OLYMPUS[®]

The International Magazine of Photographic Information 1988

VisionAge









The Greatness of Nature, Unchanged since Creation — Camera Travelogue in Iceland

From Reykjavik in the midnight sun to the wilderness of Iceland, the face of nature as it was created is captured by Hideki Fujii, an esthete.



The XA Story (3)

The caseless, capless, full-frame compact camera is unveiled.

Emotional Visuals Provided by Nature in Miniature

The beauties and romance of small-scale nature are discovered by the macro lens.

The Great Performance of a Bird-Watcher

The greater pied kingfisher lives near mountain streams. An invaluable visual document born of the tenacity of purpose of a photographer who continues to pursue the ecology of this fascinating bird.

Depth, Perception, Heart and the Pursuit of Photographic Honesty

The emotion and truth of Dennis Stock's commitment to the photograph. This literary essay shows the importance of "photographing by mind," as exemplified in Mr. Stock's own photographs.

VisionAge

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Foreword from the Editors

Five years have passed since we published the first issue of Olympus VisionAge. We want you to know that the opinions, suggestions and invaluable support that we have received during these years are truly appreciated.

In this issue, No. 10, we are happy to introduce the world's first Auto Focus Compact Camera having an approximately threefold zoom function built-in — the AZ-300 Super Zoom.

This camera has attracted great attention among users. Called the "ultimate full automatic camera." At once the AZ-300 was selected as the '88–'89 European Compact Camera of the Year, and has quickly come to enjoy high regard and great popularity.



In TECHNICALLY SPEAKING we describe in detail the numerous new technologies and mechanisms concealed in this innovative camera. Along with this explanation we run examples of the work of Akio Kojima: photographs made with the AZ-300, utilizing all its features. He also offers some useful suggestions.

In THE WAY OF THE PROFESSIONAL, Dennis Stock provides insight into how photographs can bring reality into focus — leading to the viewer's recognition of what the restless human eye often misses or instantly forgets. Mr. Stock emphasizes the importance of "photographing by mind."

PHOTO TOPICS features Hideki Fujii's new photographs. They reflect this professional photographer's impressions and moods on entering the wilderness of Iceland for the first time. What he felt to be "nature as it was created by God" is powerfully expressed on film.



Bruno Barbey/France

In HOW TO TAKE THE BEST PICTURE, the photographs of Yuji Mori yield wonderful discoveries in small-scale nature that we often overlook. His photographs are a pleasurable way to learn effective macrophotography techniques.

The Olympus XA story has been well received by readers, and in the third installment we reach the day when the XA camera was born, along with the emotions it stirred.

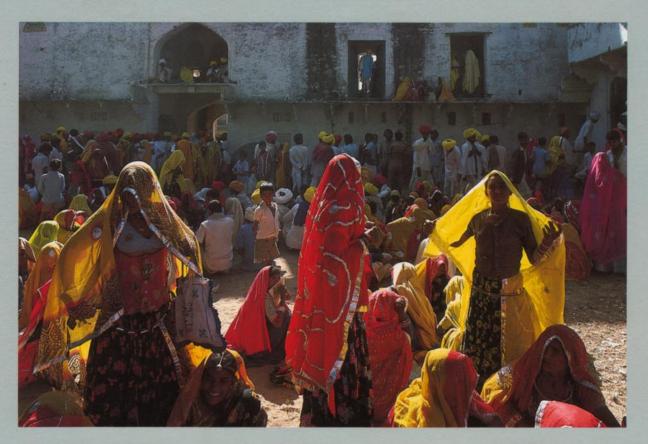
From the next issue, No. 11, we are planning a variety of articles in new directions. As always, your requests and opinions are more than welcome.

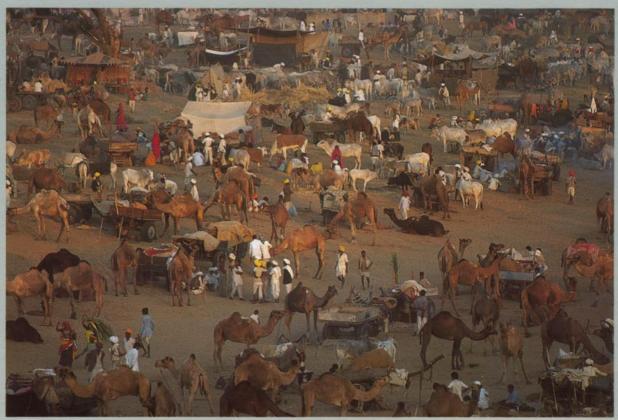
- Olympus VisionAge Editors

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Bruno Barbey/France
A member of Magnum Photo Agency since 1966, Barbey has covered stories on every continent, and his work is regularly published in Life, the Sunday Times (London), Stern, National Geographic, GEO and Paris-Match. He is the winner of many prestigious awards and has exhibited his work in Paris, London, Rome and Zurich.









lan Berry/England
A journalist turned photojournalist, Berry was the first photographer to receive a large annual grant from the British Arts Council. His coverage of events in Africa and the Middle East has brought him numerous awards, including two from Encyclopedia Britannica for the best picture story in a magazine. He has also held several joint and one-man exhibitions.



David Hurn/England
David Hurn was born in 1934. His first major photographic assignment was coverage of the Hungarian Revolution in 1956. Since then he has worked extensively for most of the world's leading publications. He now spends most of his time in the British Isles working on very personal stories in Wales.







Magnum Photos

Magnum Photos is an association of some of the world's leading photographers, established in 1947 in Paris, largely through the efforts of the late Robert Capa and Henri Cartier-Bresson. By bringing together the finest photographic talent in an organi-zation that emphasizes humanism and technique, Magnum has enriched our civilization with some of its most memorable photographic images. Magnum is headquartered in New York and Paris, and at present has a total of 40 full members, associate members and contributing photographers.

The AZ-300 Super Zoom Inspires a New Generation of Compact "Crossover" Cameras



In the past few years the camera market has been swept by powerful tides of fashion. For a while, traditionally paramount SLR cameras were washed from their pedestal in favor of super sophisticated compacts - only to be momentarily reinstated in a reborn 35mm SLR format complete with autofocus and power winding, etc. But then the spotlight of fashion flashed back to focus once again on compact cameras, reinforced now with switchable focal length lenses or (somewhat primitive) 2x zooms....

Amidst these abrupt and sweeping changes two things stand out. The first is the irresistible march of electronics across the entire camera spectrum, latching onto and transforming SLRs, and compact cameras alike. And the second is that, in parallel with the pace of technical advance, the two major 35mm camera types - SLR

and Lens Shutter - are drawing steadily closer to each other in every kind of performance specification.

Against this background, Olympus engineers decided it was time to take the next momentous step in closing the gap. The result was the amazing AZ-300, pioneer of a new generation of "crossover" cameras.

With "new" cameras appearing on the market monthly or even weekly, the time seemed right for a camera that really was new. The main design goal was to give a fresh face to photography - and four big considerations were involved.

First, excitingly original design, to break right away from the jaded, trad...onal camera image. Next, taking automation and easy operation to the very limit. Third, a comprehensive package of advanced functions giving full play to creative imagemaking whatever the subject. And finally, simple to say but hard to achieve, compact styling to make holding and handling as pleasant and positive as they possibly could be.

In practical terms, the AZ-300 was to feature an increased zoom ratio assuring true telephoto effects; simple, automated operation; huge versatility; and a beautifully small, lightweight format. Not surprisingly, the camera's radically new performance parameters called for a host of new technologies to match.

Once again, Olympus was doing what it does best: rising to the challenge of creating a dramatically innovative camera concept. In this episode of Technically Speaking, we will take a look behind the scenes at some of the excitingly original technologies the AZ-300 Super Zoom brought into being.

Fig. 1. Unit Assembly Diagram

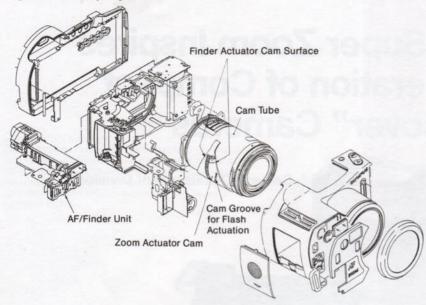
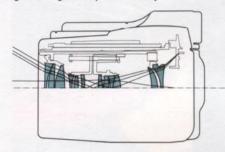
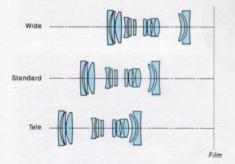


Fig. 2. Taking Lens Optical Pathway



Taking lens optical pathway



A Newly Designed **Optical System** Combined with High Level Electronics

Making the world's first high precision autofocus 38-105mm zoom lens for a compact camera called for an entirely new optical system. Olympus engineers had to start from scratch. They came up with a telephoto type 3-assembly zoom featuring positive refraction in the first and second assemblies, and negative refraction in the third. Although the camera achieves dramatic reductions in size and weight over conventional designs, the optimal refraction characteristics of each of the three lens assemblies permit virtually 3x zoom coverage in a range from wide angle to over 100mm telephoto.

Inner Focusing System

The focus control system adopted in the AZ-300 utilizes an inner focusing mechanism in which the second (middle) lens assembly is moved internally. Compared with the more usual system of externally extending and retracting the first (front) lens assembly, this system reduces required lens extension length, and overall size and weight of the focusing mechanism. This in turn permits a smaller lens barrel, and faster focusing action. The corollary, however, is that with the smaller lens extension, focusing control must be far more precise than with conventional compact cameras. Achieving the necessary precision was another area in which AZ-300 technology blazes a new trail.

Focusing Control Circuitry

Even the concepts behind the AZ-300's focusing control circuitry and drive system are brand new. Replacing the cam system of conventional compacts, the AZ-300 autofocus control instead adopts a far more accurate electrical pulse control system. Thanks to inner focusing, there is only a 1.6mm lens extension right through from the 1.3 meter minimum focus setting to infinity. This 1.6mm extension is regulated by a continuous cam surface, and is electronically divided into 200 steps to cover the normal photographic range from 1.3m to infinity. The result is astonishing focus precision, with each autofocus control step moving the lens group assembly a mere 8 microns! This is far beyond the level of accuracy available in other compacts, and stands in favorable comparison with autofocus SLR systems. The focus control circuit is stored in the ROM of the camera's CPU (Central Processing Unit).

Fig. 3. Cam control method

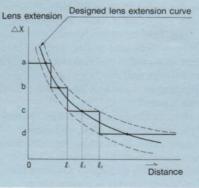
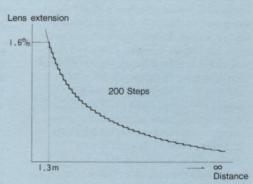


Fig. 4. Electric pulse control method

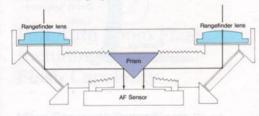


High Sensitivity AF Sensor IC

Another major contributing factor to the AZ-300's remarkable autofocus accuracy is the pair of newly developed, passive type autofocus sensors. These high sensitivity IC sensors each comprise 48 sensor elements spaced at a $24\mu m$ pitch. The system is so accurate it can detect subject image defects of as little as 10 microns.

The question could be asked: "Why didn't the AZ-300 simply adopt an SLR autofocus system if the aim was to achieve SLR standards of autofocus performance?" In fact, though, the technical problem was very different. Because SLRs use a through-the-lens autofocus system, the accuracy can be constantly checked and adjusted by feedback control from the resulting image. But lens shutter cameras do not enjoy this advantage: they must accurately determine the precise degree to which the lens must be focused with one single distance measurement. That is why achieving SLR-level accuracy in a lens shutter camera is such an amazing technical triumph.

Fig. 5. AF Unit light path



Unique Focusing Computation System

The AZ-300 CPU computes the focusing value from subject distance information supplied by the AF sensor, and focal length information covering 60 steps from wide angle to telephoto provided by the zoom encoder. When the lens is focused with the front lens assembly, the lens extension value is determined linearly from the subject distance and lens focal length. But with inner focusing, zooming the lens will also change the lens extension, even when the subject distance remains exactly the same. The AZ-300 overcomes the problem by affording a lens extension calculation curve with 60 different values to match the 60-step focal length information input. This assures precisely calculated lens extensions whatever the zoom setting utilized.

Innovative Focusing Drive Control System

This exclusive new system is designed to maximize autofocus speed and accuracy. It regulates the motorized lens extension function within computer derived optimum parameters. Thus the initial stages of lens extension or retraction are carried out at high speed, but as the correct focus point is approached the drive conforms to an optimum deceleration curve stored in the CPU. When there are 45 pulses left to the target point the CPU determines the speed of movement of the focusing elements in the lens. If it is above the optimum the motor brake is applied to slow it. If the speed is slightly slower than optimum the motor is disengaged, and if the speed is significantly slower the motor is accelerated.

