



# X-RAY

## ART

NICK VEASEY

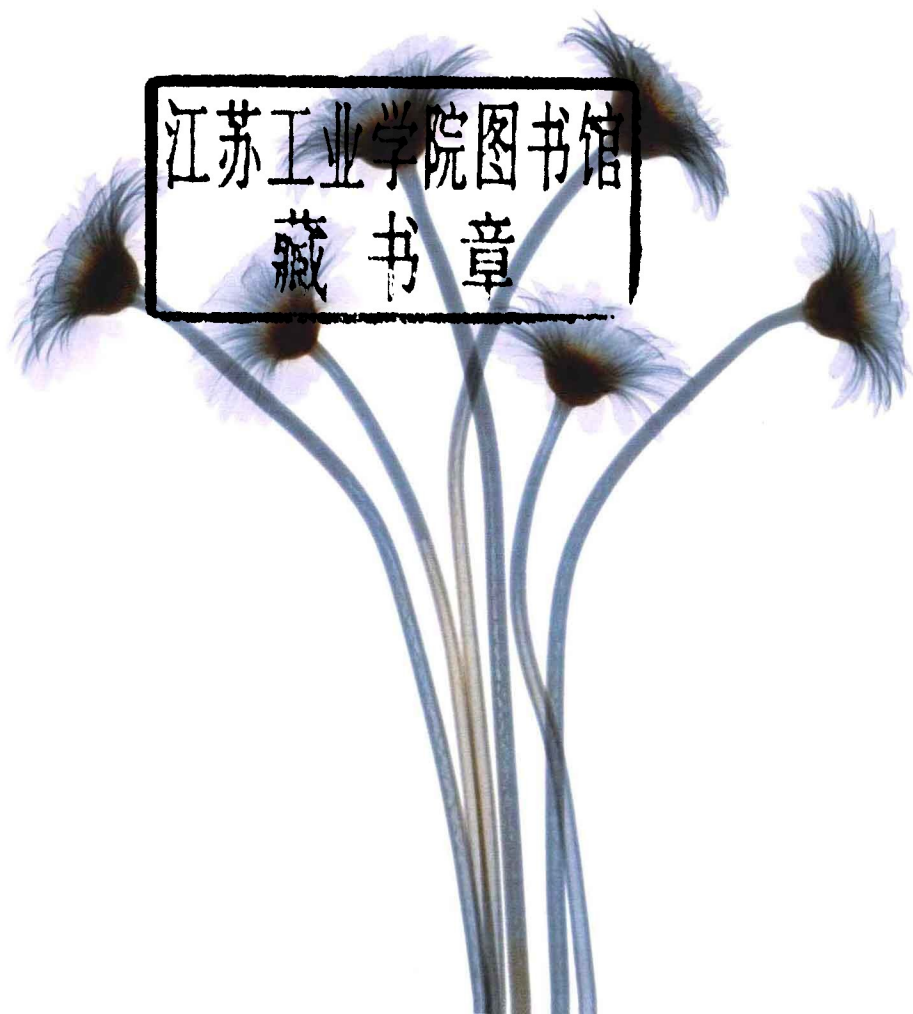
International Photography  
Awards prize-winner

SEE THROUGH THE WORLD AROUND YOU



X-RAY

江苏工业学院图书馆  
藏书章



*For Molly and Herbie. Show this to your own kids one day.*

THIS IS A GOODMAN BOOK

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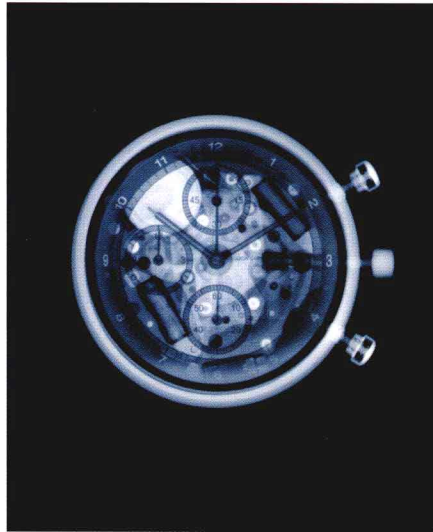
# X-RAY

See Through the World Around You

Nick Veasey







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## ABOUT GE INSPECTION TECHNOLOGIES

Non-destructive testing has long been considered to be a black art rather than a pure science. Historically, many of its major techniques, such as ultrasonics, eddy current and radiography, have relied on the subjective interpretation of images, whether these images be of the structure of welds, the turbines of a jet engine or the insides of a human body. The visual arts too rely on the subjective appraisal of images although, here, the appraisals tend to be made more on an emotional basis than a logical basis. To be involved in a project which harnesses and exploits modern technology to advance the boundaries of art, is something that we, at GE Inspection Technologies are particularly proud of.

