



EYEWITNESS COMPANIONS

# Photography

TOM ANG



EQUIPMENT • TECHNIQUES  
DIGITAL IMAGING • PROJECTS





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TOM ANG

















LONDON, NEW YORK,  
MUNICH, MELBOURNE, DELHI

*This book is dedicated to those who have  
taught me photography*

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With assistance from  
**Departure Lounge**

First published in 2005 by  
Dorling Kindersley Limited  
80 Strand, London WC2R 0RL

A Penguin Company  
2 4 6 8 10 9 7 5 3 1

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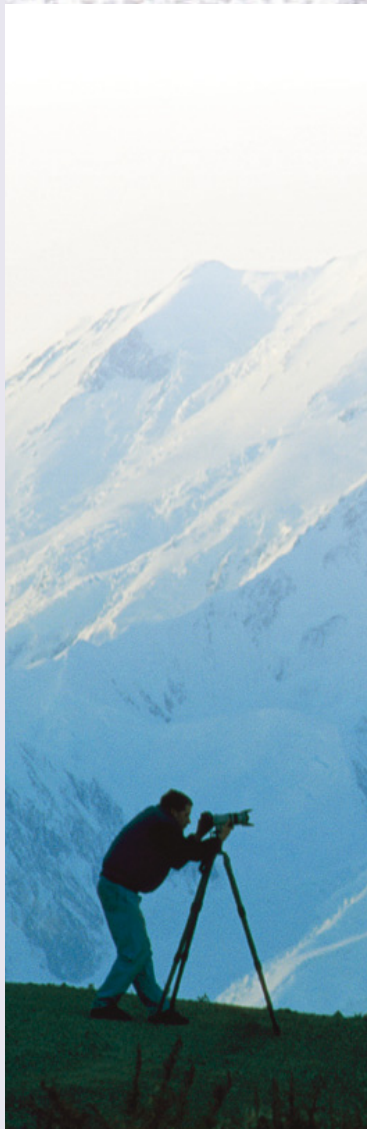
A CIP catalogue record for this book is  
available from the British Library

ISBN-13: 978-1-40531-076-6  
ISBN-10: 1-40531-076-6

Colour reproduction by Media  
Development Printing, UK  
Printed and bound in China by L. Rex  
Printing Company Ltd.

See our complete catalogue at

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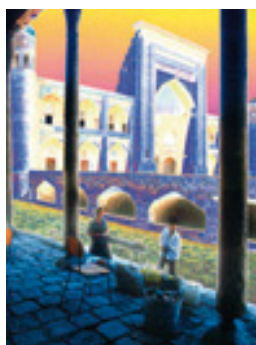
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**IT IS WELL KNOWN** THAT PHOTOGRAPHY MEANS “WRITING WITH LIGHT”. HOWEVER, THAT IS AN UNDERSTATEMENT ON A SCALE EQUAL TO SAYING THAT LITERATURE IS SIMPLY “WRITING WITH A PEN”. PHOTOGRAPHY MEANS SO MUCH MORE THAN THAT. TO CONTEMPLATE THE TRUE EXTENT OF ITS SOCIAL REACH AND CULTURAL IMPACT IS AWE-INSPIRING.

Photography is inextricably interwoven into modern life. Photographs are all around us, we see them everywhere, and, since cameras have become a commonplace feature of mobile phones, we are increasingly taking photographs on a daily basis. But photography is not just about pictures – much of technology relies on photographic processes. The creation of microprocessors, circuitry, and the masks used in manufacturing microchips and processors – writing with light onto a light-sensitive substrate – is fundamentally photographic.

At the same time, the power of photography to shape our lives is as strong as ever. A single photograph – such as the shot of missiles being deployed in Cuba in 1962 – can take the world to the brink of war. An image can create worldwide notoriety: consider the many celebrities over the years whose misbehaviour with each other has kept the paparazzi busy.

**Working with light**

This image is not just about children on their way to church for their first communion. It is a joyous celebration of the power of light.