Fig. 7. Focusing motor control method

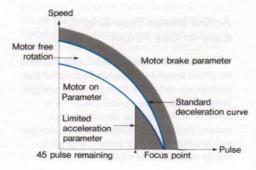
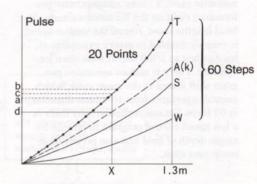


Fig. 6. Focusing extension calculation method (for 38–105mm)



Zoom Focus Fine Tuning Mechanism for the Ultimate in Accuracy

In the ideal zoom lens design, the focus, once set, would remain constant despite changes in the focal length setting. However, there is an unavoidable tendency for zooming to alter the focus setting. The AZ-300 features an automatic compensation mechanism to overcome this and assure sharp images over the entire focal range from macro through 105mm. In this system the focus displacement during zooming is measured precisely for each camera individually at the factory, and the compensation is stored in the E²PROM for use in adjustment of lens extension pulse calculation. The mechanism is a world first for Olympus, and one of the major secrets behind the successful realization of precise autofocus with a high power zoom lens.

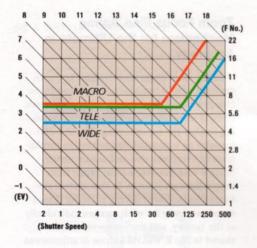
AF Illuminator for Autofocus in the Dark

The high performance AF sensor is able to measure distance accurately even in light values as dim as EV3. However, to reduce AF calculation time and improve focus precision an AF Illuminator switches on automatically at about EV10. This strong, tightly directional beam illuminates up to about 4m (13 feet). The impressive feat of autofocus measuring in light as dim as EV3 is rendered possible by the exclusive AF optical system. Because it measures distance directly, instead of through the taking lens as with SLR TTL systems, it features extremely low light attenuation.

60-Step Zoom-Linked Exposure Program

The AZ-300 exposure program is linked to the zoom setting of the lens in order to minimize camera shake and maximize performance right up the 105mm maximum. At focal lengths above 70mm, the shutter speed is roughly doubled to assure exposures at least as fast as 1/100 sec. at wide open lens aperture. There is also an automatic program shift linked to the zoom value, which controls apertures from 10-14mm diameter in 60 steps. For macrophotography there is a low speed control program to provide for ample depth of field and also permit flashmatic operation.

Fig. 8. Program Graph

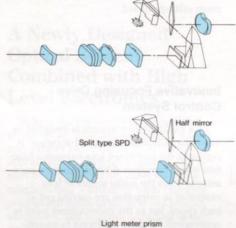


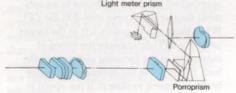
Fabulously Bright, **Beautifully Compact** Zoom Finder

Novel High Magnification Zoom Finder

A totally original Keppler-type zoom finder complements the AZ-300's innovative taking lens optics - and is linked in perfect ratio with the zoom action of the taking lens. The finder has a 5 elements in 5 groups optical system with a porroprism. It gives high magnification images between 0.46 and 1.2x life size.

Fig. 9. Zoom finder optical pathway





Automatic Parallax Adjustment for Macrophotography

Conventional compact cameras cannot avoid the deviation known as parallax that distances the finder image from the actual picture image. In the AZ-300 the finder is placed close to the taking lens to cut parallax at close distances and at infinity to virtually nil. When the camera is set to macrophoto mode a special cam adjusts the actual finder image to compensate for parallax.

Fig. 10. Macro Mode Parallax Correction Mechanism

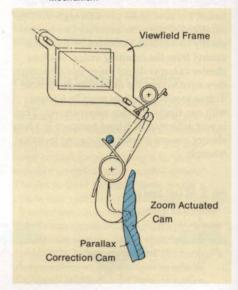
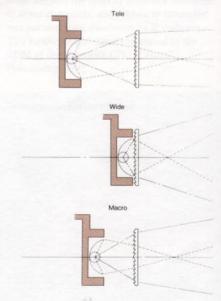


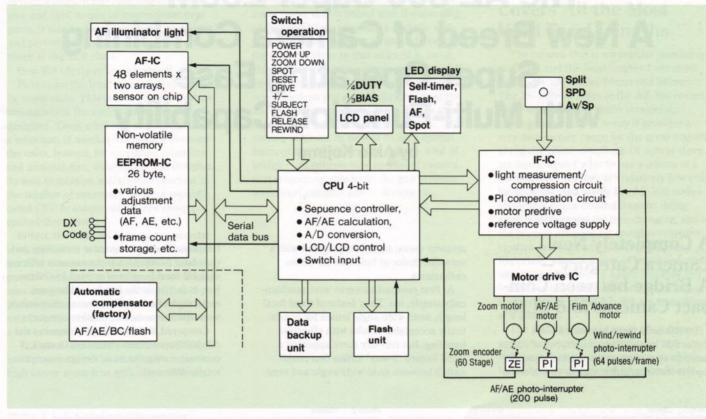
Fig. 11. Ultra compact zoom flash unit



Actual Image Type Bright, Easy-to-See Finder

The zoom-linked viewfinder optics project an actual image immediately in front of the porroprism to form a high precision upright image. Three of the optical lenses have aspherical surfaces for aberration-free images that make the finder picture sharper and brighter than ever before, with all the clarity of an SLR viewfield.

Fig. 12. Block Diagram of Electronic Circuit



Full Auto Zoom Flash, Including Sequence Flash Capability

Ultra Compact Zoom Flash

The ultra compact xenon tube and newly designed flash reflector make for a zoom flash that is remarkably compact. A zoom-linked cam adjusts the reflector to automatically alter the flash angle and Guide Number to match the lens focal length setting.

Sequence Flash Capability

At full flash charge the voltage is 330V. However, when Continuous Mode is set an override cuts off recharging at a voltage of 260V in order to decrease flash recycling time and make possible continuous flash photography. An electronic compensation circuit automatically adjusts the flash light emission time equivalent to one EV, and compensates exposure values to permit sequential flash firing at a rate of about one frame per 2.5 seconds.

Newly Developed Automatic Film Wind Drive Controller for Higher Winding Precision

Just as with the autofocus control, the newly developed automatic winder control system uses a pulse system to accurately control film advance. As the winder approaches the stop position, the CPU maintains a constant control over film winding speed by comparing detected speed and position with an optimum deceleration curve stored in memory. The system monitors the winder drive speed at a point about 0.1 sec. before conclusion of the film advance sequence. The drive motor is turned on or off, or allowed to freewheel, to adjust the speed to the optimum deceleration curve. The film end detector operates within two seconds, and automatically initiates motorized rewind.

Sophisticated Technology in Electronic Circuit Design — The Key to High Reliability

4 Bit, 8K Byte CPU Chip

The main PCB unit has an advanced CPU chip with 8K byte of ROM memory, an LCD driver and an A/D converter. This single CPU totally controls all the diverse functions of the AZ-300 with outstanding reliability.

E²PROM Enhances Quality

Among the most impressive feats built into the AZ-300 is the way each individual camera is separately programmed with its final parameters, and the data stored in the camera's E²PROM (Electronically Erasable and Programmable ROM) non-volatile memory. This guarantees that every camera shipped will meet maximum design performance standards.

The AZ-300 Super Zoom — A New Breed of Camera Combining Super Operating Ease with Multi-Function Capability

by Akio Kojima

A Completely New Camera Category – A Bridge between Compact Cameras and SLRs

Traditionally there has been a clear distinction between two main types of 35mm cameras appearing on the market: compact models featuring quick, simple operation for

amateur users; and SLRs provided with a versatile choice of functions for photo enthusiasts.

At first compact cameras were mechanically simple, too. They featured fixed focal length, semi-wide-angle lenses for consistently acceptable results with effortless handling. But recently there appeared a trend toward "2-way" lenses that could switch between semi-wide-angle and semi-

telephoto lengths for greater versatility, and then later to compact zoom cameras offering variable focal lengths of around 35–70mm. But, in fact, only the lenses had become more sophisticated; the cameras themselves were still the same old, familiar compacts.

Compared to these compact cameras the AZ-300 Super Zoom stands out in stark contrast — even the basic design concept is totally different!

Photo 1 38mm



Photo 2 105mm



Photos 1, 2: A comparison of picture angles at the two extreme focal lengths of 38mm and 105mm. The camera position is the same in both pictures.



Photo 3: This picture was shot in Macrophoto Mode. The flower symbol was displayed on the LCD Panel. The finder was corrected automatically for parallax. The Flash Mode was set for Fill-In Flash.



Photo 4: SERVO AF is useful for fastmoving subjects. By continuously refocusing on the subject, it makes sure you make the most of every picture opportunity.

In short, the AZ-300 aims to get the best of both worlds. While retaining the small size and light weight of conventional compacts, it also features a powerful zoom lens, and performance and versatility that are very much in the SLR class.

How did Olympus bring it about? First came the lens: a superb lens in the 3x zoom class. This was the central feature around which the entire camera was designed. Then, a ten-unit construction, with a minimum of mechanical linkage between the units. Instead, for maximum reliability, and minimal size, weight, cost and complexity (not to mention a dramatic reduction in the number of necessary parts), a sophisticated CPU to assure centralized computer control throughout.

In fact, the 4 bit, 8K byte microcomputer is so versatile it is able to do much more: for the first time ever, in the AZ-300 it made possible a camera so easy to operate beginners are guaranteed fine shots with completely automatic simplicity, while enthusiasts can enjoy creativity and versatility on a level comparable with an SLR.

The most important points to emphasize in this camera are the amazingly compact, high power zoom lens with inner focusing

and ultra high precision autofocus, and the beautifully clear Keppler-type actual-image zoom finder that is linked with the zooming of the taking lens to assure a realistic and faithful subject image at all times. In function the finder is close to that of an SLR, but it also provides a major advantage of non-SLR cameras: there is no cut-off when the shutter is released, so you are able to keep your eye on the subject uninterruptedly. This feature is especially useful for snapshots and moving subjects. In view of its very special features the AZ-300 can be called a kind of bridge - an entirely new species of camera that is uniquely able to fill the gap between traditional compact and SLR cameras.

A Zoom Lens that Covers All the Most **Used Focal Lengths**

The camera that is my regular standby is an OM-4, and the focal lengths I use most frequently are 35mm, 50mm and 100mm. The 38-105mm zoom of the AZ-300 covers these lengths pretty much completely, making me confident to say it provides a very satisfactory range for the great majority of regular photo situations. Of course there are times when I want to use a 28mm or a 200mm lens, but they are relatively few and far between. And surely the AZ-300 makes up for this minor disadvantage by doing away with the need for lens changing, and in the process assuring far speedier response to often fleeting picture-taking chances. Especially when it comes to travel and other situations where bulky, heavy cameras and lenses can be a real trial, the compactness and versatility of the AZ-300 are something of a godsend!

The AZ-300 zoom is made up of three separate groups of lens elements, and utilizes an inner focusing system in which focusing is accomplished by extending or

Photos 5, 6: A comparison of perspective changes from the different picture angle when shooting the same head and shoulders shot at 38mm and 105mm zoom settings. Notice the differences in the roof of the corridor and the row of columns





Average metered



Photos 7, 8: Direct evening sunlight streaming in through the window in the background distorts the center-weighted average meter reading in this composition, leaving the human subject badly underexposed. The answer is to press down the SPOT Button and take a spot meter reading of the subject's face. Now the picture looks just fine.



Spot metered







Zoom 50mm



Zoom 70mm

retracting only the second (middle) lens group. This is what makes possible the remarkable compactness of the lens, and at the same time it minimizes the required lens extension distance. In fact, the group extends only a tiny 1.6mm to cover the entire focusing range from 1.3 meters to infinity. In consequence, focusing speed is also amazingly fast.

Yet at the same time it is astonishingly accurate. To cover the mere 1.6mm of lens extension the lens focusing cam is precisely controlled by the electrical pulse signals that have no less than 200 steps. There are a further 150 steps to cover focusing in the macro-mode range of the lens, making for a remarkable total of 350 focusing steps in all.

Just for purposes of comparison, the focus-

ing system of the average compact camera features no more than 20 steps - often far less even than that. With these cameras the image depth of field is sufficient to fill in for focusing inaccuracies.

But that kind of sloppiness has no place in the AZ-300. Instead it takes one further step to assure still greater accuracy: computerized deceleration control to make sure the

Photo 10





Photos 9, 10: The sky is a beautiful bright red just after the sun goes down. On the ground the light is quite dim, and it is not bright enough to get a good exposure of the human subject. The solution to this situation is Fill-In Flash, which gets both the main subject and the sunset in the background nicely exposed. In Fill-In Mode it's perfectly OK to have the main subject off-center in the composition.



Photo 11



Photo 12

Photos 11, 12: A backlit composition with a bright sky in the background. With the flash switched OFF the figure comes out virtually in silhouette. In this case setting an exposure compensation would wash out the image of the sun and the tone of the sky, ruining the feeling of the shot. However, the Auto Flash function (in regular flash mode) fills in beautifully - and automatically - to get an excellent picture.



