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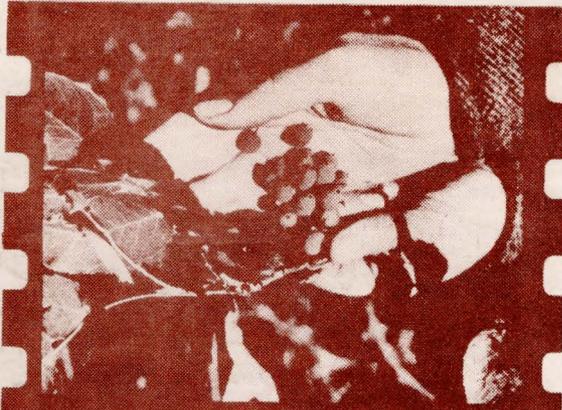
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JOURNAL OF OUTDOOR SURVIVAL AND SELF-SUFFICIENT LIVING

Number 6

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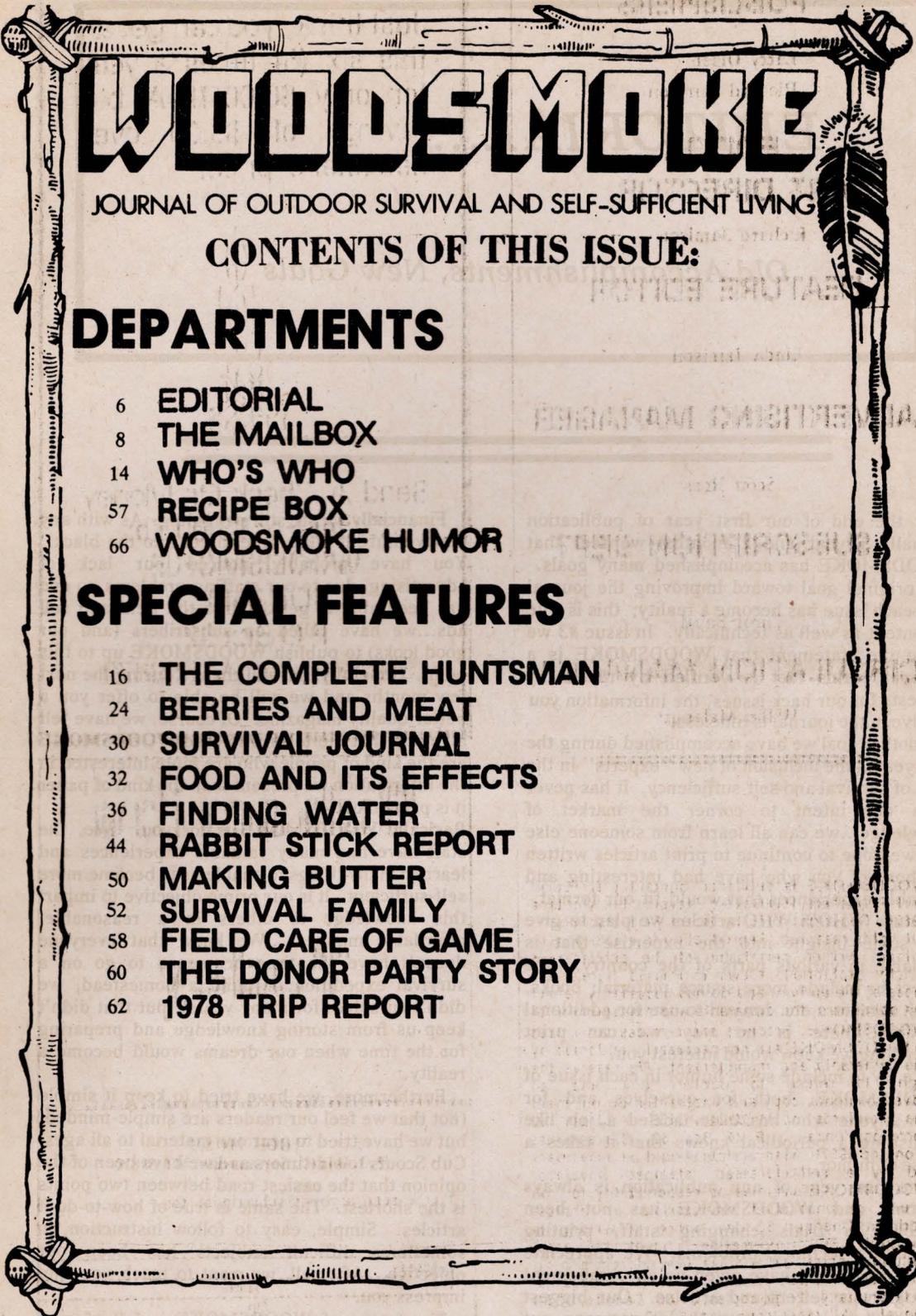
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WOODSMOKE

JOURNAL OF OUTDOOR SURVIVAL AND SELF-SUFFICIENT LIVING

CONTENTS OF THIS ISSUE:

DEPARTMENTS

- 6 EDITORIAL
- 8 THE MAILBOX
- 14 WHO'S WHO
- 57 RECIPE BOX
- 66 WOODSMOKE HUMOR

SPECIAL FEATURES

- 16 THE COMPLETE HUNTSMAN
- 24 BERRIES AND MEAT
- 30 SURVIVAL JOURNAL
- 32 FOOD AND ITS EFFECTS
- 36 FINDING WATER
- 44 RABBIT STICK REPORT
- 50 MAKING BUTTER
- 52 SURVIVAL FAMILY
- 58 FIELD CARE OF GAME
- 60 THE DONOR PARTY STORY
- 62 1978 TRIP REPORT

EDITORIAL...

Old Accomplishments, New Goals

At the end of our first year of publication (actually 1 year and 2 months) we feel that WOODSMOKE has accomplished many goals. Our original goal toward improving the journal with each issue has become a reality; this is true in content as well as technically. In issue #3 we made the statement that WOODSMOKE is a "keeper", this fact is verified by the many requests for our back issues, the information you receive in the journal is timeless.

Another goal we have accomplished during the first year is the inclusion of new "experts" in the field of survival and self-sufficiency. It has never been our intent to corner the market of knowledge...we can all learn from someone else and we hope to continue to print articles written by those of you who have had interesting and valuable experiences that would fit our format. In future WHO'S WHO articles we plan to give you some insight into the expertise that is available in various parts of the country. We expect to include more source material; books, films, seminars etc. for you to use for additional research...there is no way we can print everything we know would interest you.

We try to include some humor in each issue of WOODSMOKE, both for ourselves and for you...anyone who has ever tackled a job like publishing a periodical knows that it takes a sense of humor....

The first year of any publication is always difficult and WOODSMOKE has not been without its trials...changing staff, printing difficulties, technical problems. We appreciate those of you who have given us encouragement through your letters and articles. Our biggest obstacles vanish when we know someone out there appreciates what we are trying to do.

Financially we are still struggling. As with any new venture it takes time to get into the black. You have probably noticed our lack of advertising, due to our staffing problems no one has been able to get out into the field and sell ads...we have relied on subscribers (and our good looks) to publish WOODSMOKE up to this point. Hopefully that will change during the next few months and we will be able to offer you a better quality magazine. Of course, we have felt all along that the folks who read WOODSMOKE are the kind of people who are more interested in the information we present than the kind of paper it is printed on.

Basically WOODSMOKE is for you. We, the staff have had many valuable experiences and learned many things to enable us to become more self-sufficient. It is our prime objective to impart this knowledge to others in a reasonable, affordable manner. We know that everyone doesn't have the time or means to go on a survival expedition or build a homestead, we didn't ourselves for many years...but that didn't keep us from storing knowledge and preparing for the time when our dreams would become a reality.

Furthermore, we have tried to keep it simple (not that we feel our readers are simple-minded) but we have tried to gear our material to all ages, Cub Scouts to old-timers and we have been of the opinion that the easiest road between two points is the shortest. The same is true of how-to-do-it articles. Simple, easy to follow instruction on sometimes difficult subjects has been our objective. After all, we want to teach you, not impress you.

The future of WOODSMOKE is full of new goals and expectations. First we plan to continue

to improve both technically and in content. We will be bringing you articles by new faces, probably people you have never heard of, but people who we feel are experienced in the subjects they will present. That's a big thing with us...experience. No arm chair information will go into this publication if we are aware of it...we are out to find those people who have really "done it", and we invite you to send articles about your experiences. As we become more financially stable we hope to encourage more writers to send us material.

Henceforth we also plan to include more homesteading articles. We haven't received much comment regarding the balance of material we have printed in the past so we suppose you have been satisfied, but our original goal was to include more self-sufficiency type information that could be applied to your homestead. Again, we will rely on you, the reader, for some of the material we plan to publish on these skills.

