

### VIII. EXPERIENCE OF PHOTOGRAPHY IN THE TROPICS

I have been asked by friends concerning the photographic equipment, especially for close-ups, which I took with me, my experience of photography in the tropics and the results. One can learn useful information from the concise pamphlet "Photography in the Tropics" (Kodak Data Booklet GN-5). The present notes on practicing actual picture-taking in the humid and hot climate could serve as a reference to fellow botanists who for the first time make a trip to the tropics and would like to take photographs, especially close-ups.

For travelling abroad, I have tried to keep my photographic equipment as simple and light as possible. Since I used Exakta as my work-horse, I took two bodies of it with interchangeable viewfinders. The lenses consist of one each of 35 mm, 50 mm, 85 mm, and 135 mm (in short mount, used on Novoflex bellows II), and a Steinheil photo-monocular (6 x 30; can be used as field glass or attached to the 50 mm lens to extend its focal length to 300 mm).

Because I knew people had difficulties with Exakta or Exa in the tropics, I took my Leica M2 along with me for high speed black-and-white film or in case of emergency taking over the job of other camera(s) (fortunately, such case did not happen). The Leica has 35 mm and 90 mm lenses, and Visoflex II with rings for close-up work; furthermore, with a specially made adapter, the Novoflex bellows can be used on Leica with Visoflex.

Each lens has always a filter (UV, sky-light, or very light yellow) on it, besides for photographic purpose, to protect the lens from dust, scratches, moisture, etc.

I have been using two light-meters made by Gossen, Sixtomat (Selenium) and Sixtar (CdS), and prefer to use the former especially for colour.

The electronic flash is a very handy light source. I took one Braun Hobby F40, using either a rechargeable Nickel-Cadmium battery or a set of 6 flashlight, 1.5 volt, batteries. The guide number used for Kodachrome II is 11-15, for Kodak Panatomic-X being 15-22. For close-ups taking at a distance less than one metre, with scale of reproduction from 1:20 to 1:1, and the exposure factor from 1.1 to 4.0, I have been using successively the data of lamp to subject distance worked out and tested by my colleague Drs. J. van Brummelen.

For tripod, I did not take a bulky, sturdy one with me. However, I had one Leica table-top tripod with a Linhof ball-and-socket, one pocket tripod, and one strong G-shaped clamp.

I had the colour and black-and-white films needed with me, and all my own colour films (Kodachrome II) directly

from Kodak Co., fresh, from same batch, and tax-free. I did not have any trouble with the customs for carrying many rolls of films.

Because of the deteriorating influence of heat and humidity on films, they were kept, if possible, in a cool and dry place, usually the air-conditioned office or hotel; in Sandakan they were even kept in a cool storage room (at c. 1°C) of my friend's ice company.

The difficulty of photography in the tropics may be caused by high humidity rather than heat. In order to keep my photographic equipment and films dry when not in use, the commonly well known desiccant silica-gel has been used. Since I had many different sized plastic bags (for liquid preserving material) with me, each of the not commonly used lenses or accessories (e.g. bellows, electronic flash, etc.) was kept in one of them containing a small pack of desiccant agent and then placed in a nylon bag (like one of those used for toilet articles sold in the department stores) or wrapped up with cloth.

I was glad to have a handy Camera Safety Bag (Nr 3363), designed and made by Klepper (82 Rosenheim, West Germany) for people using it on sailing trips. It is about 30 x 25 cm, waterproof, inflatable, floating, outside fabric and inside black rubber. It proved very convenient, with a pack of desiccant silica-gel inside, for keeping my cameras dry when not in use. If there was no film in the camera, I placed it in the bag with the camera back open.

I tried to keep the colour film not longer than one week in a camera. If one roll of film was completely exposed, I put it together with the metal can in a plastic bag containing desiccant agent. When three rolls were finished, I tried to send them back as soon as possible to the Netherlands for developing, in a self-made, pre-addressed special envelope, by registered, second class airmail. When my wife received the transparencies, she painstakingly examined them and wrote me the results with remarks on some special exposures, for example, a test series, so that I could make some necessary adjustments accordingly. I used only Kodachrome II because I like its average contrasty (good for the tropics and shadow detail), the colours it rendered especially the yellow and green (better for plants and vegetation), and its excellent cardboard mount (for writing the necessary data on it). During the trip, 42 rolls of colour film were put through one Exakta (IIb) and the results are much better than I expected.