Zoom 105mm

focusing drive stops on the dime, every time! For autofocus the AZ-300 adopts a high precision, passive-type AF sensor with two arrays of 48 photo diodes each on left and right sides. They can measure subject distances accurately in light as dim as 3EV. Extending autofocus capability to still darker situations is a built-in AF Illuminator beam that switches on automatically when conditions warrant it.

Radically Innovative Design and Sure-Grip **Action Handling**

From the first glance the AZ-300 strikes a blow for smartness. Indeed, its excitingly fresh looks break away completely from the conventional camera image!

But that's only the beginning. You have to actually hold it to feel how the camera comes alive in your hands, with a sure, sturdy grip that, I thought, shares something of the feeling of looking through a pair of binoculars. The right hand grip in particular molds itself snugly to the palm of the hand, allowing the index finger to gravitate naturally to the shutter button position. As a matter of fact, you can even go out and take action pictures both holding and controlling the camera with the right hand alone. Of course, though, it is better to use both hands. Then you are pretty much guaranteed sharp, shake-free pictures, especially as the AZ-300 does not suffer from SLR-type shutter/ mirror shock

Having said which, however, at the 105mm focal length the lens becomes very much a true telephoto, and the danger of inadvertent camera shake cannot be ignored. To minimize the risk, the camera program automatically switches to telephoto mode at focal length settings of 70mm or longer, whenever possible setting a shutter speed of at least 1/100 sec. at wide-open aperture.

For shooting macro subjects, on the other hand, the program switches to a slow shutter speed configuration, in order to assure the greatest possible depth of field for the subject. The camera computer then takes control over the 60-step program shift mechanism in accordance with the precise focal length setting used.



Photo13:The brilliant sunlight reflected off the tiled wall would seriously distort a regular auto exposure and result in the main subject being underexposed. This nicely exposed shot was made by pressing the "+/-" Button to set a +1 EV exposure compensation

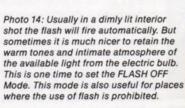






Photo 15: The model is standing in a poorly lit location with the sunset in the background. With regular auto flash the model would come out well exposed, but the background would look almost black. This picture was shot with Fill-In Flash and a slow shutter speed to assure adequate exposure for the sunset, too. The result is an attractive, natural-looking shot.

"A Wolf in Sheep's Clothing!" — Lifting the Mode Cover Turns the AZ-300 into a Super Sophisticated, Full-Function Camera

The AZ-300 has already proved an instant hit with beginners because it takes great shots at the touch of the shutter button. So it's hardly surprising that at least among some people it has gained the reputation of a "push-button" camera. But that's far from the whole story.

On the back of the AZ-300 body is a "Mode Cover." Lift it, and you will see an array of four Mode Buttons. Four innocent-looking buttons that give the AZ-300 versatility comparable to an advanced single lens reflex camera whenever the situation — or the photographer's creative goals — call for it.

From the left, first comes the "DRIVE" Button. It affords four mode settings: the defeat "Single" mode for normal one-frameat-a-time photography, "Continuous" motor driven sequence photography, "Self-Timer," and "Double Exposure" settings.

Next is the "+/-" Button, for continuous exposure compensation settings in 0.5EV steps between +1.5EV and -1.5EV.

Third from the left is the "SUBJECT" Button. This can be set for Macrophoto Mode, Infinity Mode, and two Auto Zoom Modes: Half figure and Full Figure

Photo 16

portraits. (See photos to understand how these modes work.)

Finally comes the "FLASH" Button. In addition to regular Auto Flash it can be set for Fill-In Flash or Flash Off. The latter is useful for those occasions where flash photography is either undesirable or prohibited.

And I almost forgot to mention, if you shoot while holding down the "SPOT" Button on the top left of the body, you will be taking automatically exposed spot-metered pictures. This is a feature advanced amateurs will love.

Another interesting option is to press the "SUBJECT" Button while holding down the "SPOT" Button at the same time. This sets "SERVO AF" Mode, in which the autofocus mechanism continuously resets the subject distance at 1-second intervals. This is a perfect photo mode for sports and other moving subjects.

By now I think you get the picture. The AZ-300 is chock-a-block full of high technology functions you wouldn't dream of looking for in a conventional compact camera.







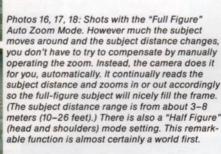


Photo 17

Photo 19: When you set Double Exposure Mode, after you press the shutter release the film is not wound on, and you can make another exposure on precisely the same frame. This feature allows you to make fascinating composite shots very easily.



How to Select Interchangeable Lenses (Part 5) Scenic Photography: **How To Choose Your Lens**

by Hidetaka Nawa

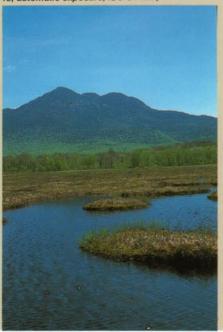
In this installment of "Selecting Interchangeable Lenses," I would like to talk about using lenses for scenic landscape photographs. Since there are many categories of landscape photography, I have chosen examples that illustrate how different lenses can be used in a variety of situations.

Photographing Mountains, Highlands and Lakes

The most popular subjects in scenic photography are mountains, highlands and lakes. They are not only beautiful but also naturally photogenic. Mountainous scenes are usually vast, so wide-angle lenses, and in some cases super wide-angle lenses, are necessary to capture the breadth of the scene.

Photo 1 of a highland marsh was taken with a 28mm wide-angle lens. The grass

Photo 1: A wide-angle lens is the best choice to depict the vastness of a mountainous scene like this photograph of a marsh. (28mm F2.8 lens at f8, automatic exposure, ISO 64 film)



floating on the water is here exaggerated by the perspective effects peculiar to wide-angle lenses. Meanwhile, the mountain in the background is "pushed away" by the wide-angle perspective. The use of a wide-angle lens was right in this case because the main theme was the floating grass and the marsh, instead of the mountain.

Photo 2 of a rocky mountain scene was also photographed with a 28mm wide-angle lens. The lens succeeded in emphasizing the queerly shaped rock in the foreground while also capturing the blue sky. The perspective effects of the wide-angle lens were important in this case. In order to give a super-realistic touch to the rocky mountain, I deliberately underexposed the shot, effectively darkening the blue sky to emphasize the white clouds.

Wide-angle and super wide-angle lenses are not the only choice when shooting mountains, highlands or lakes. Sometimes, just a portion of the overall view may make a more effective photograph. For this purpose, the narrower field of view of standard and telephoto lenses is what you need.

Photo 3 of a mountain lake was taken with a 35-70mm zoom lens. As I framed the picture by zooming I found a focal length of about 50mm was most effective for this particular subject. The mountains and clouds reflected in the lake also add atmosphere to this shot.

Photo 2: The unusual distortion of perspective inherent in a wide-angle lens is used here to exaggerate the unusually shaped rock in the foreground. (28mm F2.8 lens at f8, automatic exposure, -1EV compensation, ISO 100 film)

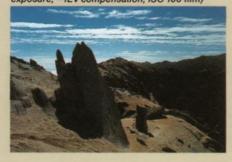




Photo 3: A standard zoom lens will sometimes give the most effective framing for scenic landscape photography. Here, the focal length of the zoom lens is set at around 50mm. (35-70mm F3.5-4.5 at f5.6, 1/125 sec, ISO 100 film)



Photo 4: A telephoto lens is required here to capture the peak of a mountain through a lodge window with the forest in the foreground. I used a 180mm telephoto lens. (180mm F2.8 at f8, automatic exposure, ISO 64 film)

Photo 4 of a mountain peak in summer was captured with a 180mm telephoto lens. I was staying in a mountain lodge and woke to find this view of a mountain peak shining in the morning light. I hurriedly shot through the lodge window before the effect was lost. The forest extended between the lodge and the mountain, so by using a telephoto lens I could neatly cut out most of the forest in the foreground. If I had used a wide-angle or standard lens in this case, the forest would have dominated the photograph and the mountain peak would not have emerged as the central subject.



Photo 5: A super wide-angle 24mm lens was used here in order to depict the road over the bridge, the river and the town in the distance. A subtle evening atmosphere is vividly expressed in this photograph. (24mm F2.8 at f4, Multi-Spot Metering, automatic exposure, ISO 200 film)



Photo 8: In a photo like this shot from above, a zoom lens is the best choice as the photographer is unable to change his position. (35-70mm F3.5-4.5 at f8, automatic exposure, ISO 100 film)

Photographing **Townscapes**

Pictures of mountains and highlands are by no means the only possibilities in scenic photography. While wandering in a town one often comes across beautiful or interesting scenes where man-made objects harmonize with their natural surroundings.

Compared to the broad sweep of mountains and open country photographs in towns generally tend to be narrower in scope. Here, too, a wide-angle lens can be used to exaggerate perspective effectively.

Photo 5 of a bridge at dusk was taken with a 24mm super wide-angle lens. The broad angle of view captures not only the road over the bridge, but also the surface of the water and the distant town. In situations like this, it is often difficult to get the exposure just right, so I use the Multi-Spot Metering on my Olympus OM-4 or OM-3 for maximum accuracy.



Photo 6: The exaggerated perspective effects of a 28mm wide-angle lens made this picture particularly effective. (28mm F2.8, at f2.8, automatic exposure, ISO 200 film)

Photo 6 of a street lamp and a distant skyscraper at twilight was photographed with a 28mm wide-angle lens. The street lamp, which appears distorted by the wideangle perspective, was the primary subject, so the use of a wide-angle lens was again the correct choice. And again, Multi-Spot Metering on the OM-4 gave me the information I needed to capture the subtle ambience of late evening.

Photo 7 shows a street in a country town at dawn. I used a 28mm lens here, as well, to make sure I got both the buildings and the traffic. Blurring of the car headlights was accomplished by using a slow shutter speed.



Photo 7: A 28mm wide-angle lens was again used here to depict a country town in the early morning. I used a slow shutter speed to blur the car headlights. (28mm F2.8 at f8, 4 sec., ISO 100 film)



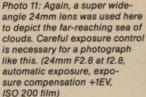
Photo 9: The use of a telephoto lens is sometimes necessary to take a scenic picture of a city from a skyscraper. (100mm F2.8 at f8, automatic exposure, ISO 100 film)

Standard and telephoto lenses can also be used effectively when shooting in town. Especially if you are shooting from a high vantage point, foreground clutter can be a problem with wide-angle lenses. In such a situation, I generally use a zoom lens that allows me to change the angle of view without changing my position. In Photo 8, which was taken with a 35-70mm zoom lens, the colors of the cars in the parking lot contrast nicely with the green of the surrounding forest and fields.

The cityscape shown in Photo 9 was photographed from the top of a skyscraper using a 100mm telephoto lens. For this kind of photography, a telephoto lens or telephoto zoom lens is really a must. Generally, I work with a telephoto zoom, but in this case the angle of view provided by the 100mm lens was perfectly adequate.



Photo 10: This photograph from an airplane required a super wide-angle lens in order to depict the vastness spread below. (24mm F2.8 at f8, automatic exposure, ISO 200 film)





Photographing Scenery from Moving Vehicles or Aircraft

When I travel, I often want to shoot the scenery that I can see through the window of the car, train or plane I am riding in. Taking photographs under such circumstances can be a challenge, but the subjects one comes upon unexpectedly are often the most interesting.

Photo 10 and 11 are of glacier-encrusted mountains, and were taken with a 24mm super wide-angle lens through the side window of a plane. When traveling, I often use wide-angle and super wide-angle lenses if I'm shooting out the window of a car or airplane. Super wide-angle lenses are particularly effective when taking pictures from the air, because the scale of the scenery is so vast. The scene here is a sea of clouds illuminated by the faint light of dawn. Whenever the lighting is this tricky, I recommend bracketing your exposures by taking additional shots with settings slightly above and below the recommended settings.

In some cases, a lens with a narrower angle of view than the wide-angle lens is a better choice. Photo 12 of the evening sky and the outline of the left wing of the airplane was taken with a 50mm standard lens. Exposure control is again difficult in this case, but a straightforward automatic exposure setting will be satisfactory if you want to make the subject a silhouette.

Scenes viewed from a train window are also interesting. Standard or telephoto lenses with a narrower angle of view may be better than wide-angle lenses in order to



Photo 12: In order to depict a portion of the scene viewed from an airplane, a standard or a slightly narrower angle telephoto lens is most suitable. (50mm F1.4 at f2, automatic exposure, ISO 200 film)



Photo 13: When taking a scene from a train window, a telephoto lens is in many cases better than other types of interchangeable lenses. Its narrow angle of view prevents unwanted objects beside the railway tracks from being included. (90mm F2 at f5.6. 1/500 sec. ISO 200 film)



eliminate unwanted features often found alongside railway tracks.

Photo 13 of an avenue of trees through fields was taken through a train window with a 90mm telephoto lens. When using a telephoto lens on a rapidly moving train, a fast shutter speed is advisable. In this shot, the foreground is still a little blurred, even though I set the shutter speed at 1/500 sec.

