

University for the Creative Arts
Research Project Portfolios

The Unseen: an Atlas of Infrared Plates

By Edward Thompson



Project Details

Name of Researcher:	Edward Thompson
Name of Output:	<i>The Unseen: an Atlas of Infrared Plates</i>
UCARO link/s:	https://research.uca.ac.uk/4290/
Output Type:	T – Other; multi-component project comprising photography book and exhibitions
Year and mode of dissemination:	<p>Exhibitions</p> <ul style="list-style-type: none">• Multiplied Art Fair, Christies, London, UK, 17 October 2014 - 20 October 2014• Royal Engineers Museum, Gillingham, Kent, UK, 30 October 2014 - 1 March 2015• Four Corners Gallery, London, UK, 7 April 2015 - 24 April 2015• Affordable Art Fair Battersea, London, UK, 2015• Horizonte Zingst Photography Festival, 30 May 2015 - 7 June 2015• Lilford Gallery, Canterbury, UK, 14 October 2017 - 2 November 2017 <p>Book</p> <ul style="list-style-type: none">• Thompson, Edward (2016) <i>The Unseen: an Atlas of Infrared Plates</i>. Amsterdam: Schilt Publishing, ISBN 978 90 5330 863 9
Key Words:	Photography; Documentary; Infrared; Environment

Project Details

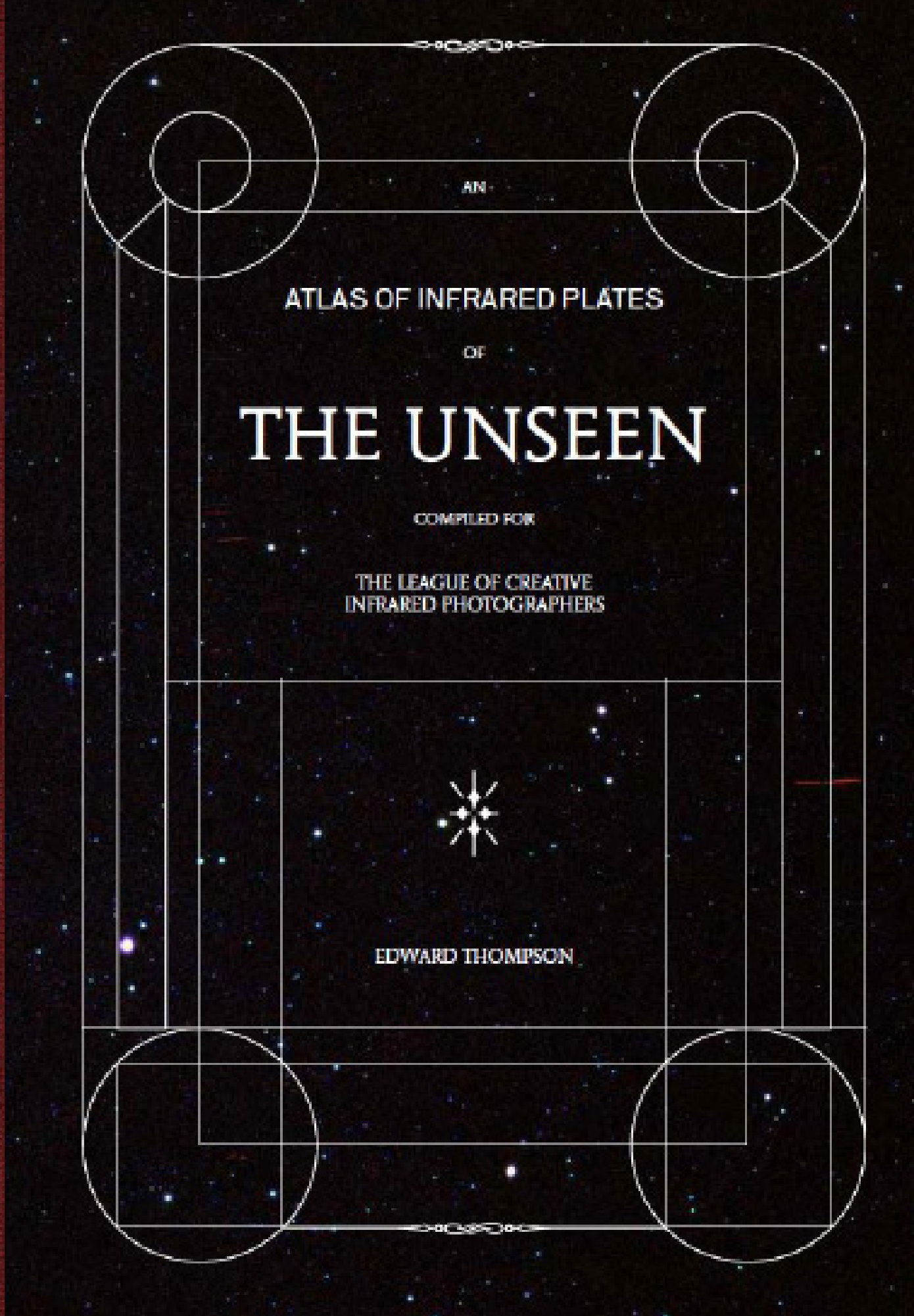
Funding:

