Photographing Caged Birds

by Robert G. Travnicek, M.D. Wilber, Nebraska

Good pictures do not just happen. They are the culmination of years of experience and studying and hours of work

This is an article designed to acquaint the average fancier to the possibility of photography at cage bird exhibitions. Many different techniques and equipment can be used to take accurate and artistic pictures of exhibition birds in their cages. They will be discussed in some detail. Examples of pictures taken using the various techniques described will accompany the script. These illustrations will depict good and bad results and the shortcomings of each type of technique. It is hoped that this elemental article will stimulate more fanciers to capture their own and others' exhibits for all time using the magic medium of photography.

If one assumes that exhibition budgerigars, canaries, or finches or any caged bird are works of art on display, then their correct photographic reproduction is itself art. It is the obligation of the photographer to correctly record the exhibit. The artist may, however, choose to enhance the strong points of any given bird and minimize its weaknesses. This can be done by the angle of shot, shooting slightly above or below the bird, etc. This requires an intimate knowledge of the bird as a living thing and as an art form.

When looking at photographs taken by one experienced in the field it can be seen exactly what type of bird he or she likes and in what pose. Taking pictures of these birds is a great deal like judging them — one shoots the bird he likes in the attitudes he prefers. To show a picture of a bird in less than his optimal posture or form is a real dis-service to the bird and indirectly to the owner.

When approaching the photography of an entire show it is best to allow at least 3-4 hours to see almost all the birds for yourself. This may be accomplished while the judging is in progress as one takes pictures of those birds rejected from higher awards and returned to their classes. One frequently finds birds that on other days might have won the show to be in 3rd or 4th place in their class or out of the running completely.

When the judging is over it is time to shoot the winners, hoping to capture the form that brought them to distinction.

Photographic Reproduction of Exhibition Budgerigars in Show and Aviary

The problems encountered in photographing exhibition budgerigars are twofold, 1) technical capability of your equipment and 2) management of the bird to be photographed.

Beginning with the management of exhibit birds there are several different types of problems presented by the birds. One is a bird in constant motion. These birds may be approached in one of three ways. An assistant can be sought who might be able to steady the bird (it's owner is the most likely candidate) or the bird can be left alone for a few minutes to an hour. If a telephoto lens is part of your equipment (200mm is often very useful) you can shoot 6-10 ft. away from the cage without sacrificing image, size, quality, etc. Even the most nervous birds usually settle down within 5-10 minutes if no one is stimulating them.

The most frequent problem bird is one which goes to the floor of his cage and refuses to perch. These birds again can be left for several minutes to an hour. If time is not available, these birds frequently perch if the cage is placed in the highest possible position, say 5½-6 ft. off the floor. The bird can no longer see his domain from the floor of his cage. Being basically inquisitive they frequently perch, just to see what's happening. Birds in general feel safe at the higher elevation. They will frequently perch when all the usual prodding and coaxing fails.

A frequent problem is that of a bird which refuses to show the characteristics you know are present by either lying over the perch or dropping its tail. This problem might be solved by an assistant (again the owner frequently helps moving the bird while you take the picture). Also a noise such as something dropping will occasionaly bring these birds to attention. This is a trick frequently used by cat and dog photographers.

General Recommendations:

- 1.) Record keeping in photography is absolutely essential in remembering your technique and the facts concerning the bird being photographed. This is most important if you are attempting any type of experimental shooting or taking a large number of pictures of many birds at a single setting. A small note pad is fine. Note particularly the owner, film speed and type, F-stop and shutter speed and lighting condition.
- 2.) Prior to photographing at an exhibition it is wise to check with the show chairman and the owner of the birds particularly if a flash attachment is used.
- 3.) Keep both eyes open when shooting. This is most particularly helpful when a long day of shooting is contemplated and if a single bird is particularly restless.
- 4.) Take along twice as much film as you think you'll use in several assortments of speeds as one never knows what the lighting situation will be.
- 5.) Be careful to manage your camera strap so as not to let it dangle and thus frighten the bird. Once this happens you might be in for a long wait. A black strap has frequently been preferred by wildlife photographers as color and a wild pattern tend to alarm the subject being photographed.
- 6.) No matter how steady the bird, it is recommended that you take not less than 6 views 1, right profile whole body: 2, left profile whole body: 3, a ¾ upper body close up: 4, frontal view: 5, back view either slightly above the bird or with the bird's head turned toward and looking at you: 6, view of the head only.