We have received several letters from those of you who don't get your publication on time...meaning every 2 months. Since you haven't asked for a refund we assume that you really are "anxious" to get WOODSMOKE. We are re-committing ourselves to getting out on time (right after this one) but even if we don't, we promise you 6 issues per subscription. It's mostly a problem of staffing, once we can afford the staff we need it will be far easier to get into a regular time slot. Please bear with us, our intentions are honorable.

Our filing system will also improve in '79 to eliminate much of the error we have experienced in the past. Although we feel we have a good system, there is always the human element involved and when a couple of thousand names are being shuffled manually errors will occasionally be made. We plan to have our mailing changed to computer sometime in the next year, which also means that when a mistake does occur we will never find it ...(just kidding folks).

All in all we are pleased with the way things have been progressing...and we sincerely hope you are too, and that you will renew your subscription and encourage others with interests in self-sufficiency and survival to subscribe. We plan to be around for some time to come and invite you to join us as a part of the whole experience.



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LETTERS TO THE EDITOR



We appreciate hearing from our readers, and we would like to know how you feel about the information you get in WOODSMOKE. The Journal is written for you, and we want to keep in touch.

Dear Sirs,

In reading Woodsmoke #5 I found your Editorial Notes comment stating that subscribers that have not received all volumes 1-5 should inform you. My wife and I have gotten only 4 & 5.

Also I would like to thank you for a well organized and informative periodical. My wife and I had worked in Yellowstone one summer and found your article on the Nez Perce Indians very interesting. One question that still remained for us though was why were they named Nez Perce?

Finally, I would like to ask why Richard Johnson would move from a periodical stressing environmental co-existence to one stressing "4-wheel domination?"

Thank you again for your fine work.

Bob and Jan Kopotic
Spring Valley, CA

Thank you for letting us know about your missing WOODSMOKES, as stated in WS #5 there is no way for us to know that you are not getting all your issues unless you tell us. Furthermore, we don't know why you aren't getting them, we have complained to the post office to no avail...seems that some of you do and some just don't, maybe your mailman likes WOODSMOKE so well himself that he is siphoning a few for himself. Once a subscriber receives an issue of the magazine he is on our master list and should receive each issue that is mailed. Of course, third class mail often takes several weeks to arrive so give it plenty of time before reporting to us...you might also report to YOUR post office. We will certainly send any issues you have not received

but it does get expensive...40 cents each now, unless we send it with a general mailing.

As for the origin of the name "Nez Perce", this is a french name which means Pierced Nose and was attached to these Indians erroneously by a frenchman who probably misunderstood their sign language because the Nez Perce did not customarily pierce their noses. When Lewis and Clark entered the valley and met the Nez Perce they passed along the misnomer which has stuck ever since. The Nez Perce were the largest tribe of the Shahaptin linguistic group.

Finally, the necessity of making a decent living is what drove Rich Johnson from our midst into the jungles again, I know I can freely tell you that he would prefer to have remained with us than what he is now doing and so life goes on...some of us just plug along hoping that someday our ship will come in and others get impatient.

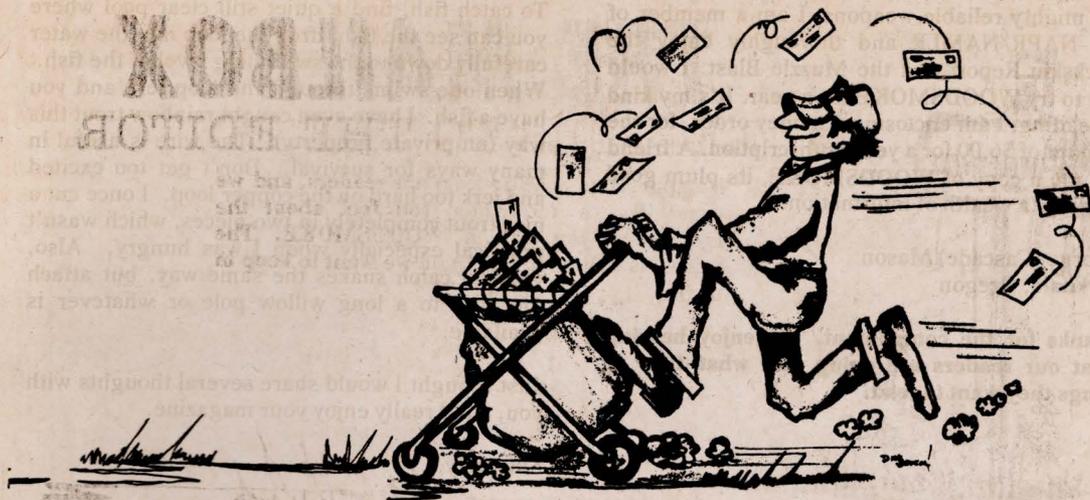
Dear Dick,

It was a pleasure meeting you at Rabbit Stick. (I was the guy in the blue wool floppy hat who repeated your "introduction to edible plants" class more than anyone else.)

The reason I'm writing is, as we discussed, I'd like to get in touch with other WOODSMOKE subscribers here in El Paso, Texas. Would you send me a list of names and addresses so I could get in touch with them? I'd sure appreciate it.

Keep your scalp on tight,

Jim Parker
4105 Roxbury
El Paso, Tx 79922



How about it folks, those of you in that vicinity get in touch with Jim...We don't have our subscribers indexed according to state yet, just alphabetically but hopefully we will be computerized by the next mail out, in the mean time here's hoping you will hear from some folks out there.

Dear Editor,

In regards to Rabbit Stick, I wish to reassert that it was one of the most educational and entertaining functions that I have ever attended.

It is always good to know that our questions concerning survival are truthfully answered by the instructors. The frankness with which most of the instructors dealt with questions meant much to everyone.

Rabbit Stick was much more than expected. I believe it would have been interesting even to many of those people who choose to maintain their lives between brick walls, to merely see the primitive side of life and to learn that life is yet a stable and that it rests upon certain established physical laws. Rabbit Stick was very worthwhile.

Ron Gustavson
Grantsville, Utah

Dear Sir,

I sure liked your article in WOODSMOKE #5 "Troubleshooting Bow and Drill Fires." It's the best I've read on this and I've read much on the subject.

Here in the midwest you could add Basswood and Elm to the proper woods, Red or Slippery Elm is

the best I've ever used. All Elms are dying here from Dutch Elm Disease.

Thanks for publishing my letter on fire by friction in #4. I had a phone call from a man in Colorado as a result, he'd gotten his first coal but not fire, so I gave him ideas and hints, I sure hope he reads your article too.

Byron A. Peterson
Spirit Lake, Iowa

Dear Sirs,

Most of my 57 years God has given me life has been spent in the mountains. My life's work was logging. As a timber faller I spent most of my time outdoors, when I wasn't falling I spent my time in the mountains hunting, fishing or just scouting the country. I have studied animal and plant life on my own, never had many books until my later years.

Ten years ago I lost my right lung and was forced to give up logging, just about cut me in half. I can't travel as far or as fast as I once did but still spend most of the summers up in the high country. Of the many years I spent up in the Cascade Mountains of Oregon, I still learn new things and see many new things I have missed before.

I am a buckskinner, own three fine rifles. I hunt elk, bear and deer with them. I have faith in my rifles and know them from the front sight to the butt plate screws. They have never failed me and have kept meat on the table.

Everything I wear and own I have made myself with the exception of my rifles. I am not a gun-smith and had my rifles custom made. They

are mighty reliable weapons. I am a member of the NAPR/NAMLR and thoroughly enjoy the Buckskin Report and the Muzzle Blast. I would like to try WOODSMOKE for a year. It's my kind of reading. I am enclosing a money order, for the amount of \$6.00 for a years subscription. A friend left me a copy of WOODSMOKE, its plum good reading, a wealth of information.

George (Cascade) Mason
Parkdale, Oregon

Thanks for the compliment. We enjoy hearing what our readers are doing and what type of things they want to read.

To The Editor,

I am an outdoor fan and have done considerable camping, hunting and hiking etc. Right now my main interest in the out of doors is in rockhounding and prospecting for Gemstone or rock. I am not one that digs up the whole country and leaves a big mess. I try to leave things like I found them or better, except for a few stones if I find any that are suitable.

When I am out in the sticks I always carry several items as follows... good sturdy knife, a fairly large sheet of light weight plastic, matches in waterproof case, small compass, a roll of bare copper wire. In desert country where much good Gem material is found, I carry water and always carry plenty of good potable water in my vehicle. It is not unusual for me to spend a night or two away from my vehicle, especially when I get the wanderlust and have to see what is on the other side.