Our involvement with this project really extends much wider than being the providers of the very high quality Agfa film which Nick Veasey uses. GE Inspection Technologies, through its various heritage companies, has been, and continues to be, one of the world's leading innovators in non-destructive testing generally and radiography specifically. We continue to develop film and film-processing equipment and we have led the way in many aspects of digital radiography. Many of these advances have been pioneered in the medical field through other companies in the GE family. This technology transfer has provided even greater opportunities for non-destructive testing, especially in terms of quality of imaging, safety of operation, analysis and storage of data and ease of

interpretation. We also continue to develop and advance within our own specific discipline.

X-ray machines are used in virtually every segment of industry. Computed radiography is making increasing in-roads in all aspects of radiography. Direct radiography is considered one of the most significant breakthroughs in x-ray imaging in the last 25 years. And we are now very much involved in microfocus and nanofocus radiography, inspecting tiny components such as those used in the electronics sector.

But it is not just in radiography that we are constantly evolving new techniques and equipment. In the ultrasonics sector, our new phased array systems are bringing easier image interpretation, as well as better probability of flaw detection. The same can be said of our new pulsed eddy current equipment and our video borescopes and endoscopes now provide even higher definition and resolution.

GE technology helps to provide images so that we have a better understanding of our world. Hopefully, Nick's creative and ambitious use of some of our technology will help you also to gain a better understanding of our world, in a refreshing and stimulating way.

If you want to learn more about GE Inspection Technologies, please visit [www.ge.com/inspectiontechnologies](http://www.ge.com/inspectiontechnologies) <<http://www.ge.com/inspectiontechnologies>>.



## INTRODUCTION

I am not Superman, I do not have x-ray vision. And I would look particularly unsavoury in skin-tight lycra.

But I have found a way to see beneath the surface. Nothing gives me more pleasure (well, very little anyway) than revealing the inner beauty of a subject. The unseen can be seen, the internal elements and workings revealed. The inside becomes the outside.

