

Cover Essay

The Circle

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Infectious disease, as we've come to understand, is an inherently ecological phenomenon. It's one of the basic forms of interaction among organisms and environments that ecologists study, on a short list including also predation, competition, and decomposition. It's all about connectedness, opportunism, Darwinian selection, and the great circularity by which resources extracted from one creature go to use by another, then are passed onward still again, in a cycle of hungry, remorseless utilization. And zoonotic diseases, which account for about sixty percent of all infectious diseases known among humans, embody that ecological circularity especially well. Pathogens spill over from one species to another; animal infections become our infections (and sometimes ours become theirs); human activities (the forms of disruption we practice, the forms of connectivity we offer) drive the cycle onward and around. That's why Olaf Hajek's illustration, gracing the cover of this issue of *EcoHealth*, is quite apt as a representation of all those concerns to which the journal and its readers are devoted: because at the core of Hajek's image, inconspicuously supporting the featured characters, is a circle.

Take another look. Bear in mind that Hajek's illustration ran originally in the *New York Times*, decorating a Sunday Review essay on zoonotic diseases. Its major figures stand forth like a rogue's gallery of reservoir hosts, vectors, and fomites for pathogens you'll easily recognize. There's the robin and the mosquito for West Nile virus. There's the chimpanzee for HIV-1. There's the lovely big *Pteropus* fruit

bat, wide-eyed and dangling centrally, to remind you that Nipah and Hendra might lurk overhead. There are the deliquescent fruits, and presumably their sinister drippings are meant to suggest viruses—a good enough visual metonymy, since viruses themselves are too small to draw at this scale. Finally, there's the human hand, reaching out toward the chimp like a parody of that finger-touch moment in *The Creation of Adam* on Michelangelo's famous ceiling—except in this case, instead of the spark of life being passed through those extended veins, it will be the agent of AIDS. This is just the sort of dark, smart imagery to be expected from a savvy artist-illustrator such as Hajek, who has mixed commercial work for fashion houses with portraits of wonderful antiheroes such as Chuck Berry and Kurt Cobain. And all these figures in Hajek's disease tableau are arranged on a wreath of scrubby vegetation.

But now look at the picture once more. Look at the wreath itself. Yes, that's what I mean: See the long thorny vine, which links everything with everything, giving the whole picture its circular composition. The thorny vine, quietly backgrounded, is what makes this picture interesting and edgy.

I've been thinking for three days about that vine. It reminds me vividly of a certain nefarious creeper known as *Haumania danckelmaniana*, a monocot of the Marantaceae family, which tangles its way across the ground in some Congolese forests, providing a protein-rich snack for gorillas and a continuous torment for any human so foolish as to bushwhack through such a forest in shorts and rubber sandals. *Haumania danckelmaniana* is a ripper. Imagine scratched shins, bloody ankles, and torn toes, day after day;

imagine painting your legs and your feet, each night in the tent, with iodine. Never mind how I know, just trust me on this: *Haumania danckelmaniana* is an innocent plant you can learn to hate.

But it won't give you Ebola. So I think Hajek's vine is rather more symbolic.

It might be meant to suggest a crown of thorns. I hope not, though, because such pious Christic iconography would be trite, simplistic, unworthy of Hajek's imagination, and useless in illuminating the complex web of biological factors, economic factors, human miseries, and perilous trends that contribute to the increasing problem of emerging zoonotic diseases. If the vine is a thorny crown, then who or what is being crucified? Naw, that goes nowhere. Besides, the hat size is too large to fit any candidate for martyrdom on the planet today.

Sometimes a vine is just a vine. Still, in this case, the thorns and the circularity seem too notable to be random details, so let me try symbol-mongering along a different line. I take the circular vine to suggest a feedback loop. In the realm of disease ecology, as in so many other realms, things that go around come around. Every act has consequences. Every action is matched by reaction. When the pig farmers of northern Malaysia planted mango trees shading their sties, they initiated a circuit of cause-and-effect that yielded more than a hundred Malaysian fatalities from Nipah virus disease, as well as eleven cases among abattoir workers in Singapore. When the live-animal dealers of southern China began stacking caged bats and caged palm civets at close proximity, along with many other kinds of wild and domestic animals, all available to be served as food in *yewei* (wild flavor) restaurants of Guangzhou, Shenzhen, and other cities, they invited the SARS virus into a global orbit. You see the point, yes, without my needing to take this further? Circuits of consequence: bad for wild animals, bad for livestock, bad for people, and bad for the landscapes in which so many creatures (including viruses) live. Good only for the pathogens themselves, if they succeed in expanding their distribution and abundance as vastly as HIV-1 did when it passed from chimpanzees into humans.

I can't say what Olaf Hajek had in mind when he painted his thorny wreath, but it doesn't matter, because the whole composition—whether allegorical or impressionistic—is nicely, subliminally suggestive as a goad to thought. That is what art does. And Hajek's image does it well: reminds us of some things we know, alludes to others

we should know, and maybe also hints at the limits of our knowledge, even in this era of new research tools, new insights, and major initiatives in the realm of zoonoses. It does the hinting by way of one subtle touch, a sly choice by Hajek, that confessedly I didn't notice the first few times I looked at his painting: that the circular vine, with its thorns angled clockwise, is all stem and no roots. It is a continuous circle. We don't know where this thing begins, nor where it might end.

ABOUT THE ARTIST

Olaf Hajek is an internationally renowned illustrator who finds influences in folklore, mythology, religion, history, and geography. Hajek is able to transport us to a world of surreal juxtaposition and rearranged realities by focusing on wonder, heroic acts, hallucinations, and fairytale motifs. His images are generally created by applying acrylic to cardboard while retaining valuable graphic feel despite their painted appearance. Hajek's colorful work can be seen in publications including *The New York Times*, *The Rolling Stone*, *The Guardian*, *The Royal Mail*, *Apple*, and *Pirelli*.

ON THE COVER

The Ecology of Disease (1976) by Olaf Hajek. Acrylic on wood, 30 x 40 cm. The cover art for this issue was sponsored by EcoHealth Alliance and reproduced with the generous permission of Olaf Hajek.

