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Cultural geographies in practice

Military landscapes and secret science: the case of Orford Ness

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Walk with me on Orford Ness. Walk where those who once belonged were men of science and war: secluded men, men testing bombs, guns and armour, men developing radar, men protecting information. Walk where all who now belong are rare species of bird, insect and plant; species whose habitats are protected. Walk with me along the narrow path laid out for visitors like you, by the National Trust, and do not stray where you do not belong. An elongated 16-kilometre spit of narrow, flat land hinged to the Suffolk coast in southeast England, Orford Ness is strewn with 50 or so deserted, decaying buildings left over from a century of scientific—technological research. From the First World War to the late cold war, this remote place was central, not to industrial or academic science, but rather to highly secret scientific research conducted in the service of warfare. It has long been shrouded in local myth. Abandoned by the Ministry of Defence in 1971, it began accumulating European designations of nature conservation import, and in 1993 it was acquired by the National Trust. After many internal disputes over the management and presentation of the site, the Trust opened Orford Ness to the paying public.

Throughout the subsequent decade, the Ness has often been described as a monument to science-in-the-service-of-war. The current visitor experience provides an excellent opportunity for investigating public perceptions of the relationship between science and war, and also the place of war technologies in the ‘natural’ landscape. In an earlier study of Orford Ness, I analysed this present-day visitor experience through treating the site as a Foucauldian heterotopia.¹ Part of the significance of heterotopic places is their functional relationship to the space outside themselves, since the relations inside them can invert, neutralize or suspect the relations outside them that they mirror. The study included consideration of the physical and social boundaries in operation, layers of visibility and ways of seeing, and forms of movement around the site. I found that at Orford Ness, the past century’s cohabitation of science and war becomes as an old partnership now fallen to disrepair.²

In what follows, I present an experiential, traveller’s account of the Ness, which method of description I feel to be a crucial part of the material available for analysis there, even bordering on being its own form of analysis. Reacting to the mysterious visual power of the place, those in the Trust responsible for the site’s current presentation tried to identify and preserve

this special character, to 'endeavour to understand Orford Ness on its own terms, to appreciate the order in disorder and the beauty in ugliness'.³ They noted that most site surveys inadequately capture the 'essence of a landscape' and that the defining and describing of sites' 'aesthetic qualities' is pitifully underdeveloped.⁴ Today, in contrast to the tamed experience of pristine grass lawns and tea shops had at many Trust sites, at Orford Ness the visitor is encouraged to experience a solitary and contemplative encounter. I try here to evoke the character of a visit to the Ness, with the aim that the reader is better able to understand the site and the role the Trust plays there. My thickly descriptive approach also takes precedent from Patrick Wright's subtly woven cultural history of 'deep England' and the lost village of Tyneham.⁵

Although once a thriving port, 500 years' southward growth of the spit gradually cut the village of Orford off from sea trade. Only one road approaches it, and both the road and the village end at the water. From the harbour the string of buildings on the other side of the River Ore seem incredibly close. You perhaps wonder how it could have been possible to keep the activities on Orford Ness secret, and recall how locals have smothered the site in speculation.

The Ness can only be reached by boat, and places are limited; the Trust takes a maximum of 96 people on Saturdays from April to October, and also five days per week between July and September. As you wait, clustered with the other visitors, you might browse your Trust booklet and read about an 'exposed, lonely, hostile and wild' landscape. A quiet buzz of anticipation fills the boat on a calm day; nervous silence on a stormy one. The weather