Exhibition supported by Arts Council England and by in-kind support from various partners including Four Corners Gallery in East London and Francis Knight Arts Consultancy.

Book part-funded with the financial support of Arts Council England and a Kickstarter crowdfunding campaign.

The Guardian provided travel expenses to visit the flooded refugee camps in Assam, India.

2016	Grants for the Arts, Arts Council England	£13,000
2016	Kickstarter Crowdfunding	£6,577
2013	Grants for the Arts, Arts Council England	£9,210
2012	The Guardian	£1,000



The Unseen book cover

Synopsis

The Unseen is a creative investigation into the medium of infrared photography, presenting new photographic interpretations of experiments made by scientists in the 20th century and exploiting the potential of infrared photography to reveal what cannot be seen by other means.

Photographer Edward Thompson researched the history of infrared photography, identifying its many uses in 20th century science, and beyond. Colour infrared film had over 1,800 documented applications, from medical photography of veins and tissue specimens to astrophotography—and even as a ghost-hunting tool. The start of Thompson's interest in infrared film coincided with the end of its manufacture. He purchased some of the last 'deadstock' rolls of Kodak Aerochrome III infrared film in existence and set about using them to photograph a variety of subjects, following ideas suggested by his research in the archive. He moved beyond a reproduction of the documented scientific applications

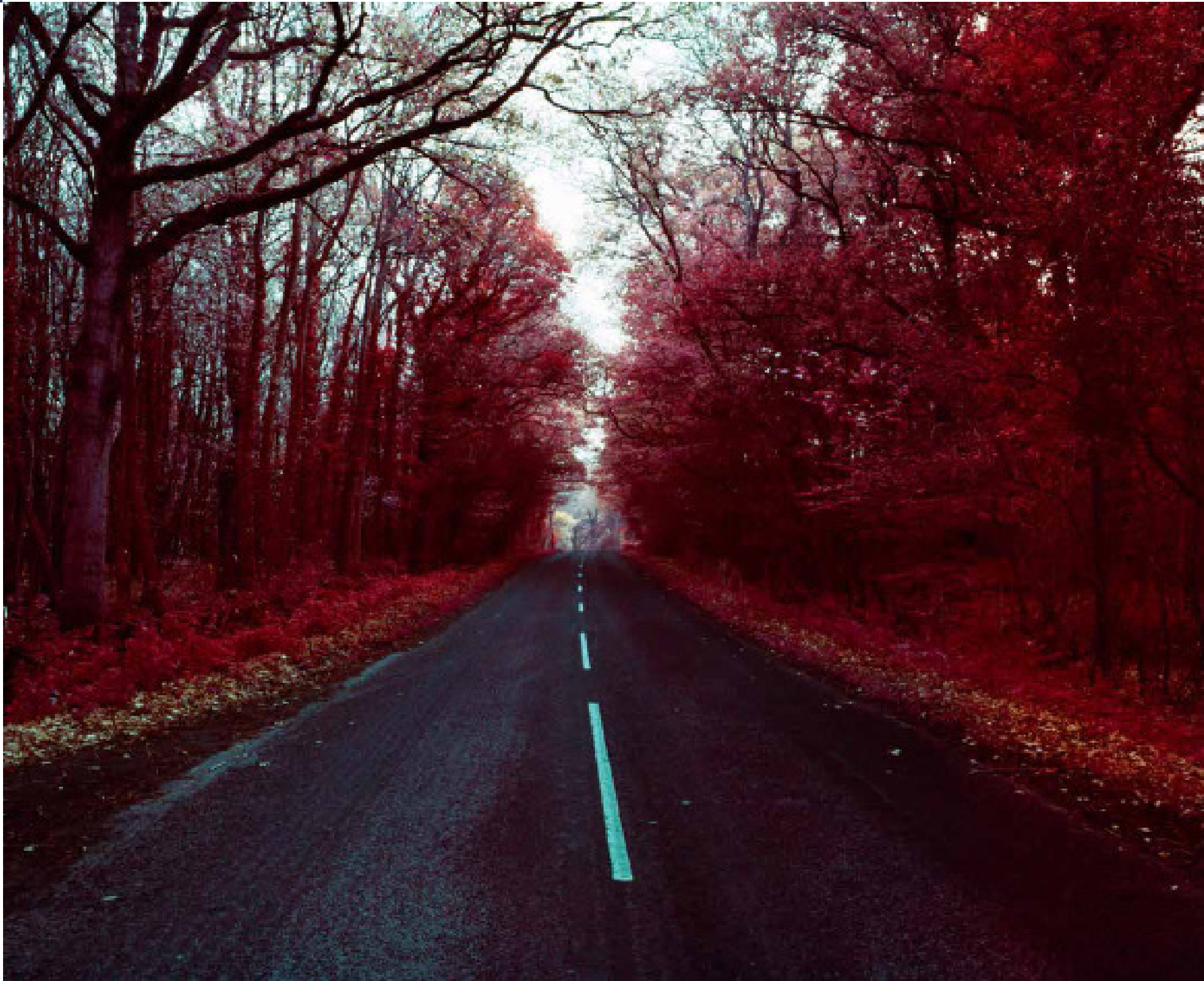
of infrared photography to combine different techniques, push from the factual into the fictive, and comment critically upon contemporary issues. Thompson's subjects include city pollution, the 'red forest' around Chernobyl, the effects of flood waters in India, and an unsettling series of images 'making strange' the Kent village of Pluckley where he had tried, and failed, to photograph ghosts as a child and which reveal the state of alienation of the modern world from its natural environment. The photographs in *The Unseen* have been exhibited in a range of contexts and the research is published as a book, with photographs and text by Thompson. The research pushes the purposes and properties of infrared film to its scientific and conceptual limits.