A train passing through mountains, however, is slower and the subjects tend to be closer to the tracks, so a wide-angle lens can also be effective.

Photo 14 of a mountainous scene was taken with a 24mm super wide-angle lens. There were stickers depicting black birds affixed to the train window, so I deliberately focused on them and set the aperture to the highest setting possible for maximum depth of field. The result is a trick photograph, where the black birds appear to be flying in the forest.

It is also enjoyable to seek out favorite scenes from an automobile window. Unlike airplanes and trains, a self-driven car has the advantage of greater flexibility. You can park the car and take time to choose whichever lens you believe to be most appropriate.

Photo 14: A super-wide or wide-angle lens can sometimes be more effective than telephoto lenses. In this shot, I deliberately photographed the stickers of black birds affixed to a train window to make a "composite" picture with the outside scene. (24mm F2.8 at f8, automatic exposure, ISO 100 film)

LENS CORNER



Photo 15: Longer focal length telephoto and telephoto zoom lenses are sometimes the best choice when shooting from a car (65-200mm F4 at f8, automatic exposure, ISO 100 film)

Photo 15 is a scene I photographed from a car window while traveling on a country road. I parked the car and took the picture with a 65-200mm telephoto zoom lens. Zoom lenses are more convenient when taking pictures through a vehicle window as they allow you freedom of choice in framing your composition.

Photographs in Forests or Woods

It can be argued that it is best to confine your photographs to a single theme when attempting landscape photography. Mountains or highlands are great themes and forests or woods are also recommended. presenting an unlimited variety of possibilities. All interchangeable lenses are suitable for the woods - super wide-angle, standard or telephoto - depending on your photographic intentions.

An avenue in town can be photogenic as a single theme in landscape photography. Use either a wide-angle lens to portray the overall avenue scene or a telephoto lens to "compress" the perspective of the trees.

Photo 16 of an avenue was taken with a 24mm super wide-angle lens in order to emphasize the length of the avenue. Cars



Photo 16: A super wide-angle or wide-angle lens gives a sense of depth to scenic photographs like this picture of an avenue. (24mm F2.8 at f8. automatic exposure, ISO 100 film)

parked on both sides of the avenue accented the scenic effect.

Close-ups of trees as opposed to an overall view of the forest or woods are also effective. Standard or telephoto lenses with a narrower angle of view are the best way to exclude unwanted background features. Also, these lenses are not affected by the distortion of perspective which is peculiar to wide-angle lenses (see the previous installments in this "How to Select Interchangeable Lenses" series).



Photo 18: I used a longer focal length telephoto lens here to take a close-up of shining red and yellow leaves illuminated from behind by the autumn sun. (180mm F2.8 at f4, automatic exposure. ISO 100 film)

Photo 17 was photographed with a 90mm telephoto lens to depict the trunks of trees in backlight. Photo 18 of shining red and vellow autumn leaves in Japan was taken with a 180mm telephoto lens.

By using various interchangeable lenses, you will be able to make your scenic landscape photographs much more interesting and enjoyable.



Photo 17: A telephoto lens was used to take this photo of tree trunks with the afternoon light behind them. (90mm F2 at f5.6, automatic exposure, ISO 100 film)

Zuiko Interchangeable Lens Group

TYPE	LENS		ANGLE OF VIEW	WEIGHT (oz.)		LENGTH	FILTER					
				**CON	1 don't	CERGIN	46mm	49mm	55mm	72mm	100mm	
FISHEYE	ZUIKO FISHEYE	8 mm F2.8	180° (circle)	640g	(22.6)	83mm	Built-in (NEUTRAL, Y48, 0			48, O5	6, R60)	
	ZUIKO FISHEYE	16mm F3.5	180*	185g	(6.5)	31mm	Built-	in (NEU	TRAL.	748, O5	6)	
SUPER WIDE-ANGLE	ZUIKO	18mm F3.5	100°	250g l	(8.8)	43mm	1000	200	1	0		
	ZUIKO	21 mm F2	92"	250g	(8.8)	44mm			0			
	ZUIKO	21 mm F3.5	92*	1809	(6.3)	31mm		.0				
	ZUIKO	24mm F2	84*	275g	9.7)	48mm			0			
	ZUIKO	24mm F2.8	84*	185g ((6.5)	31mm		.0	1000			
	ZUIKO SHIFT	24mm F3.5	84° (max. 100°)	520g	(18.3)	75mm	Built-	in (NEU	TRAL !	148, O5	6, R60)	
WIDE-ANGLE	ZUIKO	28mm F2	75*	245g	8.6)	43mm				100		
	ZUIKO	28mm F2.8	75°	170g	(6.0)	32mm		0				
	ZUIKO	35mm F2	63*	240g	8.5)	43mm			0			
	ZUIKO	35mm F2.8	63"	175g	6.2)	33mm		0				
	ZUIKO SHIFT	35mm F2.8	63° (max. 83°)	310g	10.9)	59mm		0				
STANDARD	ZUIKO	40mm F2	56°	1400	4.9)	25mm						
	ZUIKO	50mm F1.2	471	285g	10.1)	43mm						
	ZUIKO	50mm F1.4	471	230g I	8.1)	40mm						
	ZUIKO	50mm F1.8	47°	165g	5.8)	32mm						
	ZUIKO MACRO	50mm F2	47"	320g	11.31	55mm						
	ZUIKO MACRO	50mm F3.5	47*	200g	7.1)	40mm						
ZOOM	S ZUKO ZOOM	35-70mm F3.5-4.5	631-341	190g	6.7)	51mm						
	ZUIKO ZOOM	35-70mm F3.6	63"-04"	400g	54(1)	7.4mm						
	ZUIKO ZOOM	75-150mm F4	32"-16"	455g	16.0)	115mm						
	ZUIKO ZOOM	35-105mm F3.5-4.5	63"-23"	470g	16.6)	85mm						
	ZUIKO ZOOM	65-200mm F4		730g		147mm						
	ZUIKO ZOOM	85-250mm F5	29"-10"	905g	31.9)	196mm						
	ZUIKO ZOOM	50-250mm FS	47"-10"	760g	26.6)	140mm						

TYPE	LENS			ANGLE OF VIEW	WEIGHT (oz.)	LENGTH	FILTER				
			THREE OF VIEW	THE MAIN (O.E.)	LENGIN	46mm	49mm	55mm	72mm	100mm	
TELEPHOTO	ZUIKO	85mm F2		29*	260g (9.2)	48mm		0			
	ZUIKO MACRO	90mm F2		27*	550g (19.4)	71mm			0		
	ZUIKO	100mm F2		24*	500g (17.6)	72mm			0		
	ZUIKO	100mm F2.8		24*	235g (8.3)	48mm		0			
	ZUIKO	180mm F2		14*	1900g (67.0)	174mm	-				:0
	ZUIKO	180mm F2.8		14"	700g (24.7)	125mm				0	
	ZUIKO	200mm F4		12"	515g (18.2)	127mm			0		
SUPER TELEPHOTO	ZUIKO	250mm F2	*	10"	3900g (137.6)	246mm	O (Slip-in type rear filter)				
	ZUIKO	300mm F4.5		8°	1020g (36.0)	181mm				0	
	ZUIKO	350mm F2.8	*	7**	3900g (137.6)	280mm	O (Slip-in type rear filter)				
	ZUIKO	400mm F6.3		6°	1300g (45.9)	256mm				0	
	ZUIKO REFLEX	500mm F8		5*	590g (20.8)	97mm				0	
	ZUIKO	600mm F6.5		4*	2800g (98.8)	377mm					0
	ZUIKO	1000mm F11	*	2.5"	4150g (146.4)	662mm					0
SPECIAL USE	ZUIKO MACRO	20mm F2		9" at highest mag	170g (6.0)	46mm	21mm Slide-on				
	ZUIKO MACRO	38mm F2.8		9" at highest mag.	170g (6.0)	46mm	32mm Slide-on				
	ZUIKO 1:1 MACRO	80mm F4		9" at highest mag.	170g (6.0)	31mm					
	ZUIKO MACRO	135mm F4.5		18*	3200 (11.3)	47mm					

6 • WEIGHT: 215g (7.6 oz.) • LENGTH: 48mm (1.9 in.) 180mm F2, 180mm F2.8, 250mm F2, 300mm F4.5, 350mm F2.8, 400mm F6.3

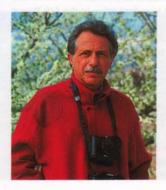
Note: Some of the lenses used for the photographs in this article are no



Depth, Perception, Heart and the Pursuit of Photographic Honesty

by Dennis Stock





Dennis Stock

Dennis Stock was born in New York City in 1928. Dennis originally gained celebrity in his photographs of James Dean, jazz musicians and the world of the 1960s counterculture, though his apprenticeship to Gjon Mili and his early Magnum work were equally exciting and invaluable to the history of modern photojour-

He has had more than 20 one-man shows and group exhibitions in New York, San Fransisco, Zurich, Tokyo and France, has published 30 photography books and anthologies and has contributed to a dozen major magazines, such as Life, Look, Geo, Paris Match, Stern and other international periodicals.

Among his books are

Brother Sun, A Haiku Journey, California Trip. Flower Show, Jazz Street, Alaska and Provence, and his works are in the archives of the Art Institute of Chicago, the International Center of Photography and the George Eastman House, among other major collections.

A founding member of Magnum Photos, the Paris-based photo agency,

Dennis has lived and worked in Europe for much of the 1980s, though he now resides in Woodstock, NY, to be close to the Catskill Center for Photography, which he also helped found.









Throughout the last 40 years I have remained passionate about photography simply by finding subjects that continually fill me with wonder. As long as I live and observe the world around me I will *always* be passionate about the art of image-making — despite certain misgivings about the path much of contemporary photography has taken.

What particularly remains strong for me is the literally endless relationships of shape, color, light and shadow available in the world that, to my eye, are pure and graphic. Via the camera, I enjoy life a great deal, and once I do find my theme the lens nudges me towards one or more of these relationships. That is when my work as a photographer continues undaunted.

What does daunt me from time to time, however, is that the potential influence of photography today too often is taken far too inconsequentially. Is that the other mediums, particularly television, magazines and books, have reduced the emotional quality of individual photographs today. Pure, subjective photojournalism has been on the decline, as have the essays of picture poets through the book publishing world. It is a shame. Maybe it will return.

It would be nice if every serious photographer who is concerned as I am could offer a small boost to the cause, the cause of a return to true photographic depth and perception. That should be the way of most professionals, at least some of the time. I think we all would be better for it.

My own small boost to the cause today is centered in the tiny village of Woodstock in New York's Catskill Mountains. It is there I helped found the Catskill Center for Photography in 1977 to foster and promote excellence in photography and the related arts.

Since its inception, the Catskill Center has played a vital role in helping artists realize their creative potential. I am pleased to have had a part in its creation, to have some of my work in its permanent collection, and to conduct lectures and workshops on a periodic basis. I am also quite pleased that its capital improvement program, the committee of which I recently chaired, has been aided by financial support from Olympus.

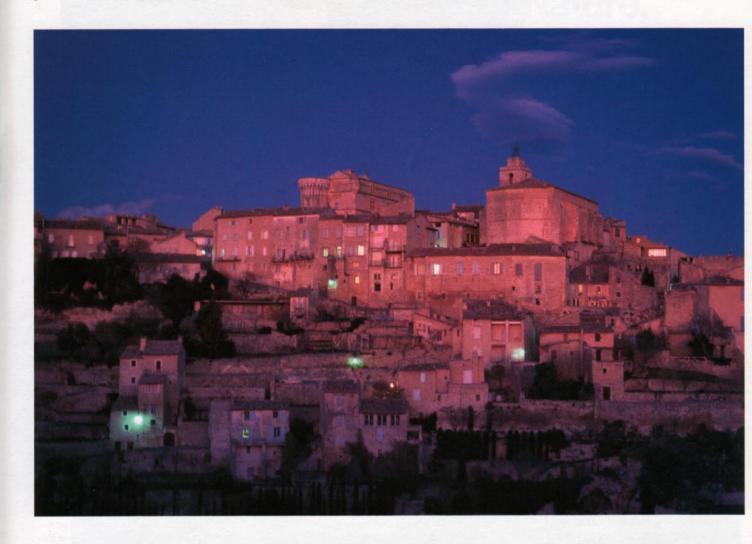
I entered photography in 1947 as an apprentice to Gjon Mili, a contract photographer for *Life* magazine. A tough and demanding pro, Mili's aura truly represented the kind of studio he operated: it was a

crossroads of culture, subjecting everything from fashion and sports to music and dance to his and his camera's unflinching eye. It was an exciting time to learn, especially since the newly developed high-speed flash was part of Mili's equipment roster. Exciting, educational — and inspirational.

During my four years in the Mili studio I learned skills and crafts that I instantly recognized as the highest standards in photography. It was at this time that *Life's* editors were encouraging what is best described as "point of view" photography, which in my view merged form and content to a level of excellence that made *Life* the foremost picture magazine in the world.