I am building my own prospecting vehicle for serious prospecting. It is a three wheeler, front wheel drive with dual engines and drive systems. There have been times when my factory vehicle broke down and I had to walk a considerable distance. This vehicle will nearly eliminate that sort of thing. I am building it for durability and dependability, if one engine and drive system conks out, I can come in on the other.

The copper wire is very handy as a snare or a clothes line or to tie the plastic up for a tent. I have also used it for repairing different items. For a snare I cut a piece of limb to fit the hand, tie copper wire to it and make a small lariate loop at the other end. For snaring animals place the lariate loop around the den hole, move back and lie down very quietly. When the squirrel or rabbit sticks his head up, a quick jerk and you have him.

To catch fish, find a quiet still clear pool where you can see the fish, drop the loop into the water carefully down to the swimming level of the fish. When one swims through the loop jerk and you have a fish. I have even caught rainbow trout this way (on private property). The wire is useful in many ways for survival. Don't get too excited and jerk too hard on the copper loop. I once cut a nice trout completely in two pieces, which wasn't practical especially when I was hungry. Also, you can catch snakes the same way, but attach the wire to a long willow pole or whatever is available.

Just thought I would share several thoughts with you, and I really enjoy your magazine.

Sincerely,

Robert E. Lee
Hesperus, Colorado

Well, all I can say about the possibility of waiting for a rabbit to come out of his hole is that you're alot more patient than I am. I imagine you'd have to be down wind too, or the critter would exit out the back door.

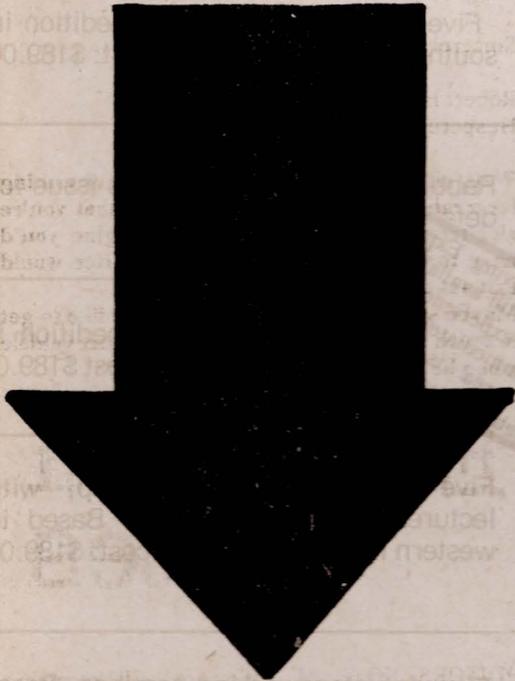
Maybe some of you prospectors would like to get in touch with Lee and check out his desert vehicle when he finally gets it together.

Editorial Notes

EDITORS NOTE #1 We are still receiving subscriptions from those of you who saw the NEW HOMESTEADER ad in the Herbalist. Just want you to know that's us. We had to change our name last year before the first issue came out due to copyright laws. If WOODSMOKE isn't what you thought you'd be getting let us know and we will refund your subscription price but we hope you will join our many satisfied readers.

EDITORS NOTE #2 We are still interested in getting some input from our readers regarding the content of WOODSMOKE. Are you interested in more on homesteading, less survival info or visa versa? We will try to gear the journal to the interests of the majority of our readers if you'll just let us know your desires. We know we can't please everyone, but we try hard. That's why we have so many typographical errors, we want to offer something for the guy who looks for the bad in everything.

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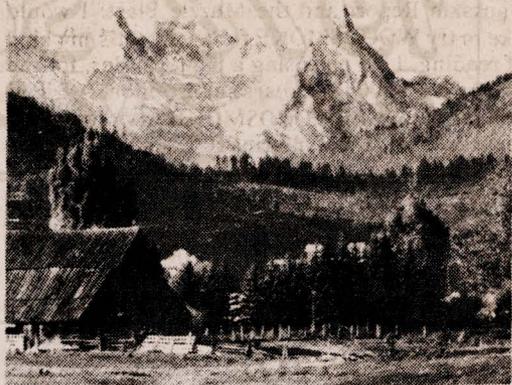
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May 8 - 17

Ten-day primitive living expedition in southern Utah. cost: \$289.00

June 12 - 17

Five-day primitive living expedition in southern Utah. cost: \$189.00

June 21 - 24

Rabbit Stew (see article in this issue for details)

June 26 - 30

Five-day primitive living expedition in southern Utah. cost: \$189.00

July 10 - 15

Five-day tipi living workshop, with lectures and field sessions. Based in western Montana. cost: \$189.00

August 7 - 11

Five-day stoneworking seminar. Based in tipi camp in western Montana. cost: \$189.00

September 11 - 15

Five-day primitive living expedition in Jarbridge Canyon of southern Idaho. cost: \$189.00

September 25 - 30

Special photography expedition in the Bitterroot-Selway Wilderness area of western Montana.
See Woodsmoke #5 for details/cost.

All expeditions are filled on a first-come basis. Send \$50.00 non-refundable deposit for each person planning to attend. The balance of the fee is due 30 days before the expedition begins.

There is only one Primitive Living Expedition remaining for 1978. Space is still available for a few interested in sharing this experience but you must send your application immediately. The fall trip into the Jarbridge area is a unique experience that will highlight your year.



1978

Photography Expedition

ANASAZI AND BITTERROOT EXPEDITIONS has the distinct pleasure of offering a special and unique opportunity to 10 participants with interests in photography.

This original photography trip will take place in the breath-taking Selway wilderness area of western Montana. Those attending will receive the benefit of the expertise of nationally known photographer and award winning journalist David Cupp. Dave will offer instructions on various techniques of picture taking based on your particular interest and will be available for consultation throughout the trip.

In addition, special instruction and demonstrations will be offered in various wilderness and primitive skills, plant identification and lore of the area.

All food and gear except sleeping bags and pads, ponchos and personal items will be provided by ANASAZI AND BITTERROOT EXPEDITIONS. Participants will be packed into the area on horseback and a tipi camp established with side trips into the surrounding areas during the week.

The setting is awesome, wildlife plentiful and vegetation lush in the majestic Selway. There is never-ending subject matter for the hobby photographer as well as the serious student to capture on film. This trip offers both a relaxing vacation and valuable instruction for anyone who loves the great outdoors.

An advance registration fee of \$100.00 (non-refundable) must accompany this form and will be applied to the total amount. The balance is due 30 days prior to the trip. Details will be sent upon receipt of registration fee. Remember, this trip is limited to 10 participants and will be the only one of its kind for 1978.

COST: \$525.00

DATES: September 25 - 30

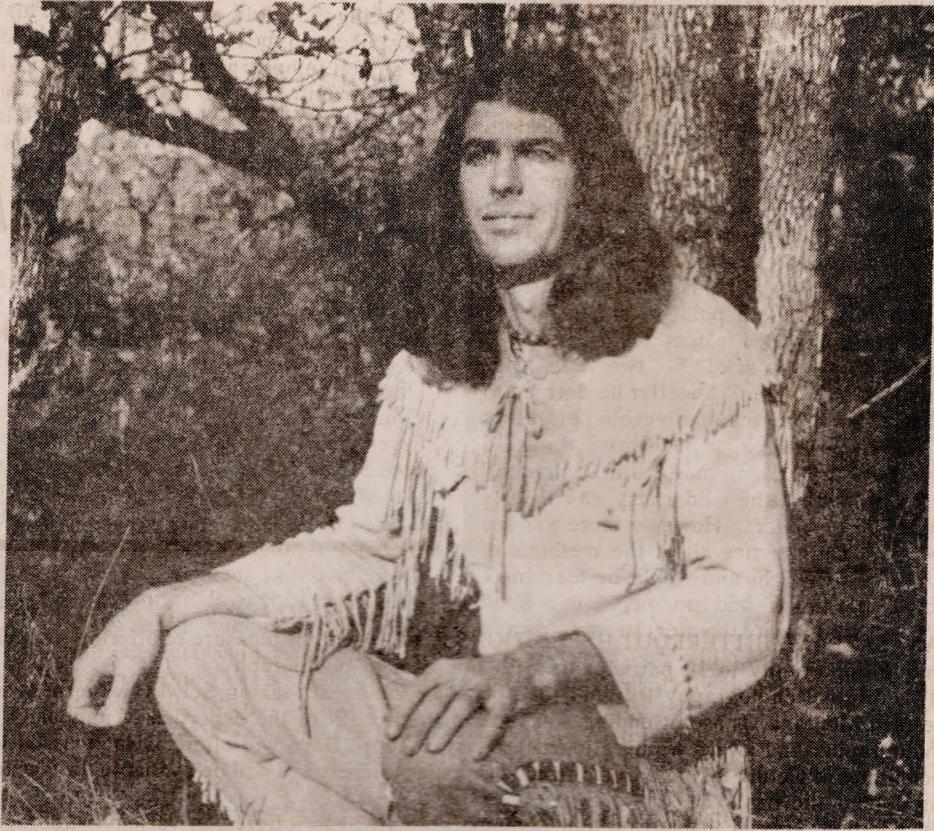
Please include me as an participant:

NAME.....

