

## Books & arts

moved to Washington DC.

The team she led was small, and consisted mostly of members of the women's branch of the Naval Reserve. They produced reports on the oceanographic settings of Pacific islands that the Navy was thinking about invading. The intelligence included not only basic information, such as tidal ranges and underwater topography, but also assessments of how ocean currents, the time of day, the weather and other factors might contribute to the success or failure of military tactics. Even microscopic sea life could give away the presence of a night-time operation if the water contained organisms that glowed when a submarine passed through them.

Sears shifted from the snail-like speed of academic publishing to the fast-paced needs of the military. Navy officials came to her just a few months before planned operations, asking for a detailed assessment of potential landing targets to be done immediately. She would often get knocks on her door in the middle of the night and would go to the office to put together tidal tables for yet another small Pacific island.

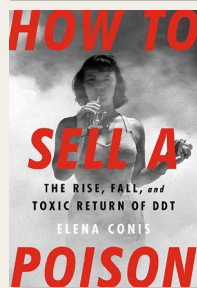
She had help. *Lethal Tides* is something of a paean to scientific librarians, such as Mary Grier, who worked for Sears by gathering reference material. There was no googling of publicly available information back then – Grier had to meticulously scour obscure sources of information to track down the data she needed. This was more than oceanographic research: it was military intelligence. And, ironically, some of it was sourced from Japan itself. Emperor Hirohito, who took the throne in 1926, was an amateur marine biologist who stimulated oceanographic research in Japan in the 1920s and 1930s. A Japanese naval survey of the western North Pacific Ocean became a key source for Grier when assessing the coasts of the many small islands the US Navy was interested in.

Musemeche, a paediatric surgeon and author, keeps the focus on Sears and her team, and does not analyse wider trends in oceanography during and after the Second World War. But that narrow focus serves the book well. The narrative speeds up as the US military advances in the Pacific region, ultimately setting up the battle for Iwo Jima in February 1945 and the invasion of Okinawa weeks later.

After leaving active duty in 1946, Sears settled at WHOI for the rest of her career. She founded two major oceanographic journals and became the first woman to have a Navy research vessel named after her, albeit posthumously. But before all of that, she made a trip to Europe in 1946 – where Norwegian colleagues let her sail aboard one of their research vessels, no questions asked.

**Alexandra Witze** is a correspondent for *Nature* based in Boulder, Colorado.

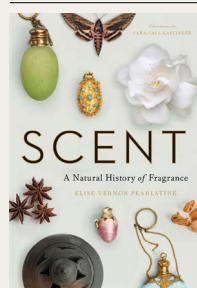
## Books in brief



### How to Sell a Poison

Elena Conis *Bold Type* (2022)

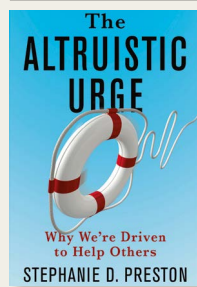
The pesticide DDT reduced typhus and malaria during the Second World War; its discoverer won the 1948 medicine Nobel prize. After the war, it was widely used in the United States to kill vermin, and city children played in the mist of trucks spraying it, notes historian Elena Conis in this complex, disturbing study. The chemical's toxicity to wildlife became notorious with Rachel Carson's book *Silent Spring* (1962). In 1972, the United States banned it. But even in 2001, more than 100 nations maintained that DDT was crucial for public health.



### Scent

Elise Vernon Pearlstine *Yale Univ. Press* (2022)

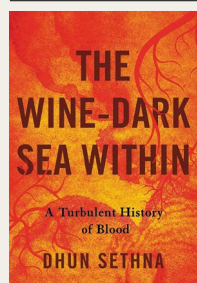
Elise Pearlstine is a wildlife biologist turned natural perfumer. Plants must seduce pollinators to flourish, she tells us, and cannot relocate or avoid disease. So they produce attractive fragrances, along with volatile molecules to deter predators and heal tissues. Although these are not created for humans, we fall for them. This charming book discusses spices and scents including frankincense, saffron, rose, mint and musk. It also describes perfume manufacturing and the fashion world's "hundreds, if not thousands" of perfume launches each year.



### The Altruistic Urge

Stephanie D. Preston *Columbia Univ. Press* (2022)

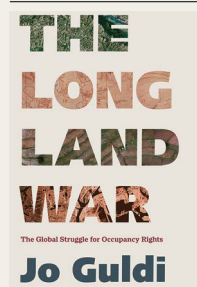
'Altruistic' has broad meaning, varying with context and speaker. Outside academia, it tends to cover all unselfish behaviour. A biologist might think of worker bees giving aid to their queen; an economist of how many dollars a student will donate to a stranger in an experiment. Psychologist Stephanie Preston focuses her analysis on the "altruistic urge", defined as the compulsion of an animal or person "to approach a vulnerable victim in immediate need of aid", for example when rescuing a stranger from a burning building.



### The Wine-Dark Sea Within

Dhun Sethna *Basic* (2022)

"The history of the circulation of blood is ripe with false attributions and contested claims of priority," comments cardiologist Dhun Sethna. His elegant, if often technical, history dissects these from antiquity to modern times, pivoting around William Harvey's controversial discovery of circulation, published in 1628. This replaced classical Greek physician Galen's view that blood flowed back and forth in two separate systems of vessels – veins and arteries – arising from the liver and the heart.



### The Long Land War

Jo Guldi *Yale Univ. Press* (2022)

As a child in Texas, Jo Guldi hiked amid ruined camps of the Civilian Conservation Corps, a government work-relief programme for unemployed men that began in the 1930s. Sometimes a hearth and chimney in a forest marked a past "unrecorded ejection". They sparked her later interest, as a historian, in occupancy rights. Guldi's global study of land redistribution and allied political movements over 150 years considers how these can inform responses to current crises that affect refugees, including global warming. **Andrew Robinson**