This group of slides gives one an excellent idea of the true quality of the specimen. Needless to say any questionable shots should be repeated. One had best count on 8-10 shots for a complete study of any given bird and extras for his owner. It is far easier to get them now than to go through the difficulty of reproduction.

Some birds lend themselves to being photographed. These specimens, if they are of outstanding quality, should be taken advantage of. The possibility of producing truly outstanding photographs both technically and artistically is then possible.

7.) After the judging is complete the photographer can take advantage of the full spectrum fluorescent or vital lights of the judging stand to take pictures with the show chairman and individual exhibitors permission. Frequently exhibitors will call your attention to a

HOFFMAN'S AVIARY

704/867-8629

Route 1, Box 294A • Kings Mountain, NC 28086

COCKATOOS MACAWS AMAZONS CANABIES COCKATIELS ROSELLAS

OS AFRICAN GREYS
MYNAHS
PARAKEETS
LOVEBIRDS
LS FINCHES
ROSE BREASTED - TAME
TAME GREY CHEEKS

We ship. Call or write for our latest price list. Quanity prices available. We welcome you to visit our facility. We carry a complete line of bird cages and accessories.

Analysis per 3.5 grams (approximately one teaspoon)

	An	al	ysis per 3
Α			600 IU
Carotene			0.365 mg
Cantha-			
xanthin			1.8 mgs.
D ₃			60 IU
			32 mgs.
Histidine			13 mgs.
Isoleucine			24 mgs.
Leucine			33 mgs.
Phenylalan	ine		30 mgs.
Tyrosine			33 mgs.
Methionine			12 mgs.
•			8 mgs.
Threonine			33 mgs.
Tryptophar			9 mgs.
Valine .			40 mgs.
		•	44 mgs.
Lysine .			
Alanine			30 mgs.
Aspartic A			50 mgs.
Glutamic A	cid		140 mgs.
Glycine			36 mas.



Ε.				10 IU
Κ.				0.001 mg.
C .				6 mgs.
Biofl	ava	no	id	
Com	plex	۲.		0.85 mg.
Hesp	ere	dir	1e	
Com				0.735 mg.
Rutir	١.			0.365 mg.
B				0.5 mgs.
B ₂ .	,			0.5 mgs.
D	:*:			0.5 mgs.
B ₁₂				0.001 mg.
Choli	ne			7.8 mgs.
Inosi	tol			7.8 mgs.

THE SECRET IS OUT.

The secret of Avia's "Magic Powers" has been well guarded up to

Macinamine	
P.A.B.A	2 mgs.
Biotin	
Calcium	170 mgs.
Phosphorus.	170 mgs.
Magnesium .	7.3 mgs.
Potassium	
Chloride	39 mgs.
Sodium	
Chloride	25 mgs.
Manganese .	0.069 mg.
Cobalt	Trace
Silicon	Trace
Iron	0.7 mgs.
Copper	0.037 mg.
lodine	0.008 mg.
Zinc	0.245 mg.
Proline	
Serine	. 50 mgs.
Pantothenic	0.0
Acid	2.5 mgs.
Folic Acid .	0.122 mg .

Niacinamide 3.7 mgs

now. Whispered in top aviaries around the world, concealed from the public, men with that special edge know that when it comes to developing the most brilliant intense coloration covering the full breadth of the spectrum, that when it comes to developing luxuriant plumage, full weight and all those enviable qualities of vitality and durability **Avia has no peer.**

Available from leading bird supply shops or from:

NUTRA-VET RESEARCH CORPORATION, 201 Smith Street,

Poughkeepsie, NY 12601. 914-473-1900

	1 oz. \$2.99 — 2 oz. \$3.59 — 5 ozs. \$7.29
91/2	ozs. \$10.99 — 20 ozs. \$18.99 — 5 lbs. \$58.99
	10 lbs. Polyethylene pouche \$91.00

PLEASE ADD \$1.50 FOR SHIPPING AND HANDLING ON ORDERS UNDER \$10.99

specific exhibit that may have escaped your notice. As so few people seem to be interested in this segment of the fancy, a photographer's contribution can be significant.

Equipment:

With a single lens reflex camera system you actually look through the lens with the use of a mirror. This mirror swings out of the way just prior to exposure, thus allowing the image to be focused on the film plane.