This portfolio of contextual information provides a summary of the research context, aims, processes and dissemination, including full details of the exhibitions. The book, *The Unseen*, is submitted in its entirety.



Talking With Bees

*B2077 road, reputed location of sightings of a phantom coach and headless horses, The Unseen, The Village (2010).
120mm CIR Photograph*



Context

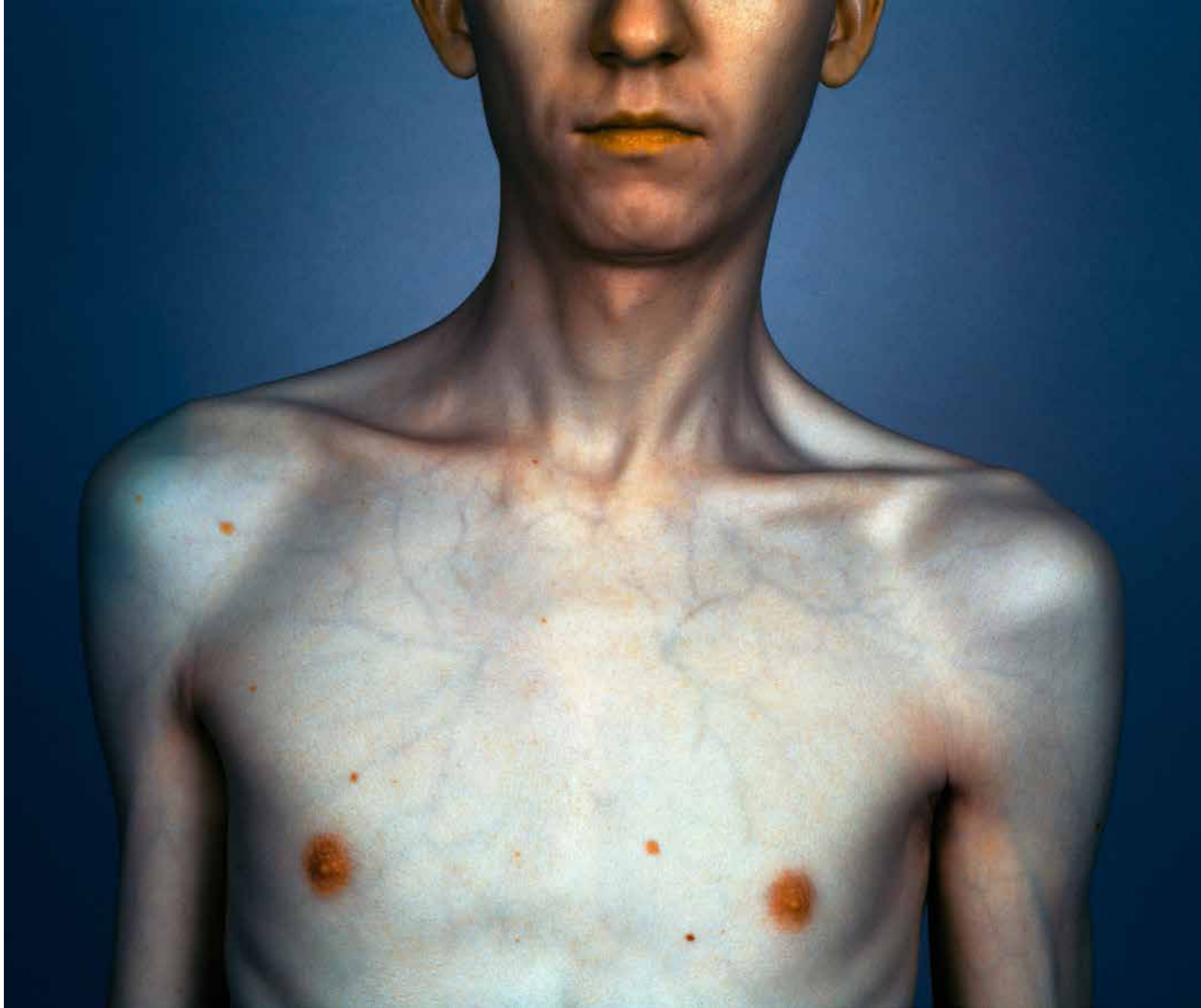
The infrared spectrum was discovered on February 11 1800 at Observation House, Slough, England by Sir William Herschel, who had been experimenting with filters to better see sunspots through his telescope. *The Unseen* is photographed with some of the last rolls of colour infrared film in existence, and a sense of this finality permeates the work. The photographs are heavily dystopian, and at the centre of the research is the idea of revealing things we cannot see, that are beyond perception.

