Hunting the 1918 Flu

Kirsty E. Duncan
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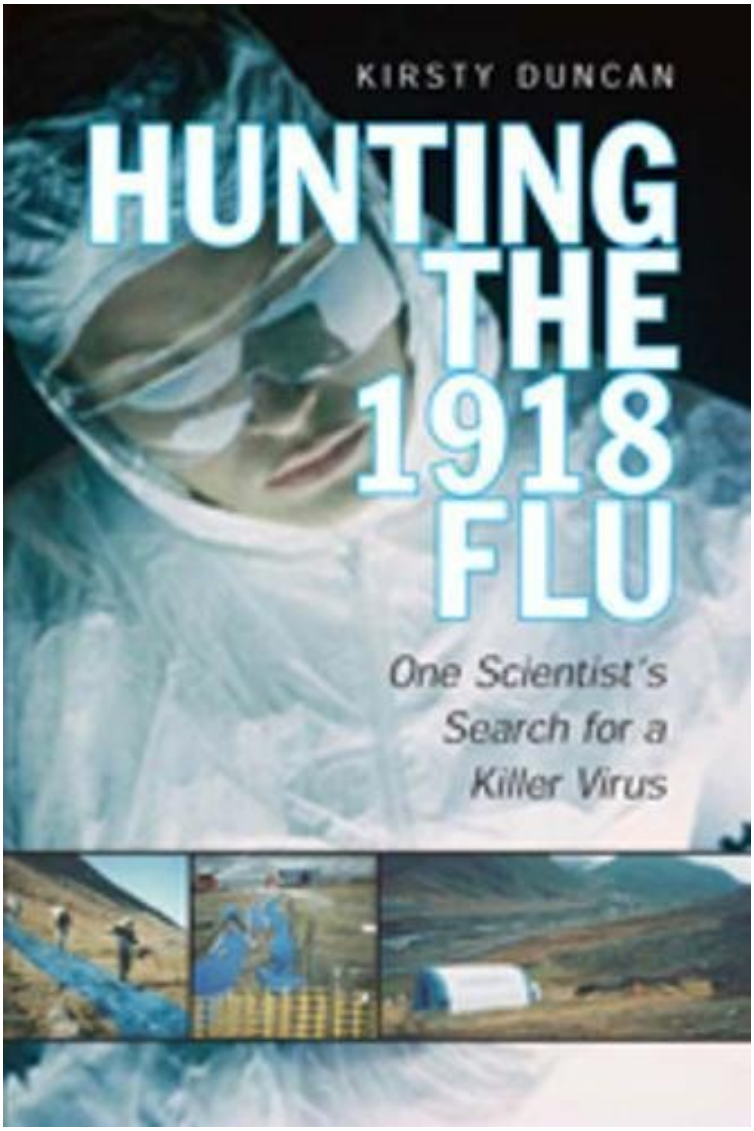

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Kirsty E. Duncan : Hunting the 1918 Flu before purchasing it in order to gage whether or not it would be worth my time, and all praised Hunting the 1918 Flu:

23 of 23 people found the following review helpful. Not what I expectedBy A CustomerI have long been interested in the 1918 influenza epidemic, and I began reading this book immediately after finishing "The Great Influenza" by John M. Barry. "The Great Influenza" is a very scholarly work that gives a great deal of background about the medical profession in 1918, conditions in the US during World War I, and truly stirring accounts of how viruses and the