Born out of the Victorian era's obsession with the mechanization of all industrial practices, photography was, still is, the product of a triumvirate of art, science, and technology. The tremendous advances made by digital photography in only a few years, for example, have been built on the bedrock of imaging sciences that were developed for inter-stellar observation, satellite surveillance, and multi-spectral imaging of the Earth's surface.

**Consummate art**

Photography can preserve ephemeral gestures and beauty forever, as in this timeless image of Audrey Hepburn by Cecil Beaton.

Photography has taught us so much. From the telescopic images of the far reaches of the universe to the microscopic images of the intricacies of nature, photography has opened our eyes to the beauty of our own and other worlds, showing us things that were previously beyond human vision.



### Flower power

At once a literal representation of the power of a flower against armed forces, this image was also a rallying point for anti-Vietnam war protests.

Photographs can capture meaningful memories, or be distorted to abet deceit. They can be used to seduce, or insult, and are capable of bringing great joy or sorrow. Furthermore, photographs can communicate highly complicated realities: images of disease or injury are sent routinely to specialists for diagnosis, while forensics teams rely on photographs to record vital evidence.

We admire and value photography because of its ability to inspire individual vision, and are awed by its capacity to change universal perception. For the

former, we must give credit to the physicists, chemists, and engineers who made it all possible: it is thanks to their skills that anyone able to pick up a camera, put it to their eye, and press a button can take a photograph. Skill is not needed. Nonetheless, photography's attraction grows with its ability to empower the photographer. A small



### Illustrating another world

Images taken from space appear so perfect and stunning, some people find it hard believe they are genuine.

investment in learning is rewarded with rich returns. There is enormous satisfaction to be found in producing an image that matches your original vision and communicates that vision to others. It is little wonder that taking photographs is one of the world's favourite pastimes; and a career in photography is an aspiration nurtured by millions.

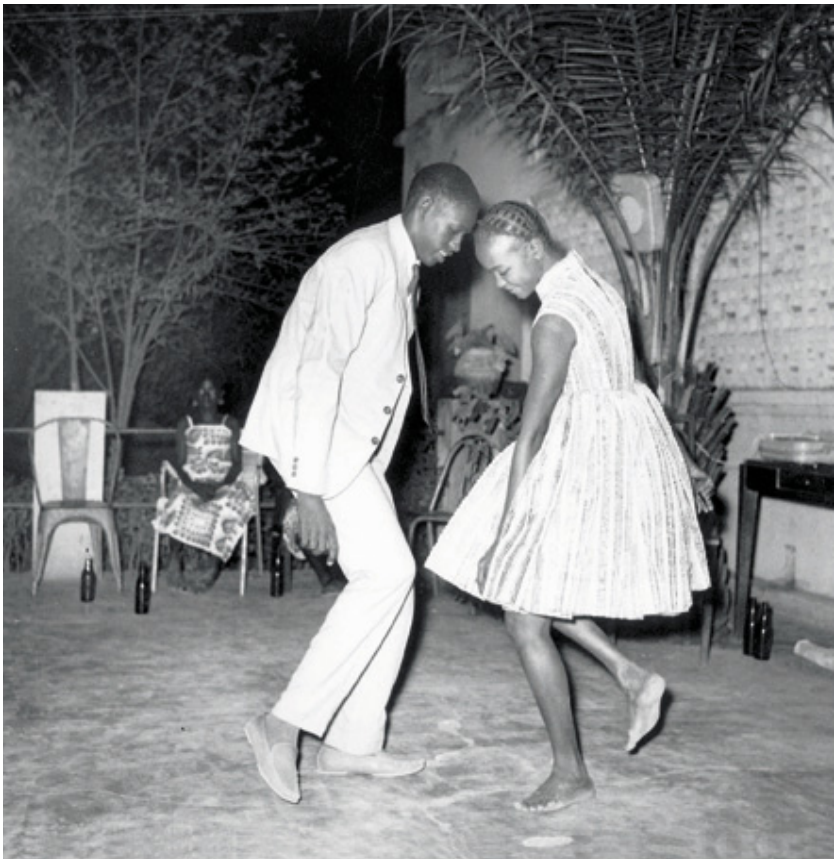


Photography's capacity for immediacy of impact and honesty of presentation gives it the power to enhance our understanding of situations, and influence our opinions. This is because of the primacy of visual perception: we depend on sight more than on any other sense for our survival. Moreover, a photograph can convey almost any human emotion, even complicated inter-personal tensions, in an instant. As a result, despite the power of the written word, it is still true that pictures dominate international communication. The point is not that a picture is worth a thousand words, but that it can be understood in a thousand languages.