Thompson's work with infrared film began with a 2011 series called *The Village*, an always-futile attempt to capture the ghosts he had failed to photograph in the village of Pluckley, Kent, as a child. As part of the process he experimented with infrared film and this led him to research the history of infrared photography and its use during the mid-twentieth century in a variety of scientific contexts, searching documentary evidence using the resources available in the British Library. A key source was the work of Dr Henry Louis (Lou) Gibson, who worked for Eastman Kodak and in 1978 revised the third edition of the 1946 text *Photography by Infrared*, incorporating much of his own research into it. The result was a seminal text on the subject, and the book became an integral part of *The Unseen* as Thompson used it to suggest and define his own ideas for

contemporary uses of infrared film. Thompson pursued the uses of infrared through *Photography by Infrared* and many other papers from the scientific literature of the mid-twentieth century. By this stage manufacture of the film had ceased, and he was aware that he was working with a finite supply. He made a research journey through medicine, astronomy, geology, hydrology, environmental impact studies, art conservation, parapsychology and ghost hunting, and talked to astronomers, art conservators and curators to carefully choose the subjects to photograph with his few remaining rolls of film.

REFERENCES

- Gibson, H. L. (1978) *Photography by Infrared: its principles and applications*. New York: Wiley
- Ring, E. F. J. (2000) The discovery of infrared radiation in 1800. *The Imaging Science Journal*, 48(1), 1-8.
- Wedderburn, A. J. (1948) Photography in Science. *The Scientific Monthly*, 66(1), 9-16.



OVERLAY #1: Chest #1 from The Vein.(2015). 120mm CIR Photograph.

Research Questions and Aims

Research questions:

What are the capabilities and uses of infrared film, primarily from an artistic point of view but also from a scientific perspective?

How might the use of infrared film add a different perspective or additional meaning to the subjects photographed?

What particular subjects would benefit from the use of infrared film, and to what end?

Research aims:

To explore historical and contemporary uses of infrared film.

To explore wide-ranging social and environmental themes through the use of infrared film in order to provoke a different perspective on the issues covered.

Research Methods and Process

CONTEXTUAL RESEARCH AND SELECTION OF SUBJECTS

Thompson selected the most telling subjects for his few remaining rolls of film using archival and contextual research into past applications of the film as a starting point. His research in the British Library resulted in the compilation of an extensive resource on the history of infrared photography, and was followed up with visits to collector Andrew Finney's archive of sources on infrared photography. Thompson identified his contemporary subjects in response to the documented twentieth-century uses. The chapter on the 'Red Forest' of Chernobyl was provoked by the use of infrared photography to document from the air different species of trees and their health. The chapter on the 2012 floods in India followed a 1975 project to use infrared photography to assess the damage caused by floods in North Dakota and Minnesota; whereas the first project assessed damage to crops, Thompson concentrated on damage to people, alluding to the objectifying approaches of photography in colonial history.

