

## **Georg Schöfbänker**

### **Remarks on the Theory of Biological and Asymmetrical Warfare from the Perspective of the US**

*It begins with a threat. A terrorist group declares that unless its demands are met within 48 hours, it will release anthrax over San Francisco. Two days later, a private plane flies across the Bay, spreading an aerosol cloud that shimmers briefly in the sunlight before disappearing. Scenario one: thousands are killed in the panic as 2 million people flee the city. Another 1.6 million inhale anthrax spores. [...] More than a million of the Bay Area's 6.5 million residents die.*  
*New Scientist*<sup>1</sup>

The fifth Egyptian plague, around 1500 B.C., is believed to have been a result of anthrax.  
US-Army<sup>2</sup>

#### **The Construction of the Threat Posed by Biological Weapons**

When Hollywood-style catastrophe scenarios that have been causing such a furor within the US national security elite for the last three years or so blend together so seamlessly with a new scientific interpretation of the Old Testament whereby the "fifth Egyptian plague" is revealed to have been the result of anthrax bacteria, then anyone seeking to understand the US military's current state of hysteria over biological threats is best advised to go directly to the Old Testament itself in order to seek answers. The Israelites—an ethnic minority in ancient Egypt, a "rogue nation" in strategic newspeak—deployed, with the help of God, anthrax bacteria (newspeak: a weapon of mass destruction) in a terrorist manner against the Egyptian central government. "If you refuse to let them go, and continue to hold them back, the hand of the Lord will bring a terrible plague on your livestock in the field [...]. But the Lord will make a distinction between the livestock of Israel and that of Egypt, so that no animal belonging to the Israelites will die."<sup>3</sup> And so it came to pass, both in the Bible story and in theory: every head of Egyptian livestock died a horrible death, and the Israelites lost not a single one since their livestock was immune. In May 1998, the US Department of Defense initiated a large-scale program to inoculate all members of the armed forces against anthrax as a countermeasure against the biological warfare expected to be launched by "rogue nations."

Now that infowar and cyberwar (the theme of last year's Ars Electronica Festival)<sup>4</sup>—having satisfied the US military's need for new threats and being promoted by them with corresponding fervor—have already assumed a place within the strategic concept being pursued by NATO since April 1995<sup>5</sup> and constitute a threat which, under certain circumstances, is to be met by preventive military strikes, we can now observe how the latest invention to emerge from the laboratory of the Apocalypse—biological warfare waged by terrorists or "rogue states" against the US—is well on its way to triggering action on a broad scale in Hollywood, in prime time on CNN, as well as in the US Congress. Basically, the pattern of these threats is always the same: on one hand, no nation can even come close to matching the technological superiority of the world's mightiest military superpower, the US; on the other hand, that country's society is the least prepared to deal with violent attacks by foreign powers on its own territory when those foreign powers employ asymmetrical means and strategies, as has already been pointed out by Patrick M. Hughes, director of the Defense Intelligence Agency, one of the numerous American military intelligence agencies, before a Senate committee in 1997.<sup>6</sup>

#### **Globalization of the Resort to Military Force as an Element in Supraregional Policies to Maintain Order**

In the paper I presented at last year's Ars Electronica symposium,<sup>7</sup> I dared to predict that NATO would definitely expand to the east, enlarge its territory, and become, in both a geopolitical and hegemonial respect, the Euro-Atlantic leitmotiv of the early 21st century. This prognosis has not only come true; in the meantime, this geopolitical trend has even led to a war being waged by the NATO alliance against the sovereign state of Yugoslavia, a war which, aside from all of its declared motives—initially, the prevention of "ethnic cleansing," thereafter the repatriation of the refugees—has led to the systematic destruction of a state and its civilian and industrial infrastructure.