New single lens reflex cameras with lens opening and shutter speed preferred automated systems are the ones most often used. Such camera companies as Pentax. Canon. Minolta. Olympus. Konica, Nikon and many others make these cameras. These cameras are good choices because of their ability to measure light and automatically set the shutter speed for good exposure under most situations (except in extremely low or high light). In addition many types of lenses are available to fit the better known brands of SLR's. One most probably should avoid a camera which only offers one lens fixed to the camera as the types of and conditions under which pictures can be taken are then limited.

Lenses:

Most people will be sold a standard 50mm (F1.4-@f) lens with the camera body. This lens is quite satisfactory for full body portraits of budgerigars and shots of larger birds, however, 18" is usually the limit to how close you can get to your subject. Close up of head and 34 views are out of the question. These lenses have excellent light gathering qualities. They are able to take pictures in low light situations especially when combined with high speed film. It is noteworthy that the difference of each F stop in a lens is double the light requirement for exposure, therefore shutter speed may be doubled by the lowering of 1 F stop. Therefore lenses (F1.4-1.2) are well worth any extra outlay in expense. (EX. F2 at 1/15 sec. is equal in exposure to F1.4 at 1/30 sec.)

Micro-macro lenses are made for reproduction of exquisite detail of the smallest of subjects at very close range. Most have an F rating of 3.5 or more and a focal length of 9 inches to infinity. They are helpful when taking views of heads and upper parts of birds only. The standard "macro" or "micro" is generally 50mm to 55mm in focal length. These lenses require medium to high natural light, flood lighting, or a flash attachment for their use. If you contemplate using a macro lens understand that you will be working within 9"

of the bird. Patience is a major ingredient to satisfactory photographs with them as birds frequently "break" when working at these close quarters. If a top mount flash is to be used this problem is compounded as the bird may be frightened by the extra equipment.

Macro lenses also come in 100, 200 mm, and zoom versions to mention a few. This allows you to take detailed close-up pictures at greater distances from the bird. (The same picture taken at 1 ft. with a 50mm macro could be taken at 2 ft. with a 100mm macro and 4 ft. with a 200mm macro lens without giving up quality of the exposure.) Ordinarily 200mm telephoto lenses are not totally suited to close-up pictures of birds as their minimum focusing distance is usually 6-10 ft. giving a small or somewhat less detailed image, depending on the quality of your lens. (One sees roughly a 3/4 view of a budgerigar show cage with a 200mm telephoto lens at the 6 ft. minimum range. In addition, F settings of at least 4.5 are usually minimal in these lenses and require high natural light or a flash.

Several lenses combining telephoto and macro capabilities are available and are quite suitable in detail quality and durability. (Vivitar 75-205 with macro is one example.) They are moderately priced and a real value depending on your demands for detail and closeness of focus. It is one thing to have a nice 5×7 snapshot of a bird with reasonable clarity and quite another to blow the head up to 6 ft. diameter and have every feather in detail as in a slide presentation. For fanciers intent on offering slide presentations and discussions of various aspects of an individual bird, the macro type lens will be helpful as feather quality is a critical part of any top quality exhibition specimen.

Shutter Speed:

It is said that a shutter speed of $\frac{1}{100}$ of a second is ideal for most amateur photographers. Actually birds which are "steady" may be taken at $\frac{1}{100}$ or even $\frac{1}{100}$ of a second. Anything below this speed frequently results in a blurred image. Most camera flash systems set the maximum speed at $\frac{1}{100}$ to $\frac{1}{100}$ for synchronizing with the flash units. This setting is suitable for about all subjects, even the most nervous.

Lens Openings or F Settings:

For all practical purposes F stops relate to the amount of light reaching the film plane. The lower the setting, the more light allowed to the screen. F1.2 is the lowest usually available in lens systems and allows the most light. It is needed for the very low light situations. However, even in the best lens system one sacrifices details of print for the luxury of being able to operate at the 1.2 lens setting. Although the standard 1.4 lens allows less light than a 1.2 lens, it is suitable for low light shooting when combined with high speed film. It usually gives better detail than 1.2 lenses.

Most lenses end with F22 or F32 allowing the least light. For each "F stop" increase in your lens, ½ the light is available to the film plane. Example: F5.6 requires 2 × the light as 4.5 for the same exposure. Ultimately one uses a blend of F settings and shutter speeds to obtain the type of picture desired and proper exposure at the film plane.