LOGISTICS

Finding the deadstock infrared film was Thompson's first logistical issue: some was purchased cut down from old

aerial film stock, another few rolls were purchased from a war photographer based in New York. Other logistical issues included setting up his research trip to the Red Forest around Chernobyl, travelling with a 'dark tourism' company. In photographing the floods in India he leveraged his journalistic background and liaised with various NGOs, including Oxfam, to arrange access to flooded refugee camps with the support of a 'fixer' on the ground. He made a January trip to the Breiðamerkjökull Glacier in Iceland in 2016, inspired by scientists who had documented it with infrared photography in 1966, and others who had photographed the Northern Lights in the 1930s.

PHOTOGRAPHIC TECHNIQUES

The different projects within *The Unseen* required particular photographic techniques. Thompson drew on the tradition of aerial and landscape photography to explore air pollution in London. He developed particular trial processes using various filtrations to find the correct filters to 'knock out' the visible wavelengths of light in the photographs. And as the project progressed he struggled with the deteriorating Kodak Aerochrome III film, which by the later stages was six years deadstock and increasingly volatile.



Studies in Pollution #10. Aerial photograph of London Olympic Stadium from The City. (2014). England. 120mm CIR Photograph.

*Subsiding flood waters from After
the Flood, After the Red River
Valley (2012). India. 120mm*



Research Contribution and Recognition

Research insights and contribution:

Beyond the more superficial aesthetics of the infrared film there is an interplay between art and science, and so work using infrared film can be situated within this dialogue.

Individual chapters of the research used infrared film to provide insight into social and environmental issues, demonstrating that the capabilities of infrared include drawing attention to pollution and radiation, amongst other subjects. Other chapters provided insight into the perception of the human body, situating the nude body in both scientific and cultural discussions surrounding health, beauty and taboo.

The Unseen explores things that we cannot generally perceive visually. It also uncovers topics that humanity tries to ignore: climate change, pollution, disease, nuclear threat, our colonial past and even death itself.

Influence of the research:

A number of PhD theses have cited the work, mainly for the chapters covering environmentalism, including pollution in London and the Red Forest of Chernobyl.

Dissemination:

The photographs were exhibited widely. The series was shown at Four Corners Gallery (UK), Christies (UK), The Royal Engineers Museum (UK) Lilford Gallery (UK) and at the Horizonte Zingst Photography Festival in Germany.

In 2015 Thompson was invited to contribute an article on *The Unseen* research to Photoworks, the UK's online photography platform (<https://photoworks.org.uk/unseen/>)

The book was published by Schilt Publishing and distributed globally by Ingram and Thames & Hudson.

Research Contribution and Recognition

Dissemination:

Thompson has lectured on this work at talks and workshops at the Host Gallery (London), The Whitechapel Gallery, The Photographers' Gallery, Photo-Forum Talks at The Printspace Gallery, The Institute of Astronomy as part of Cambridge Astronomical Association, University of Falmouth, University of Bedfordshire and University of Northampton.

The exhibitions received widespread attention in the press including features in *Timeout London*, the *Telegraph* and the BBC. The book was launched at The Photographers' Gallery in London and received extensive attention in the press with reviews and articles published in:

- The Guardian
- Creative Review
- The Big Issue
- The Telegraph
- Fraction Magazine
- Ydoc
- LensCulture
- Infrared 100
- The Fast Co.
- GUP Magazine
- PDN Photo of the Day
- Infrarouge
- The Creators Project, Vice
- Professional Photography Magazine
- Amateur Photographer
- i - Picture Book of the Week
- Yatzer
- After Nyne
- We Heart

The work went viral on the BBC and on Featureshoot and led to Thompson being featured as a 'one to watch' artist by Saatchi Art (interview: <https://youtu.be/wufMGlj9u1k>)

FOUR CORNERS GALLERY LONDON





Villagers walk over a road only recently made accessible due to dissipating flood waters. From After the Flood, After the Red River Valley (2012). India. 120mm CIR Photograph



*Portraits from After the
Flood, After the Red River Valley
(2012) India. 120mm CIR
Photograph*



FOUR CORNERS GALLERY LONDON



*Injected Heart from The Gross
Specimen (2015). 35mm CIR
Photograph*



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