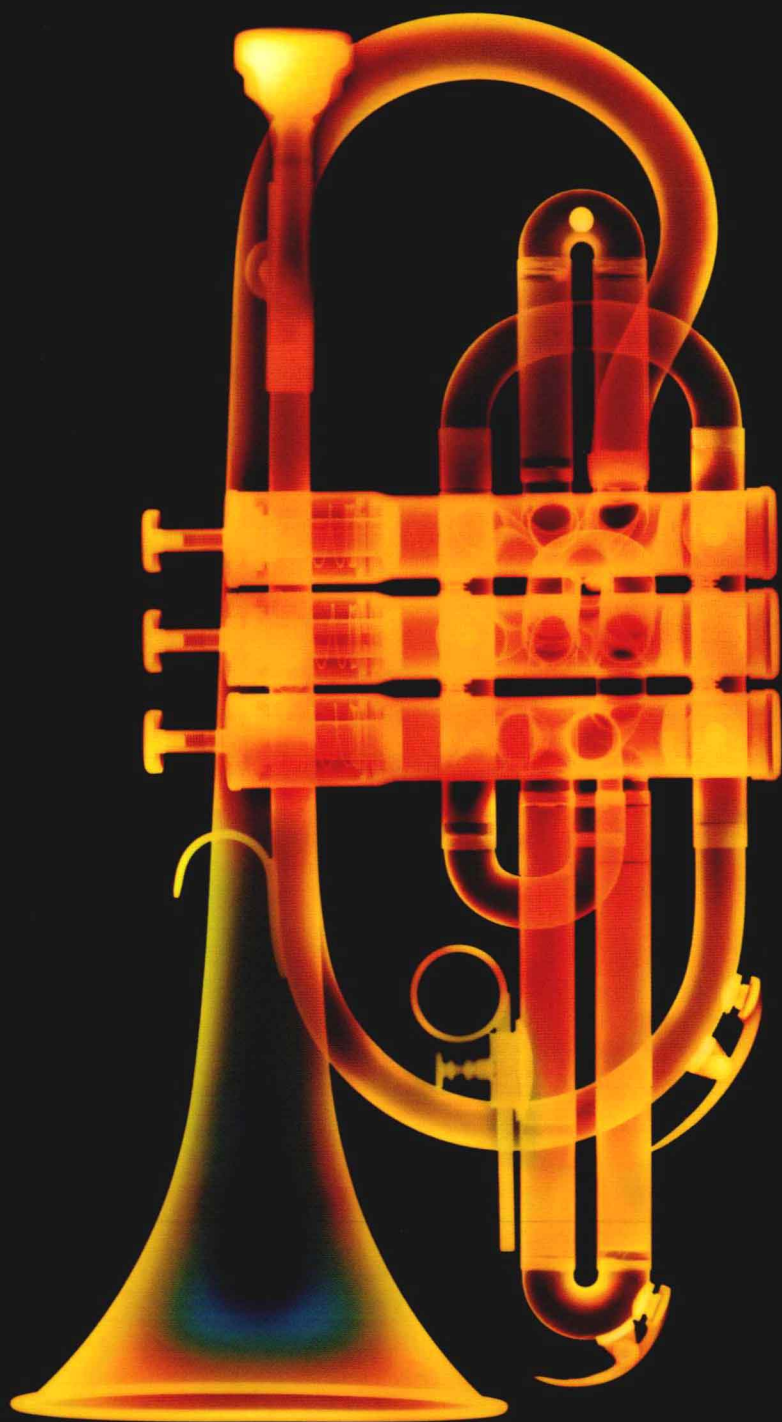
We live in a world obsessed with image: with what we look like, what our clothes look like, our houses, our cars.... I like to counter this obsession with superficial appearance by stripping back the layers and showing what things are like below the surface. Often the integral beauty of the underlying structure adds intrigue to the familiar. We all make assumptions based on the external visual appearance of what surrounds us and we are attracted to people and things that are aesthetically pleasing. I like to challenge the automatic way in which we react to external physical appearance by highlighting the often surprising inner beauty of things.

This society of ours, obsessed as it is with image, is also becoming increasingly controlled by security measures and surveillance. Take a flight or go into a high profile courtroom and your belongings will be x-rayed. The post arriving in corporations and government departments has often been x-rayed. Security cameras track our every move. Mobile phone records can place us at any given time. Information is key to the fight against whatever we are meant to be fighting against. To create art with equipment and technology made to help Big Brother delve deeper, to use some of that fancy complicated equipment that helps remove the freedom and individuality in our lives, to use these instruments to create beauty brings a smile to my face. I am no major subversive artist, but I do like to see the reaction of people in authority when they see my work. I'm sure they think something along the lines of, "we didn't spend all this time and money improving x-ray technology, for you to make pretty pictures." Well I have anyway. You can keep making your advances, and I'll keep making mine.

Most of us are familiar with the human form in x-ray, so although this book has a chapter devoted to x-rays of the body, I will not dwell here on this aspect of my work. Instead, I would like to take you back to the beginning. Long before I was around, in 1895, Wilhelm Roentgen invented x-rays. The processes I use are fundamentally the same, but technology







has helped make the x-ray process quicker, better and safer. Safety is a subject that I pay particular attention to as I'm messing about with some dangerous stuff – cobalt iridium, ionising radiation, chemicals... x-rays are dangerous, especially as they are invisible and have no smell. Look what radiation does to cancer patients undergoing radiotherapy, and that is in therapeutic use. Like many artists before me I am prepared to risk my safety for my art, but I do what I can to minimise that risk. I've got two healthy children and all my vital organs still function.

My first x-ray sessions had very mixed results. I was on a steep learning curve at the start, and I'm still learning. Fortunately, after months of experimentation I became more confident and built up a portfolio. I then went to New York to show this early work and luckily a magazine liked what I had to show and ran an article about it. It may seem a melodramatic cliché, but this article was a life-changing moment for me. The interest in my work blossomed. I became a real pest to radiographers, scientists and equipment manufacturers around the world, hassling them for information. What could I achieve with x-ray? How far could I go with it? I am still answering these questions and hope to continue to do so for many years to come.