In 1951 I won first prize in the *Life* Young Photographer's Contest for my essay on newly arrived German refugees. Shortly afterward, photographer and photo historian Robert Capa asked me to join his new cooperative picture agency called Magnum Photos. I have been seeking photographic truth ever since.

The subjects that have filled me with wonder for more than 50 exhibitions and books over the last three decades range from jazz and James Dean to counterculture communes and the Monet gardens.



The reasons for some of these photographic passions are not easily explained in words. They are, I trust, better explained through the depth and perception of the final image. That is the wonder of photography. It is truly a universal language.

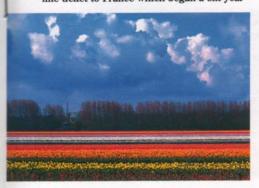
In 1978, after seeing a Monet exhibit in New York and learning of the restoration of Monet's gardens in Giverny, I bought an airline ticket to France which began a six-year

flower search through Tahiti, Hawaii, Holland, Bavaria, Crete, Ibiza and other locales. The result was my latest book, Flower Show. An exhibition based on Flower Show was recently featured at Gallery Urban in New York City, and Olympus sponsored a party for me there. My relationship with Olympus spans more than 15 years. When discovering a detail, a distant image or a point of view, a broad system of sharp lenses, and



light cameras to ease the burden of weight while traveling, is essential. Thus, Olympus OM System cameras and lenses have served me well all these years.

My point of view photography, my curiosity and my craft have helped me maintain passion for the work I do since my earliest Magnum assignments. I spend considerable time with a photographic subject in order for it to culminate in a sense of













satisfaction, a depth of observation.

I try to have a genuine respect for what is in front of the camera. I feel my job is to keep the superficial to a minimum. Once again, I thoroughly research the subject beforehand and attempt to exercise extreme patience and perseverance while shooting. Today, such conscientious concerns seem to be minimal with many photographers. If we lose patience and objectivity, we lose the ability to document our history in a responsible way. We all see thousands of posed, picked and patterned



photographic images each week of our lives. Is that what is making us less inclined to look at one honest mirrored image? And is that making photographers less concerned with depth and perception? I hope

I recall fondly the days during and immediately following World War II when all walks of life were open to examination by the camera and the photographer's point of view. The medium thus found considerable support from magazine editors and the public alike. Life, Look, Paris Match, the London Picture Post, Epoca and Stern grew tremendously in the postwar period. Henri Cartier Bresron, Robert Capa, Ernst Haas, Gjon Mili and W. Eugene Smith all prospered at this time. Perhaps life was a little less complex back then, if only because of the minimal competition from satellite media and international mass communications.

Indeed, life is getting even more complex today. We need more, not less, sensitive expressions to help us understand what is happening in the world. Concerned photography, such as I believe I practice, served us well in the past and I sincerely hope it returns in full force. I would like to see the art and the heart of photography blossom and flourish all over the world.



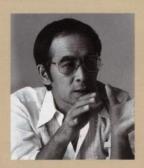
The Greatness of Nature, **Unchanged since Creation.**

- Camera Travelogue in Iceland -

by Hideki Fujii



Iceland's capital, Reykjavik, around 10:30 in the evening. The window glass reflects the light of the sun, which never sets in the summer season.



Hideki Fujii-

1934 *Born in Tokyo. 1954 *Award for "Best News Photograph of the Year" in Japan. 1963 *Became freelance photographer, directing his work mainly toward editorials and fashion. 1973 *Awarded Lion Dargen prize at 20th Festival International du Film Publicitaire Cannes 1973, a film production competition. *Invited to Vienna as an instructor at a conference sponsored by Europe Photo Union. *Became an honorary member of AWI of West Germany. 1974-1978 *Held private exhibitions in cities including Hannover, Amsterdam, London, Paris, Milan, Antwerp, Barcelona and Seattle. 1979 *Exhibited his work in "Photography of Modern Japan and Its Origin." Toured in Milan, Brussels, London, The Hague and Paris. *Held private exhibition "The

World of Hideki Fujii - Women of Japan in Tokyo."

1981 *Held private exhibition "Karada Kesho" ("Body Makeup") at Olympus Gallery, Tokyo. 1982 *Invited as an instructor at the 13th Conference of Creative Photograph Designers' Association in Hamburg. 1983 *Exhibited "Karada Kesho" at Olympus Gallery, Paris. *Exhibited "Karada Kesho" at New York Art Directors Gallery. 1985 "Awarded silver prize in 64th Photography Section Prizes of the New York Art Directors Club for his work used in 1983 Trio-Kenwood advertising. *Awarded annual prize for "Karada Kesho — Pictography," sponsored by Japan Photograph Association. 1987 *Held private exhibition in Taipei, Tainan and Kaohsiung, in Taiwan. 1988 *Held private exhibition "Modeling of Iceland Ground" at Olympus Gallery, Tokyo.

The light at night, in the land of the midnight sun, is beautiful. The air is so clear and lambent at eleven in the evening I can see as far as 50 kilomters. (30 miles).

My fascination with the light and primality of the far north began three years ago in Iceland, in the capital, Reykjavik, after a painter and longtime friend had urged: "Let's see the glaciers in Iceland." Having an abundant curiosity about the corners of the world unknown to me, I readily agreed.

My friend was making one of his occasional visits to lecture at Iceland's university, so I gladly accompanied him to that frozen, volcanic oasis where nature has

remained the same since the dawn of this glorious island's fiery birth.

Three days after my arrival, I loaded my photography gear, a tent and a stock of food into a specially fitted Jeep I had rented and drove out of Reykjavik. Surprisingly, the map showed no roads. I learned that a bulldozer is sent out early each spring, and the trace it leaves becomes the road for that year. If it nears a river, the road bends away; if there's a hill, the road avoids it.

Timidly following this meandering road, I gradually moved into the heart of the Icelandic wilderness.

All around me I could sense the land -



The glacier, created 450,000 years ago. A mysterious cloud floats in the



Taking a little bit of water, here and there in the vast wilderness small flowers are in bloom.



In this wilderness we can imagine the genesis of the earth. Photographed around 11:00 PM.

just as it was when the world was born. The vastness and peace of the primal wilderness as God had created it. Nature on such a scale, I first thought, can never be captured with a camera.

But soon I was pressing the shutter release continuously. What images would emerge on the film? What results could I possibly achieve?

They far exceeded my hopes. In Japan again, I showed my work at the Olympus Gallery in Tokyo. That was my desire: that people would see what I had seen and simply gaze at what nature means in Iceland.

Many who know my career and past work were surprised at my sudden interest in nature photography, and kept prodding me for an explanation. But I was not conscious at all of turning into a nature photographer.

Among the Japanese, who like to divide everything into categories, I have sometimes been thought of as a photographer who specializes in the subject of woman; a photographer with the Japanese taste or sensibility known as the Japonesque. But to me that was nonsense, and I sometimes felt it to be a troublesome categorization.

I believe that the photograph is equivalent to music. All objects, I believe, have

their own rhythm and melody. In a like manner, scenery - the delicate gradations, the slanting light of the Iceland summer is one with the smooth lines of the female form. Indeed, for me there is no distinction. No mental separation between her and the unbelievable scenery; a glacier, created 450,000 years ago, bathed in the light of the short summer, one face dropping into an ancient pond, its massive motion clearly audible in the wind. Moss, carpeting the wilderness all around me, is 30 centimeters (a foot) deep. The perfect place to bring out the hidden beauty and reinterpret the naked beauty of the feline form.



Seeds scattered from a small airplane created this plain of alpine plants covering a lava bed.



As the Jeep moves through the wilderness, a green blanket suddenly appears. The moss is 30 centimeters high.



Climbing the mountain took five hours. On the other side of the pass, a mountain stream suddenly

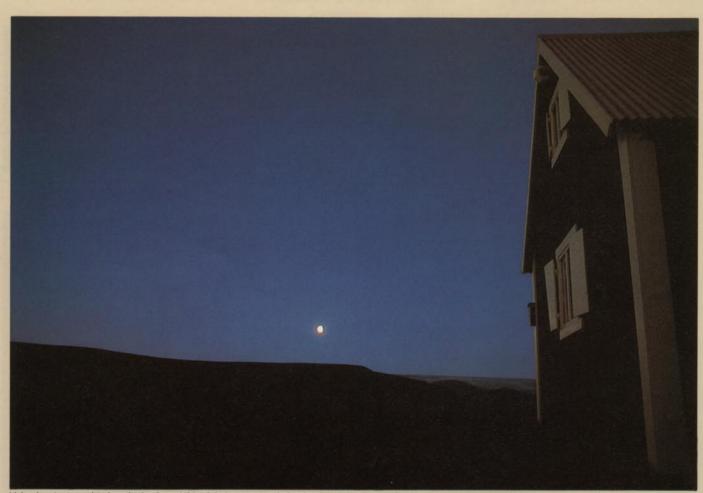


A stream of lava creates a pattern of natural art.

In coming to terms with Iceland as a subject I became absorbed with the idea of painting with photography. To do so, the photographer must transcend the conventional film-to-printing paper concept of pressing the images taken by the camera. I tried printing out my photographs by spreading gold powder on washi - Japanese paper. The result was the beautiful color tone of a Japanese painting. Then I succeeded in printing out a photograph on a stone weighing 25 kilograms (881 ounces). Finally, with canvas of the kind used for oil paintings, I managed to master the techni-

que of printing out photographs like paintings.

These experiments were not attempts to display my originality or to play to the gallery. Since starting in photography, I have had at least as much fun with darkroom work as with the taking of photographs. Creativity is of course very important in using the camera. But how to finish the work in the darkroom attracted me in a much stronger way. From the standpoint of originality, I think the finishing stage is the very key to professional photography. The joy of devising and trying the endless meth-



Living in a tent was hard on the back, and this night I entered a shelter hut found by chance. On the glacier of the midnight sun, a blue moon is visible.

Snow grouse. Iceland is a sanctuary for these birds.



Everywhere there are lakes creatd by lava. In the water, a fish leaps



This hill made of lava is the domain of birds. Small flowers grow among the birds' droppings.



ods that suggest themselves is truly absorbing.

To put half one's effort into deciding what to photograph and how to photograph it, and the other half into finding out how best to finish the photograph - I think that is the ideal approach.

As for taking photographs, I believe that once the photographer has chosen what to express, the question of what to photograph is thereby decided. What made me continue to photograph Japanese-oriented subjects in the past was my will to surpass the super cameramen in Europe, who were then the experts. What subjects were they unable to reach? I began to search, and realized that the answer was subjects connected closely to the Japanese spirit. When my work on such themes was released in Europe, it was received with surprise and unexpectedly high regard.

Then, with the kindness of the Olympus Gallery, I was able to exhibit my work having nature in Iceland as its theme. I tried to bring back the wilderness and the glacier and the flowers in my photographs. But that doesn't mean that I became a nature photographer. I just gaze at nature as an object,

and it is entirely stored in my identity.

Using the concept that "the photograph is free," I want to create art with photographs. But not in an atmosphere of formality. We should play with photographs!

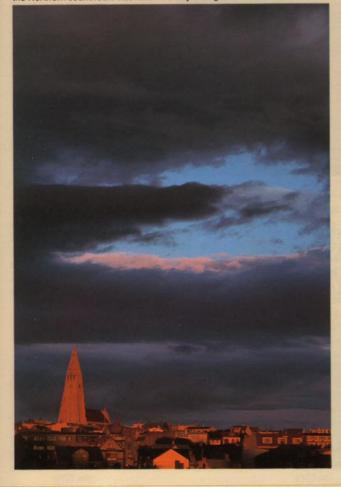
In China, there is a saying that we should forget the particularity of common things,

sharpening our perception until we can enjoy what is universal in the things and events of our lives. I am seeking this ideal in the world of photography. W

ICELAND

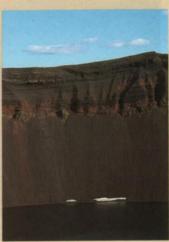


A church, the symbol of Reykjavik. Its unusual shape can only be found in the Northern countries. I was fascinated by changes in the clouds.





A beautiful volcanic lake, though the Icelandic term for such lakes means 'ugly pool'.



The unmelted snow creates a unique accent. Before the snow can melt, the next winter has come.



Every year in early spring a bulldozer cuts a road in the wilderness.

Emotional Visuals Provided by Nature in Miniature

by Yuji Mori



Photo 1 OM-4 Macro 50mm F3.5, at f3.5 Auto 1/125 sec.

Yuji Mori

1954 Born in Nagoya. 1980 Graduated from the Aichi Institute of Technology

1984 Held an exhibition, "The Nature Photography," at the Olympus Gallery in Nagoya.

1986 Photos introduced in "My Angle," the August issue of "Photography" by the Olympus Camera Club.

1987 Started as a professional photographer in August; at the same time, an individual exhibition, "A Little Melody in the Nature" was held at the Olympus Gallery in Tokyo.