ADDRESS.....

ZIP.....PHONE.....

Send to: ANASAZI AND BITTERROOT EXPEDITIONS
P. O. Box 62
Stevensville, MT 59870



WHO'S WHO

Introducing JIM RIGGS

Those of you who attended Rabbit Stick already know Jim Riggs, and probably had the opportunity to visit with him in his wickiup. Anyone who hasn't had the chance, missed something...Jim is one of the best craftsmen of primitive skills around these days.

Jim Riggs is an occasional writer, occasional college teacher, occasional illustrator and full time modern survivalist.

Riggs claims that the process began in 1969. He had graduated with a major in Anthropology and put his degree to use teaching wilderness survival in Sacramento then went to Portland, Oregon for a stint with the Zoological Society taking high school and junior high students on 10 day survival trips.

During the summer of 1970 and '71 Jim was the leader and co-leader of educational field trips for the Zoological Society. These were environmentally oriented natural history and backpacking and wilderness survival trips for junior and senior high school students. The expeditions explored the North Cascades, Roaring River Canyon, Crooked-River Ochoco Mts. and wilderness stretches of the Duschutes River. During this time he also undertook the project of photographing and writing mile by mile accounts of specifically sanctioned snowmobile routes established by the U.S. Forest Service in Washington, Idaho, Montana, Utah and Colorado. The study provided information for restricting snow machines use to areas where

wildlife wintering grounds, young tree growth, water sheds, potential avalanches, etc. were least detrimentally affected by impact of the noise and pollution.

Jim worked as an artist for Life Support Technology, Inc. from 1971 to 1974 as an exclusive illustrator for a series of seven booklets on edible, poisonous and medicinal plants, wilderness survival and endangered American wildlife. He has subsequently illustrated an edible plant card deck for Life Support Tech which is now available commercially.

But it seemed that his heart was in learning and not teaching at that point. "It looked like there was nothing that I wanted to stay involved with in the city," Jim said. So, two years after meeting Slim "Buckskin" Shaeffer he decided to join him in his remote mountain cabin near Milo, Oregon. "It was no snap decision, I think I'd been planning it for a long time," Jim explained.

His little cabin in the wilderness was slightly unprepared for dwellers. However there was the chance to put to practice all of the methods of survival he had taught and would be learning. The one-room cabin had no electricity, wood heat, and an unlimited water supply from a nearby creek. Much of his food came from a garden, the products of which he canned and dried for winter use.

"We'd come to Roseburg about once every two or three weeks. Not because we always needed to, sometimes just for the heck of it."

Unfortunately just after Jim moved into the cabin Slim left to visit relatives for nearly a year. As it ended up, Sonny Sherman, his nearest neighbor, taught Jim many of the necessities that Slim would have. How to make arrow heads, tan buckskins, make a sturdy bow and in general Sonny initiated him to the general way of life that our forefathers would have just called "livin'". Where Sonny picked up all this knowledge? From Slim!

He stayed at the cabin almost three years exactly. "I'd get up in the morning and instead of...there's your car and there's the road, it was there's the woods. The only way to get to the cabin was a trail, and no one came up the trail I didn't know." Jim laughed and reminisced about the pair of skunks that used to live under his cabin.

Money problems? "I wasn't concerned with making money, as such, I had money saved to draw on." He explained, but he utilized his spare time to write articles.

Jim is a teacher. "We're all here," Jim philosophised, "It doesn't do any good to sit around and say that's bad and that's bad...I just decided to do what I like and help when I can."

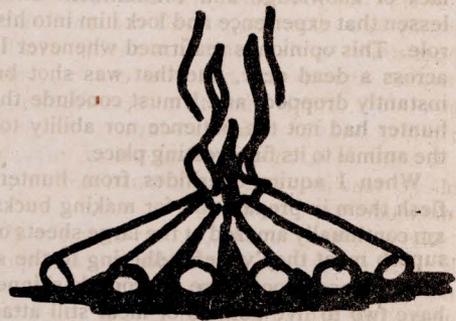
"My interests have always led me outdoors, and that is where I learn best," Jim explained. "Teaching is the result of wanting to share much

of what I have learned, and I consistently find that people are interested."

Seeing the world condition as it is Jim Riggs is most likely on the right track. We may be coming to a point in human history where survival, in its most primitive form may be essential. Jim's hopes are that sometime in his pupil's life, they will be able to utilize the basic concepts they've learned from nature.

In 1974 Jim initiated and taught a course entitled "Introduction to Primitive Survival Skills in the N. Great Basin" at Malheur Environmental Field Station on the Malheur National Wildlife Refuge, then during the winter of 1975 he conducted a course on "Primitive Lifeways and Perspectives" through Honors College at Oregon State University. Since that time he has taught intensive college courses at both Malheur National Wildlife Refuge and at the Lily White Field Station in Eastern Oregon. His classes include plant identification, aboriginal methods of processing wild plants for food, drink, fiber, clothing, medicine, shelter, baskets and dyes, field trips to aboriginal collecting grounds, lectures, slides and films. Jim also teaches preparation of buckskin, manufacture of stone, wood and bone tools and implements, aboriginal fire-making and fishing techniques and his program includes a visit to a Northern Paiute tribe.

You will enjoy Jim's writing ability in the issue of WOODSMOKE by reading his article entitled "The Compleat Huntsman." He has been writing since he first won a contest in "Boy's Life Magazine" in 1959. Other articles Jim has written have appeared in Mother Earth News, Pacific Wilderness Journal, Northeast Magazine, and the Oregon Farmer as well as other bulletins, newsletters, newspapers and periodicals. He also does his own photography and illustrative work.



THE COMPLEAT HUNTSMAN

by Jim Riggs

Originally Titled: A Deer Is More Than Venison

Each year as the hunting seasons for antelope, bighorn sheep, deer and elk come along, I am reminded of the contrast between the orientation of the modern hunter and his aboriginal counterpart. While the desire to bring home fresh, wild meat remains basic to the hunting incentive, the means, and the hunter's understanding of the natural environment and the game he seeks, seem to have changed considerably.

A modern hunting excursion into the outdoors is a welcome and enjoyable respite from the workaday world, but too often the technological and recreational aspects subtly retard the progress and intensity of the natural experience. For most of us, our everyday lives are so far removed from the natural cycles of life that a hunting trip takes us into an alien environment. The experience seldom lasts long enough for the alienation to grow into familiarity and understanding.

I think it is man's desire for the natural experience that drives him to the hunt, but his lack of knowledge and commitment ultimately lessen that experience and lock him into his alien role. This opinion is reaffirmed whenever I come across a dead deer, one that was shot but not instantly dropped, and I must conclude that the hunter had not the patience nor ability to track the animal to its final resting place.

When I acquire deerhides from hunters and flesh them in preparation for making buckskin, I am continually amazed at the large sheets of once superb meat they've left adhering to the skins.

Most hides I process are improperly skinned and have two to five pounds of meat still attached. It's absurd! The modern way seems to be one of slashing the skin off shearily for the experience of wielding a new knife. A skin can be more

efficiently and just as expediently removed by "fisting" it off—that is, by separating the connective tissue between the skin and carcass by hand, after making only a few initial incisions with a knife.

Perhaps the worst of these situations involve a minority of those who hunt, but they occur frequently and do not speak well for the health and evolution of a modern hunting ethic. In these situations it is not the waste of meat that bothers me, for the carrion-eaters - the coyotes, vultures, carrion beetles, flies and yellowjackets - will devour most of the carcasses. What they leave will gradually return to the soil as part of the organic process. What leaves me scratching my head in wonder is man's attitude and his uncompleted responsibility to the circle of life.

The hunting of big game in aboriginal times, and hunting today by those who live closely with nature or have at least once experienced that lifeway, presents quite a different picture. Hunting was not recreation or sport, but a necessary and integral component of existence. It is logical to assume that the challenge of the hunt was enjoyed, but the reasons for hunting were rooted in need for the animal's meat, hide and additional byproducts. Hunting was directly a life-supporting activity.

While hunting supplied the aboriginal diet with nutrition not steadily obtainable from other food sources, it is interesting to note that in none of the Pacific Northwestern native cultures was hunting the dominant economic activity.