In doing so, NATO has breached international law, proceeded without a UN mandate, taken action outside of its territory, and waged aggressive warfare. This is the attempt to implement a fundamentally new interpretation of the constitution of the international community of the United Nations, with all the associated consequences of such a formal attempt at a putsch, which will subsequently lead to anarchy and nihilism with regard to international law. The Western community of nations under the political and military leadership of the US is thus undertaking the effort to bomb international laws which have been in place for 54 years back into the pre-UN stone age, whereby the central legal standard by which to gauge a state's behavior on a universal level is being called into question.<sup>8</sup> The US itself has now come under suspicion of being a "rogue superpower" ruthlessly pursuing its own interests. Now, if this were merely a verbal assault issued from Belgrade, Baghdad or Moscow and addressed to the US and NATO regarding their current policies in the Kosovo conflict, most political analysts would probably just ignore it. But this accusation stems from the academic elite of the US's own foreign policy establishment—Prof. Samuel Huntington's recent article entitled "The Lonely Superpower."<sup>9</sup> Huntington meticulously lists how, over the last 10 years and thus since the end of the bipolar world of the Cold War, the US has attempted to force its own interests upon the rest of the world by means of arms exports, trade sanctions, domination of financial institutions, and devaluation of international law and the UN. Recently, the US was forced to indirectly admit that its cruise missile attack on a chemical plant in Sudan in August 1998 had nothing to do with a "poison gas connection" or a terrorist link to Osama Bin Laden.<sup>10</sup>

The anticipated answers to such a policy are now the central object of investigation of the threat analyses of asymmetric warfare—a potential response to a US military policy of maintaining order on a regional or global scale that is perceived as emerging now and being implemented over the long term. In considering this issue, it is theoretically appropriate and necessary to point out the asymmetry of both potential actors. US analysts employ this concept in order to explain how a weaker opponent could gain a political advantage in a conflict with a country possessing superior weapons technology through the deployment of weapons of mass destruction or death. "No, we cannot be defeated" by symmetric attack and "Yes, we can be defeated" by asymmetric attack are widely-held opinions in US military circles.<sup>11</sup>

What these analyses leave unmentioned is the asymmetry of the means that will be deployed by the US in accordance with its military doctrine as demonstrated in the Gulf War and brought into more elaborate use in Kosovo—the indiscriminate bombardment of military targets, as well as a civilian society and its infrastructure, without any risk to the attacker. The corresponding "strike force" doctrine is the conduct of an air war without engaging the enemy and without loss of one's own personnel or materiel. The debate concerning an increased probability of the deployment of weapons of mass destruction or death against the interests of the US or on its territory is to be analyzed in light of the geopolitical and geostrategic objectives of US foreign policy—above all, the planned use of military force, either unilaterally

or as part of an alliance with NATO (regardless of the objectives meant to be achieved thereby) beyond the scope of legitimacy as established by international law.

In an October 1998 report by the Clinton administration which lays out a comprehensive strategy of national security for the US,<sup>12</sup> and the largest part of which is dedicated to the advancement of the national interests of the US in a geopolitical, geoeconomic, geostrategic and military respect, two types of threats involving biological weapons are addressed: deployment by the armed forces of a nation-state and by a terrorist organization.<sup>13</sup>

"If a hostile nation or terrorists release bacteria or viruses to harm Americans, we must be able to identify the pathogens with speed and certainty. We will upgrade our public health and medical surveillance systems. These improvements will benefit not only our preparedness for a biological weapons attack—they will enhance our ability to respond quickly and effectively to outbreaks of emerging infectious diseases."

### **Probability and Plausibility of the Deployment of Biological Weapons**

In the literature on the subject, nuclear, chemical and biological weapons are subsumed by the term weapon of mass destruction (WMD), although this is by no means an accurate description of the way the respective weapons function. Strategic nuclear weapons are indiscriminate WMDs which constitute the central element of declared and non-declared nuclear powers' national arsenals. Chemical and biological weapons are weapons of mass death. In contrast to nuclear weapons with their residual radioactivity, chemical weapons become totally ineffective only a short while after they are used. Many potential biological weapons—regardless of whether they are of a viral or bacterial nature—are suited in principle to use as a strategic second-strike weapon or as a weapon of terror, since, in comparison to nuclear weapons, considerably less technical effort goes into their production.