Also to be noted, the higher the F setting, the smaller the aperture and the greater the depth of field in focus, i.e., more objects between and behind you and your subject will be seen. This is due to the complexities in optics which will not be dealt with in this format. If detail in every part of the picture is required then a high F setting and relatively slower shutter speed is used.

At F16-22 a bird can be virtually any place in the cage, at any given angle and it will be in focus, as will be the cage, including the bars. If low F stops are used, the depth of field in focus can be quite narrow and therefore careful focusing will be required to obtain reasonable detail in the bird. (Virtually all lens systems indicate on the lens itself the depths of field at any given focal length and F setting.) For an examination of the depth of field at any given F stop a preview button is provided in most SLR systems. It allows you to see depth of focus in the picture at that F setting.

Information is also available in the literature that accompanied your lens, or from the company directly by request indicating depth of field at any stop and distance from the subject. Therefore, if a wide open aperture, e.g. low F stop of F1.4 or F2, is used the bird must be at nearly a right angle to the camera or part of it will be out of focus. This is due to the limited depth of field at the lower F stop as discussed earlier. Because of the high light attainable at low F stop settings a faster shutter speed will be needed which can be a real advantage, particularly in nervous subjects.

Flash Attachments:

Most modern flash attachments, Vivitar, Sun-Pack, Nikon, etc., are fitted with an automatic sensor when used in combination with proper focal length, F stop setting and shutter speeds and will take nearly perfect pictures. Unfor-

999 Picture Pet Hobby Supply Catalog \$1.00 - deductible from order.

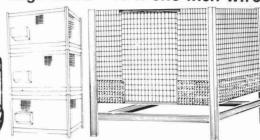
DICTIONARY nf ORNITHOLOGY

PROFESSOR WILLARD HOLLANDER plus his humor and cartoons



"Everything-You Name It" Write for prices and details on new stacking cages for cage birds - 1/2 x one inch wire.





\$2.95 No. 245 Wall Feeder \$2.95





BIRD BREEDERS

4" diameter, metal frame with screen wire. Equipped with hanger

\$2.70 each, 6 - \$13.50, 12 - \$22.60, Prepaid.

CAST ALUMINUM POP BOTTLE **FOUNTS**







\$14.00 Dozen Prepaid

With an ordinary pop bottle you have a handy fountain, ideal for small groups. Rab-bits, Guinea Pigs, Parrots, Cage Birds cannot chew to destroy them. Held to the outside of your cage by a holding spring, it projects inside — most convenient. Measures 2" x 1", only ½" deep.



Attaches to your cages easily with attaching clip included. 15/16" diameter, 8 inches long. Drinking area 1/2" x 11/4";

No. 21 Double Breeding Cage \$24.25; 3-\$58.95 Prepaid.

No. 25 Single Breeding Cage \$18.25, 6 - \$84.25 Prepaid

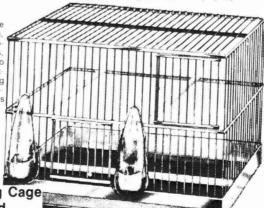
For Your Very Special Needs--Credit Card Orders Accepted LIV -- 40% Protein Food Concentrate (a Booster)

	LIV 40 % Protein Food Concentrate [a Booster]
	SQUIBB Vionate, Vitamin, Mineral Concentrate
	SUPER-PREENA Nutritional Tonic Feed Mix 250 grams \$ 7.95
	KEL-TONE, an Organic Concentrate [Dehydrated Kelp]11 Oz\$ 5.00
	PETAMINE, the Wonder Food, a Supplement to your feed 2 lbs \$ 3.85
ľ	Wood Parakeet Nesting BoxA very Popular Item
B	Plastic Canary Nests dozen \$11.952 dozen \$19.95
	Wire Canary Nests \$2.70 each 6-\$13.50
	Willow Canary-Finch Nests\$2.50 each6-\$12.7512 - \$19.95
1	Numbered Canary, Parakeet Bandettes 25-\$2.50 50-\$4.50 100 \$ 8.00
	Perch Brush Scrapper makes cleaning easier \$ 1.50
	Multiple Scraper with two different special designed blades
	Nesting Hair
	Canary, Parakeet Dummy Nest Eggs\$2.00 dozen 3 dozen \$ 5.00
	Enclosed bird bath, attaches to your cage, easy to clean\$4.006 - \$22.00
	Musical Perch - Entertaining both for birds and viewers \$12.95
	Cast Aluminum Cage Cups, Parrots cannot chew to destroy \$3.5012 - \$30.00
	TRAINING RECORDS: Mynah Bird Phrases; Training Parakeet to Talk,
	Capary Poperds No. 701 LaBalama Plus Danuba Waltz

