The Central Spine

THE CENTRAL SPINE

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PHOTOGRAPHING CACTI by GENE ALMENDINGER

Although my techniques deal mainly with photography in the field, they are also useful for taking still life cactus pictures.

Of the many basic techniques of nature photography, probably one of the most important is: Know Your Subject. Understand your subject not just from an academic sense, but also from contact and observation in the field. The more you know about the nature of your subject the more photographic opportunities you will discover.

For example, determine the time of year and the time of day your cactus blooms. You should be an early riser if you want to photograph Saguaro blossoms. Being a night bloomer the Saguaro flower opens late in the evening and closes forever in the early afternoon of the next day. Sunrise offers a soft light for photographing the Saguoaro blossom before it starts to close.

If you like to sleep in, the Fishhook Barrel cactus blossoms do not open until about ten in the morning. However, you must be a hardy person to be out on the desert at mid-day in the middle of August when these cacti bloom.

Learn about your subject and be prepared.

Probably the most frequently asked question about photography is "What type of equipment should I buy?" You can produce top-quality photographs with a 35 mm single-lens reflex camera from a major manufacturer. Some of the characteristics you should look for in a camera are:

* Manual exposure control or auto exposure override. As you advance, you will find times that you wish to override the camera's internal light meter.

* Depth-of-field preview. This will allow you to see how the photograph will look when you trip the shutter.

* Full range of accessories available. Does the manufacturer offer a variety of lenses like macro, wide angle, telephoto, and zoom? Is there a dedicated flash available?

* Aperature priority program mode -- You select the lens opening and the camera selects the shutter speed.

Photography is an expensive hobby. However, you cannot do a good job without the proper tools. Buy the best equipment your budget allows. If you must give up something, go for a less fancy comera body and a better lens.

Along with a 35 mm camera, you need either close-up adapters or a macro lens (designed for close-up work) or a bellows. Also, from the start, you need a tripod to hold the camera steady.

What type of film to use has been the subject of many articles and lengthy debates. There are a wide variety of films available from Kodak and other manufacturers. I personally use Kodachrome 64 slide film. Other photographers use Kodachrome 25 slide film. For prints, Kodacolor VR 100 film is a good choice. There are a wide variety of opinions available on this subject. Ask around and experiment until you find the film that is right for you.

Now that you have your equipment and have loaded up with film, what do you do next? Select a good specimen. Try to find a blossom that is opening for the first time. Look for blossoms with burned or chewed edges. If the blossom is wilted or otherwise not a good specimen, do not photograph it but look for another subject.

Learn to see the subject of your photograph. A successful photographer learns to see his subject in terms of three basic elements:

* IMPACT
* COMPOSITION
* TECHNICAL QUALITY

COMPOSITION is how you choose to present the photograph. Things

to consider incluse what to include, how to arrange the subject, and what to select as a background. Composition has a number of rules or guidelines. The most significant are:

* BALANCE: Placing the subject in the center of the frame makes one side of the picture a mirror image of the other side. This symmetrical presentation is too static causing the viewer to quickly lose interest in the picture. Try to keep your main center of interest slightly off center, preferably in the upper third of the frame.

* FILL THE FRAME: Get as close to your subject as you can. Fill as much of the frame with your subject as you can. Be careful, however, not to let the tip of the petals of the blossom get cut off by the edge of the frame.

* FORMAT: Most cactus blossoms look best in a vertical format. (Camera is vertical.)

* ODD RULE: A composition of one, three or five blossoms is generally more pleasing than an even composition of two or four. Using three blossoms to form a triangle suggests stability. If you offset the triangle by raising a corner, you create an imbalance that makes a more dynamic composition.

Another basic element of photography is IMPACT. Impact is how a photograph grabs you when you first see it. It is that emotional feeling or punch of a picture that makes you go "OH!"

Technical quality deals with how well you have focused the picture and how well exposed it is. Depth of field is another element of technical quality. It deals with how much of your subject is in sharp focus. By using a lens opening of f22 and focusing on the center of the blossom or center blossoms of a group, you can usually get an accepteble depth of field.

With these basic fules of photography in mind, walk around the cactus and visualize the different compositions that each camera angle offers.

Once you have selected a composition you like, place the camera and tripod in position for the picture. Before you snap the sutter, make sure your subject is well groomed. Pick up any distracting debris such as twigs, leaves, or seeds that could distract from the subject of your picture.

In some cases, as when you are photographing a Hedgehog cactus blossom, the background may be as bright as your subject and distract the viewer's eye from the blossom. Ask your assistant to hold a card at such an angle as to cast a shadow on the background. This is often easier said than done (just ask the shade person,) but will give your photographs more impact.

Now that you have selected your camera angle, planted your tripod firmly in place, composed your picture, and groomed your subject, you are ready to take your picture. Set your camera to a lens opening of f22 in its auto-exposure mode (the camera will select the shutter speed) and trip the shutter with a shutter release cable to avoid shaking the camera. While you are on the scene, take several pictures from various angles using both horizontal and vertical mormats.