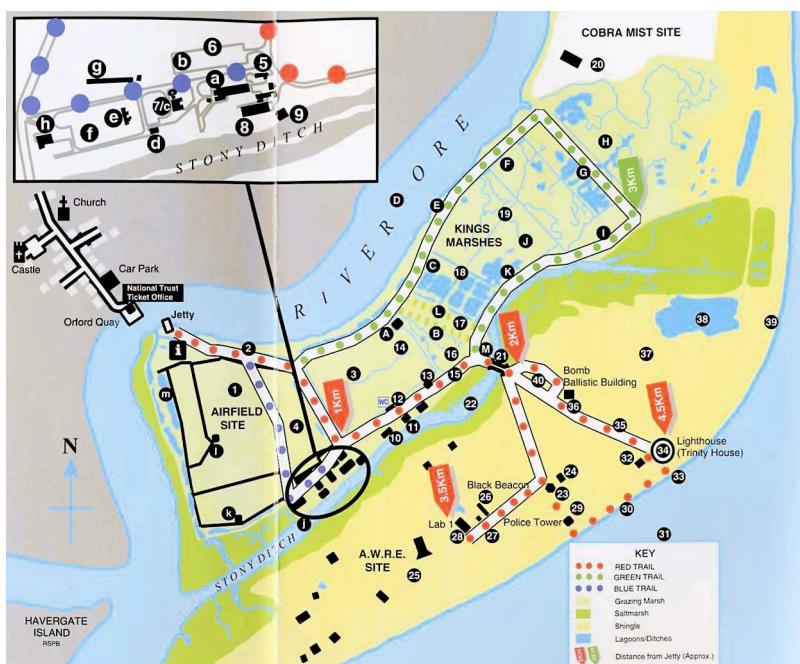


FIGURE 1 Map of Orford Ness, as found in the National Trust visitor's booklet. I reproduce this to give the reader a sense of the site's layout, rather than to enable all details of my route to be followed. The map shows three colour-coded visitor trails: two of these (through the airfield site and Kings Marshes) are only open for limited times; my route follows the main trail.



FIGURE 2 Looking across the river to the AWRE site on Orford Ness.ⁱ

changes rapidly here. Before being released from the volunteers' stewardship on the other side, you are briefed on the natural and military historical attractions that the Trust's trail will lead you past, and you are told that, for reasons of nature conservation and unexploded ordnance, this trail must not be left.

As you start to walk, pasture, marshland and the old First World War airfield open away from you in warm, familiarly English, greens and browns. A group of low-lying prefabricated buildings lies at the end of the path. Each appears mundane, quietly crumbling, but together they flatten the incoming light falling dead between them. None are labelled. If you are using the booklet, you will read that this ghostly area, 'The Street,' was the hub of experimentation during and between the two world wars, including the pioneering radar work by Robert Watson-Watt's 1935–6 team. Many of the buildings were later re-appropriated for Atomic Weapons Research Establishment (AWRE) work. The Trust has equipped some with a tin roof, Perspex windows and ventilation, and others have been preserved through reuse as interpretation centres, where laminated cardboard displays describe Orford Ness' geomorphological and ornithological features, and the military uses of the site. Much remains unknown of what went on here though, and on your way out a large notice board requests information from returning veterans.

Walking away from The Street on the Trust's track, you skirt the old perimeter fence of the AWRE site, now only a skeleton of concrete posts. Here, gorse-rich grassland starts giving way to a great expanse of barren shingle, and in this open flatness each side of the trail merges so easily with the land beyond it, where decaying forms of twisted metal and concrete lure you away from it; the strange textures of ruined military science tugging at your sense of intrigue. But the visitors all stay on the path. Glancing back at the AWRE fence, it is as though you sink into the gaping spaces between the posts, the past boundaries of military secrecy rising up into your present.



FIGURE 3 Metal and concrete blocks strewn on the shingle.

The trail takes you to the Bomb Ballistics Building, and inside you are invited to sit on the very stool, looking out through the same window, from where the flight-paths of dropping bombs used to be recorded. On the open top of the building, you are drawn towards a telescope from the testing days, and as you peer through it the cross-hair slides uninterested over Orford's medieval castle, the mainland's green pastures, the quay's quaint boats; it seems only to hook onto ghost-planes and ghost-bombs passing in and out of sight. Peeling yourself away, you survey the panorama below you as the Trust suggests, and the site-in-use recedes from view.