Canary Records--No. 701 LaPaloma, Blue Danube Waltz No. 702 Ciolto Lindo, La Golondrina \$2.50 each ... 2 - \$ 4.00 Ornacyin, Treatment for Respiratory Disease\$ 2.00 Lambert Kay AVITRON, [Liquid] Essential Vitamin Supplement .. one ounce .\$ 3.25 No Mite Spray, makes it easy to control mites.....

Scalex, treats Scaley Leg Mites in all Cage Birds \$2.00 4 Oz \$ 7.00 Wheat Germ Oil\$ 2.25 Drop A Day Vitamins \$ 2.00 Linatone--A Supplement to Aid Feathering......one ounce......\$ 2.50

Small orders \$2.00 minimum handling-shipping. More to cover shipping on large order except prepaid.



or FEED No. 10 \$1.85

for

WATER

6-\$6.95 12-\$11.95 PREPAID

Feeder-Fount

Use your own fruit jars Perfect for a pair of pigeons or so in a pen Can be used to feed pigeons grain or fine chick scratch to chicks and other fowl. Also can be used as a waterer for pigeons fowl pets

Stromberg's Chicks & Pets Unlimited

. Minn. 56474



WHITE-BREASTED BLUE-BREASTED NORMAL COLORS



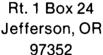
Herschel Frey

1170 Firwood Dr. Pittsburgh, PA. 15243 (412) 561-7194

PLAN AHEAD for the most fantastic Bird Convention ever scheduled by the A.F.A.

A.F.A. Convention 1981 San Diego August 5th thru 9th

Wickett & Sons, Exotic Birds



Wholesale Only

Parrots Macaws
Conures Finches

Cockatoos
Cockatiels
Parakeets
Tame Birds
Sexed Pairs

Call or write for current prices

(503)327-2261

tunately they mostly take perfect pictures of bars (the chrome bars on the show cage). To avoid this, a diffuser which mounts on top of the flash or a bounce attachment is available. The wide angle diffuser seems to give the best picture at close angle with minimum but not total elimination of glare from the bars.

At present only one camera (OM-2) meters with the mirror in open position and adjusts shutter speed within ½000 sec. shutter speed. Others such as Nikon F3, newer '81 models of Canon and Minolta are coming on the market with dedicated flash systems that accomplish the same purpose. There may be others.

Most camera manufacturers sell their own flash units designed for their particular camera system. However, several independent manufacturers feature flash attachments of high quality that are compatible with most well known systems (Sun-Pack and Vivitar are two examples). As mentioned earlier, modern flash attachments have a sensor which reads the light returning from the subject and alters the output of the strobe. When combined with prior calibration for film speed and subject distance, this allows for good to excellent exposure every time. As mentioned earlier, the problem is that an unattractive reflection is given by the chrome bars on most show cages when a flash is used. This detracts greatly from the artistic quality of the exposure and usually frightens the bird. Many photographers therefore use low F settings with high speed film instead of flash attachments. In addition these flashes do not function automatically for work under 2 ft. from the subject.

Therefore, adaptations for closer work will be necessary. Among those available are: 1. diffusors which allow for wide angle photography and wide dispersal of light. 2. power controls that gear the flash down to $\frac{1}{64}$ of original energy are available and necessary particularly if low F stops are to be used and 3. neutral density filters of $2 \times$ or $4 \times$ are available for both flash units and camera lenses. 4. bounce attachments are available and

minimize glare, eliminate shadows, reduce intensity, and bring light in from other angles.

To avoid reflected glare from the bars, the flash may be held in one hand or placed on a tripod at an angle above the subject and set off by cord attachments to the camera thus reducing relfection from the chrome bars to a minimum. If the flash is set on the same plane as the cage, bar glare will not be reduced. This is a result of the circular nature of the bars reflecting light at any angle. If, however, the flash is held above the cage or both camera and flash are 30° or more above the subject, the bar glare is reduced markedly. If the focusing distance is under 10" with a camera attached flash. no glare is seen as the lens is virtually touching the bars and the flash effect is bounced off the bird and back of the cage.

