

## Books & arts

institution in which they were housed.

Notwithstanding her attention to context, Halpern does not let individuals off the hook. Some study leaders knew how their work might horrify the public, and tried to control how they were portrayed in the press – first suppressing coverage, and later encouraging narratives that painted participants as heroes. Some journal editors not only published scientific findings from the hepatitis experiments, but also wrote editorials praising the work.

And, Halpern points out, although the long-term consequences of hepatitis were not fully understood at the time of the experiments, there were signs as early as the 1940s, and the researchers could have acknowledged them. Eventually, by the 1970s and 1980s, epidemiological studies had shown that carriers of hepatitis B were more likely to develop cirrhosis and liver cancer than those who were not carriers.

Particularly crushing is the naivety about how hepatitis affects children. The immediate symptoms are not as severe in children, so scientists argued that infecting young people would give them immunity that would protect them when they grew older and more vulnerable to severe infections. In fact, children with hepatitis B are much more likely than infected adults to become lifelong carriers, and to experience long-term consequences.

### Haunting reminder

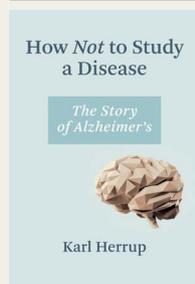
There was a time when we could have casually looked down our noses at mid-twentieth-century ignorance about infectious diseases. But with the world still in the throes of a coronavirus pandemic, I was struck by the parallels. Witness how efforts have been focused on the acute impacts of disease (hospitalization, death) without much thought to long-term consequences (disability). Or think of how those with the least agency – children, people in prison, people with severe mental illnesses – have been put at risk by those with the most power.

Formally, our approach to medical ethics has improved since the 1940s, but Halpern reminds us that many clinical trials in healthy individuals still rely on vulnerable populations. Some people move from one to the next in search of food, housing or remuneration in exchange for their participation. People in regions with poor access to health care sometimes have to enrol to get basic medical treatment. And in the United States, there is still no requirement to provide compensation for long-term disability that might arise from participation in clinical trials.

Halpern has created a haunting narrative that forces the reader to confront our modern social and scientific frame of reference. Long after the book is finished, the question remains: what research abuses are we justifying to ourselves today?

**Heidi Ledford** is a senior reporter for *Nature* in London.

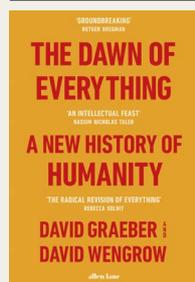
## Books in brief



### How Not to Study a Disease

Karl Herrup *MIT Press* (2021)

Neurobiologist Karl Herrup argues that an acute problem for research into Alzheimer's disease is the lack of a definition. While writing his important, accessible study, he found that no two experts described the degenerative condition in the same way. Alois Alzheimer's original, post-mortem diagnosis of a single person in 1906 attributed her mental confusion to plaques and tangles in her brain tissue. For Herrup, progress requires a definition "based on the symptoms of the patient, not on the deposits in the patient's brain".



### The Dawn of Everything

David Graeber & David Wengrow *Allen Lane* (2021)

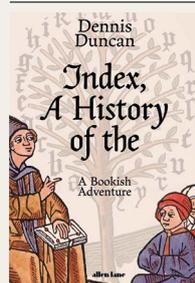
Among the great variety of cultures discussed and compared by anthropologist David Graeber and archaeologist David Wengrow is the Indus civilization, which flourished for seven centuries, starting about 2500 BC, then vanished. It had a complex economy, maritime trade and a chief city with advanced plumbing, but has yielded no sign of palaces, temples, rulers or warriors. This subtle but revolutionary study challenges the consensus that hunter-gatherer egalitarianism inevitably evolved, through cities, into hierarchical, bureaucratic states.



### Is AI Good for the Planet?

Benedetta Brevini *Polity* (2021)

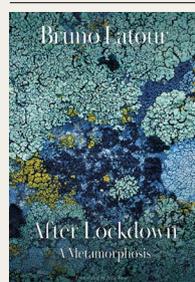
For all their benefits, artificial intelligence (AI) technologies are damaging Earth, argues journalist Benedetta Brevini in a short but powerful assessment. The effects are most obvious in the ever-increasing energy needed for data centres, but also in AI's boosting of "uberconsumerism", with its proliferation of products, packaging waste and built-in obsolescence – not to mention increasingly efficient fossil-fuel extraction. A 2018 Amazon Web Services report, Brevini notes, was called 'Predicting the next oil field in seconds with machine learning'.



### Index, A History of the

Dennis Duncan *Allen Lane* (2021)

The first web page (launched in 1991) was a subject index. When we Google something, we search not the entire web, but Google's index of it. These observations typify literary historian Dennis Duncan's wide-ranging and entertaining history, beginning in thirteenth-century European monasteries and universities. Despite the existence of indexing software, satisfactory results still require flesh-and-blood indexers. He proves the point with a computer-generated index of his book for 'A', with the absurd final entry: "amusement, 180/ mere, 198".



### After Lockdown

Bruno Latour *Polity* (2021)

"Let's celebrate the experience of a pandemic," writes philosopher Bruno Latour in his brief but dense meditation on COVID-19, inspired by Franz Kafka's 1915 novella *Metamorphosis*. The pandemic, he says, has made us realize – through social distancing and mask wearing – "to what extent the distinct individual was an illusion". He is not just being ironic: he argues that a new "global awareness" triggered by lockdowns might help to unite us in facing the even more demanding threat of climate change. **Andrew Robinson**