On your way again, the shingle shifts and slips underfoot, and crunching and ripping through the silence it locks your attention down onto the ground. Remembering the far-reaching sights from the Bomb Ballistics Building, you might well try to pull your eyes up from your feet, to take it all in from here. It is not so easy. Parallel lines of ridges in the shingle converge on each other in seductive vanishing points, sucking your gaze along them, and with the sounds and the slipping and the sucking, you have trouble feeling in control here. The path is leading you to the Black Beacon now, with a detour past the lighthouse to stop for lunch, from there to walk by the sea's edge and past the Police Tower that used to guard the AWRE site. Down by the sea, you can gaze far out into the grey water and wander in and out of the debris washed up on the shore, as jumbled and unidentifiable as the military debris above.

Finally inside the Black Beacon, you find a display on the site's main attraction for most visitors, the secret AWRE laboratories. There are photographs and architectural drawings, and the view from here is recommended. Once you have climbed to the third floor, there are six narrow windows, each flanked by a simplified, labelled line-drawing of the view. You can play the game of linking the view to the diagram, identifying the objects the Trust deemed worthy of your attention. Visitors feel relief here. After being immersed in the expanse of discarded ruins



FIGURE 4 Black Beacon (right) and Police Tower (left), from on top of the Bomb Ballistics Building.

outside, you welcome the clarity of the drawings, the height of the building and the distance they offer from that overwhelming landscape. With a tinge of self-satisfaction, you feel it is you who has reasserted order over your view.

Outside again, you approach the AWRE site. The six laboratories, used for environmental testing of the atomic bomb's trigger mechanism, were banked by shingle to muffle potential blasts from the conventional explosives used in them. Earlier, they had seemed untouchable, unreachable; strange hulks shimmering on the horizon. Now you can see the banks of shingle piled against them, and it seems as though the laboratories nestle into the shingle, crouching and hiding behind it in comfort from intruding eyes (and you remember this is a nature reserve). Coming closer still, the banks slide from one characterization to another, appearing now as sand dunes, purpose-built for recreation, and now as burial grounds: solemn memorials to the suffering of the Ness at the blasting hands of military science. You pass a National Trust sign explaining that the laboratories have been left to become more evocative as they ruin, and you see they are indeed rather picturesque.

The path ends at laboratory 1, which you enter through a quiet, damp hallway with a glow of green at the far end. Before reaching it, you might drift into first one dark side room (and stand still, adjusting eyes finding only emptiness) and then another (rubble on the floor, switches on the wall). Finally, nose against the wire fence, you meet the outside inside as it comes streaming between the roof's bare beams. Your gaze follows the light as it floods past once-fluorescent lights now limply floating, streaks down the walls in swathes of algae, falls onto fresh leaves freely sprouting, and slips away into the pit on the right where bombs used to be subjected to a hydraulic ram. Laboratories 1 and 2, used for vibrational-, shock- and centrifugal-testing, were built with soft roofs that have not survived the conjoined threats of weather and scrap-merchants since the Ministry of Defence left.

Next to laboratory 1, inside the building that used to be its control room, you find a glistening white atomic bomb. The room is starkly bare. On the bomb's label, you can read that it is a defused WE177A, one of those tested at Orford Ness. Visitors tend to walk around it, as if with each new angle it might be startled into telling something more. It seems to say that here you have stumbled upon the *real* destructive force at Orford Ness: before the site had seemed under nature's power, the strange shapes you walked past the result only of the long process of decay; now the Ness pales suddenly into nuclear wasteland. After hours of slow walking, the idea of instantaneous ruin hits you hard. As you carry on around the bomb, it tells you Orford Ness destroyed itself with its own endeavours; military science purifying itself. You pause here, mesmerized, and in its pristine state it seems to tell you that, in fact, military science still pervades the present.