Technique:

The best of all worlds occurs when outdoor light is available for your work. This allows one to use high shutter speed settings, slower film speed, say ASA 64 and virtually any F stop — perfect colors will be the natural result. Example: A shutter speed of ½1000 and F stop compatible with desired exposure, say F2.8-3.5 with careful focusing allows you to take a picture free from cage bars or back drop. (If the bird is at a right angle to the film plane, he alone will be in focus.)

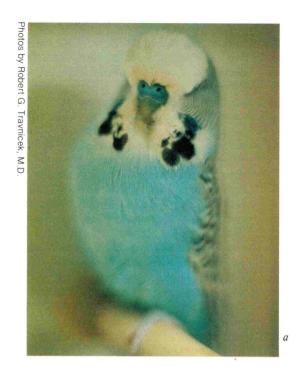
On the other hand, low shutter speed; say 1/30-1/30 second and relatively high F setting, ex., F16-22, would be available. This combination allows you to put the bird in virtually perfect focus every time with little effort because of the great depth of field involved at higher F stops. Depending on the quality of lenses used, the bird could be projected at 100 × life size with every feather or lack thereof in complete detail.

With natural light you may use low film speeds, ASA 50-64 (outdoor) which many consider best for most accurate reproduction of color. Nothing compares to the sun for full spectrum wave length and exposure of high color quality. To accomplish this, window light may be used or the bird might actually be taken outdoors with precaution not to expose it to direct continuous sunlight for any period of time.

Indoor Shooting:

Unfortunately, most shows in the USA are held in enclosed quarters devoid of any natural light. Therefore, two methods of photography are available.

1) High film speed ASA 200-400 with a lens_(F1.4-2) and the proper matching



Light green cinnamon opaline hen. Detailed exposure using F16 taken from above. Feather detail approx. 6"OM-2 macro, F16 with flash, note shadow in left side of exposure.

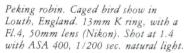


Tanager at Louth All-Bird Show (England). ASA 400 natural light, 1/250 sec. Fl.4 Nikon 50mm, Fl.4 lens with 8mm K ring. Note loss of focus of bill and eye. Depth of field 1/2". Note faint shadow of black bars used on foreign bird cages in England.



a) Frontal view—sky cinnamon cock. Focus is in the cere. Depth of field approx. 1/4". Note the loss of focus on cage. Detail of mask is excellent. 50mm Nikon, 13mm extension ring—distance 10", ASA 400 1/30 sec. (Hugh Wilson, owner).

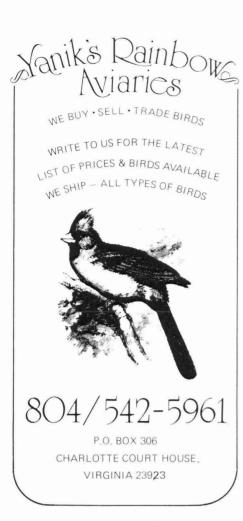
Side shot head turned—focus point on mask. Note loss of focus in eye and feet. Depth of field approx. 1/4". Nikon 50mm with 13mm K ring, 10" focal length, ectachrome ASA 400 at 1/30 sec. (Hugh Wilson, owner).





Grey green cock. Shot with Vivitar 283 flash with UM2 on auto. F16, note feather detail and shadow due to flash. This is an example of higher resolution of feather detail available with high F stops and depth of field. Of course bars are necessarily included in this type of exposure. (A.M. Moss, owner).





Never before has such a comprehensive encyclopedia been offered, both for the specialist and hobbyist.

YOUR LIBRARY IS NOT COMPLETE WITHOUT THIS BOOK.

FINCHES and SOFT-BILLED BIRDS

(revised edition) by Henry J. Bates and Robert L. Busenbark



Order Your Copy Now From PALOS VERDES BIRD FARM INC. P.O. Box 1305, Torrance, CA. 90505 Include 50c postage and handling Calif. residents add 6% sales tax.

filter is the easiest method (explained under filter section). Only 50mm lenses are useful for this type of exposure as they are the only ones which have the low F stop settings needed, F2-1.4. This does not allow for focusing distance under 18" although it does permit focusing the bars out of the picture with relative ease. A typical setting with ASA 400 might be F1.4 at 1/30-1/60 seconds for manual cameras. Automatic SLR cameras set shuuter speed based on light available and F setting used. Unfortunately the color quality of these pictures is always at question as most of the show halls have mixed lighting (fluorescent, cool-white, warm-light, full spectrum, etc., and/or incandescent light). Filters help but do not completely solve the problem and the color reproduction of the birds is seldom accurate or uniform.