While you may not agree with philosopher and cultural theorist Paul Virilio (1932–) that photographs are a virus on the planet, it is true that the typical city-dweller is bombarded by photographs every waking moment of his or her life. From the carefully chosen print that adorns the bedroom wall, to the pictures of happy, healthy families on the cereal packet; from the gritty images in our newspapers to the glossy images in the junk mail; from the advertising posters along the roads,

**A universal language**

Images can be understood in any language or culture, like this joyful picture of dancers outside a jazz club taken by Malian photographer Malick Sidibe (1935–).





and in the stations selling products and lifestyles to the celebrity portraits and paparazzi shots that fill countless magazines, we simply cannot escape from photographs.

It could be argued that advertising photography is the medium that powers many industries. Scenic views of exotic locations whet our appetites for travel, while seductive and sophisticated images arouse our desire to own a particular make of car, or kitchen, or camera. It is photography, perhaps more than any other single factor, that informs and influences our choices as consumers.

One of photography's most alluring characteristics is its potential to cause change. For decades it has been at the cutting edge, influencing the politics of war, shocking the world into action over famine, and revealing abuses in strife-torn areas of the world. It can

also inspire us to push ourselves further. Pictures of great sporting achievements and acts of heroism or courage show us what we are capable of and give us something to aspire to. Photographs can tell us so much about ourselves and mankind as a whole – both good and bad: our strengths and weaknesses, our bravery and cowardice, our kindness and cruelty.

This book is a tribute to those photographers who have changed the world, both through their vision and through their committed, sometimes

#### **Action-packed images**

Photography allows us to examine a split-second of action. We can admire the power and grace of the athlete (*right*) but an expert can also analyze it for any slight imperfections.

#### **Fashioning styles**

It is hard to imagine how modern fashion could have developed without the help of photography (*below*): no other medium can depict so clearly while suggesting much else.









painful pursuit of truth and beauty. It celebrates the great, the good, the terrifying, and the glorious.

The emotional span of photography is as wide as any person can experience. I hope that when reading the book you will be awed, troubled, and inspired by turn. At the same time, the book offers you a resource: how to equip for and improve your own photography, how to take it further, and where to go to learn more. Above all, I hope that this book will open your eyes to see beneath the surface of the photograph, to reach the truths within the image.

#### **Natural vision**

Our vision of the natural world has been shaped by stunning images made by skilled, and sometimes extremely brave, photographers, such as this award-winning shot of sharks (*left*), taken by Doug Perrine.

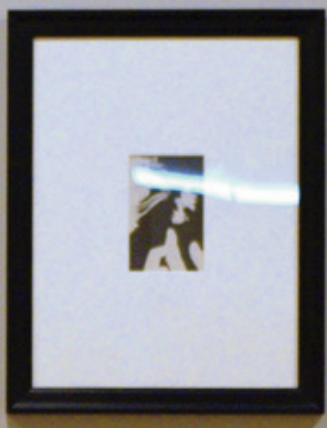
#### **A world of images**

Photographic images have become an integral part of the urban world. Times Square, New York (*below*) is covered with billboards, which bring unprecedented colour to the cityscape.





# GALLERY OF PHOTOGRAPHERS







**THE GREATEST PHOTOGRAPHERS** HAVE CHALLENGED AND EXPANDED OUR VISUAL HORIZONS. THEY HAVE TAUGHT US TO SEE THE WORLD IN A DIFFERENT WAY, THE BETTER TO APPRECIATE AND UNDERSTAND IT. AS PHOTOGRAPHERS WE CAN LEARN SO MUCH FROM THESE ARTISTS WHO INSPIRE US TO SEEK EXCELLENCE IN OUR OWN WORK.