This description of how to photograph cactus flowers is at best very basic and only touches the subject. I would encourage you to take the best picture you can and not worry too much about the technical jargon. It you like a composition trip the shutter. As long as you like the picture, that is all that counts. Don't be afriad to break the rules I have suggested here. Principles of composition have evolved over the years and none are absolute.

If you are interested in nature photography, you may wish to pick up a copy of THE NATURE PHOTOGRAPHER'S COMPLETE GUIDE TO PROFESSIONSL FIELD TECHNIQUES by John Shaw. Also I wish to thank JOHN CACHERIS, an accomplished local nature photographer, for sharing with me his experience and knowledge that contributed to this article.

"DESERT MOODS" by VERA GAMET

In 1984, after her exhibit "RETURN TO LIFE" for the benefit of the American Cancer Society, Ilza Hahlo, seventy-six years old, in pain and chronically ill, promised that this exhibit was not the wind-up of her career, and invited her public to other shows in the future.

On the invitation of Dr. Robert Breunig, on behalf of the Desert Botanical Garden, Ilza has created 52 pastel works of art focusing on desert life for a show benefiting the Garden and called "DESERT MOODS." The show will be exhibited in Webster Auditorium between October 24th and November 2nd.

There will be a special opening of "DESERT MOODS" by invitation only, at seven o'clock on the evening of October 25th. Invitations are being mailed.

The Garden is excited about an exhibit of desert art, hoping more people will be stimulated to look at desert plants with fresh eyes to the mutual benefit of both the observer and the plants.

Ever restless, probing, experimenting, reaching for something untried, Ilza has created a new technique for this exhibit using oil pastels and soft pastels.

Never look to Ilza's work for a photographic representation of a cactus flower or a feeding hummingbird. Ilza feels that a camera does this beautifully and better.

With an intuitive instinct to interpret rather than depict Ilza uses strong vibrant colors and semi-abstract forms such as Indians use to reflect her response to the excitement of discovering the rosette of a perfect agave or the wonder on beholding an exquisite cactus flower freshly opened during the night hours.

She rejects the negative dry and parched regions of the desert and projects the positive beauty of a cactus flower with emergent buds, or the drama of sunrise on the red cliffs of the mountains. She wants people to feel happy, assured, bouyed up as they look at her pictures, never distressed or uneasy about the desert.

Her use of intense color reflects the impact of the desert, the shock of great bare boulder strewn mountains rising abruptly from the sandy desert floor, the infinity and vastness of the desert. Her pictures pulse with energy.

Ilza is close to nature on her home grounds.

About twelve years ago she found a cozy home in Scottsdale, conventionally laid out with a green lawn and a proper fence. The grass was the first to go, and was patiently replaced with cactus plantings laid out in artistically designed beds. Starting with small plants, and in better health, Ilza did all the work herself.

Following the rustic fence and encircling trees today she has a showcase of mature, beautifully groomed cactus. No woodpeckers have chisled holes in her saguaros, no javalinas have chewed away half the pads on her prickly pear cactus, and no ground squirrels nibble off fresh buds on her plants.

Her paintings in "DESERT MOODS" were inspired by her own cacti, plants she has nurtured and cared for for years. There are large canvases and small canvases. There are framed pictures and unframed pictures, and there are others protected temporarily with "shrink wrap" a plastic covering framers use.

In and out of the hospital for six bone operations in three years following a double fracture to her hips while bicycling, it is difficult to have enough energy to paint, but paint she must.

She says she literally paints away her pain, and paints "furiously" to paint away the mental depression that goes with it. "When I paint, I dream, and I paint some more" -- from a wheelchair when necessary.

Never does she give in for long to the mental depression and believes now is the time she must give back to the world more than she receives, is grateful "to hold on to any little joy, and to celebrate being around another day." "Shake hands with sorrow and come out the winner" is her motto.

"DESERT MOODS" marks still another phase in the long artistic career of Ilza Hahlo.

Ilza had an international reputation as an artist before she came to this country in 1936. It is interesting to note that both Ilza and the Garden are celebrating a 50th anniversary.

Ilza was born in Germany, educated in Vienna, and later studied in Paris. She became the youngest and the only woman stage designer in Europe, famous for her designs in Zurich, Milan, Paris and Vienna.

Well established in her own studio in New York, where she created murals for businesses and large corporations, she came to Arizona on a visit fourteen years ago, and four months later returned to stay.

In 1974 she painted the well remembered "March of Dimes Boy" a cute little fellow leanging heavily on a pair of crutches. She painted 500 high fashion garments, evening gowns, skirts, sports outfits, and so forth for Goldwaters, and said "goodbye" to that.

She already has her next show under way. "LIFE GOES ON" is a show with mothers and babies, plants with buds, animals with young, a happy optimistic view of life contradicting the prevalent mood of foreboding about the atomic bomb and the threat of personal violence in the mounting crime wave. "Let's get on with living!" she says.