2) A second option is the use of strobe type flash unit. Under these conditions two things occur: first the color will be corrected to very acceptable limits, and secondly, bar glare must be accounted for. Thirdly, manual modifications in the flash energy or F settings must be made for exposures under 2 ft. This may bring the entire bird and cage bars into focus.

Filters:

In color photographs, filters can be a photographers trick to correct daylight film to other than the lighting situation for which it was designed. At best they are helpful in modifying and partially correcting color and at worst you lose light available for exposure.

There are basically 4 filters which are useful to photographing birds. One is the 80A type of blue filter used with incandescent light to remove the orange tint seen with outdoor film shot in that type of light. Unfortunately, this decreases light available by a factor of 4 or 2 F stops. Therefore, it is seldom helpful even with very fast film. Secondly, the ordinary filter FLD used for fluorescent light is helpful but more times than not it does not prevent a green overlay to the picture. Tiffen has recently introduced a filter (CC3DR) used for underwater photography which is satisfactory for conversion of daylight film for use under most fluorescent light conditions. Still, colors are not accuate and light available is reduced by ²/₃ F stop. Finally, there is a neutral density 2-4 for use with flash to allow a decrease in F stops at close range.

Film Type:

The type of film you use is a personal preference based on the equipment one has available and the type of exposures

you are planning to make. Essentially two films are available for transparencies, Ektachrome and Kodachrome. Ektachrome is a red based film giving it somewhat more warmth of color. It requires a complicated developing technique and such equipment is available at only a few laboratories. Therefore, generally four to ten days developing time is required. Many photographers feel that the color quality of Kodachrome film and processing is generally better than that of Ektachrome.

ASA rating is a crucial factor in film purchase. The higher the number on the film the less light needed for exposure and therefore the faster shutter speed allowed or greater F setting or both. If ASA 200 film can be shot at F1.4 at 1/30 sec. using ASA 400 the exposure time at 1.4 with identical light would be 1/60. In addition, if your film processor is aware that the film was underexposed or so called "pushed," he can overdevelop the film. With these pre-set conditions ASA settings to 800 for color and 3200 for black and white are available. Check with your processing lab to see what they are able to do with respect to "pushed film.

Nothing is perfect and the disadvantages of high speed film are coarseness (lack of detail of subject as compared to slower film) and perhaps a little distortion of color accuracy as compared to slower film. Only experimental shooting on your part will demonstrate the differences if they can be detected at all. Recently Kodak and others have improved the ASA process and film dramatically and there is now little difference between the fast and the lower speed films.

Rings and Things:

Extension rings are devices which shorten the focusing distance of a lens. This allows you to convert your 50mm lens to a close up lens with focal length of 4" or less.

As the rings have no lens material and merely increases the distance the lens is from the film plane by various lengths, they neither improve a poor lens nor detract from a good one. There is no distortion of image in using them and if you can get within four to six inches of a bird consistantly they are a fine option.

Rings may be sold separately or in sets. Before investing in a set of rings try them out on your camera to see if they can be of help to you. (Nikon sells an 8mm, 14mm, and 27mm, which can be purchased separately or as a set.) Each manufacturer of quality photographic equipment provides them in their

catalogs. Extension tubes for manual cameras have no moving parts and are quite inexpensive. However, automatic SLR requires a linkage mechanism between lenses and camera body therefore these ring attachments are much more expensive. They are used with macro lenses to enlarge the image from ½ life size to 1:1 reproduction. With them the head only of a bird may be taken by getting right up to the bars. A 27.5mm ring combined with a 50mm lens that I have used will not allow focusing on the rear of the cage 6" away. The focal range of the lens is severely curtailed with ring attachments, although the amount they alter the focus is inversely proportional to the focal length of the lens.

Rings can be used in conjunction with zoom lenses. The focusing is then done with the zoom mechanism itself or at the highest power (e.g. 200mm on an 80-200 zoom) it can be done with the focus ring itself. So far as picture quality is concerned, limited if any abberation has been noted by this observer. The rings give you the ability to get closeups of your subject without sacrificing F stops as you must with a macro type lens. This quality is very useful particularly in low

light conditions.