They are rather unsuited to deployment as a tactical weapon in a limited war, although the use of biological weapons by Japan during World War II has been proven,<sup>14</sup> their use to a limited extent by the Soviet Union during the Afghanistan War obviously did take place,<sup>15</sup> and it has been maintained, though not yet credibly confirmed, that they were used by the US in the Korean War.

To this day, there exists no declared doctrine on biological weapons (comparable to the nuclear doctrines of the nuclear powers) as a national security concept. The Western states of the NATO alliance have expressly forsworn the use of biological substances as a strategic weapon. It has been reported that the Soviet Union under Gorbachov armed intercontinental missiles with biological warheads; however, this has been the sole reference to the Soviets having done so, and they never developed a strategic concept for biological warfare.<sup>16</sup> Nevertheless, numerous states are suspected of having developed a biological weapons program as a strategic military instrument, and this has been clearly proven in the case of Iraq.<sup>17</sup> Now, this line of reasoning—biological weapons as the "poor man's atom bomb"<sup>18</sup>—as a result of the ongoing refusal of the atomic powers to continue to negotiate substantial nuclear disarmament and, above all, due to the unilateral intervention of the US and NATO in the Kosovo War, has become rather more plausible, since, in principle, no state can be certain of being absolutely safe from such a unilateral intervention on the part of the US and NATO in the future. Victor Chernomyrdin, the Russian negotiator during the Kosovo War, had the following to say about the problem that has arisen as a result of the increased proliferation of WMDs.<sup>19</sup>

"Further, it will no longer be possible to thwart the proliferation of missiles and nuclear arms—another negative consequence of NATO's policy. Even the smallest of independent states will seek nuclear weapons and delivery vehicles to defend themselves after they see NATO's military machine in action. The danger of global instability looms, with more new wars and more victims."

This is not the proper place to go into a detailed discussion of how, over the course of two months, the Kosovo War set the international political system back to the time of the Cold War; the consequences will only be apparent over the intermediate term. Nevertheless, it is of decisive and fundamental importance that as a result of it, all disarmament agreements that have been signed up to now (nuclear, chemical, biological, conventional) are effected. What is valid with respect to the proliferation of nuclear weapons—the danger of an arms race—applies to an even greater extent to biological weapons.

### **Limitations Inherent in Arms Control**

Weapons of a biological nature (in the broadest sense) are those which have historically been outlawed the longest. The first document that constitutes what we would now interpret as an "arms control agreement" with regard to biological weapons is to be found in the *Manu Smṛiti*, an Indian text that is said to be between 2,200 and 2,300 years old.<sup>20</sup> The Ancient Greeks possessed knowledge of organic poisons—which they abhorred. Even during the darkest of the Dark Ages in Europe, when there existed nothing even close to empirical medical science, the theoretical course of an epidemic was deeply rooted in the consciousness of everyday life on the basis of experience with the plague.<sup>21</sup> In 1925, following the use of gas during World War I, an arms control agreement regulating chemical weapons was extended to cover bacteriological weapons as well (the Geneva Protocol).

Finally, as an upshot of the Cold War, a universal "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction" was presented in 1972 to member states of the UN for their signatures, and took effect in 1975. This convention expressly forbids development of—and even research on—biological weapons, their production, their acquisition, and placing them in a state of readiness to be deployed (Art. I). Furthermore, this treaty also mandates that such substances be destroyed (Art. II) and contains a ban on their distribution (Art. III). To this day, though, there have been no substantial verification measures established by either this treaty and its accompanying implementation regulations or by the inspection conferences that have been held. Furthermore, this treaty contains absolutely no explicit provisions banning the deployment of biological weapons!

Of the approximately 200 member states of the UN, the following had not signed this convention by the end of 1998:

Algeria, Angola, Azerbaijan, Cameroon, Chad, Eritrea, Israel, Kazakhstan, Kirghizia, Moldavia, Namibia, Sudan, Tadjikistan, the Vatican.

Among the convention signatories as well as new members of the UN, the following have not ratified the convention:

Albania, Armenia, Bangladesh, Bosnia-Herzegovina, the People's Republic of China, Croatia the Czech Republic, Egypt, Estonia, France, Georgia, the People's Republic of Korea, Libya, Macedonia, Slovakia, Slovenia, Syria, Turkmenistan.