immune system work. When I started "Hunting the 1918 Flu," I was hoping for an expansion on the science of the epidemic. That's not what I got.I was leery from the start because in the introductory material the author goes into considerable detail about her record-keeping and note-taking practices (to the extent of claiming there were witnesses present during many of her phone conversations regarding her project). I wondered, "Why is this woman so defensive?" I found that science is only peripherally addressed in her book; the main theme is how poorly she was treated by almost everyone except her fellow Canadians and the Norwegians she encountered. The Americans, including the Centers for Disease Control and Prevention, seem to be the bad guys in this story.I tried hard to be open minded, but for the most part, I was unable to sympathize with the author. Every field of endeavor has its own politics, and it's not really very interesting to read about them. The author was a young woman, working in a field of study that was not her own, and at times her naivete shines like a beacon. It's not surprising that she was sometimes not taken seriously.This book is very readable, and I'm sure the author is a very intelligent young woman. However, I think she would have served herself and her subject matter better by taking a more dispassionate tone. Her quest had the potential to be of true scientific value, and telling its story without all the histrionics would have made an interesting book.1 of 5 people found the following review helpful. You need not be a scientist...By Jessica KilloughI was initially worried that the book would be filled with complex scientific concepts, but everything was explained so that any reader could understand. The story about an expedition that was in danger of being stopped several times and the sheer determination of Dr. Duncan is inspiring. I also enjoyed learning about the people of Norway, who were so gracious and understanding of the importance of this expedition. I would highly recommend reading Hunting the 1918 Flu, as a reminder that history can and does repeat itself.0 of 5 people found the following review helpful. Hunting the 1918 FluBy G. T. LowmanI thoroughly enjoyed this book. The work involved in the project was fascinating to read. The description of the area where the project took place was vivid. The personalities involved added to the travails encountered in such an undertaking.

In 1918 the Spanish flu epidemic swept the world and killed an estimated 20 to 40 million people in just one year, more than the number that died during the four years of the First World War. To this day medical science has been at a loss to explain the Spanish flu's origin. Most virologists are convinced that sooner or later a similarly deadly flu virus will return with a vengeance; thus anything we can learn from the 1918 flu may save lives in a new epidemic.Responding to sustained interest in this medical mystery, Hunting the 1918 Flu presents a detailed account of Kirsty Duncan's experiences as she organized an international, multi-discipline scientific expedition to exhume the bodies of a group of Norwegian miners buried in Svalbard, all victims of the flu virus. Constant throughout is her determination to honour the Norwegian laws and the Svalbard customs that treat the dead and the living with respect - especially when a live virus, if unearthed, could kill millions. Another theme of the book is the author's growing love for Svalbard and its people. Duncan's narrative describes a large-scale medical project to uncover genetic material from the Spanish flu; it also reveals the turbulent politics of a group moving towards a goal where the egos were as strong as the stakes were high. The author, herself a medical geographer, is very frank about her bruising emotional, financial, and professional experiences on the 'dark side of science.'Duncan raises questions not only about public health, epidemiology, the ethics of science, and the rights of subjects, but also about the role of age, gender, and privilege in science. While her search for the virus has shown promising results, it has also revealed the dangers of science itself being subsumed in the rush for personal acclaim.

From The New England Journal of MedicineThe copyright page of this book proclaims that the paper on which it is printed is acid-free. The same cannot be said of the contents. Hunting the 1918 Flu describes the sometimes acrimonious relationship between the initiator of the hunt (the author) and some of the people she recruited to carry it out. The story is fairly widely known. In 1918-1919, in one of the worst epidemics in recorded history, an influenza virus dubbed the "Spanish flu" killed about 20 million to 40 million people worldwide. The virus was extraordinarily virulent. Historical accounts tell of people who were well in the morning, sick and in bed by midday, and choking to death by evening, their lungs swamped with blood, foam, and pus. Projectile nosebleeds were common, and cyanosis meant almost certain death. The 1918 influenza virus was never isolated (the human influenza virus was first isolated in 1933), but antibodies in the serum of survivors showed that it was related to a virus later found to infect swine in the United States. Why was the 1918 influenza virus so powerful? For some researchers, finding the answer would be the crowning achievement of their lives. In 1951, the bodies of several persons who had died of the flu in 1918 in Alaska and which had been buried and preserved in the permafrost were exhumed. Samples were taken from them in an attempt to isolate the virus, but no live virus was obtained. This was, perhaps, just as well, because the sophisticated containment facilities now considered necessary to house dangerous human pathogens did not exist in 1951. (Figure) In 1992, Kirsty Duncan, a geographer then at the University of Windsor in Canada, began to search for other victims of the 1918 flu whose bodies had been buried and preserved in permafrost. Eventually she located the bodies of seven young coal miners who had died in 1918 and were buried in the cemetery of the little village of Longyearbyen in Spitsbergen, Norway. Duncan's book describes her efforts to exhume these bodies and obtain tissue samples for