 $2 \times$ and $3 \times$ teleconverters are quite a different story. They are lenses themselves which double the focal length of the lens and the F stop setting at the same time. A 1.4 50mm lens with a 2 x adapter, for example, becomes a 100mm with minimum F stop of 2.8. They gobble up 1/2 the light as the cost for doubling your image size. Why use them? They are an inexpensive way to have two lenses in one. Therefore you can get twice as far away from the bird and get the same image size. But unfortunately you may not get the same picture. Why? Quite probably no 2 x teleconverter is of the quality of the best standard lens. There is some distortion especially at the edge of the field. New "matched multipliers" and their lenses have tested very favorably by national test firms with lenses of the same focal length so you may want to give them a serious look. The multipliers double ones F setting. With increasing F stops there is a concomitent increase in depth of field. The bars will begin to appear even at closer ranges. So whether a teleconverter is in your plan is a matter between you and the guy trying to sell it.

It is hoped that in a general way the preceding points will give those interested in preserving their birds on film a starting place for experimentation and eventual satisfaction through the art and science of photography.

Our NEWEST Product . . . the HEATED BIRD CAGE

The energy-saving 50W Heater is attached to the underside of the Cage. The air between the floor or the Cage and the removeable sanitary trays acts as an insulator. And the RADIANT HEAT is retained by the plastic WIND GUARD covering the four sides of the Cage.

For hospital use, FILTER CAPS are available to filter bacteria from the air within the Cage, and to retain the radian heat even without the WIND GUARD. (The Filter Caps allow light to pass thru so that they do not encourage sleep when not desired for treatment of the patient.)

SOME OF OUR OTHER FINE PRODUCTS . . . Avia, Super Hygliceron B, Vionate, Trace Minerals, Wheat Germ Oil, Vita-C, and a beautiful line of handcrafted hardwood and wire cages



SPECIAL INTRODUCTORY OFFER ...

INCLUDES THE WIND GUARD

Shipping and handling charges not included. California residents add 6% sales tax.

The HEATED BIRD CAGE may be purchased for a limited time only at . . .



PITTMAN'S

ORDER FROM

(714) 779-1350

WE SHIP **EVERY** WEEKDAY

5642 EAST LA PALMA AVE. #108, ANAHEIM, CA 92807

DIETS FOR BIRDS JUST IN CAPTIVITY

Kenton C. Lint & Alice Marie Lint

The acquisition of birds whether one or hundreds places a grave responsibility on the acquirer. Birds in captivity are solely dependent on the owner, and the true bird lover is anxious to provide the best possible environment for them. This important book has been written to fill a vital gap in the avicultural book market. All order of birds are covered taxonomically in this comprehensive guide. Each family of birds is introduced with a description of appearance and lifestyle, details of distribution and habitat, and an indication of natural food preferences. Appendices cover the composition of commercial foods and the propagation of live foods, plus indexes of both common and scientific names, and a detailed bibliography. The author was a Curator of birds for 28 years at the San Diego Zoo and is a well-known aviculturist.

Price \$50.00 postpaid

AVIAN PUBLICATIONS

310 Maria Drive, Dept. WB, Wausau, WI 54401 (715) 845-5101

> We accept MasterCard & VISA Include expiration date



Grey pied cock. Shot with Nikon 8-200 zoom at 6 ft., F4.5 at 1/90 sec., with SB flash unit. Bird seen unobstructed but bar relief is not totally eliminated. (E. Collins, owner).

Close-up of light green cock. Fl.8 giving slightly more feather detail. Nikon 50mm, 1.4, ASA 400, 1/30 sec., K ring, 9" focal length. (E. Collins, owner).



Light green cock. Shot with OM-2, 50mm macro, F11, 1/90 sec. with Vivitar 283 flash. Bar glare cannot be eliminated with flash units that are camera mounted owning to the rounded nature of the bars. There is some glare at any angle. Note completeness of form and feather detail seen at F11 and above. (Norman Beyer, owner).



Light green cock, best breeder at '77 World Show. Shot with OM-2, macro F16 with top mounted flash unit. Note shadow caused by flash. Camera is held normally to gain full body exposure. This focal length is approx. 15". Film type is not known. (Tom & Chris Howitt, owners).