The following is a brief—and, of course, inadequately detailed—run-down of the international legal problems associated with arms control in the area of biological weapons.

- The most important military powers, the US, the Russian Federation (RF), and the NATO states, have signed as well as ratified the biological weapons convention but have only partially complied with its provisions. It is said that in the USSR, tens of thousands of individuals were employed in an offensive biological weapons program which, among other achievements, succeeded in developing genetically-engineered anthrax pathogens and producing sufficient quantities of it to arm warheads of intercontinental missiles.<sup>22</sup> Following a 1992 decree issued by President Jelzin, all biological weapons research that did not conform to the convention was ostensibly halted. Today, the RF surely has at its disposal tremendous experience with the implementation of weapons technology. Furthermore, in the case of strategic nuclear asymmetry between the US and the RF, the possibility cannot be ruled out that the latter has a second-strike capacity up its sleeve via biological weapons.
- Following the Nixon administration's 1969 ban on further work on an offensive capability in the area of biological weapons research, the US has conducted solely a "defensive program." Nevertheless, the dual-use character of a biological weapons program is obvious; "defensive research" can be converted into an offensive program at any time.
- By conducting a large-scale program to inoculate all members of the US armed forces against anthrax, that nation is obviously preparing for a phase of active biological warfare. The nature of this inoculation program and the rhetoric that has accompanied it lead to the conclusion that there exists, above all, the expectation that US troops will be deployed in environments in which the use of biological weapons is considered to be possible or probable. This is not only at odds with the disarmament goals of the biological weapons convention; as a result of the genetic modifications of the pathogens that have taken place in the meantime, such an inoculation program can hardly be expected to be effective.<sup>23</sup>
- Both the RF and the US have refused to permit their stockpiles of smallpox virus to be destroyed. At the end of May 1999, the long-planned destruction of these last batches of isolated smallpox virus was taken up on the agenda of the World Health Organization. Smallpox has been officially listed as "eradicated" since 1980.<sup>24</sup>
- To this day, the biological weapons convention contains no real verification procedures for the inspection of suspicious facilities in its signatory states. It has only been in the case of Iraq that a nation has been forced—partly due to pressure from the UNSCOM—to undergo such an inspection. Here as well, though, it took more than four years for Iraq to officially admit on July 1, 1995 that it had armed warheads of its Al-Hussein missiles (range: approximately 1,000 km) with anthrax and botulin toxins. The US's alarmist logic proceeds under the assumption that wherever there exists a limited capability to produce ballistic missiles, the step to deploying—instead of nuclear warheads—biological weapons is a plausible one.
- The biological weapons convention likewise lacks binding provisions as to how potential genetically-engineered modifications of biological warfare agents are to be evaluated.<sup>25</sup>

### **Vacillating between Alarmism, Realism and Dismissal as a Mere Trifle**

The alarmist positions that are being put forth both in the US literature on this issue and in official government positions, whereby the threat posed to the US by nuclear as well as biological weapons is greater than any risk it has ever faced,<sup>26</sup> are not without a certain degree

of irony. For one thing, the Cold War—the greatest systematic confrontation with the threat posed by WMDs—was concluded without bloodshed. The Soviet Union and its strategic bloc, the Warsaw Pact, have dissolved themselves; since then, the US has assumed a position of hegemony in matters of international security, arrogating to itself the right to occasionally castigate some Third World country or other with a cruise missile attack. The theorem "He who sows cruise missiles will reap biological weapons" is actually not totally implausible, although conclusive proof is still lacking.

Furthermore, pointing out that the liberality of the US economy makes it just as easy for any right-wing extremist group or racist militia to acquire anthrax pathogens from a mail order house as it is to purchase automatic weapons on any street corner is dismissed by categorizing the issue as a domestic affair of the US. Considerable doubt has been cast upon whether this situation actually constitutes the danger of "catastrophic terrorism"<sup>27</sup> by means of biological weapons—not only by terrorism experts themselves,<sup>28</sup> but by alert observers of the US military bureaucracy as well.<sup>29</sup> For this reason, a conclusive assessment of such a terrorist threat seems impossible.