To create my x-ray images I work in a lead-lined room, with a very heavy lead sliding door that has to be sealed before my x-ray machines will operate. High-voltage electricity is sent to a radioactive source that emits x-rays. The x-rays pass through the subject I am working on and create a same-sized image on special film placed in a light-safe bag. This film is then processed and edited. In my studio I then use a beast of a high-quality scanner that is four metres (13 feet) long and weighs 300kg (660lb) to turn these images into digital files for enhancement and other digital tweaks on our Macs. We do not use 3-D or any synthetic image creation software.

To capture very fine subjects like flowers and insects, I convert the lead-lined room into a darkroom, as I have to rest the subject directly on the film. So I can (vaguely) see what I'm doing, I wear infrared goggles developed for the military. It is surreal; the environment I work in is dirty, basic and industrial, the technology and equipment complicated and dangerous, yet out of all this come pictures of ethereal beauty.

Like many people in the creative community, I find it hard to stop my mind wandering into my work even when I am not supposed to be working. I often dream about x-ray and sometimes have dreams in x-ray. I have been through the nasty obsessive phase that all artists pass through; looking back, I did not really like the way my work changed my personality during that obsessive phase, as it made me arrogant and introspective. Fluctuating fortunes and having children soon got

me back on the level though, and my wife Zoe is my rock. I am lucky to be extremely motivated and inspired by the everyday, along with artists such as Bridget Riley, Eadweard Muybridge, Doc Egerton and James Turrell.

I have many x-ray projects still to complete and will continue to refine my technique and processes, but it is fair to say I've already pushed image-making with x-ray equipment further than any of the other artists who have used this technique. This book shows the depth and range of my work over many years.

I hope the pictures here engage you. We may all say that beauty is more than skin deep, but this collection proves it.





## 1 OBJECTS

The picture on the left is the first x-ray I took that really got me excited. These are the shoes I was wearing on that fantastic day I first dabbled with radiation. I tiptoed joyfully back from the darkroom, blown away by the quality in the image, to kiss these cheesy-smelling trainers (sneakers) before reuniting them with my feet.

This early experimentation quickly mutated into an obsession. I couldn't walk down the aisle of a supermarket without stopping to consider various items and their suitability for an internal examination. Car boot sales, eBay and junk shops are a great source of unusual and cheap subject matter. Often the tackiest things are the most fun to work with. They may look awful on the surface, but once the internal workings are revealed and the superficial visual manifestation is removed, all objects can be appreciated for their structure. My studio is full of strange things resting after doing their duty in my laboratory. There have also been specific projects that have produced collections of relevant images – and more clutter. I must have a clear out one day.

As x-rays work on the density of the material being exposed, I often have to use several different exposures of the same object to get the best detail. Occasionally a "normal" photograph is overlaid to bring in necessary surface texture. Other technical challenges in x-raying objects are controlling distortion of large objects, angled x-rays, moisture content,

movement over long exposures, electro-magnetic interference from parts of powered electrical equipment... the list goes on.

The original x-rays are monotone. Colour is added as and when we (I work closely with a small team of experts at my studio) think fit. Most are shot from a straight perspective, as x-raying an object from an angle often creates confusing shapes.

Revealing the inner complexity and workings of objects makes us think about how these things function, and why they are intrinsically what they are. Sometimes the pictures illustrate exactly how they work. Other objects are made curious by revealing what happens within. I'm often surprised by what I see. All manufactured objects are designed in some way. Components are brought together, and positioned in a particular place. Different materials and ergonomics are considered. Then the object is made, and then I x-ray it. Each x-ray picture of an object says something extra about that object than what you learn when you merely look at or use it.

Some objects don't need to be crammed with gizmos to look beautiful. A simple teacup and saucer gains elegance and the structure of an ice-cream cone is revealed to be as complex as honeycomb.

That's the beauty of objects. Because I didn't make them, I can only make an educated guess at what they will look like in my little inside out world. Sometimes I'm wrong, and that is why I continue to x-ray them.



