurence Rickels put it in 1995: "My free-association is that with AIDS it has become clear that we, together with our machines, form one body. There are no boundaries any more; everything is given over to long-distance live transmissions. The whole world is no longer watching; now it's contracting AIDS" (36).

Although the AIDS crisis is by no means over, progress in combination therapy has made it manageable in rich industrial societies, and now that zones of infection are localized in Africa and other far-away places, the epidemic has faded from urgent political agendas. Ironically, while HIV's political importance as a global player has been overtaken by other viruses closely connected to biological warfare and bioterrorism,

the episteme of contagion and viral subversion it has established is still intact. This holds true even though notions of the virus have moved on from the clear-cut cold war distinction of who's good and who's evil, who is the enemy and who is the partner.¹⁵ The metonymic shifts discussed above have been crucial for the introduction of security measures that reach beyond plague politics (for example in the German debate about political asylum legislation). This has been made extremely clear in the security measures and military operations intended to 'seal-off' US-American territory since 9/11, which have been accompanied by appropriate rhetorical maneuvers. It comes as no surprise that the trope of the virus has been revitalized in the context of terrorism, reappearing in the discourse on sleepers as well as in strategies of visualization applied for their search, strategies that align portraits of terrorists with portraits of pox viruses, anthrax bacilli, and other agents of biological warfare. The war against an unidentifiable enemy called terrorism, which operates from within as well as from without and continuously requires new forms of identification, suggests that concepts of latency have a big future, shaping a notion of 'peace' that is barely distinguishable from permanent war.

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¹⁵ For a very convincing account of the recent mutations in virus imagery as exemplified in virus thrillers cf. Mayer.

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