

# Setting the heather on fire



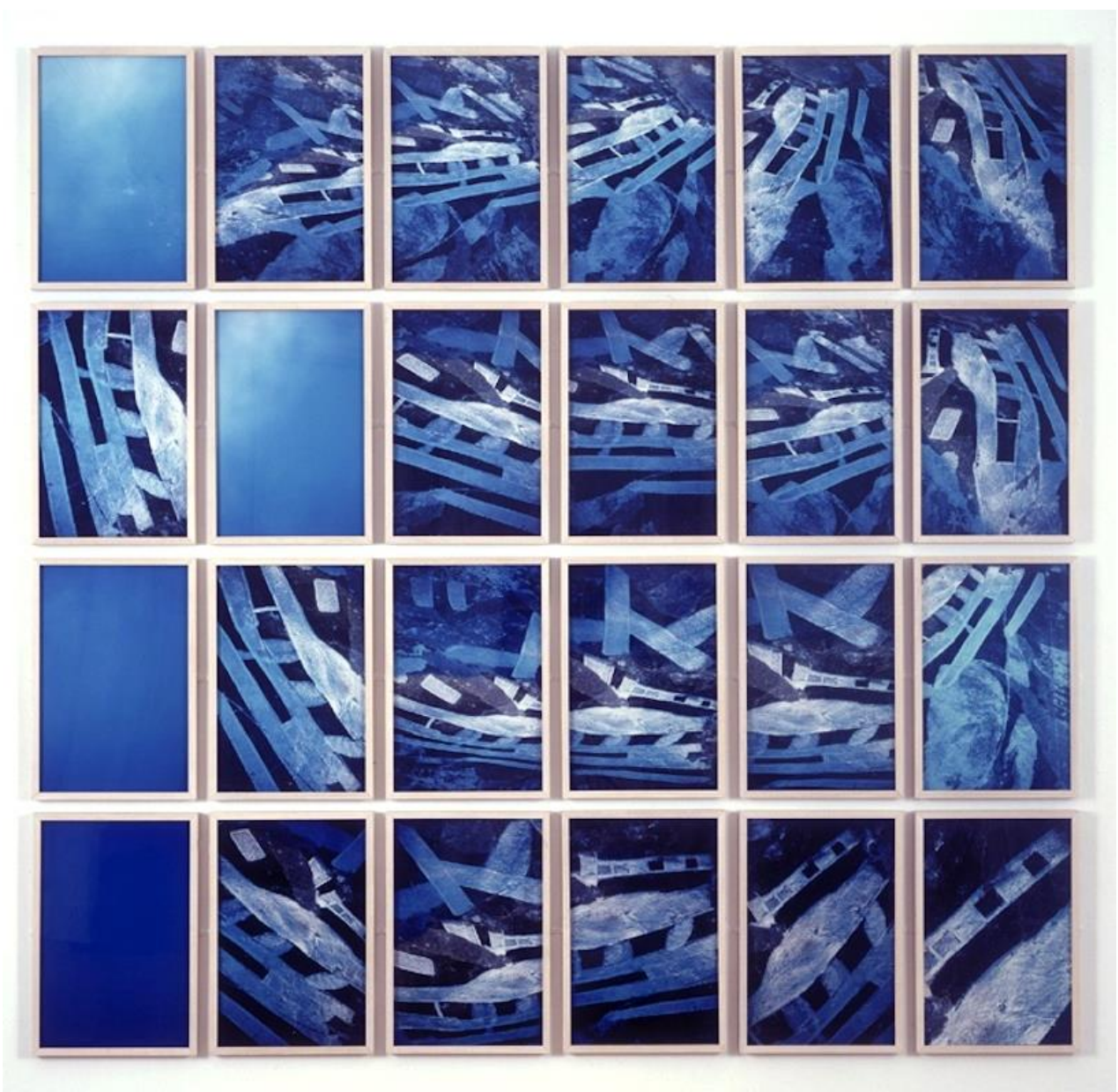
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*In January 2026 the Scottish Parliament passed the Natural Environment (Scotland) Bill which has been hailed as a historic moment in nature protection and restoration that will bring in legally binding targets for Scotland's biodiversity. Some experienced and knowledgeable commentators, however, continue to argue for stronger regulation on a number of controversial issues.*

*In this fourth feature, Patricia Macdonald (University of Edinburgh and Aerographica consultancy) again takes as a starting point one of her aerial photographic artworks from the collections of the National Galleries of Scotland to consider an environmental issue relating to climate change, biodiversity and the abundance of nature in the context of some key Scottish landscapes.*







***Burnt moorland: grouse shooting***, 1998-2001,  
from the series 'The play grounds: deadly games'

*The large composite aerial artwork seen above, 'Burnt moorland: grouse shooting' by Patricia Macdonald in collaboration with Angus Macdonald, is currently on display (until 19 April 2026) in the Great Hall of the Portrait Gallery in Queen Street, Edinburgh.*

This is a grouse-moor seen from the air after a fall of snow. The dark patches are tall heather. The lighter areas, with blue shadows on the snow accurately reflecting that of the sky, have been recently burned as part of the intensive management procedures of driven grouse-shooting, which have changed this 'wild' place – already altered by past human activity – into an ecologically degraded and highly unnatural, commercial landscape. Contrasted here are ideas of freedom and constraint, and different modes of perception: the linear grid of mechanist modernity with the circling, nonlinear forms associated with a holistic or organicist world-view.

