

with a few spring species occurring in March to May. Although most alpine species are considered rare, many are locally abundant. In general, the butterflies of this highest zone are related to those groups found in Japan and other areas of northern Asia, Europe, and even North America.

The bulk of this fine booklet is devoted to abbreviated text descriptions of representative species of the various genera of Nepalese butterflies. At the top of each page are nicely produced color plates illustrating groups of species. Some of the species are also shown below, interspersed among the text paragraphs, in field photographs of live adults. All of these photographs are reproduced with remarkable fidelity and the book is well worth acquiring for these color photographs alone. Included in the text are fascinating comments about behavior, distinguishing features, and other interesting aspects of the biology of Nepalese butterflies; these offer considerable incitement for further study.

Anyone interested in the butterflies of the southeast Asian area, especially Nepal, would find this booklet to serve quite well as a mini-field guide and as an interesting but inexpensive reference to this fascinating part of the world.

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WHITE BUTTERFLIES, by Kenji Kohiyama (English translation by Jay W. Thomas; Design and layout by Motoko Naruse-Kenichi Suzuki). 1989. Graphic-sha Publishing Co., Ltd., Tokyo, Japan. Distributed by Books Nippan, 1123 Dominguez Street, Suite K, Carson, California 90746. 96 pp., 97 color photographs. Hard cover, 24.5 × 25.5 cm, ISBN-4-7661-0519-2, 2990 yen (\$28.95 U.S.).

This slim volume depicts 23 species of Japanese Pieridae in 97 color photographs (99 if you count the photographs on the front and back of the book jacket). The text (in Japanese and English) is brief, consisting of a short introduction, a three-paragraph afterword, and a sentence or two to accompany each photograph. It is, therefore, the exact opposite of John Feltwell's *Large White Butterfly* (1981, W. Junk Publ., The Hague, 542 pp.), which profiled that well-studied pierid species by compiling almost everything known about it into a volume of dense, telegraphic prose, devoid of color plates. Art Shapiro, in his review of Feltwell's book (1983, J. Lepid. Soc. 37:259) pointed out that it was no coffee-table book and commented on the lack of color plates by asking "Why should there be, in a book about a black-and-white 'bug'?" By contrast, Kenji Kohiyama's volume *is* a coffee-table book, and his photographs explore the nuances of the delicate shades of white, yellow, and orange of these butterflies by framing them against the dark somber colors of their habitats in Japan.

In fact, it is this very emphasis on habitat in the photographs that gives the book its unusual quality. I say unusual because I have grown accustomed to picture books of live butterflies featuring mostly closeups that offer as much detail of the insect's body and wings as possible. Think, for example, of the lavish display of intimate close-up photographs in Tom Emmel's *Butterflies: Their World, Their Life Cycle, Their Behavior* (1975, Alfred A. Knopf, New York, 260 pp.) or Kjell Sanved's and Jo Brewer's *Butterflies* (1976, Henry N. Abrams, New York, 176 pp.). In these books the butterfly occupies 40-70% of the area of the photograph. In startling contrast, the butterflies in almost all of Kohiyama's photographs occupy less than one percent.

Why the difference? It is certainly not due to lack of proper photographic equipment. Photographers will appreciate the fact that full details of equipment, film, and exposure are given for every photograph at the back of the book. These notes show that Kohiyama

used four different cameras, ranging from a Nikon F2 to a Hasselblad 500C, and at least eight different lenses, ranging in focal length from 28 mm to 210 mm. (Surprisingly, considering the range and quality of Japanese made transparency films, Kohiyama used Kodak film exclusively: Kodachrome Professional 25, 64 & 200 and Ektachrome Professional 64 & 200.)

Nor is the difference due to lack of experience. Mr. Kohiyama has photographed butterflies for more than a quarter of a century; *White Butterflies* is his fourth book. His first two books, *Nihon no Chō (The Butterflies of Japan)*, Yama to Keikoku Sha, 1971 and 1972) record the entire range of butterfly species in Japan. His third book, *Agehachō (Papilionidae Butterflies of Japan)*, Kodansha, was published in 1986.

Instead, the difference lies in the purpose of the book, which the author describes as a sort of visual haiku. Haiku, of course, is a traditional form of Japanese poetry, unrhymed and consisting of only three lines containing a total of seventeen syllables. Kohiyama quotes social anthropologist Tadao Umesao: "Photographs are like haiku—haiku that you can see with eyes, haiku with form. Japan is essentially a land of the arts. Through haiku it has become the land with the world's greatest number of poets. Through photography it may well become the land with the greatest number of visual artists." Girded with this explanation, Kohiyama writes: "As I took the photographs for this book, I felt that I was creating haiku from butterflies. I used time to cut out pieces of space and put butterflies as I saw them into that space."