The shining beacons in the history of photography are those creative and technical geniuses whose work demonstrates not only a total control over their medium, but also combines clarity of vision, determination, invention, and a receptiveness to new ideas. Much, though not all, of the history of photographic output is written by the originators of the art, and their work continues to inspire all who follow them.

However, one of the great appeals of photography is shared with other arts such as music and theatre: one does not need to be an original creator to enjoy photography, work professionally, and even win great acclaim. The vast majority of published and exhibited photography is in fact the work of the elaborators – superlative artists who were often inspired to take up photography by the originators, and who have themselves become great



**Alfred Eisenstaedt**

Eisenstaedt is considered by many to be the father of photojournalism (*see p.44*).

photographic artists in their own right. Most photographers create their own images through the exploration and exploitation of the work of photographic pioneers. Indeed, part of the creative struggle for many photographers is to find an individual style or to make their own distinctive mark which is

different and sets them apart from those who inspired them.

This gallery of photographers celebrates both those who have defined and beaten new paths – whether artistic, conceptual, or technical – and also those photographers who have taken well-trodden paths to a new level of creativity or expertise.

Some have circumnavigated the globe many times in pursuit of grandiose photographic projects. Others have literally put their life on the line and endured hardships and physical violence in order to use their photography to act as an advocate for the dispossessed or vulnerable.

Yet others have ventured no farther than their city limits, leading self-contained lives. And while some have

**Ansel Adams**

This acclaimed landscape photographer recorded some of the most beautiful places on the planet (*see p.26*).



concentrated all their energy on the same subject for their entire career, you will also find photographic polymaths who work comfortably from the documentary to the commercial, from landscapes to still-life.

The artists on the following pages demonstrate that there are many paths to photographic greatness. However, if there is one trait that great photographers share, it is that time and again they show themselves to be humble and accepting of their chosen subjects. There is re-invention and renewal in every imitation. In photography, what matters most is not believing in yourself, but believing in the integrity of your subject.

#### **Eve Arnold**

Arnold (*below*) was revered for her documentary images – especially her film stills. Working on a film set required her to work unobtrusively yet quickly to capture telling moments (*see p. 30*).

In a world that is swarming with images, the power of a truly great photograph to become rooted in the



#### **Stephen Dalton**

Dalton uses cutting-edge technology and high-speed photography to shoot the natural world (*see p. 42*).

memory is a magical and admirable thing – the image's greatness defined by its time in history, and its synthesis of form, light, and, of course, its momentary significance. The photograph is a physical, tangible link to one moment in

history, a point of revelation, and artistic birth. Whatever the subject, a great photograph requires one fundamental thing: that a photographer – fully aware, highly skilled, and suitably equipped to preserve the image for posterity – was present at the crucial moment.

#### **Margaret Bourke-White**

This intrepid photojournalist (*right*) would go to extraordinary lengths to get her picture, and here she shows no fear while working high on the Chrysler Building, New York (*see p. 35*).







## Ansel Adams

**American** 1902–1984

Best known for the matchless monumentality of his landscape photography, Ansel Adams was a versatile photographer, who was widely influential. He had a flawless command of photographic technique.

As Adams said “You don’t take a photograph, you make it.” The most enduring examples of his contribution to photography are his richly detailed, pin-sharp, and exquisitely lit landscapes – almost all of them created on large-format film. Thanks to the impact of his landscape works, which exulted in and celebrated the beauty of the American wilderness, Adams’ photography entered the political sphere, playing a part in the conservation movement in the USA.

Adams was influenced by the pictorialist and precisionist ideals of contemporary photographers, such as Paul Strand and Edward Weston. He contributed to the development of the Zone System (*see opposite*), which has influenced generations of photographers at both professional and amateur levels throughout the world.

A prolific photographer, Adams also founded a gallery in Yosemite National Park, set up an academic department for photography in San Francisco, and helped to establish the photography department at the Museum of Modern Art in New York. His many books have become classics.