For further information and comment on *Burnt moorland: grouse shooting*, please see: *Airworks*, 2001, Talbot Rice Gallery, University of Edinburgh / BCA Gallery, London; Stevenson, S., 2004, *History of Photography*, 28, 1, Frontispiece and pp 43-56; Lenman, R. (Ed.), 2005, *The Oxford Companion to the Photograph*, Oxford University Press, p. 9 & opposite pp 42-3; Normand, T., 2007, *Scottish Photography: A history*, Luath.



The phrase 'setting the heather on fire' originates from the long-established practice in the Scottish Highlands and Islands of 'muirburn', in which old heather is deliberately burned in patches in spring to promote fresh growth to provide an 'early bite' for grazing sheep, and for a wild game-bird, the red grouse. This controlled practice – although it sometimes results accidentally in a large, uncontrolled wildfire – is used as an idiom to convey graphically the meaning of causing a major stir, excitement, or a heated controversy, deriving historically from a description of the rapid spread of rebellion or uprising across the Highlands.

The actual practice of 'setting the heather on fire', or 'muirburn', in the context of present-day driven grouse shooting, remains controversial environmentally.

Rotational heather burning in patches has a long history of use in managing moorland and, if carried out with care, it can be an effective management tool. It encourages the growth of new shoots, which are more palatable than older, woody heather to grazing livestock and grouse, and it produces a mosaic of taller (older) and shorter (younger) heather which benefits grouse, as well as some other species. Currently, however, heather burning, especially over peatlands, has given rise to ongoing research and a lively debate about the possible effects on water quality, increased flood risk and reduced carbon storage. These are complex, contested, issues, on which the science is not always available or clear, with a range of findings and interpretations.

Traditional 'walked-up' grouse-shooting 'for the pot', often involving a dog to flush out the birds, required considerable skill, stamina and patience, involved a relatively small number of people, and caused little damage to the overall environment.





On the other hand, from around the 1840s in Scotland, the commercialized practice of driven grouse-shooting emerged. The shooters ('guns') crouch hidden in 'grouse-butts', with large numbers of birds flushed and driven overhead by men employed as 'beaters'. This practice involves management methods that produce phenomenally high densities of birds for shooting, which in turn demands intensive culling of other species, and frequent and intensive burning of the habitat on a landscape scale. In Scotland, the record 'bag' was 2523 grouse killed by eight guns on 30 August 1911, on Roan Fell in the Southern Uplands; another 1266 grouse were shot there eight days later! The natural predators of the grouse (foxes, stoats, weasels, hen harriers, peregrine falcons, buzzards and golden eagles) and other animals such as mountain hares, are relentlessly killed (the first three species legally and others illegally) to spare the grouse.

“Intensive burning of peatland, a protected habitat, not only damages the habitat but also makes it more prone to dry out and the peat below the surface to emit greenhouse gases. The [UK] Committee on Climate Change has called for a cessation of vegetation burning on peat soils, just the types of places where grouse-shooting takes place, simply on greenhouse gas emission considerations – and that really ought to be an end of the discussion right there. Burning the vegetation for the benefit of shooters also reduces a moorland’s ability to store water and increases the likelihood of flooding downstream. Having your home or business flooded because water pours off the grouse moors is not just an economic impact, it is a social harm. ... For all these reasons, and more, wildlife conservationists, climate campaigners and animal welfare campaigners have all promoted an end to driven grouse shooting.” [1]

Recent progress on regulation of these issues has included the Scottish Government introducing a licensing system for grouse moors, in the face of robust evidence on illegal killing of golden eagles and hen harriers. The Wildlife Management and Muirburn (Scotland) Act 2024 introduced three new licences (for taking and killing of red grouse, for muirburn, and for the use of certain wildlife traps). Some commentators, however, think that more stringent measures are needed. The controversy continues.

[1] Mark Avery, *Reflections: What wildlife needs and how to provide it*, 2023.

## About the author:

Dr Patricia Macdonald FRSE is an environmental researcher; an Honorary Fellow of the University of Edinburgh and Edinburgh College of Art; and an eminent artist-photographer best known for her powerful aerial imagery, made in collaboration with her partner in the Aerographica consultancy, Professor Angus Macdonald, also of the University of Edinburgh. Her work is exhibited and published internationally, and held in public, corporate and private collections worldwide. She is the author/co-author of more than ten books/catalogues and numerous articles. Her most recent book, as author and editor, is *Surveying the Anthropocene: Environment and photography now* (Studies in Photography, in collaboration with Edinburgh University Press, 2021/22)

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