The spaces occupied by Kohiyama's butterflies span the extraordinary length of his island country—some 3000 km from north to south, encompassing over 25 degrees in latitude. But those statistics are less important to the Japanese than the consequences such distances have on the arrival of the seasons: cherry trees, for example, bloom 40 days earlier in the south of the country than in the north. Kohiyama makes similar observations about the effects of latitude on seasonality and on the activity periods of different pierid species.

Japanese culture is closely tied to the changing seasons. Indeed, the patterns of Japanese kimonos, known the world over for their beauty, are abstractions of natural phenomena that change through the four seasons. Nature is also an important theme in classical Japanese literature, in which seasonal elements are incorporated as essential background. Of interest here is that words that indicate the seasons are indispensable components of haiku. This ancient appreciation for the four seasons in Japanese culture and the relatively new concept of photography as visual haiku combine to give *White Butterflies* its structure.

The photographs begin with spring butterfly species and progress through summer and fall to winter species. Yet, oddly enough, most photographs were taken during the summer months. This is possible because of the great latitudinal range already mentioned. In actuality, the photographs progress roughly from north to south over part of this latitudinal range, beginning in central Japan, near Tokyo on the great island of Honshu (about the latitude of Nashville, Tennessee), and extending southwest to the subtropical reaches of the country on the islands comprising the Okinawa Prefecture (about the latitude of central Florida). Superimposed on this latitudinal range is a diverse topography, which greatly increases the number of species that can be sampled at one time of year.

If this book is to be judged by its photographs, how good are they? In my opinion, they are of variable quality. Many are very good and a few are excellent, but the author's purpose must be kept in mind when evaluating them. They are designed to include a butterfly in a conceptual space that represents a poetical interpretation of season. If you are looking for spectacular close-ups you will be disappointed. Furthermore, almost all photographs were taken in natural light, which severely limits depth of field under low light conditions; although the butterflies are usually in sharp focus, the background and foreground often are not. Only rarely does the author intentionally flatten a picture to isolate a butterfly from its surroundings by using a wide aperture to narrow the depth of field (e.g., the Gray-veined White, *Pieris melete* Menetries, p. 39). Another problem is that several pictures are marred (in my view) by large pieces of blurred vegetation in the foreground. Finally, a great many photographs were taken with backlighting, which works to great advantage on translucent butterflies such as the Lessor Brimstone (Go-

nepteryx aspasia Menetries, p. 43), the Psyche (*Leptosia nina* Fabricius, p. 75), and especially the Common Grass Yellow (*Eurema hecabe* L., p. 86); but in most cases the butterfly is opaque and appears dark because we see its shadowed side.

In a few shots, special techniques were used to create dramatic effects. For example, a Yellow Tip (*Anthocaris scolymus* Butler, p. 13) nectaring in a sea of mustard flowers was photographed with backlighting and in soft focus, creating an image reminiscent of the famous meadow scene near the end of the film, *Elvira Madigan* (or of a Bob Guccione photograph in *Penthouse*, depending on the nature of your artistic experience). One of my favorites is a photograph of a flying Great Orange Tip (*Hebomoia glaucippe* L., p. 59), intentionally blurred by rapid horizontal camera movement to isolate the essence of flight against an impressionistic slur of dark and light green foliage.

I suspect that the sparse captions that accompany the photographs were intended to reinforce the poetic intent of the image rather than inform, because they are rarely factual, and are sometimes misleading. Occasionally they are wrong (the caption for the set of four photographs on pages 76 and 77 says that a Psyche butterfly is weaving through the grass, but actually it is flying through nettles, with no grasses in sight). A few captions seem to have suffered in translation: consider, for example, this inscrutable sentence "The male Chocolate Albatross is a braggart."

The physical production of the book is excellent, the color printing is superb, and the design and layout are pleasing to the eye. There are, of course, the inevitable (sometimes comical) errors of English to be found in text translated from Japanese; I found about three dozen, but all are minor. Publishing the brief text in both Japanese and English is certain to broaden the book's appeal, although I was disappointed to find the species descriptions in the back of the book to be in Japanese only. And, although each species is referred to by its Japanese name in the photo caption and in the appendix of species descriptions, English-speaking readers who wish to look up the date and equipment used for each photograph must struggle to associate the caption (which provides only the English common name) with the appropriate entry in the appendix (which gives only the scientific name).

Kenji Kohiyama has a doctorate in engineering and works as a researcher in a radio communications systems laboratory. But in this book he has revealed himself as an artist as well as a scientist, expressing his love of nature and butterflies through the medium of visual haiku.

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