I have just entered a small world by looking through my viewfinder; I met all of my little friends in nature when I was invited out into the green fields by the gentle breezes.

Ever since I discovered the different expressions and beauties of each of the seasons — spring, summer, autumn and winter — I could never be parted from my camera, not even for one second of the entire 365 days of the year.

To me, a photograph is a painting, with the light acting as paint and the camera and lens being the paintbrushes.

The key to success is to concentrate on what you feel and determine how you are going to reflect your excitement in the photograph. I hope that my comments on each picture will be of some help in this respect.

Photo 1 was taken in a field in autumn when I was attracted by the fallen leaves on the ground, reflected red by the backlight. I kept going closer until I realized that I was taking the picture while lying on my stomach. I tried to catch the uniqueness of the silhouettes of the moss spore cases. You can usually find something interesting close to your feet. As leaves are not always flat, you must make certain of the proper focus by looking into the viewfinder to see if the picture gives a sharp impression in its entirety. I also tried to make the main subject, the leaves which were caught in the backlight, stand out in the picture. What was done, was to make the screen look simple by opening the lens aperture and by

boldly using the out-of-focus effects in contrast with the subject. In my picture, such an out-of-focus effect plays a primary role in creating a picture, just like the paints used in a painting. As to the exposure, due to the darkness of the back field, I only concentrated on one point of the bright part of the leaves at the center of the picture, instead of risking overexposure by choosing an even exposure. This method proved to be successful in creating a rather sharp impression on the whole for this picture.

Photo 2 was taken with the use of a 300mm F4.5 lens, rather than using a macro lens, because I wanted to get a total image of the gregariousness of the flowers. In this case, I also wanted to obtain a close-up, and therefore attached an Auto Exten-



OM-4 300mm F4.5, at f4.5 Auto Photo 2 1/30 sec



OM-4 Macro 90mm F2, at f2.8 Photo 3 Auto 1/15 sec



OM-4 Macro 90mm F2, at f2.0 Photo 4 Auto 1/250 sec.

eyes of the subject, at least in the case of sion Tube 25. Naturally the exposure tends insects. This time, I again used a tripod in order to obtain accuracy in focusing, rather than to avoid blur, because the depth of field was rather shallow due to the high magnification. A key point in focusing is to make a final focusing decision by moving the entire lens backwards and forwards after repeatedly moving the helicoid. In addition, it is often useful in these situations to attach a Focusing Rail between the camera body and the tripod. Since the grasshopper didn't move at all, exposure appeared to be fine with an aperture of f2.8, a plus one compensation and a shutter speed of 1/15 sec. Since the yellow color has a high reflection rate, which could easily ruin the color of the grasshopper, I chose an exposure one step up.

The subject of Photo 4 is a glycine soja pod, which I chose as a form of beauty representative of the autumn season. In this case, by using a 90mm F2 open lens, the autumn color in the background was expressed by a soft out-of-focus touch. As for the exposure, if the photograph was taken with an F2 lens at full open aperture, the color of the pod would have turned out darker than the lights in the background, hence it required some compensation. Therefore, I chose the pod as the standard level for exposure and compensated by one step.

> In Photo 5, I took the photograph with the aim of achieving a designed composi-

OM-4 Macro 80mm F4, at f5.6 Auto Photo 7 1/125 sec.

to be darker. By opening the lens aperture. an out-of-focus effect can be obtained. A telephoto lens can be powerfully used for out-of-focus effects and for properly handling the background. Because of these effects, when I found a lily in bloom in front of the flowers, I dared to keep the lily in an out-of-focus state in the front of the screen. The balance of colors should also be considered and it is necessary to discover the best position for the camera angle by walking around. The photograph was taken with the use of a tripod to prevent blurring, because by using the automatic average photometry, since the subject was evenly lighted, the shutter speed was 1/30 sec. I also had to wait for a break in the wind. What you have to remember in nature photography is that perseverance is more important than anything else.

Photo 3 shows the larva of a grasshopper resting on a dandelion flower; a sight which is frequently seen in the fields. A Macro 90mm lens was used with the Telescopic Auto Extension Tube 65-116 to allow high magnification, and I went closer to the little creature. To make the angle, I adopted the same out-of-focus effects and composition as in Photo 2. In this case, due to the high magnification, the same effect can be achieved without fully opening the lens aperture. I tried, therefore, to add some depth by adopting an aperture one level sharper. It is also important to focus on the



Photo 6 OM-4 Macro 90mm F2, at f2 Auto 1/125 sec.

tion, using the stamens of the tawny day lily. The photograph was taken with a Macro 90mm F2 lens with the Auto Bellows attached to it. After having tried from different angles. I decided to isolate a formation of the flower and make it look as close as possible to an image that I had in my mind. I believe that this is another way of expression; not just to take a photograph of a flower, but to design a picture screen. Incidentally, in a case like this, since you are using a rather sharp aperture, you should make sure of the out-of-focus effects in the background by looking in the viewfinder and pressing the preview button.

The subject in Photo 6 is a kind of mushroom which I find particularly interesting as a subject in the autumn. When I found it at my feet in the coppice, it was raising its head from the fallen leaves which were piled on the ground. I took the photograph from an extremely low angle, lying on my stomach and setting my camera on the ground. I would say that ultimetely, the selection of the right camera angle is a key point to your success in creating wonderful photographs.

Photo 7 represents a picture of the morning dew on a plateau. It was made using macrophotography of 11/2 magnification with a Macro 80mm F4 lens with the Auto Bellows attached to it. A key point in this photo also rests upon focusing and the best shot is attained by making a careful and sensitive angle selection. As the dew is cubic, by looking into the viewfinder, I tried to make as sharp an aperture as possible, so that the picture retains its beauty. In this case, I found that the essence for showing the depth lay in using the bellows with an aperture approximately 1 level sharper. In addition, the halo seen in the right-hand side of the picture is from the dew which is out of focus in the front. This was intentionally adopted to accentuate the composition.

Photo 8 OM-4 Macro 135mm F4.5, at f4.5 Auto 1/60 sec.



OM-4 Macro 135mm F4.5, at f8 Auto 1/15 sec.

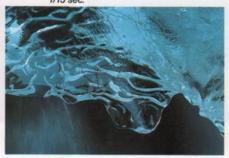


Photo 10 OM-4 Macro 135mm F4.5, at f8 Auto 1/15 sec



Photo 8 shows a Soldier beetle resting on an Udo flower on a plateau in the morning. I approached the subject carefully so that the insect would not notice and I used a Macro 135mm F4.5 lens which allows a good working distance. The exposure compensation was plus 1/2 step from automatic to avoid a possible blackening of the insect due to the flower being so white. I put more priority on the total atmosphere rather than the color of the insect.

In Photo 9, I tried to catch, from a short distance, the beauty of the shape of ice forming on the water of a stream in winter. Because the sky was clear and fine, the color of the photo became blue due to ultraviolet rays and the blue is a color very much suited to the image of winter. A Macro 135mm lens and a tripod were used because of the bad conditions underfoot and the long distance from the subject. A sharp aperture of f8 was used to accentuate the detail of the ice. The exposure compensation was minus one step, with a shutter speed of 1/15 second set automatically. I was successful in expressing the feeling of the stream and the coldness of winter with the color blue and by using a slow shutter.

Photo 10 shows frozen Japanese maple leaves which have fallen on the surface of a stream. It is a typical subject for field photography in the winter. "Discovery" is the very origin of the attractiveness of nature photography. The photographic approach followed that of Photo 11.

Photo 11 shows a swallow. It is the first photo subject that we encounter in the spring and always informs us of the arrival of the spring season. Since it was at a distance that was easy to reach, I used a Macro 50mm F3.5 lens. I would recommend taking a photograph from a close distance, instead of using a telephoto lens, because the sense of intimacy is a prerequisite. A stream was running behind the swallow and I tried to capture the stream by using an aperture one step sharper from the open

setting. Due to the strong light in the background, exposure was compensated for by using one more step, which also emphasized the line of the swallow and made the picture distinctive.

Photo 12 introduces the adder's-tongue lily. The photograph was taken from a drastically low angle, with the camera set from below for a vertical lens direction, since I wanted to have a blue sky in the picture to show the feeling of May. Thanks to this position, I could eventually include the patterns of the flower. You should also remember to select the proper angle to allow you to portray the appeal of the character of the flowers. Additionally, the nature of this



Photo 11 OM-4 Macro 50mm Photo 12 F3.5, at f5.6 Auto 1/125 sec



OM-4 Macro 90mm F2, at f2.8 Auto 1/250 sec.

flower is to be gregarious, and, therefore, I tried to emphasize this peculiarity by making the front out of focus. As for the exposure, there were some difficulties in making a sure judgement because of the light difference between the blue sky and the flower. Therefore, I confirmed the difference after having tried a one-point spot metering on the blue sky and another on the leaves of the flower. Because of the brightness of the blue sky, setting the exposure on the standard of the flower plus one step turned out to be successful in representing the clear colors of the flower.

Personally, I frequently use spot photometry as a standard to judge the level of compensation for the exposure.

The subject of Photo 13 is a foxtail covered with snow. A Macro 135mm F4.5 lens was used, since I intended to make the theme prominent and to handle the background rather moderately. Keeping the lens aperture open, I paid careful attention to focusing. By focusing on both the snow and the foxtail, the picture was given depth. For the exposure, a minus 2/3 step compensation was made with an automatic aperture setting of f4.5 to avoid overemphasizing the subject because of the dark background.

The subject of Photo 14 is an aphis in a break in the flower. It was made with ultramacrophotography with a Macro 38mm F2.8 lens with the Auto Bellows attached to it. The lens provides a capability to magnify up to eight times, which you will find effective in the close-up photography of small insects. By setting the lens parallel with the insect, the focusing point will extend to a wider range. The most significant point is to focus on the eyes of the insect. By making the flower petals out of focus, the intent was to give the picture a sense of distance. Due to the high magnification, the depth of field can be expected to be extremely shallow, so therefore, the lens aperture was sharpened one more level so that it would not lose the soft feeling of the picture. An aperture setting of f4 was used.

Photo 15 shows a murdannia keisak which blooms in marshy districts in fields and mountains. For this photograph, the same equipment was used as in Photo 14. It is a very small flower, with a diameter of only 5mm, and when I looked into the close-up lens, I made a new discovery, hence the success in including the beauty of the form of the flower. The focusing was rather shallow but was made equally upon the stamens, pistils and petals. An aperture of f4 was set using average photometry. A tripod and release were used with careful attention to

Photo 13 OM-4 Macro 135mm F4.5, at f4.5 Auto 1/30 sec.



the accuracy of the focusing position and preventing blur.

In Photo 16, I intended to express the flower-like image of the form of the autumn-tinted leaves, using an out-of-focus effect. After all, a Macro 50mm lens is easy to handle and enables one to make an image in a natural and flexible way. The lens aperture was an open f3.5, set by average photometry.

Photo 17 presents a picture of the spikes of a thistle stuck on a flower. It is one the dramas you will often experience in the early autumn and is nothing unusual. The colors in the background provide a natural appeal of the sense of the season. The secret in making this photograph so impressive was to select the best angle after a trial from various angles and to carefully focus on a wider area. In this case, it was particularly desirable to focus on everything, i.e. the seeds and spikes as well as the flower. A Macro 50mm F3.5 lens, with the aperture set at f5.6, and the Auto Extension Tube 25 were used. The exposure was set at plus 1/2 step to emphasize the color of the spikes, since the white of the flower is strong. The photograph was made using a tripod and since I had to wait for a break in the wind, it resulted in a short time for a "shutter chance" of only a few minutes.

Photo 18 shows a picture of the spikes of dandelions, and needless to say, this is in the spring season. The photograph was taken in almost the same manner as that of Photo 17. The only difference is the lens: the one used here was a Macro 90mm F2 lens, which was more effective in emphasizing the out-of-focus image of the background than a trial with a 50mm lens. The yellow color, of course, is that of the dandelions. Because of the color of the background, the atmosphere of the surroundings, which portrays the particular sense of the spring season, becomes conspicuous in the picture. An f2.8 aperture was used

Photo 14 OM-4 Macro 38mm F2.8, at f4 Auto 1/15 sec.



and the exposure was set at plus one step, because the background was full of strong yellow light. In addition, the positions of the two different out-of-focus yellow sections were carefully considered in designing the picture and were set by changing the angle. I think that the design efforts in setting the composition of the screen are the final part of your joy in photography.

In order to transfer my moving experience in nature, it is my belief in photography that it is important to press the shutter with my entire mind, like drawing a picture step by step. I would say that the film is like the canvas, while the paintbrushes are the camera and lens. Of course, the paint must be the light. I feel that macrophotography is one of the few genres which offer a thorough satisfaction in experiencing such pleasure in dealing with photographs. VA

Photo 15 OM-4 Macro 38mm F2.8, at f4 Auto 1/30 sec.





OM-4 Macro 50mm F3.5, at f3.5 Auto 1/30 sec.