### CAREER HIGHLIGHTS

- 1916** Takes his first photographs of Yosemite National Park, California
- 1927** First portfolio *Parmelian, Prints of the High Sierras* published
- 1931** One-man show at Smithsonian Institute, Washington D.C.
- 1935** *Making a Photograph*, first in a classic series of books, published
- 1948** Awarded the Guggenheim Fellowship
- 1960** *Portfolio 3: Yosemite Valley* published





**Mount Williamson, from Manzanar, California**  
Exploiting an extensive depth of field created by using camera movements, Adams captures a distant sunburst while keeping the foreground rocks sharply detailed (*top*).

#### **Leaves, Glacier National Park**

Even when working close up, Adams succeeds in conveying the monumental. He achieves this through strong composition and by ensuring all major elements are sharply detailed (*centre*).

#### **Aspens, Northern New Mexico**

One of his most celebrated images (*left*), seeing this print in the original in order to appreciate the delicate spectrum of silvery tones should be part of every photographer's education.

#### ZONE SYSTEM

The Zone System helps the photographer to translate a scene into the photographic medium. It is a three-stage process – of previsualization, exposure, and development – based on analyzing the scene according to a scale of ten zones of brightness ranging from deep shadow to bright highlight. Previsualization is the technique of picturing the desired result before a photograph is taken: by doing this against the range of brightness, the best camera exposure for the film can be set. The film is developed to compensate for the range of zones in the scene in order to produce a desired contrast. The print is then made, trying to match the result to the previsualized image. With the rise of miniature formats and automatic exposure, the Zone System has retreated into a niche.

0
I
II
III
IV
V
VI
VII
VIII
IX

**Zone system scale**  
This system divides the brightness spectrum into 10 equally spaced steps, each one a stop apart. Zone V is the crucial middle grey – tanned skin, grass in the sun and so on.



## Manuel Alvarez Bravo

**Mexican** 1902–2002

Combining Mexican and European influences, Alvarez Bravo's work straddles surrealist and documentary styles. His images – described by Nobel laureate Octavio Paz as “realities in rotation” – can be read on several levels.

A self-taught photographer, Alvarez Bravo was a child at the time of the Mexican Revolution of 1910. He began working professionally for the journal *Mexican Folkways* in 1928, documenting Mexican cultural history. Bravo's style arose from the traditions and myths of *mestizo* Mexico – the blend of indigenous Indian

with Spanish – but was also influenced by ideas brought from Europe by visiting photographers such as Cartier-Bresson (see pp. 40–41). His work gave a poetic vision of modern Mexico, validating it as an emerging nation. His centenary in 2002 as Mexico's greatest living photographer was a cause for national celebration.

### X-ray Photograph

One of the earliest pioneers of using the x-ray for art photography, here (right) Alvarez Bravo offers a teasingly pseudo-scientific and objective treatment of the theme of murderous love.

#### CAREER HIGHLIGHTS

**1930** Teaches at San Carlos Academy

**1943** Starts work as stills photographer for films

**1975** Awarded the Guggenheim Fellowship

**1984** Awarded Victor & Erna Hasselblad Prize

### Invented Landscape from *Fifteen Photographs*

A common theme for surrealists was the interplay between the man-made and the natural. In this image (below) the shadows do all the suggesting and none of the explaining.





## Nobuyoshi Araki

**Japanese** 1940–

One of Japan's most controversial photographers, Nobuyoshi Araki's work crosses from observation of modern Japan to pornography, and back. His snapshot style is unashamedly voyeuristic and widely influential.

After years in advertising, Araki turned his observant eye to women – particularly those working in nightclubs, and as prostitutes. Celebrated for holding up a mirror to the moral ambiguities of Japanese society, Araki has been subjected to the attention of censors unwilling, or unable, to distinguish documentary photos from pornography.

### CAREER HIGHLIGHTS

**1972** *Tokyo Autumn* series published

**1989** *Tokyo Nude* published

**1999** *Vaginal Flowers* series published



### Telephone Booth from *Tokyo Nostalgia*

Even when seen individually, Araki's images hint at narrative. At the same time, we cannot tell if the image is candid or not.



## Diane Arbus

**American** 1923–1971

The powerful images of Diane Arbus haunt the viewer like no other; they are a benchmark of unflinching honesty in portraiture. Yet she said “A photograph is a secret about a secret. The more it tells you the less you know.”