One fact, however, is totally indisputable. Once production facilities for biological weapons have been set up, they can be eliminated only by means of arms control agreements and very strict verification measures—i.e. on-site inspections. The US-British air raids on Iraq in December 1998 failed to accomplish precisely that which they, by their own admission, should have achieved—namely, the destruction of facilities that are still suspected of producing WMDs. Indeed, such facilities were not even bombed, because it is precisely such a bombardment that would have brought about the release of these pathogens. From a military point of view, there is only a single reliable means of destroying an arsenal of biological weapons: a preventive nuclear strike, since only atomic weapons generating temperatures of several million degrees can guarantee the destruction of the pathogens. But that would mean calling in Beelzebub to cast out the Devil.

<sup>1</sup> *New Scientist*, September 19, 1998, in the Internet: <http://www.newscientist.com/nsplus/insight/bioterrorism/bioarmageddon.html>

<sup>2</sup> <http://www.anthrax.osd.mil/hist.htm>

<sup>3</sup> *Old Testament*, Book of Exodus, Ch. 9.

<sup>4</sup> Stocker, Gerfried; Schöpf, Christine (eds.) *Infowar*, Springer, Vienna/New York, 1998.

<sup>5</sup> "In addition, state and non-state adversaries may try to exploit the Alliance's growing reliance on information systems through information operations designed to disrupt such systems. They may attempt to use strategies of this kind to counter NATO's superiority in traditional weaponry." *The Alliance's Strategic Concept*, Approved by the Heads of State and Government participating in the meeting of the North Atlantic Council in Washington DC on 23rd and 24th April 1999, Press Release NAC-S(99)65, 24 Apr. 1999, para. 23.

<sup>6</sup> "(...) The perception of western political, economic, and especially military 'dominance' means that many of our enemies will choose asymmetric means to attack our interests—that is, pursuing courses of action that attempt to take advantage of their perceived strengths while exploiting our perceived weaknesses. At the 'strategic' level, this probably means seeking to avoid direct military confrontation with US forces; at the operational and tactical levels it means seeking ways of 'leveling the playing field' if forced to engage the US military." Source: *Global Threats and Challenges to the United States and its Interests Abroad*. Statement For The Senate Select Committee On Intelligence 5 February 1997. Statement For The Senate Armed Services Committee on Intelligence 6 February 1997. Lieutenant General Patrick M. Hughes, USA, Director, Defense Intelligence Agency. <http://www.loyola.edu/dept/politics/hula/threats.html>

<sup>7</sup> Schöfbänker, Georg: From Plato to NATO: Epistemology, Knowledge and Fantasies of Cyber and Information War. In: Stocker, Gerfried; Schöpf, Christine (eds.), *Infowar*, Springer, Vienna/New York, 1998, pp. 101—118.

<sup>8</sup> See Geistlinger, Michael (1999): *Bomben auf das Völkerrecht. NATO bombardments of Yugoslavia constitute a flagrant violation of international law, and cannot be justified according to international law*. Source: [http://zoom.mediaweb.at/zoom\\_299/geistlinger.html](http://zoom.mediaweb.at/zoom_299/geistlinger.html)

<sup>9</sup> Huntington, Samuel: The Lonely Superpower. In: *Foreign Affairs*, March/April 1999, pp. 35—49.

<sup>10</sup> See *The Independent*: US admits Sudan bombing mistake, May 4, 1999. Also, *International Herald Tribune*, May 17, 1999.

<sup>11</sup> <http://www.oss.net/ASYMMETRIC/>

<sup>12</sup> The White House (1998): *A National Security Strategy for a New Century*. Source: <http://www.whitehouse.gov/WH/EOP/NSC/html/documents/nssr.pdf>

<sup>13</sup> *Ibid.*, p. 19.

<sup>14</sup> According to statements made by scientists who were involved in Japan's biological weapons program, both anthrax and typhus pathogens were deployed in the war against China. Estimates of the number of victims range from several tens of thousands to hundreds of thousands. See "Japan Rebuffs Requests for Information about its Germ-Warfare Atrocities," *New York Times*, March 24, 1999.