Photo 17 OM-4 Macro 50mm F3.5, at f5.6 Auto 1/30 sec.



OM-4 Macro 90mm F2, at f2.8 Auto 1/125 sec.



Ceryle lugubris: **Greater Pied Kingfisher**

The Great Performance of a Bird-Watcher

An Interview with Toshio Hirasawa



Eating only live fish, the greater pied kingfisher lives in mountain streams or lakes. This branch, which is convenient to catch char, is his favourite place. OM-4 350mm F2.8



OM-1 600mm F6.5 + Extension Tube

In June of 1986, a commemorative exhibition was held at the Olympus Gallery in Shinjuku, Tokyo.

This was a photographic exhibition of "a bird that only lives in people's imagination" - the greater pied kingfisher - of which it is said that even most ornithologists cannot observe the actual ecology of the bird.

The photographer is Toshio Hirasawa, 36 years old. This youth is a technical expert with the Olympus Field Operation Site Third Technical Group.

As a photographer, he has had an interest in cameras since he joined a local Olympus branch after graduation from high school. That someone who works for a camera manufacturing company should have an interest in cameras is expected, but what makes him so different from others is that he is a "small bird lover" to which the adjective "crazy" could be added. What's more, he has been that way since childhood, when he first came into possession of an independent will. He had the good fortune to have been born and raised in the countryside, in an area of abundant natural environment. From morning until night, he was always surrounded by birds. His desire was not to chase birds, as with many small boys, but to tame and love them. It can almost be said that he was a "bird-watcher" from the moment he was born.

On joining Olympus and taking a camera in hand, the first thing to appear in his viewfinder was a bird. His first works were created with the use of "frosted glass". Initially, he used a 150 mm lens to photograph

Mr. Toshio Hirasawa





I set the camouflaged camera by one corner of the lake and the greater pied kingfisher actually perched on it to catch





A camouflaged OM system and a remote control combine to show their capability for shooting a highly cautious bird like the greater pied kingfisher.

the birds. But that lens proved inadequate as it was difficult to distinguish objects. So he moved up to a 300 mm lens. Then to a 500 mm lens. In this way, Hirasawa's "bird watching" outgrew the definition of a hobby and took on the feverish air of professional photography.

Suddenly, one day, his camera captured the image of a greater pied kingfisher bringing a morsel of fish to its mate. Obsessed with the image, he watched the pair day after day, and even provided them with names. But one day, the pair disappeared from his sight. He began to comb the woods and mountains looking for them. While attempting to reestablish his link with the pair of birds, he became an expert in understanding the habitat of the greater pied kingfisher. He learned the ecology as it changed through the seasons. He discovered that each bird rules a domain of four square kilometer. He even developed the ability to predict the exact moment when a kingfisher would dive into the water to snatch up a small fish for his dinner.

He was forced to develop superhuman patience because of the nervous temperament of the greater pied kingfisher, which is beyond that of any other bird of the mountains. If he set up his camera less than 20 meters away, the greater pied kingfisher disappeared. The location of its nest was a complete mystery. And it was virtually impossible to obtain a good shutter opportunity. The frustration was jolted with a sudden inspiration - to use unattended photography techniques. He needed a device for unmanned photographing and so



he consulted with his young technical colleagues at Olympus who instantly brought life to his idea. He now had a new tool. One with which he could set up a tripod, focus the camera and then activate the shutter from a distance of 100 meters.













There was one problem, however - how to find the nest of a greater pied kingfisher. This was no easy matter. On each of his days off, he ascended the mountain, without a clue as to where to find a nest. He climbed peaks. Descended down the face of

cliffs. Not just by himself, but with his entire family. His wife was a great help. She never complained as she pitched the tent, fixed his lunch, and assisted in countless ways to support his efforts. When the breeding season had nearly finished and a feeling of hopelessness was sinking in, he accidently stumbled onto a nest in the shade of a wild vine. It seemed to be that of a greater pied kingfisher, but could he be so lucky? He was. As he said later with great emotion, "God seemed to be on my

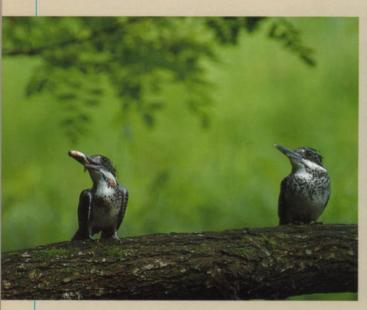
At the exhibition of photographs of the greater pied kingfisher, a hum of voices could be heard.

The quiet surface of a lake is broken by

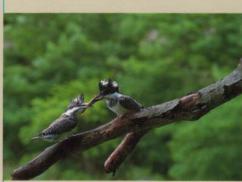
the sharp angle of the diving greater pied kingfisher as he catches a fish. The moment is vividly captured. The greater pied kingfisher perches resplendently on the branch of a tree, with a golden bodied char, whose 38cm length is several times that of its captor, held triumphantly in its strong bill. The scene is one of high drama and emotion.

The youth's obsession with the greater pied kingfisher has no encompassed more than ten years and 10,000 files filled with film. He is considering compiling his efforts of the last ten years into an omnibus work on the greater pied kingfisher.

I asked him how one goes about photographing a wild bird in its natural habitat.













"I have just been doing what I like," he said. "I have nothing to teach..." Continuing, he said, "To have a good camera and other equipment, naturally ... "

He showed me his lenses. They are: 24mm wide-angle, 28mm, 35mm & 50mm standard, 100mm F2.8, 180mm F2, 250mm F2, 135mm macro, 200mm F4, 300mm F4.5, 350mm F2.8, 500mm mirror, 400mm, 600mm and 1,000mm. The lenses are presented casually, one by one, with almost no awareness on his part. The cameras total eight, including the OM-1, 2 and 4. There are ten or more tripods, including his handmade one. Two motor drives. Five sets of flash units, a remote control unit, a tent for bird-watching....

"From my experience," he said, "this is what I would like to advise bird-watchers. When photographing birds, there are two situations; one in which you can approach the bird, and one in which you cannot. You should recognize the differences. In other words, the photographer cannot create the situation: he must match his actions to the habitat of the bird. From example, if you wait near a nest for the parent birds, and they do not appear within one hour because they are afraid, then immediately leave the place. You should make this decision strongly."

His most valuable suggestion for beginners who are just starting to photograph birds is to start with a bird that you can ob-

Maybe another greater pied kingfisher is waiting for him. Far beyond the snow-crested mountains, he will continue to wait and observe the wonderful natural scene produced by the brilliant display of his beloved birds. VA

















serve often. Don't chase after the rare species, one after another. Make one bird the target and pursue that one. This is the way you will become a better photographer. Initially, photograph the bird with an upward view, then consider a long shot. Observing the bird's ecology must always come first and do not chase the birds, but rather, wait for them.

On his day off, Hirasawa come to the photograph exhibition hall, but then immediately returned to the field.

NEW YORK TODAY



This stunning book is more than a collection of fine photographs of "New York Today." It has the aura of relevance that makes it likely to be around for a long time. It makes other books on the subject seem like collections of postcards.

New buildings, renewed buildings, renovations and condo-ization are, and always have been, a permanent part of New York life.

New Yorkers still wryly dole out the old adage, "It'll be a great city if they ever finish it." But Michael George's new collection of city images is different. They are both fresh and familiar. Intimate and universal. More than this, they are born from the eye of a photographer who feels the real pulse of New York. Downtown or Uptown. Battery to Bronx. Michael George has really caught the many flavors of the Big Apple.

Enjoy them. All 150 of them. All wonderful color portraits of New York moments. Some secret, private glances and others the old favorites seen with a knowing eye. Enjoy the city cafes breakfasting in the financial district, surrounded by its huge, glass towers. Smile at the age old Columbus Avenue brickwork brightened by chic, new boutiques and brightly dressed shoppers. Peer in at the laser lit and strobe slashed disco darkness of

the Palladium. And smell the flowery heights of Madison Avenue.

It's all there. All of the flavors. Preserved in their natural state. Although born among the green, rolling hills of Wales, it's very apparent that Michael George has absorbed the city since the early '70s when he first came to live and work in New Yorb

However, this is not his first study of New York. His other books on this great city include his original look at the Statue of Liberty, and also a portfolio of photographs of New York's other landmark, the Brooklyn Bridge.

He has held several exhibitions in the city and many of his photographs are held by major corporations as well as the New York Historical Society and the Museum of the City of New York.

In fact, Michael George catches the heart of New York's museums in his latest book. Also the SoHo art gallery openings and even the Debutante Ball at the Waldorf. Where else? And if you're hungry, he'll take you into many of the local Greenwich Village eating places. It's this local resident street sense that he puts into every shot that offers such an appeal. It supplies a tone that only a long-time resident can offer.

But in addition to his fine photography, Michael George has also displayed a talent for writing a caring and knowledgeable introduction to his adopted home. He gives thoughtful comments on the city's growth, its problems, its joys and wonders. Even the captions he adds to his photographs give a touch of what we all want to fine inside such a book — a touch of the real New York.

When you turn the last page and look at the last image, you're left with one overall impression. New York is still the vital, creative, busy center of work, play and life that it has always been. A place for people

(All the photographs in this book were made with Olympus camera bodies and lenses. The photographer is indebted to the Olympus Corporation for their generous assistance.)

Fumio Matsuda's "Advice on Anything and Everything" Part (4)

by Fumio Matsuda

How Lenses Affect the Final Image

To understand how various lenses affect the way your photographs look, three factors must be considered: 1 viewing angle, 2 perspective, and 3 depth of field. Ideally, these three factors should be carefully weighed every time you choose a lens - but in real life this is a bit impractical. The important thing in the beginning is to learn how each type of lens can be used to affect the image you record on film.

For convenience, let us first divide all 35mm camera lenses into four categories: (a) wide-angle lenses (less than 35mm), (b) standard lenses (40-50mm), (c) longfocus lenses (85-135mm) and (d) telephoto lenses (over 200mm).

More than anything else, wide-angle lenses exaggerate perspective, causing subjects in the foreground to dominate the frame. Because of this, you can use wide-angle lenses to emphasize foreground elements by "pulling" them away from the background. The width of the viewing angle and depth of field should be considered of secondary importance.

Photo (a)



Use a wide-angle lens to exaggerate perspective and emphasize the foreground. (18mm lens F3.5; auto)

A standard lens can be used like a long-focus lens at near and middle distances by shooting at full aperture. (50mm, F1.4 lens; auto)

With long-focus lenses (85-135mm), the primary consideration is not their rather limited telephoto power, but the shallow depth of field that they offer at full aperture. At near and middle distances this effect is particularly pronounced, and can be used to maximum advantage when taking portraits and nearby subjects.



Open the aperture on long-focus lenses almost all the way to effectively reduce depth of field when shooting nearby subjects. (100mm, F2 lens; full aperture +1EV compensation, auto)

Photo (b)

With telephoto lenses (over 200mm), the extreme contrast in angle of view makes distant subjects seem close. And thanks to today's super-telephoto lenses, there's virtually no limit to what you can do in this area.



Telephoto lenses pull distant subjects in close with their narrow angle of view. (200mm F4 at f8; -1EV compensation, auto)

As for standard lenses (40-50mm), since their view is closest to that of the human eye, the picture effect tends to be rather banal. When shooting with a standard lens, try to use it like a long-focus lens by opening the aperture for shallower depth of field, or like a wide-angle lens by stopping down the aperture for emphasized perspective.

Zoom lenses, with their wide variety of focal lengths, are in effect many lenses in one, and you should first decide on the focal length - or "lens" - you want to use. Then you can select a camera position and aperture setting that emphasize the characteristics of the focal length you are using. Remember: the value of a zoom lens is not just in freedom of framing.



The Olympus XA Story (3)

by Kunio Yanagida (Translated by John S. Brodie)

Making Clay Models Deep into the Night

In his mind Maitani already had a clear picture of the kind of new camera he wanted to create. The real purpose of his maneuvering was to get the other members of the team to accept his reasoning and start off the project with everybody on the same wavelength.

With Maitani's encouragement the team began to grow enthusiastic. A lively discussion started, focusing on how best to make a new camera that would answer all the users' needs — even the ones they didn't yet know about.

To end off the day's meeting, Maitani gave the team a tantalizing glimpse of the concept he had in his own mind.

"I think we have now clearly established the design target of a camera that takes full-frame 35mm film, but can be easily carried around in a pocket all day. Of course, I have my own ideas about what kind of camera we need, but that's something I want all of you to think about for yourselves, too. But just to give you an idea of the way I see it, I think the ideal would be a camera that does without cases and lens caps entirely."

There's no doubt at all that, as Maitani said, cases and lens caps are an awful nuisance when you want to take a picture in a hurry. With Maitani's first camera design, the PEN, too, while the actual camera body was designed with meticulous care to tolerances of a fraction of a millimeter the benefit of all this scrupulous paring of size was lost when the camera was put in a bulky case, not to mention the annoyance of having to unzip the case and take the camera out each time you wanted a shot. And then, once you'd removed the case, you had to worry about somewhere to put it.

