Gordon C. Hillman (1943–2018)

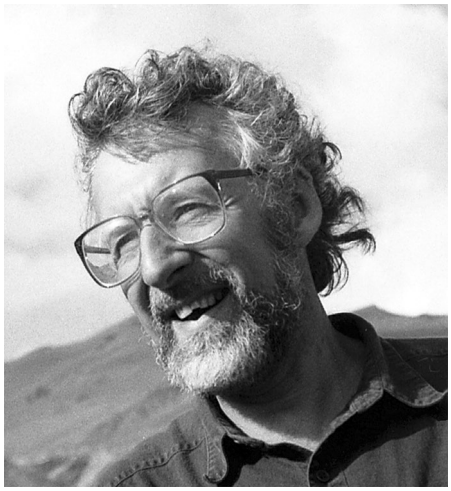
Pioneering archeobotanist

Gordon Hillman transformed our understanding of foraging and farming in the past, bringing a striking combination of botanical skills and a deep interest in humanity to the subject. He established much of the methodology, research questions and infrastructure of modern archaeobotany (the study of archaeological plant remains) and found wider renown in later years as a forager in the BBC series *Wild Food*.

Hillman's career path was formed at two of the many archaeological sites to be flooded by dams in the Middle East in the early 1970s. At Aşvan, on the Euphrates in eastern Turkey, David French led a pioneering multidisciplinary excavation team. Mechanisation had barely reached the village and Hillman seized the opportunity to immerse himself in what was effectively Bronze Age technology. A gifted linguist, he rapidly learnt Turkish and worked with villagers to observe traditional agronomy. His key observation — that crop processing stages, such as winnowing or sieving, generate highly characteristic seed and chaff assemblages — has been extended through work in Greece, India and elsewhere, and now underpins interpretations of archaeobotanical samples worldwide.

In 1972 to 1973, he joined Andrew Moore's excavations at Abu Hureyra, further south on the Syrian Euphrates. The 8 metres of archaeological deposits proved to span a 4,000-year period, encompassing the beginnings of farming. Hillman implemented a bulk flotation system, using river water to separate seeds, charcoal and bone from archaeological sediments. This was an important innovation, as small-scale 'bucket' flotation collects too few seeds for meaningful analysis at early sites. The resulting 500 litres of plant remains were to occupy Hillman for the next 25 years, seeing publication in a landmark archaeological report in 2000. The Abu Hureyra plant remains have been highly influential in forming views of a highly diverse foraging diet, perhaps including cultivation of wild cereals, and its replacement by a narrow diet of domesticated crops.

Hillman's interpretation of the Abu Hureyra seeds and charcoal depended on botanical fieldwork in the 1970s and 80s, surveying the ecology of wild food plants and the occurrence of weeds in cereal fields. He was an expert field botanist, drawing on a childhood spent in the family plant nursery and surrounding countryside in Hailsham, southern England; five years as an assistant botanist at the Natural History Museum, London between 1960 and 1965; and four years studying agricultural botany at the University of Reading. When he graduated in 1969, Hillman spent a year studying archaeobotany with Maria Hopf in Mainz, before leaving for Turkey in 1970.



Credit: Thilaka Hillman

A spell in Cardiff (1975–1981) combined university teaching and analysis of plant remains from excavations in Wales. This period enabled Hillman to demonstrate that methodologies of interpretation developed in the Near East could be equally well applied to European sites. It also led to a productive collaboration with Cardiff geneticist Stuart Davies, modelling domestication rates on the basis of experimental harvesting of wild cereals. While current archaeological evidence suggests domestication may have been slower than their model suggested, their application of evolutionary theory remains fundamental to the question.

In 1981, Hillman was head-hunted by David Harris, recently appointed Professor of Human Environment at the Institute of Archaeology, later to become part of University College London (UCL). Although very different in personality, Hillman and Harris formed a highly effective team. *Foraging and farming* (1989), an edited volume originating in the World Archaeological Congress of 1986, is widely recognised as a landmark volume, incorporating a truly global approach. The interdisciplinary approach of the institute enabled Hillman to explore technical innovations. These included the application of infrared spectroscopy to seed identification, anatomical identification of stomach contents and the use of scanning electron microscopy. Nonetheless, his identifications were primarily based on comparison of seeds to his extensive seed reference collection, aided by a near photographic memory and sheaves of drawings in an instantly recognisable style.

Hillman's reputation attracted important plant remains to the institute, including those from the Palaeolithic site of Wadi Kubbaniya in Egypt, and the stomach contents of Lindow man, dating to about 2,000 years ago. To tackle his ambitious research agenda, he recruited many students to the institute, for formal postgraduate study as well as visits that might be short but could be highly influential for the visitor. Students were attracted by Hillman's kindness enthusiasm, and generosity with advice and material. He was a superb storyteller, able to explain complex concepts clearly — qualities that also led to many successful grant proposals. Hillman not only raised the status of archaeobotany in Britain, but also trained a large number of students who now lead the field in other countries. Many of these contributed to a Festschrift, published in 2009.

In 1997, after noticing the early signs of Parkinson's disease, Hillman took medical retirement. He was appointed an honorary professor at UCL, which remains a major centre for archaeobotany, and began a twenty-year research project to investigate the potential of Britain's wild plants as hunter-gatherer foods. Drawing on worldwide ethnographic evidence, Hillman experimented with processing many native plants. He trained foragers in his local Sussex countryside, and on bushcraft courses run by Ray Mears. Their 2007 television series and book, *Wild Food*, was highly successful. Retirement also enabled Hillman to spend more time with his daughter and three grandsons. He lived independently, at home, to the end and continued to edit his forthcoming manuscripts on Britain's edible plants. ❐

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