The rest of the AWRE site is inaccessible to the public. Visitors must retrace their steps to the boat, where a National Trust volunteer will tick them off the list, ensuring all who come also leave. On one of the infrequent, more expensive guided tours, you may go to the Pagodas. No other visitors spoil the view on this part of the Ness, and all your attention is focussed on the buildings looming larger and larger. The distinctive shape of the Pagodas is the result of the AWRE's architectural progression from soft to hard roofs; the slim, readily collapsible supporting legs and the hard, flat roofs were intended to take the vertical force out of a blast (although local myth says the legs contained explosives which would be triggered in the event of an explosion, destroying everything inside). In the underground cavern that is laboratory 5, the high walls are striped with tall, cross-shaped slits, from which equipment used to be hung. White crosses against dark panels, towering above you, these slits render you silently respectful, as if you have ended your tour in a place of worship.

On the boat journey back to where your car is waiting, there is much you could think about what you have seen here. You know this place has been described as a monument to



FIGURE 5 Laboratories 4 and 5, named by locals 'the Pagodas'.

the cold war, as emblematic of 20th-century warfare. You could think that, in an age where war has become invisible, above our heads, it is appropriate that a monument to older wars has such highly *visible* buildings. It could occur to you that your slow movement around Orford Ness was like a tribute to the old wars of *movement*, where now there are only wars of communication and instantaneity. You could reflect on those moments when the site-in-use seemed to come alive in your eyes, as if you were there or it were here; the AWRE fence, the Bomb Ballistics Building and the atomic bomb had all startled you with the continuing prescience of the link between science and the military. You might even go on to reflect that the dominant effect of the site was the opposite of this; that it made you aware of the passage of time as if standing outside it. The extremely high visibility of the process of decay, the palimpsest buildings repeatedly appropriated for a multiplicity of military and interpretive uses, and the juxtaposition of buildings from many different times against one another – all of these distanced you from the site, so that the conjunction of science and warfare could appear safely confined to the past. But even while you are on the boat, you are still in the thick of this secret Suffolk site, and introspection and analysis wait until your return.

Biographical note

Notes

- ¹ S. Davis, 'Military landscapes: scientific ruins and cold war monuments at Orford Ness', unpublished MPhil thesis, Department of the History and Philosophy of Science, University of Cambridge (2006). The thesis drew from work on the spatiality of science, the heritage and museum industries, art history, and the anthropology and archaeology of memorialization. Of particular influence were the following: W. Kemp, 'Images of decay: photography in the Picturesque tradition', *October* 54 (1990), pp. 102–133; S. Michalski, *Public monuments: art in political bondage* (London, Reaktion Books, 1998); S. Küchler, 'The place of memory', in A. Forty and S. Küchler, eds, *The art of forgetting* (Oxford, Berg, 1999); T. Edensor, *Industrial ruins: space, aesthetics and materiality* (Oxford, Berg, 2005).
- ² On the so-called military-industrial-academic complex, see P. Forman, 'Behind quantum electronics: national security as basis for physical research in the United States, 1940–1960', *Historical studies in the physical and biological sciences* 18 (1987); P. Galison and B. Hevly, eds, *Big science: the growth of large-scale research* (Stanford, Stanford University Press, 1992).
- ³ A. Wainwright, 'Orford Ness', in D. Evans, P. Salway and D. Thackeray, eds, *The remains of distant times: archaeology and the National Trust* (London, Society of Antiquaries/National Trust, 1996), p. 199. Also informing this passage is an interview conducted with Wainwright by the author on 25 May 2006. Wainwright, regional archaeologist for the National Trust, along with architectural historian Jeremy Musson and property manager Grant Lohoar, was the key figure in establishing the management plan for Orford Ness.
- ⁴ Wainwright, 'Orford Ness,' p. 198.
- ⁵ P. Wright, *The village that died for England: the strange story of Tyneham* (London, Jonathan Cape, 1995).
- ⁶ This photograph and all that follow were taken by the author in April 2006.