The lens cap is another headache. Beginners often forget to take it off, and assume they are taking the picture simply because they can see through the viewfinder.

These kinds of complications are one big reason why people who are not mechanically minded get turned off photography, especially women and those who have never used a camera before. These were the kinds of problems Maitani wanted to get rid of once and for all.

As the autumn nights drew longer, Maitani found himself increasingly absorbed in working at home making clay models of the new camera.

Late at night, when all the family were quiet in bed, he would switch on the FM radio and the familiar voice of disc jockey Tatsuya Joh would come to him through his prized hi-fi speakers. "Jet Stream," his favorite easy listening program, came on precisely at midnight, and as the relaxing tones started to spread over the airwaves his mind fell naturally into that utterly calm and concentrated state essential for cre-



ative work. Now he was ready to go over his design concept again and again, continuously revising and refining every last tiny detail.

At the office he was constantly interrupted with problems brought to him by subordinates, meetings with visitors to the company, etc. But this precious time in the dead of night was entirely his own.

When "Jet Stream" ended at one in the morning, he would switch to his own collection of background music on cassette tapes. Often he would become so lost in his meditations he didn't get to bed until three or four in the morning.

Working with clay models involved making endless fine alterations and then spending long hours gazing at them. When he reached the stage where the model didn't look right however many times he altered and retouched it, it was time to start afresh with a new model. Then, when the new model was completed, he would painstakingly compare it with its predecessor.

As he molded the clay with his spatula Maitani thought back to the time when he was working on the PEN.

Back in the latter half of the '50s the Japanese economy had just managed to pull itself out of the postwar confusion, and was starting into an era of meteoric growth. But as far as the design of manufactured goods was concerned, virtually everything was a copy of American or European makes. Cameras were certainly no exception: at one time there must have been more than twenty different Japanese cameras that were all more or less identical to the Leica.

Maitani hated this copycat attitude. The way he developed the PEN, even to the extent of doing the exterior design entirely by himself, was earnest of his insistence on creating a camera with its own intrinsic merit.

Since then Maitani had become firmly convinced that the only way to develop a new product was by transcending prevailing fashions and pre-existing notions.

This time it was just the same. The new

camera would not be another PEN or another OM, but something absolutely new and original. Once again he would have to transcend himself.

As one clay model followed another, Maitani's concept slowly assumed a welldefined shape.

The external design was unique, very different in appearance than the conventional camera image. The lens, the viewfinder, and indeed all the optical elements, were hidden from view. It was roughly the same size as the half-frame Olympus PEN, and except for a roundish bulge on the front surface where the lens should be, it looked for all the world like a kind of little capsule. The idea Maitani had come up with to satisfy those two tricky conditions of no case and no cap, was to make the camera itself into a self-contained capsule. He had hit on the solution of fitting a protective cover to the front of the camera to securely seal off both lens and viewfinder together, so they would be kept safe from dust and dirt even when the camera was stuffed into a pocket.

Maitani decided to call this protective cover a "Barrier."

To take a photograph, the Barrier was slid to the side in the same way as the window is opened on the dome of an astronomical observatory, exposing the lens and viewfinder to view. Not only was the design very practical: it was also simple enough in appearance that, with the Barrier closed, that "high precision" image so daunting to many women and photographic newcomers was almost completely hidden.

Around that time at one of the regular strategy conferences known in the company as "S Conferences," key management from the President to the Head of the Central Research and Development Division, the Development Planning Head, etc., made a policy decision to bring out a new product capable of eroding away the market share of the latest rival hit product, the Konica C35EF.

Market research indicated that even when the purchaser of the Konica C35EF was a male, half of the time the people who actually used the camera were other family members. In other words, the Konica C35EF had proved very successful in penetrating the key "family market."

Olympus had decided to carve itself a new niche in the family camera market, from a new and different angle than the highly successful but by now somewhat dated PEN.

Further data showed that, while the Konica C35EF was an explosive best-seller in Japan, it was not proving anywhere near as popular in America and other overseas markets. In view of this Olympus resolved to assure its new product international appeal, too, so it would have just as good a chance in overseas markets as in Japan

itself.

Then one day Maitani appeared at work with his almost perfected clay model. Calling a few people at a time from the development group, he led them in turn into a conference room.

Asking, "What do you think of this? I want your honest impressions," he launched them into a no-holds-barred discussion of his brainchild.

"It looks interesting," and "It's certainly unique. That should give it impact," were among the favorable comments. But they were balanced out by such criticisms as "I don't like the bulge on the front," and "It just doesn't have the feel of a camera!" All in all the ayes and the noes were divided pretty much evenly.

Since Maitani's mini-survey was intended to gauge what the reaction of customers would be to the new capsule type design, he paid just as much attention to the negative comments as to those in favor.

Vital Statistic: 4 Centimeters

As the concept progressed, the time came to start concrete work on developing the innards of the new camera. Specific tasks were apportioned among the experts on the team according to their specialties.

To nobody's great surprise, the biggest problem turned out to be the lens.

Developing the lens came under the auspices of the Lens Division, a separate entity from the Camera Development Group.

So Maitani went off to see his old friend and mentor with whom he had worked together back from the PEN days, Yoshisada Hayamizu, the Group Leader of the Technical Section of the Lens Division. Because he was dealing with a different section, even though it was within the same company, Maitani felt the time was not yet ripe to show off his still not completely finished clay model, so he went to Hayamizu emptyhanded.

"Anyway, the main point is, that I am making a full-frame 35mm camera that will be very small. Especially, I want to make it as thin as possible. My goal is to make it only four centimeters thick. I want to fit it with a lens that doesn't stick out any more than that. But at the same time, it's got to focus as sharply as a regular SLR. Do you think you can come up with something suitable for me?"

"A camera only four centimeters thick? I suspect you must be out of your mind, young man," was the acerbic reply.

But, as Maitani had hoped and expected, in the end the good-natured Hayamizu promised to do what he could.

One good way to minimize the amount



the camera sticks out is to use a lens with a short focal length.

With the help of computer simulation, Hayamizu worked out a host of different constructions and layouts for a lens meeting Maitani's requirements, then went ahead to make prototypes of the most promising ones.

As a result of all this research and development it became clear that an f (focal length) 31mm lens could just be squeezed into a camera body as slim as Maitani insisted on. But for a lens of f35mm — or in other words a 35mm lens — the lens would unavoidably stick out four millimeters more.

The problem is that a 31mm lens comes into the super wide angle category, which makes it unsuitable for taking shots of people. And a camera that can't shoot people is not exactly an irresistible draw for the general public.

There seemed to be no way out of the problem, so Hayamizu reluctantly summoned Maitani.

"I've tried everything I can think of, but none of the lenses I made up will work. I could fit a 31mm lens into the dimensions you want but I know a wide angle like that wouldn't be any use to you. Like it or not, a lens shorter than 35mm is simply impracticable. But with a 35mm lens it's just impossible to stop it sticking out beyond your limits although I've beat my brains out trying. I'm afraid that within the limits of present-day lens performance, you're doomed to failure."

This was the indefatigable and undauntable Hayamizu, who had never given up on a project yet. So there was little hope he might be wrong in his assessment. Looking deep into his eyes Maitani could see their

message too, "Sorry, but it's hopeless." But giving up at this point was the furthest thing from Maitani's thoughts.

"Would you mind just taking a look at this?" he asked, pulling something out of a cardboard wrapping tube. The something turned out to be clay models of a small camera. Two of them.

"Actually," said Maitani, "this is the new camera design I have in mind."

At Maitani's words Hayamizu looked down and inspected the clay models. They were an odd kind of capsule shape, with a roundish protrusion on the front surface.

"Now, as for the reason why I want to make it this kind of shape . . . ," Maitani launched into a lengthy and highly involved explanation of the need to make a camera that was both caseless and capless, and then went on, "Just take a moment and compare these two models. With this one here, the front protrudes only a little, so it gives a slim and elegant impression as soon as it catches your eye. If we made a camera this slim people could carry it about in their pockets all day without giving it a second thought.

"But now look at this other model. See how much the front protrudes. There's such a strong feeling of the lens poking out, the whole style is ruined. And with an ugly bump like this the camera is hard to slip into your pocket, too.

"Well, how many centimeters difference do you think there is in the thickness of the two cameras?"

"Hmmm "

"It probably looks like there's a good centimeter or more. But in actual fact the difference is only five millimeters. With a small camera like this, a difference of just five millimeters becomes enormous. So now you can see why I was so insistent on keeping the thickness down to four centimeters.

"If we can make a full-frame 35mm camera only four centimeters thick, that still allows you to focus freely, then that alone is enough to guarantee its success in the marketplace. But if we can't make the four centimeter mark, well, this whole camera project will end up as a failure."

In the face of Maitani's obstinacy Hayamizu's expression changed to one of utter confusion and embarrassment. He wanted nothing better than simply to say "Impossible!", and wash his hands of the project. The fact that the extra five millimeters protrusion on the clay model Maitani had dismissed as "ruined" was virtually identical to the four millimeters extra thickness he had found would be unavoidable with a 35mm lens, had not escaped him.

Maitani went on unconcerned, "I fully realize it's not going to be easy. But won't you please give it one more try? That four centimeter mark is absolutely vital.

"The barrier I am using instead of the camera case and lens cap only slides sideways, so it's the same as if it were fixed as far as the front to back dimensions are concerned. So the lens mustn't stick out beyond the barrier during focusing either."

After pondering the matter silently for some minutes, eventually Hayamizu spoke. "I see. At last I can see exactly what you are aiming for. If that's the way it is, I'll go back to the drawing board one more time."

Despite Hayamizu's words he had no confidence he would be able to succeed. It was simply a matter of giving in to Maitani's unsuppressible enthusiasm.

Ever since the first PEN project eighteen years before, Maitani had continually made Hayamizu confront with virtually impossible demands. The worst ordeal of all had been during the development of the OM-1, which brilliantly succeeded in trimming the SLR format of excess bulk and weight.

And yet, however impossible the task had seemed at first, dragged onwards by Maitani's unrelenting stubbornness, at the stage when the fight was most desperate and he had his back to the wall, so to speak, somehow a path would open up unexpectedly and the promise of a solution would come into view. Thanks to Maitani, Hayamizu had gone through this same experience many, many times, and something in the nature of a conviction had come to seep into his brain.

This was that technology is not a matter of theorizing, but of trying and doing.

This article is translated into English through the courtesy of the author, Kunio Yanagida, from his article "The Man Who Changed History by Compact Design" which appeared the Japanese weekly magazine Shukan Gendai in 11 installments from February 1980. This article is based on facts learned during Mr. Yanagida's wide-ranging information-

gathering efforts in Japan's camera industry, including Olympus Optical Co.'s Development Division. Mr. Yanagida is well known among the Japanese as a news commentator of NHK (Japan Broadcasting Corp.) and as a writer.

Olympus AZ-300 Super Zoom Takes European Compact Camera of the Year Award

As we reported in the special feature article, the new AZ-300 has won the European Compact Camera of the Year Award. It is now attracting attention from around the world.

The following excerpts are taken from articles about the AZ-300 in Time Magazine and the Reader's Digest.

"Amsterdam, August 20 - Describing it as a 'most innovative and fashionable compact camera,' the European Awards Panel tabbed the Olympus AZ-300 Super Zoom camera the 'European Compact Camera of the Year '88-'89,' it was announced here. The judging covered compact cameras introduced to consumer markets during the one-year period from July 1987.





The AZ-300 Super Zoom, according to the announcement, 'redefines the parameters of compact camera design.' The jury specifically gave high praise to such points as the new Olympus' nearly 3x power zoom, high-precision autofocus system, versatile ESP flash, full auto-exposure, spot-metering, macro and infinity modes and unique close-up and portrait-mode function.

Now in its sixth year, the European Awards are judged by top editorial staff from general photo publications in 12 countries (Britain, the Netherlands, France, Sweden, Germany, Spain, Italy, Denmark, Finland, Austria, Norway and Switzerland) representing a combined circulation of approximately five million." <Time>

AF-1 TWIN — The simplicity and variety of casual photography can create some conflicting demands.

On one hand, the public wants the versatility of protruding tele-wide lenses. On the other, it insists on compactness.

The first camera to combine trim dimensions with dual lenses, the AF-1 Twin has both.

Despite its built-in 35mm wide-angle and 70mm telephoto lenses, it is as small and easy to handle as a conventional compact. Its complete automation - from loading to fill-in flash - includes full autofocus on both lenses. In the Continuous mode, it

shoots up to four consecutive frames, each of them taking only a second. Even with the self-timer on, it can take two shots in a row. And it is the first dual-lens camera of its kind with the weatherproofing for today's outdoor lifestyles.

With the elimination of the usual protruding telephoto lens, the AF-1 Twin's lines are both tasteful and functional. Sleek and molded, it is designed for a careful fit and a contemporary look.