On the coast, fishing and shellfish-gathering dominated. Along the Columbia River and its tributaries draining the Central Oregon plateau, salmon provided the food staple. In the arid Great Basin between the Sierras and Rockies, about two-thirds of the diet was comprised of

vegetable foods, mostly seeds. Whole technologies were developed for the harvesting and processing of seeds, some individually smaller than a pinhead, but lucrative because they could be collected in great quantities. In Western Oregon, the economic activities were about equally represented by plant gathering, fishing and hunting.

The importance of specific big game animals varied from one region and culture to another. The Eskimo mainly hunted sea mammals, tundra and boreal forest dweller the caribou, Great Plains peoples the bison. In the Great Basin, the jackrabbit dominated due to the paucity of larger game animals. But the deer was indigenous to nearly all of North America and is still the most frequently hunted big game. It is the aboriginal's conception of the deer that sets him apart from the modern hunter.

Because the deer was the source of so many important materials to native cultures, each hunter well understood his prey; he killed the deer, but he appreciated all that it gave him.

Before the hunt he often fasted and took a sweatbath to cleanse his mind and body, to pray for success and to attune properly his attitude and energies.

He thanked the deer for providing him with meat. And to teach respect, humility and generosity, in most native cultures it was customary for a boy not to partake of his first deer, but to distribute it among his family, relatives and friends.

Aboriginal cultures, though all materially based on natural resources, varied considerably due to differing origins and adaptations to widely differing environments. These peoples obviously did not fully utilize all parts of all deer they killed, but their knowledge of how they could use nearly the entire animal, when needed, is truly amazing. I think this lack of familiarity, based on ability to use, further separates many modern hunters from their natural environment and their prey. The uses for a deer described here have been collected from many tribes and it is unlikely any one group was familiar with them all.

An aboriginal hunter may have procured a deer with bow and arrow, the atlatl (spearthrower) and dart, a tough rawhide or plant fiber snare, a pitfall trap or numerous other methods. The freshly killed deer was first eviscerated, then cleanly skinned.

Sometimes the head skin was removed whole, stuffed with dry leaves or grasses so it would hold its natural shape as it dried, and later used for a hunting decoy. Other times the head skin was left attached so the whole skin could be draped over a hunter with the stuffed deer head resting on top of the hunter's own head, for use as effective camouflage in stalking more game. These decoy methods were extremely effective, but a hunter would be taking his life somewhat

lightly if he tried this in the ballyhoo of a modern hunting season.

In the Great Basin where large game was at a premium, the people developed some ingenious uses for normally marginal parts of the skin. "Hock" moccasins were made from the skin encompassing the heel area - about mid-leg - of each of the deer's hind legs. This section of skin was peeled off like a sock and was naturally shaped to fit a small human foot.

Modification consisted only of sewing closed the lower end of this skin tube to form the toe portion of the moccasin and adding a couple of skin ties to the upper part so it could be bound around the wearer's ankle.

The skin was seldom tanned for these quickly-constructed moccasins, and they were often finished inside out, hair side against the wearer's foot for added warmth. In the Canadian north, mukluks from moose hocks are still occasionally made this same way.

Another moccasin, termed the Fremont style for the early culture in southern Utah where it was first found, used all four lower leg skins from a deer or big horn sheep. These untanned pieces of skin were cut and sewn together so that the dewclaws attached to the skins served as hobnails or grips, four on the sole of each moccasin. One animal's leg skins yielded one pair of moccasins.

An enterprising Indian could make a pair of hock and Fremont moccasins from the same deer, and still have the rest of the hide for tanning.

The fresh hide was either tanned immediately or stretched out and dried. It could then be kept indefinitely for later tanning or used untanned. Untanned hides with hair left on were used for mats and bedding. Eventually, these became fairly soft from use, and by the time most of the hair had broken or worn off, they were made into moccasins or used as rawhide.

Rawhide was specifically prepared by soaking the skin in water or burying it in the ground for several days until the hair slipped off easily. Rawhide, usually dampened to make it more pliable for manipulating and sewing, was made into moccasin soles, quivers, knife and bow sheaths, storage containers, drumheads, lashing and lacing. Because rawhide stretches when wet and shrinks tightly while drying, it was excellent for sturdily binding things together.

Most often deerhides were made into buckskin. The hair and epidermal layer of skin were scraped from the outside and the tightly adhering connective tissue cleaned from the inside.

Then the skin was soaked overnight in a solution of the deer's brain mixed with water, wrung out the next day to eliminate all excess moisture, and worked continually by hand or laced into a square pole frame and worked with oar-shaped sticks until thoroughly dry, soft and

pure white.

Lastly, the white buckskin was sewn into a bag shape and suspended over a smudge fire, first one side, then the other, until it turned the desired shade of yellow, tan or brown. The color depended on the length of time it was smoked and the type of vegetation used to create the smoke. Smoking helped preserve the skin, made it smell nice and allowed it to dry soft after getting wet or being washed.

This basic process, with many variations from one culture to another, produced what we call Indian tan or smoke and brain tan buckskin - the soft, warm, strong and durable material many tribes used for their clothing, decorative bags, cradleboard coverings - almost anything we use cloth for nowadays.

If the brains were not to be used immediately for tanning, they were lightly boiled and spread to dry in the sun, mixed with moss and dried or sealed in a length of intestine so they would keep until needed. They could also be eaten.

Deerhides with their hide on could be tanned soft for robes and blankets, but these were hardly worth the hard work of tanning because deer hair, unlike that of furbearing animals, is hollow and brittle and continually breaks and sheds.

The deer's tail was either left on the skin or removed and used for decoration. The ears could be carefully skinned out, inflated like a balloon and dried in that shape, then used for ceremonial rattles after the insertion of a few pebbles or tiny foot bones from the deer. From a buck, the scrotal skin was softened and fashioned into a naturally shaped small utility pouch.

The whole feet, hooves included, could be coarsely chopped up and boiled to extract the valuable oil which rose to the surface of the water and could be scooped off with a small container. One deer's feet yield only about a table spoonful of oil, so this process was usually done only when many feet could be boiled at once. This neatsfoot-like oil is an excellent dressing for skins - it was sometimes added to the brain solution for tanning buckskin - or used to condition and preserve antler, bone and wooden tools.

Even the deer's eyes had a special use. The fluid inside them was a medium for mixing with powdered earth pigments such as red ochre to make paint.

Before a skinned deer was cut up, the hunter removed the all-important sinew. Sinew is a term for the tendons. Leg tendons are rounded in cross section, encased in a tough outer covering and must be pounded with rounded stones to expose the soft, tough, inner fibers. The Achilles tendon in your own heel is a good example of sinew.

Other sinew from the shoulder, back and rump shows as thin tiny sheets on the surface of the meat. The longest sinew in a deer is a broad sheet extending from the shoulderblades to the

pelvis along each side of the backbone. For removal it must be severed at each end and peeled from the backstrap meat to which it adheres. A fingernail easily separates this naturally striated flat sinew into thin fibers. Sinews were scraped clean and dried for later use.

In aboriginal times, finely shredded sinew fibers served as strong sewing thread, binding material for stone points and feathers on arrows and other bindings where something finer than rawhide was needed. It was the strongest natural material available for twisting into bowstrings, and bundles of shredded sinew were affixed to the backs of wooden bows with glue of boiled fish skins, fish bladders or pitch to increase their elasticity. Like rawhide, sinew was moistened before use to shrink tightly while drying. As a binding material it has the advantage of being glutinous enough to stick to itself, thus eliminating the need for tying knots.

