

ENGLISH TRANSLATION (Sheila Das, Jean-Marie Bourjolly)

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**An Assessment of the Many Facets of Cholera in Haiti
A Review of Ralph R. Frerichs' *Deadly River***

Part I

By Jean-Marie Bourjolly

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The publishing house Cornell University Press has published *Deadly River* (Cholera and Cover-Up in Post-Earthquake Haiti) by Ralph R. Frerichs. The author is professor emeritus of epidemiology at UCLA. It tells the story of cholera in Haiti, from its introduction by United Nations peacekeepers in 2010 to the efforts made in 2014-2015 to contain the bacteria if not to eliminate it.

Just as the history of cholera that it recounts, this is a book with many facets. A book, first of all, in which the scientific method is honored. In this sense, it is like a thriller in the style of Agatha Christie, a novel in which detectives/epidemiologists, driven by the passion to understand and armed mainly with the deductive power of logical reasoning, are struggling to rebuild the frame of a tragic event from a few clues. They must first "dirty their shoes," that is to say, go investigate on the ground. Then, starting from the information thus gleaned, they must follow it, in space and time, to understand its evolution, and so try to trace the source of the epidemic, in search of "patient zero." No matter where this quest leads.

But contrary to what we all continue to assume despite what experience has taught us, not all science people are driven by the disinterested search for truth – as recent resignations at the Swedish Karolinska Institute, where they choose the recipients of the Nobel Prize in medicine, act as a reminder. Even worse, scientists can sometimes act with a dishonesty and cynicism worthy of any dubious politician. And as it turns out, the behaviour of politicians is also discussed here. The book, therefore, also tells another story, a story of villainy and villains, where might makes right, a history of ethics violations, manipulation of reality and opinion, defense of private interests at the expense of the common good, petty calculations and cowardice. This is made evident by the titles of these chapters: Stealth, Altered reality, Secrecy, Obfuscation, Politics before science. On the other hand, and this is fortunate as it helps us maintain confidence in the human race, this book also addresses issues of ethical conduct and courage, resistance against the strongest and speaking to power the language of truth.

Cover-up by organizations related to the United Nations or the US Government

The World Health Organization (WHO), the Centers for Disease Control (CDC) of the United States, the Pan American Health Organization (PAHO) and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) are institutions that are usually associated with scientific truth and the relief of human suffering. In this case, they have turned their backs on their mission and compromised their integrity by deliberately working to guide research on false trails so as to keep it away from the UN MINUSTAH camp where the epidemic started.

While it is taught in departments of epidemiology that "there is 'great urgency to find the source,'" – which Dr. Gabriel Thimothé, Director General of Department of Health and Population (MSPP), recalled from the outset (p. 22) –, these organizations "were advising strongly against any investigation of the disease's origin" (p. 33), under the pretext that such information "could endanger Haiti's security and stability, particularly if that knowledge were exploited for political purposes" (p. 34). They were accusing Haitians of a hypothetical scenario while they themselves were putting politics above the welfare, health and interests of the Haitian people in this very statement. What's more, this displays an incredible arrogance as these organizations decided for Haitians what they were or were not to know about their own fate while thousands became ill or died from a new disease they didn't have a clue about and against which they were totally defenseless.

Yet it was not like being in front of an absolute enigma. There was an abundance of corroborating information as to the source of the epidemic. The Cuban medical brigades based in Mirebalais in the Centre department sounded the alarm on the 18th of October. Haitian epidemiologists were dispatched to the area from October 21 - 24. Their investigation led them to the camp of MINUSTAH: "The Haitian public health team ... had wanted to verify [if soldiers were sick], but they were turned away at the Annapurna Camp" (p. 164). The reports of *Al Jazeera's* Sebastian Walker, *Associated Press's* Jonathan Katz (October 27) and *Le Nouvelliste's* Roberson Alphonse (November 3) have documented the role of the camp in the outbreak of the epidemic. After dirtying his shoes in the departments of Centre and Artibonite, the French epidemiologist Renaud Piarroux, sent by the French government at the request of President Préval, gathered a body of evidence pointing to the MINUSTAH camp. He shared that evidence with Edmond Mulet, Special Representative of the UN Secretary General, who "did not seem surprised," (p. 79). It was very quickly discovered that a cholera epidemic had broken out in Kathmandu shortly before the departure of the Nepalese contingent and that the soldiers had arrived at the camp a few days before the outbreak of the epidemic. According to laboratory tests, the different samples studied showed a common bacterial origin similar to strains present in South Asia, including Nepal.

No matter. MINUSTAH would squarely deny its involvement. For its part, OCHA produced misleading maps where the Artibonite municipalities were identified as "zone where cholera began" and two municipalities in the Centre, close to the MINUSTAH camp as "cholera affected" (pp. 70-73). "With this erroneous legend, the maps of the UN agency skilfully shifted attention away from the human transmission hypothesis and the Nepalese peacekeepers as the source and toward the environmental hypothesis involving the coastal estuaries of the Artibonite River delta" (p. 73).

The CDC, for their part, used a map and data produced by PAHO, but omitted the information on the presence of cholera upstream of the river in the Centre Department, "despite the fact that the very PAHO map cited indicated that 1,079 cholera cases and 28 cholera deaths had occurred there" (p. 75). In addition, "anyone studying these two Internet maps [for the periods October 17-23 and October 24-30] would have concluded – *erroneously* – that the epidemic started during the first week with thousands of cases in Artibonite département and then spread in the second week to Centre département" (p. 77).

"In its 2010 summary cholera data, WHO reported nearly that 180,000 cases had occurred in Haiti. None were listed as imported. While Canada and the United States were cited as having imported cholera cases, there was no mention of origin for Haiti's cases. ... Details on the source were also omitted from the WHO 2013 *Weekly Epidemiological Record* when the scientific facts were clearly known" (p. 194).

Participation of journalists and scientific journals in the cover-up

Haitians went from being victims to being wicked people infected with "Cholera's Second Fever [that is] An Urge to Blame," according to the reporter specializing in health in the New York Times (p. 89). "But, thought Piarroux, what McNeil called a 'fever' is actually the scientific method" (p. 89). And at just about the same time, a salmonella outbreak broke out in several US states. "A skillful investigation by CDC and the U.S. Food and Drug Administration found the source ... No blame-avoidance campaign was mounted. No epidemiologist admonished reporters to leave the egg farm owner alone ... Instead, the disease detectives executed a case study in how epidemiology should work hand in hand with government in a public health crisis, avoiding nothing in the quest for truth" (p. 90).

Continued in Part 2 on July 14, 2016