Having developed an excellent reputation as a fashion stylist helping out her husband, fashion photographer Allan Arbus, Diane Arbus only began photographing in her mid-30s. A successful career in advertising and fashion followed. Arbus was one of the first photographers to use on-camera flash balanced with daylight in her portraiture. One of the hallmarks of her work, it helps to flatten and make the light artificial, bringing the subject unfettered and unflatteringly to the fore.

### CAREER HIGHLIGHTS

**1960** First pictures published in *Esquire* magazine

**1963** Awarded the Guggenheim Fellowship (and then again in 1966)

**1967** Exhibits at Museum of Modern Art, New York



### A Young Man in Curlers

Arbus's portrait at first appears uncompromising, but reveals itself to be tender and sympathetic of the subject's defiant unease.



## Eve Arnold

**American** 1913–

At the top of her profession for more than 50 years, Eve Arnold's approach to documentary photography is one that is self-effacing almost to a fault. Her work tells all about the subject and nothing of the photographer.

Arnold's rapid rise has made her a legend amongst photographers. After a mere six weeks of study with the famously hard-to-please Alexey Brodovitch, then art director at *Harper's Bazaar*, she was given her first commission for the magazine. Within three years, she had been approached by the equally fastidious Magnum agency

and was made a full member in 1955 – the first woman to be admitted. While her work took her all over the world – most notably to China, working for *LIFE* and *The Sunday Times Magazine* – she is best known for her work on film sets. By winning the trust of those she worked with, Arnold achieved a special intimacy with stars such as Marilyn Monroe and Joan Crawford. She brought the genre of production stills to a standard that few, if any, have since attained.



### CAREER HIGHLIGHTS

**1980** Awarded Master Photographer by International Center of Photography

**1986** Won Krasna-Krausz Book Award for *In Retrospect*

**2003** Awarded honorary OBE

### Cowboy, Inner Mongolian Steppes, China

This image (*left*) displays Arnold's fine instincts for magazine photography. The composition reveals atmosphere and suggested movement, yet it still has ample space for titles or text.

### Anthony Quinn and Anna Karina

The stars relaxing on the set of *The Magus* in 1976 (*below*) are depicted in documentary style. This is a revealing image that conveys the charisma and charm of the actors.





## Felice Beato

**British** c.1825–1906/8

One of the great pioneers of travel photography, Felice Beato was a tireless documentarist whose importance is only now being recognized. His views of Japan provide a unique record of the country in the 1860s and 70s.

Born in Italy but naturalized British, Beato was incorrigibly restless throughout his life. He recorded the aftermath of the Crimean War in the Mediterranean and went on to document the Indian Mutiny of 1858. In 1863 he moved to Japan, where he spent 14 years photographing daily life. He eventually settled in Burma.

### CAREER HIGHLIGHTS

**1856** Exhibits photographs in London of the Battle of Balaclava

**1863** Starts photographing in Yokohama

**1878** Photographs in Burma



### Temples, Nagasaki

This road of temples at Nagasaki with the Kazagashira mountains behind shows Beato's artistic and documentary style.



## Karl Blossfeldt

**German** 1865–1932

An untrained and amateur photographer who used his photography to teach art students about natural forms, Karl Blossfeldt celebrated nature's beauty, creating a unique body of work of matchless consistency.



In 1890 Blossfeldt began to cast models of botanical specimens and photograph plants. Treating the plant as a "totally artistic and architectural structure", his photographs grew into a collection of thousands of botanical studies. He explained: "Since only simple forms lend themselves to graphic representation, I cannot make use of lush flowers."

### Young Shoots

Working at magnifications of nearly 30 times life-size, Blossfeldt stunned the art world with the beauty of the forms he revealed.

### CAREER HIGHLIGHTS

**1898** Starts teaching at Kunstgewerbemuseum, Berlin

**1928** *Uniformen der Kunst* published

**1932** *Wundergarten der Natur* published



**Guy Bourdin**

Although he was noted for staging his fashion photographs in intense, dramatic tableaux, Bourdin did sometimes relax. This light-hearted shot combines fun and frivolity with superb depiction of the clothes.