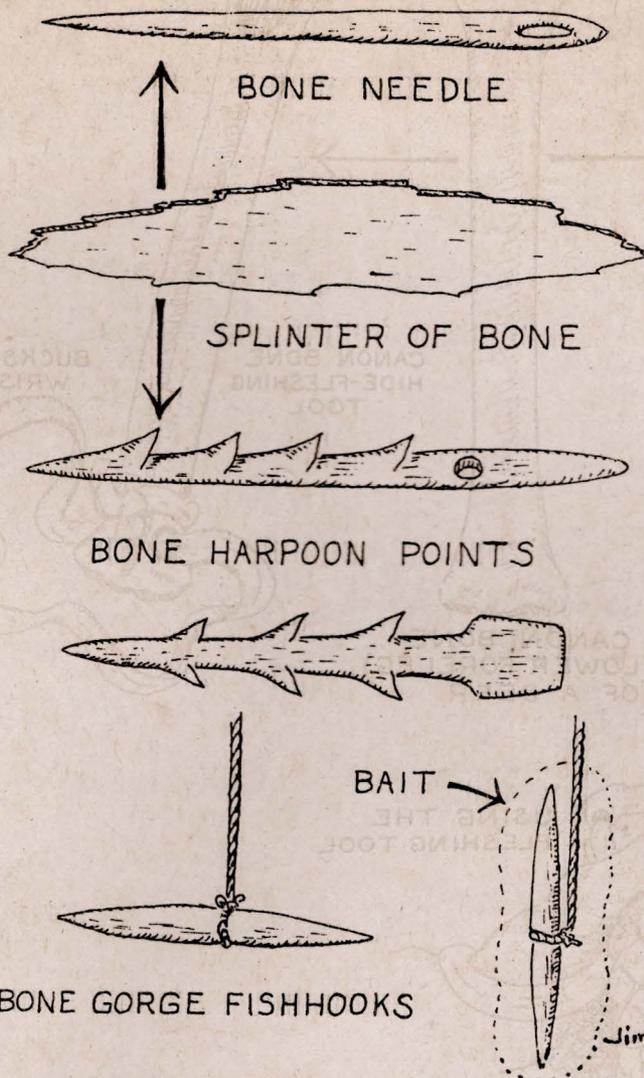
The meat the deer provided overshadowed the animal's other attributes and could be prepared in many ways. Usually the heart, liver, tongue and occasionally lungs and kidneys were eaten first; they were not easily preserved. Some portions of meat were eaten raw or thrust onto sticks and roasted over the fire. As the longbones were picked clean of meat, they were cracked open with stones and the nutritious marrow sucked out.

Boiled meat was a favorite. Lacking containers that could be placed directly over a fire, the Northwest cultures developed other ways for boiling foods. Many fist-size or smaller, rounded stones were placed in a fire until they became red-hot. Then, with wooden tongs, they were dropped into watertight wooden boxes, bowls or tightly woven baskets with the water and meat. More hot stones were added, stirred and the cooled ones removed until the water had boiled the meat the desired length of time.

Although men on a hunt lacked these kinds of containers so common around camp, they still invented ways to boil meat. Sometimes they propped the ribcage open, filled it with as much water and meat as it would hold, then proceeded with the same stone boiling process. Another method was to scoop out a bowl-shaped depression in the ground and line it with a portion of the hide or the opened stomach to serve as the boiling container.

Sometimes the boiling was accomplished in the opened stomach draped bag-like from three or four upright sticks set into the ground. The contents of the stomach were often boiled along with the added meat and then the stomach itself, now thoroughly cooked, was also eaten - a tidy feast which left no dirty dishes.

To preserve meat, make it lightweight and easy to carry, it was sliced into thin sheets or long strips and dried in the sun for a couple of days.



Or it was hung on quickly constructed pole racks over a smudgy fire of good-tasting wood and smoked. This, of course, produced the original jerky.

Pemmican was made by pounding dried meat and mixing it about half-and-half, by weight, with the rendered fat from the deer. This mixture was packed into skin bags or cleaned lengths of intestine where it would keep indefinitely. Because pemmican was so concentrated, compact and supplied the Indian with almost all the nutrients his body needed, except for Vitamin C, it was the ideal food to carry on long journeys. It is still an excellent wilderness food.

Intestines are very utilitarian. They could be sliced open, scraped clean, washed, cooked and eaten. Tubular sections were turned inside out, cleaned, and with the ends tied, used to store rendered fat, boiled brains, pemmican and even

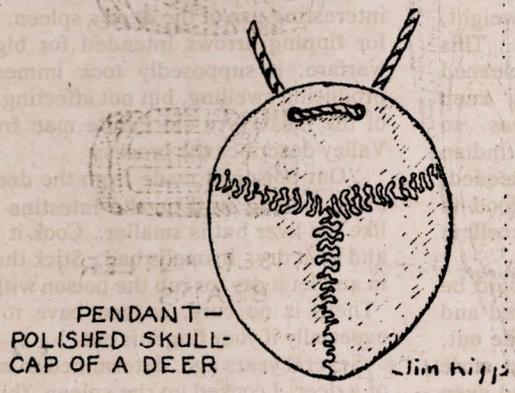
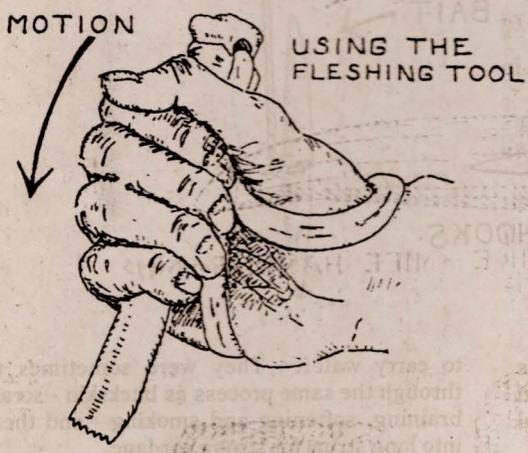
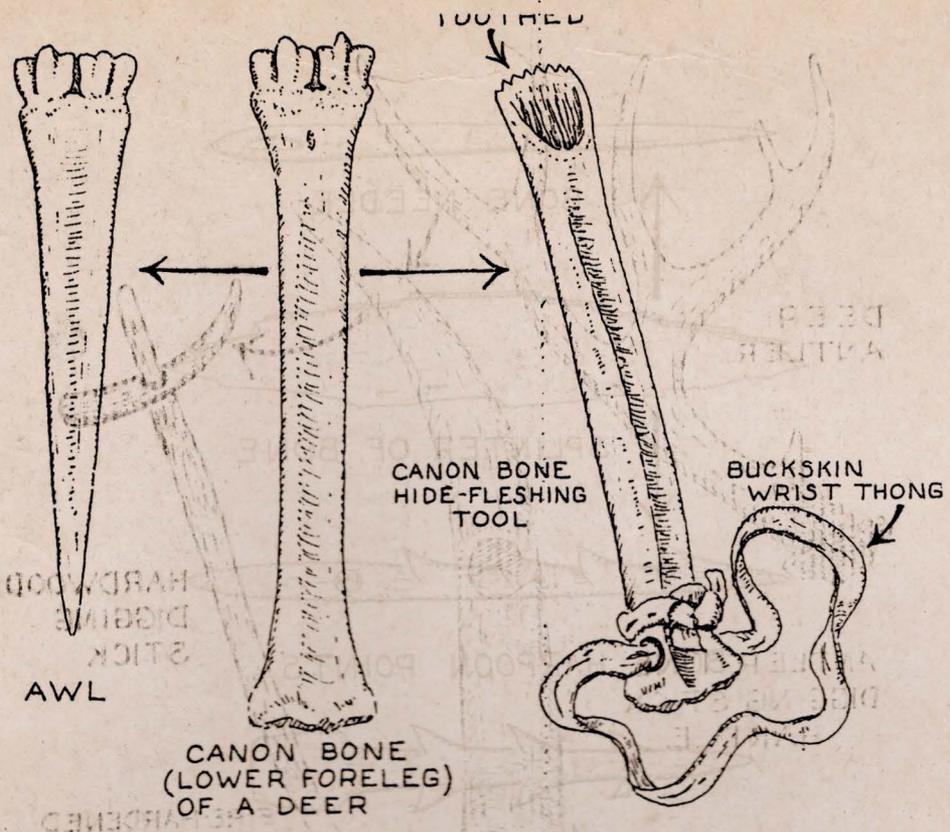
to carry water. They were sometimes taken through the same process as buckskin - scraping, braining, softening and smoking - and then cut into long strips for strong cordage.