<sup>15</sup> The Russian biological weapons specialist Kanatjan Alibekow reports that the Soviet Union employed the pathogen that causes "glanders," a contagious disease of animals, in 1982 during the Afghanistan War. See *Der Spiegel*, 15/1999, April 12, 1999.

<sup>16</sup> The Russian biological weapons specialist Kanatjan Alibekow, who defected to the US in 1992, provided a detailed and comprehensive report about this. *Der Spiegel*, 15/1999, April 12, 1999. See Alibek, Ken; Handelsmann, Stephan: *Direktorium 15. Rußlands Geheimpläne für den biologischen Krieg*. Munich 1999; English version: Alibek, Ken; Handelsmann, Stephan: *Biohazard*. Random House, 1999.

<sup>17</sup> The Center for Non-Proliferation Studies (CNS), for example, maintains that the following states are conducting active biological weapons (research) programs: Algeria, the People's Republic of China, Egypt, India, Iraq, Israel, the People's Republic of Korea, Libya, the Russian Federation, Syria, Taiwan, the US. Source: <http://www.miis.edu/research/cbw/possess.htm>

<sup>18</sup> This increased perception of a threat began in the West immediately following the 1991 Gulf War, when the extent of the Iraqi biological weapons program became known.

<sup>19</sup> *Washington Post*, Impossible to Talk Peace With Bombs Falling, May 27, 1999.

<sup>20</sup> Internet source: Das Biowaffenkontrollprogramm des SIPRI: <http://www.sipri.se/cbw/docs/cbw-hist-manu.html>. In print: Bühler, G. (trans.), *The Laws of Manu* (Oxford University Press: Oxford, 1886), reprinted under UNESCO sponsorship as *The Sacred Books of the East*, Vol. 25 (Motilal Banarsidass: Delhi, 1975), pp. 230, 251—52.

<sup>21</sup> Delumeau, Jean: *Angst im Abendland*, Vol. 1, Fischer-Taschenbuch, Reinbek, 1985, pp. 140—190.

<sup>22</sup> Statement by Dr. Kenneth Alibek, Program Manager, Battelle Memorial Institute, before the Joint Economic Committee, United States Congress, Wednesday, May 20, 1998. <http://www.house.gov/jec/hearings/intell/alibek.htm>

<sup>23</sup> See Istock, Conrad A: Bad Medicine. Anthrax vaccinations of U.S. troops send politically explosive message. They won't provide much protection, either. *Bulletin of the Atomic Scientists*, November/December 1998, pp. 21—23.

<sup>24</sup> See *Neue Zürcher Zeitung*, May 22/23, 1999, p. 4.

<sup>25</sup> See Kelle Alexander: *Atombombe des kleinen Mannes?*, HSFK-Report 6/1997. Sir Weston, Michael: Giving Teeth to the Biological Weapons Convention. In: *NATO Review*, May/June 1997, pp. 33—35.

<sup>26</sup> A paradigmatic example of this is: Falkenrath, Richard; Newman, Robert D.; Thayer, Bradley A.: *America's Achilles Heel. Nuclear, Biological and Chemical Terrorism and Covert Attack*, MIT Press, Cambridge 1998.

<sup>27</sup> For the diagnosis in Foreign Affairs, see Carter, Ashton; Deutch, John; Zelikow, Philip (1998): *Combating Catastrophic Terrorism*. In: *Foreign Affairs*, November/December 1998, pp. 80—94

<sup>28</sup> See Vegar, Jose: *Terrorism's new breed*. In: *Bulletin of the Atomic Scientists*, March/April 1998, pp. 50—55.

<sup>29</sup> See Sprinzak, Ehud: *The Great Superterrorism Scare*. In: *Foreign Policy*, Fall 1998, pp. 110—124; Pringle, Peter (1998): *Bioterrorism. America's Newest War Game*. In: *The Nation*. Internet source: <http://www.thenation.com/issue/981109/1109PRIN.HTM>