Ilza is interested only in making people happy. Fame is not important, and certainly money is no angle, and the act of painting is no longer as important as it once was. Mostly she seeks to project happiness, hoping people will respond in harmony.

Editor's note: Ilza is a member of the CACSS and worked for the DBG as long as her health permitted.

EMMA ERICKSON'S MONKEY-PUZZLE TREE

At the July 27th meeting of the CACSS, Emma Erickson brought in an astonishing pine cone as big as a pineapple and weighing five pounds or more. None of us knew anything about the cone or the tree from which it came.

The monkey-puzzle tree Araucaria imbricata or Araucaria araucans is a rare spiney conifer directly descended from the ancient group of trees that gave rise to the Petrified Forest in northeastern Arizona some two hundred million years ago.

They are t he most primitive conifers, the first trees to come out of the primeval swamps of the early Mesozoic. At first they were little trees, but when they left the bogs and migrated to the low hillsides they soon were reaching heights of two hundred feet or more.

Except for the Araucaria introduced as ornamentals in Arizona, California and Florida, the species is now confined to the southern hemisphere. Sometimes called the Chilean Pine, the trees are found in the coniferous forests of Brazil, many of the cold slopes of Chile, and in New Zealand and eastern Australia.

THe monkey-puzzle tree, known in Australian jargon as "Bunya Bunya" becomes a problem every three to five years with their gigantic cones falling.

Fertilization takes place in May. The typical male cone is a large cylindrical cluster of yellow pollen bearing papery scales in short spirals. Many of the scales bear on their under sides two or more pollen sacs which vertically or transversely open to dust pollen to the wind.

The female cones develop from small soft bud-like flowers which after pollination become large oval structures built of many fleshy resinous green scales, each of which is imbedded with a single large ovule. They expand during the second summer as is the habit with conifers. These cones, resembling pineapples more than the pine

cones as we know them, are covered with a protective resinous material. In all conifers the cone conceals and protects the seed until they are ready for dispersal.

Two years after their first appearance they are mature and turn yellowish-brown, opem up or break up.

From below each scale single ripe walnut sized naked seed falls. Triangular in shape, each seed bears a rudimentary wing too small for seed dispersal. The seed is spread by wild birds and animals.

The nutritious white kernal has been described as delicious when roasted or boiled and is considered a delicacy in Australia and Singapore. Raw they are like eating wood.

After a heavy harvest of cones the monkey-puzzle trees rest. There are years when there are no cones. This year, in Riverside, California, a park grove of three trees produced over 150 cones. The area was fenced off with yellow police tape and people were warned of "falling objects."

Though true conifers monkey-puzzle trees have broad leaves rather then needles. Dark green, glossy, broad and sharply tipped and triangular in shape, they stand around the branch in spirals, no leaf opposite another but overlapping like the imbricate tiling of a roof. They offer no hand hold, no opening to make a grasp. They remain on the trees as long as fifteen years.

They are imposing trees. The trunk maintains s single erect line of growth, sending out lateral branches.

The monkey-puzzle trees and their allies were given their scientific name to commemmorate the fierce Araucanian Indians who for a long time savagely resisted the encroachment of Spanish settlers.

Each autumn the Araucarians visited the groves of monkey-puzzle trees and harvested the nutritious seeds for their winter food reserves.

In 1795 when George Vancouver, captain of the British ship DISCOVERY was on his way back to England after his long and estensive voyages of exploration along the North American coast, he stopped at Valparaiso, Chile, and was entertained bythe Spanish at a banquet. The seeds of the monkey-puzzle tree were served as a dessert. Archibald Menzies, Scottish botanist and ship's surgeon, took some of the seeds back to England, and hence to Europe, where they also grew during the early Mesozoic.

The trees in Kew Gardens are about sixty feet tall against two hundred feet in the Andes Mountains.

Two hundred million years ago, when the world was very young, northeastern Arizona was low lying and swampy, covered with warm shallow seas. As the years flowed on the restless earth shifted and uplifted and the waters drained away. Low hills and ridges appeared. Great flourishing forests covered the uplands. Floods swept through the forests, uprooting and carrying them to the lowland shallows where over centuries mud rich in volcanic ash, silica, iron, and manganese buried the continuing cargoes of the upland forests flotsam under thousands of feet of silt.

Gradually, gently, silica permeated the cells of these ancient trees perfectly preserving their inner structure with glowing quartz crystals, so that the stone trees we see in the Petrified Forest today duplicate the original structure of the living trees in nearly perfect detail.

Out of several species found in the Petrified Forest, botanists recognize that most of them are Araucarias.

There are petrified forests all over the world. Petrified wood is found in most of the states of the United States.

The Petrified Forest of Arizona is the most spectacular with the most information on an incredibly ancient way of life when massive reptiles inhabited the swamps and awesome trees crowded the uplands in continuous, unbroken, monotonous green, for it would be a hundred million years before flowering plants would appear to brighten the scene.

By The Editor.