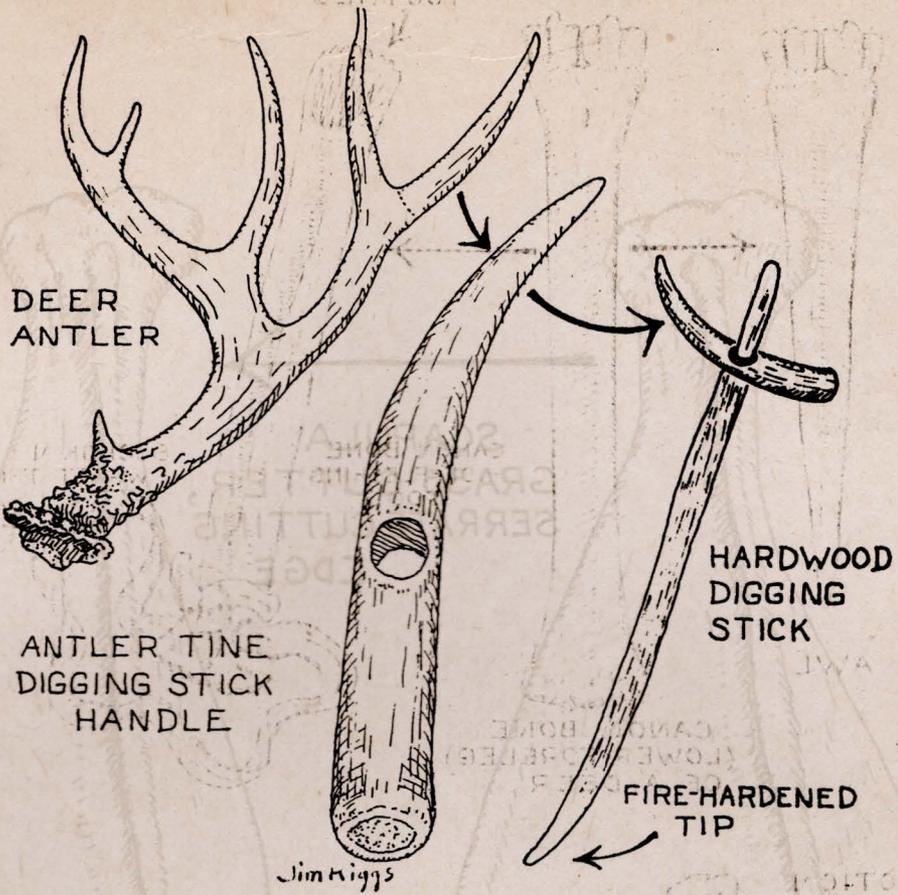
Some Paiute people of the Great Basin made interesting use of the deer's spleen. As a poison for tipping arrows intended for big game and warfare, it supposedly took immediate effect, producing swelling, but not affecting the edibility of the meat. An old Paiute man from Surprise Valley describes the process:

"Our poison is made from the deer's akwatsji, black looking stuff on the intestine which looks like the liver but is smaller. Cook it in the ashes and let it dry. It smells bad. Stick the arrowpoint in and let it dry, or rub the poison with the finger.

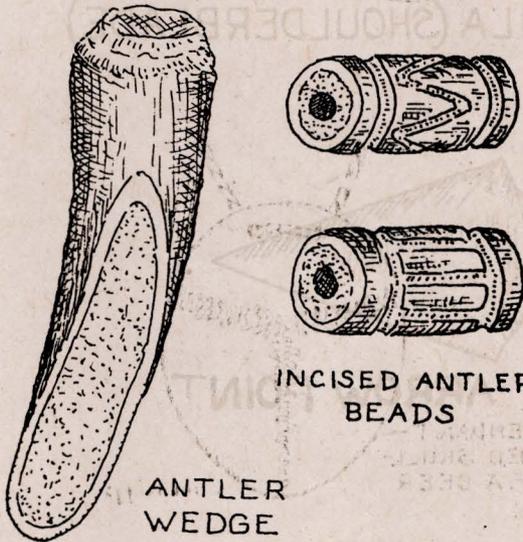
There is no cure, so you have to be careful, especially if your finger is cut."

Several years ago, determined to make full use of a deer, I cooked up the spleen, thinking it was



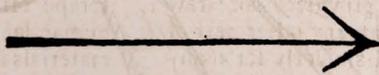
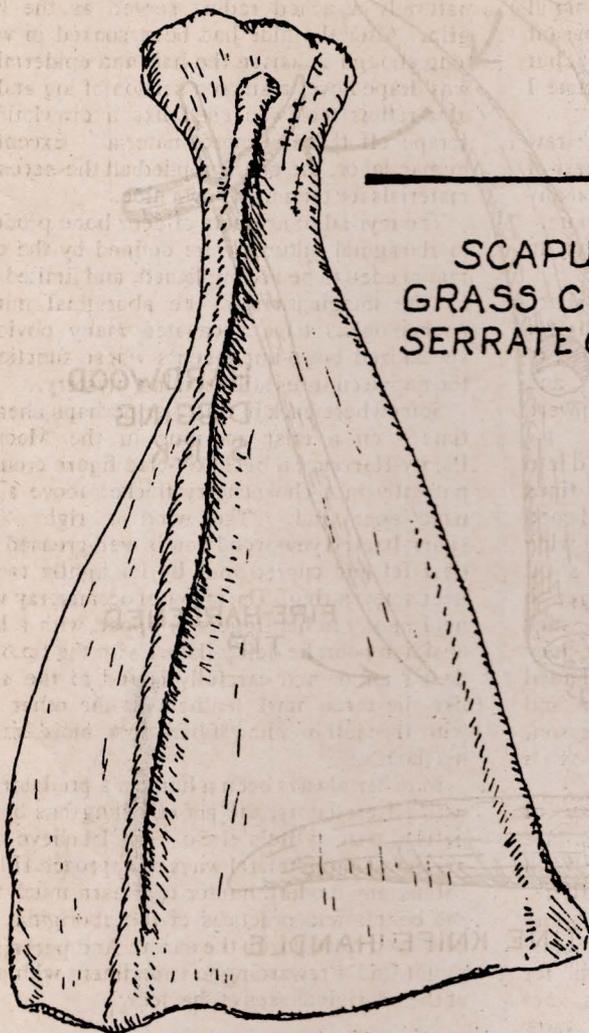


ANTLER TINE KNIFE HANDLE



INCISED ANTLER BEADS

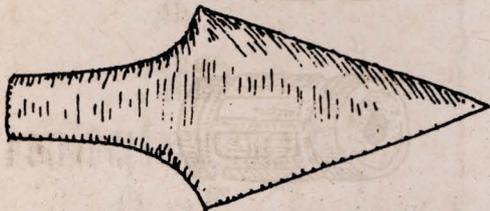
ANTLER WEDGE



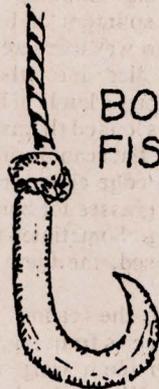
SCAPULA
GRASS CUTTER,
SERRATE CUTTING
EDGE



DEER SCAPULA (SHOULDERBLADE)



ROUND BONE ARROW POINT



BONE
FISHHOOK

part of the liver. My "spleen stew" tasted absolutely terrible, but I dutifully ate most of it - all the while telling myself only my food prejudices made it taste so bad. I suffered no ill effects other than revulsion. Most unpleasant experiences tend to mellow in one's memory, but that stewed spleen just gets worse everytime I think about it.

Bone and antler probably provided more raw material for manufactures than any other part of the deer. They can be used similarly for many tools, but antler was better suited for some. While it is softer than bone, it has a tendency to crack and split.

Antler tines were first girdled with a sharp stone, then snapped into convenient lengths for use as pressure flakers in the manufacture of chipped stone scrapers, knives, drills and projectile points. Heavier sections of antler were used for percussion stoneworking.

Along the coast, antler was cut and ground into wedges for splitting wood. Large antler tines functioned as crosspiece handles on hardwood rootdigging sticks. Each tine had an inch-wide hole drilled laterally through its center so it would be slipped onto the end of the digger to provide better leverage when the pointed stick was shoved into the ground next to a fat juicy root. Sections of antler were commonly shaped into knife and scraper handles, beads and decorative pendants. During the rutting season, whole antlers were clacked together by a concealed hunter to attract other deer.

Deer bones come in such a variety of dimensions that many tools and articles are already suggested by the natural forms. With some incising here, some grinding there, aboriginal man produced awls for basketry and skinworking, pipes, beads of all sizes, ceremonial and game-calling whistles, combs, points for arrows, spears and harpoons, drill bits, net gauges, weaving shuttles and even snow goggles. The splinters of bone that remained after the marrow was extracted were shaped into needles, pins, dice and other gaming pieces, small awls and many kinds of fishhooks.

Certain bones lend themselves to specialized tools. The thin, flat scapula or shoulderblade was cut to a jagged edge along one side and used to cut bunches of grasses for basketry, matting and house thatching. Sometimes the deer's jawbone was similarly used, the teeth functioning as the cutting edge.

One end of the canon bone, the lowest longbone in a deer's front leg, was cut on a bevel and tiny sharp teeth were notched along the beveled edge. With a buckskin loop affixed to the other end to brace the tanner's wrist, this tool was used with a downward stroking motion to remove any flesh, fat or connective tissue remaining on the hide.

The combination ulna and radius bones, also

from the deer's foreleg, were used for the next step in tanning. The long thin edge of the ulna was ground sharp with abrasive stones and the naturally attached radius served as the hand grip. After the hide had been soaked in water long enough to loosen the hair and epidermis, it was draped over a smooth section of log and the ulna-radius tool was used like a drawknife to scrape off the unwanted material. Except for human labor, the deer supplied all the necessary materials for tanning its own hide.

The myriad of artifacts of deer bone produced in aboriginal cultures were defined by the task that needed to be accomplished, and limited only by the imagination of the aboriginal mind. Archeologists have excavated many obvious specialized bone implements whose function in the native cultures still remain a mystery.