As for black-and-white films, I have been using Kodak Panatomic-X (rated as 16-19 Din.) and Tri-X (rated as 27-30

Din.). In order to know whether the films have been rightly exposed and to check whether there is anything wrong in the camera, I developed nineteen rolls of film on the way. I have tried to keep all the exposures on one roll with almost similar contrast subjects to facilitate developing control. The developing was done in an air-conditioned hotel, when time and circumstances were permitted. I followed the procedures recommended by Kodak for the tropics. For water, I filled the big bath tub and then used ice-blocks for getting the right temperature. I used the same film-and-developer combination as I did at home. Kodak Panatomic-X was developed in Agfa Rodinal (1:100, used a hypodermic syringe to withdraw the necessary amount, 2-3 CC, of concentrated solution through the rubber inner stopper) for 12-14 minutes and Tri-X in Agfa Atomal New for 8-9 minutes. After returning to the Netherlands, the remaining fifteen rolls were developed one by one (for contrast control). I made contact prints of almost all the films exposed on the trip by putting six film strips of each roll on one sheet of enlarging paper using Paterson Contact Proof Printer (35 mm size). The results are similar to those of mine obtained at home. Some of the negatives of Tri-X film can be enlarged to 40 x 30 cm without disturbing grains.

For trips to the jungle requiring a lot of walking, I usually went without a camera or occasionally carried only the Leica with 35 mm lens for documentary pictures. Frankly, the high humidity and heat might have been harder on me than on the camera. In the dense forest, without taking adequate equipment, e.g. electronic flash and tripod etc., the possibility for making photographs, especially in colour, is very limited. Furthermore, fatigue, perspiration, pant, and sometimes trembling hands, discouraged me from taking photographs on a collecting trip.

I made close-ups in the field near the camp or house with electronic flash and bellows. However, they were mostly made at the camp or indoors after transporting the material from the field in a big plastic bag.

The Jena Macro-Flektogon, 35 mm, f. 2.8, automatic wide angle lens on Exakta has a focusing range from 18 cm (film-plane to subject) to infinite and has self-compensating diagram (compensating for corrections in exposure time) for close-up work without accessories of any kind. Because of its 62° angle of view and great depth-of-field, it is very handy for taking photographs of tall trees, vegetation, and, if necessary, for hand-held close-ups. When I flew from Sandakan to Jesselton, while passing Mt. Kinabalu, I made photographs of it with this lens and got the propeller of the airplane and the far away mountain all in focus by using

f. 8, 1/125 sec. with Kodachrome II. During this trip, I used this lens more often than any other lenses. I could not notice the disturbance of perspective on close-ups. However, when using this lens, for example, for taking photographs of vegetation or scenery, one should pay attention to the (sometimes barren) foreground; while making photographs against the light or using even side light, one should beware that the sun-shade is very short and light may fall on the lens, causing a white spot on the negative.

In conclusion: 1) It is important that one should find a convenient way to protect his photographic equipment and films against humidity and heat in the tropics; 2) if one knows how to take photographs in the temperate climate, there is not much trouble for him in the tropics; and 3) one should be well familiar with one's photographic equipment and the characteristics of the films used.

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#### A PIECE OF HIS MIND - II

"The only way for Man to live in balance with Nature, with his very living existence on this planet, is to recognize Homo destruens within himself and to keep him in check. This awareness, which can be termed ethics, stemming from his strive for survival, must be communicated to society by all the great networks: from the pulpits, in the schools, in governing bodies, in the circles of humanitarian societies, and in the programs of political parties.

I therefore regret that, instead of the popular but cheap 'Year of Human Rights', our University had not proclaimed a 'Year of Human Duties'. Certainly this would not have sat well with our 'permissive society'; but don't you agree that a reasonable conviction that is shared by all should, nay, must be divulged? There should be a call to stop growth, especially the limitless growth of population, which results only in an increase of destitute persons, in favour of a smaller number who enjoy a really worthy existence. Hence the flop of UNCTAD III where this specific aim, as far as I am aware, was never brought forward."

C.G.G.J. van Steenis, Overdenkingen (Reflexions),  
farewell address 1972.