analysis -- not to isolate the live virus but to find bits of the virus's RNA that could be sequenced with the use of techniques that had not been available in 1951. To conduct this work, Duncan had to gain the permission of the Norwegian authorities and recruit a team of virologists and other technical experts. She found that the former task was much less difficult than the latter. It is clear that many of the scientists she invited to join what she referred to as "my team" regarded this young Canadian geographer with a mixture of contempt and respect. On the one hand, she was perhaps her own worst enemy, coming across as a vain, self-centered person full of her own importance and sanctimonious to a degree. It is also clear why some of the scientists she invited to join her team found some of her behavior irritating. One was heard to say, "Young lady, I have spent all my life working on influenza. You are a neophyte in this area." The virologists, on the other hand, had their own faults -- they were ruthless, egotistical, deceitful, arrogant, and uncontrollable. At one stage of the work at the exhumation site, Duncan ordered that no one should talk to the media except herself. Imagine, then, her feelings when one of the scientists was caught near the buried bodies, hiding in a ditch, making a tape recording for the press. Some of the unpleasantness between Duncan and the virologists seems to have been unnecessary and should never have occurred. For example, after the expedition was over, a meeting was held in London to discuss the results. Duncan was not invited to this meeting, and when she turned up and forced her way in, she was more or less told by the organizer to "get lost." It is sad to learn that the person who started the whole project, no matter how irritating she may have been, was treated so disrespectfully. Despite all this, after six years of work, everything came together. The graves of the seven miners and the apparent depth at which their bodies were buried were located by ground-penetrating radar. Containment facilities were set up, the bodies were exhumed, and tissue samples were obtained for analysis. One thing was wrong, however. The ground-penetrating radar had suggested that the bodies were buried deep in the permafrost. Alas, they were not. They were in the upper, active layer, which had repeatedly thawed and then frozen again over the years. The tissue samples were pretty well ruined, and, as far as I am aware, no sequencing results of any RNA fragments of the 1918 influenza virus taken from the samples from Spitsbergen have been reported. But there is more to the story. At the same time that all this was going on, in the United States Ann Reid and Jeffrey Taubenberger (who was, at one point, a member of Duncan's team but had dropped out to do his own work) had been sequencing bits of RNA from the virus in samples of lung tissue obtained from military personnel who had died from the flu in 1918. The lung tissue had been preserved in paraffin blocks, and in a series of incredibly painstaking experiments some sequences of RNA of the 1918 flu virus were obtained. This work came to the attention of Johan Hultin, who had been a member of the 1951 expedition to Alaska. Hultin called Taubenberger and offered to return to Alaska to take more samples from the frozen bodies. Taubenberger asked Hultin when he could go, thinking it might be in a year or so. The answer was, "Not this week, but I could go next week." Hultin did go and was able to obtain some well-preserved lung-tissue samples, which have now made possible the determination of much of the RNA sequence of the 1918 influenza virus. Hultin's success was enormously distressing to Kirsty Duncan. She referred to him as "the Boy Scout" and when they later met refused to talk to him. Her ungracious behavior is understandable. Duncan's bloated, over-funded, overpublicized expedition, which had taken six years to organize, had failed, whereas someone else, working on his own, quietly and with no publicity and little in the way of funds, had succeeded. I should mention that, so far, the sequencing of the RNA of the 1918 influenza virus has not given any answers as to why the virus was so lethal. What about the book itself? Is it worth reading? Duncan describes in some detail almost every communication between herself and the scientists on her team. I have never met Duncan, but I have known some of the flu virologists for a long time, and I found her descriptions of their individual characters accurate and fascinating. Whether the average reader would feel the same, I have no way of knowing. William Graeme Laver, Ph.D.About the AuthorKirsty E. Duncan is an adjunct professor at the University of Toronto where she teaches medical geography. Hunting the 1918 Flu is the product of ten years of intensive research and analysis, and extensive travel and collaboration.