Somewhere back in time - or perhaps ahead in time - on a crisp morning in the Moon or Plenty-Harvest, a buckskin-clad figure crouches patiently in a chokecherry thicket above a well used deer trail. The wind is right. His sinew-backed yew-wood bow is well greased with deer fat and curved taut by its tightly twisted deer sinew string. The arrow of oceanspray wood held lightly in his fingers is tipped with a black obsidian point he deftly flaked with the tip of the deer's antler and carefully bound to the shaft like the three hawk feathers at the other end with threadfin sinew fibers first moistened in his mouth.

Man has always been a hunter, a predator. As with all predators, the act of killing has been a natural part of life's circle. But I believe there are moral and immoral ways to approach killing. I think any modern hunter can learn much from the beliefs and practices of the aboriginal man who lived closely with the earth. And perhaps he might find it rewarding to experiment with some of the aboriginal uses of the deer.

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Berries and Meat

by Ferris Weddle



Chokecherries and other wild cherries are widely distributed, always useful for jellies, jams, syrup and varied desserts. (Photo: Tom Leege)

I first knew venison jelly as an accompaniment for wild meats as a youngster in the Texas Panhandle just prior to and during that period known as the Great Depression. As rural dwellers, wild game and fish had always been important for our family--along with all kinds of wild growing berries, fruits, potherbs, salad plants and other edibles. The importance of the wild harvest grew during the depression era.

Some of my happiest memories of the period revolved around the daylong trips to gather wild plums and wild mustang grapes. I didn't know the names of the native plums--depending on the color, they were simply called red or yellow plums. I assume they were *Prunus americana* or a related species.

The yellow variety were much larger and less tart than the red ones and were made not only into jam and jelly but were canned to eat as fruit or made into delicious cobbblers. The puckery tart red species made jams and jellies with a flavor

that can't be equalled by the domesticated plums which have gone wild in my section of north-central Idaho and in many other regions of the West.

I can gather a variety of plums, European and Japanese strains and hybrids, here in varying colors of red, yellow, purple and near black. They have wonderful flavor, but the true native species seem more flavorful--or is it merely a memory from impressionable childhood days? Whatever, the true native species are lacking in the northwest and in much of the Rocky Mountains regions.

My sharpest memories are of the spiced jellies, jams, and sauces which added a zesty taste for wild meats such as venison and turkey, for waterfowl, gamebirds, and also for various pork and beef dishes. In a sense, the spiced concoctions were a substitute for cranberry sauce. While I remember hearing the term "Venison Jelly," more often than not the products were



Serviceberries (or sarvisberries, juneberries, or shadeberries) are versatile, mild-flavored berries for pies, jams, wine, puddings and for mixing

with more tart berries. They also dry well for making pemmican or for a substitute for raisins and dried currants. (Photo: Ferris Weddle)

simply called spiced jelly or jam with allspice, cinnamon, and cloves being the main spices.

In later years, I learned that venison jelly goes back to our Colonial period and before that to various European countries. The several kinds of wild grapes were a favorite fruit for venison jelly, but plums and other wild and domestic berries and fruits were also used. Elderberries, serviceberries, hawthorns, chokecherries and other cherries, blackberries, huckleberries and blueberries, raspberries, currants--these and others make unusual sweet-sour accompaniments for wild meats with the addition of spices and vinegar.

Because they are so common in my region, and often underused and unappreciated by wild foods foragers, I've concentrated on black and red haws, elderberries, serviceberries, and chokecherries.

The haws (*Crataegus*) have become one of my favorites, beginning with the black species which ripens first, then the red one which is frequently available even in late fall. The hawthorns aren't called thornberries without reason. They do have long, vicious thorns, so picking can sometimes be a problem. I've found the easiest way is simply to cut off branches, and pick the berries off on the ground. The haws can usually stand pruning, anyway. At times however, the clumps of berries hang low, and one can easily grasp a handful at a time when they are ripe.

Good leather gloves should be used, of course. And the shrubs--and small trees--growing closest to water will have the biggest, juiciest berries. The flavor of the mealy berries is on the bland side, but cooking improves the flavor. Jam and jelly made without spices and vinegar has an apple-like flavor, but I've found that using half apple or currant juice will result in a more delicious jelly or jam. The chokecherry recipe that comes with powdered pectin will work fine for haws--or any of the recipes for mild flavored berries or fruits.

Both black and red haws combine well with various ingredients for butters, chutneys, sauces and syrups. I've included a few recipes for the haws and other berries and fruits at the end of the article.

I'm always a bit surprised that more people don't utilize the widespread elderberries. They're the easiest of all berries to pick--one simply breaks off the stem with the large head of berries. There are around 40 species of elderberries in temperate zones and in tropical mountains. At least a half dozen are found in the western states, but the favorite species are those with large, blue berries such as *Sambucus glauca* and *S. coerulea*. Often they grow to near tree size whereas others are shrublike, especially those in higher altitudes.

There are redberried elders, too, but I've never tried these--and some authorities state they are

toxic in certain locations. On the other hand, I've had correspondence from many people who say they think the red elders are superior to the blue types.

Sambucus gives the forager not only ripe berries but also blossoms which can be utilized in several ways from fritters to a delicate wine. The green or semi-ripe berries make a good substitute for capers. The flowers may be added to pancakes, too, used in teas, and have several alleged medicinal uses. The ripe berries dry well, and the dried berries make better pies than fresh ones.

Elderberries do have a fairly strong, musky flavor which doesn't appeal to some people, but the juice can be mixed with juice from other berries and fruits for distinctively flavored jellies. One of my favorite combinations is elderberry juice and sumac seedhead juice. Lemon juice and vinegar also soften the elder's musky flavor. For me, the elderberries make one of the finest spiced jellies.

Usually we think of chokecherries (**Prunus melanocarpa** and others) in connection with chokecherry syrup for sourdough hotcakes. But chokecherries alone, or in combination with other juices, make a delicious jelly. Spices, plus vinegar and/or lemon juice, give chokecherry jelly and sauces a zesty heartiness for eating with wild meats.

One of my favorite wild berries for eating fresh is **Amelanchier**, the serviceberry. Or perhaps you call it sarvisberry, Juneberry, shadberry, or saskatoon. Ranging from shrub size to small tree size, the best serviceberries are those growing where the soil is rich and moist. Those growing in more arid areas are likely to be small, and almost tasteless.

In some areas, serviceberries are extensively used, but in general, they aren't utilized as much as they should be. They are excellent for drying, and make an unusual substitute for dried currants and raisins in muffins and the like. Both fresh and dried berries make a delicious pie, and for an extra taste treat, combine them with the stronger-flavored huckleberries or elderberries. I like serviceberries alone for jelly or jam, and I leave in the seeds which impart almost almond-like flavor. But the juice combines well with the juice of other berries and fruits including crabapple and red currant juice. Spices and vinegar really give the serviceberries an exotic flavor.

While I've concentrated more on spiced berries it should be remembered that the berries mentioned and others can also be used to make unique vinegars, fruit drinks and fruit soups and wines.

For health reasons, many people today shy away from the heavy use of sugar for making jams and jellies. To a limited extent, honey can be substituted, but jam or jelly made entirely of

honey will have a strong honey flavor. When using honey, the lightest honey--such as clover--should be used. I almost always substitute some honey--usually a half to one cup--for part of the sugar. Honey enhances the flavor of elderberries better than most of the berries and fruits according to my tastebuds.

There is another method for making jellies and jams without sugar, but I've never tried it. The method uses low methoxyl pectin and dicalcium phosphate, and except for a small amount of honey (if desired) the sweetness comes from the fruits or berries. Obviously, the product won't have the strong sweetness one gets from white sugar. The products and information on their use can be obtained from Walnut Acres, Penns Creek, PA 17862. There's an article on the subject in the July 1978 issue of **Organic Gardening**, "Sugar-Free Jams and Jellies," by Mary Shadow Hill.

The following basic venison jelly can be made with the juice or combinations of all the berries and fruits mentioned:

3 cups juice
1 teaspoon cloves
1 teaspoon allspice
2 teaspoons cinnamon
½ cup cider vinegar (or red wine vinegar)
4 cups sugar
½ cup honey
1 box powdered pectin

Combine juice, vinegar and spices, bring to a boil and then cut back on the heat and simmer a few minutes; bring to a boil again, and add the pectin, boil about one minute. Add sugar and honey, and bring to rolling boil for one to two minutes. Check the jell. If it's not right, boil a little longer.

The spices can be varied, more or less used. Some people prefer to use whole cloves, allspice, and cinnamon sticks as the powdered spices add unwanted color...The whole spices should be enclosed in a piece of cheesecloth and removed after the final cooking. More vinegar can be added for additional tartness.

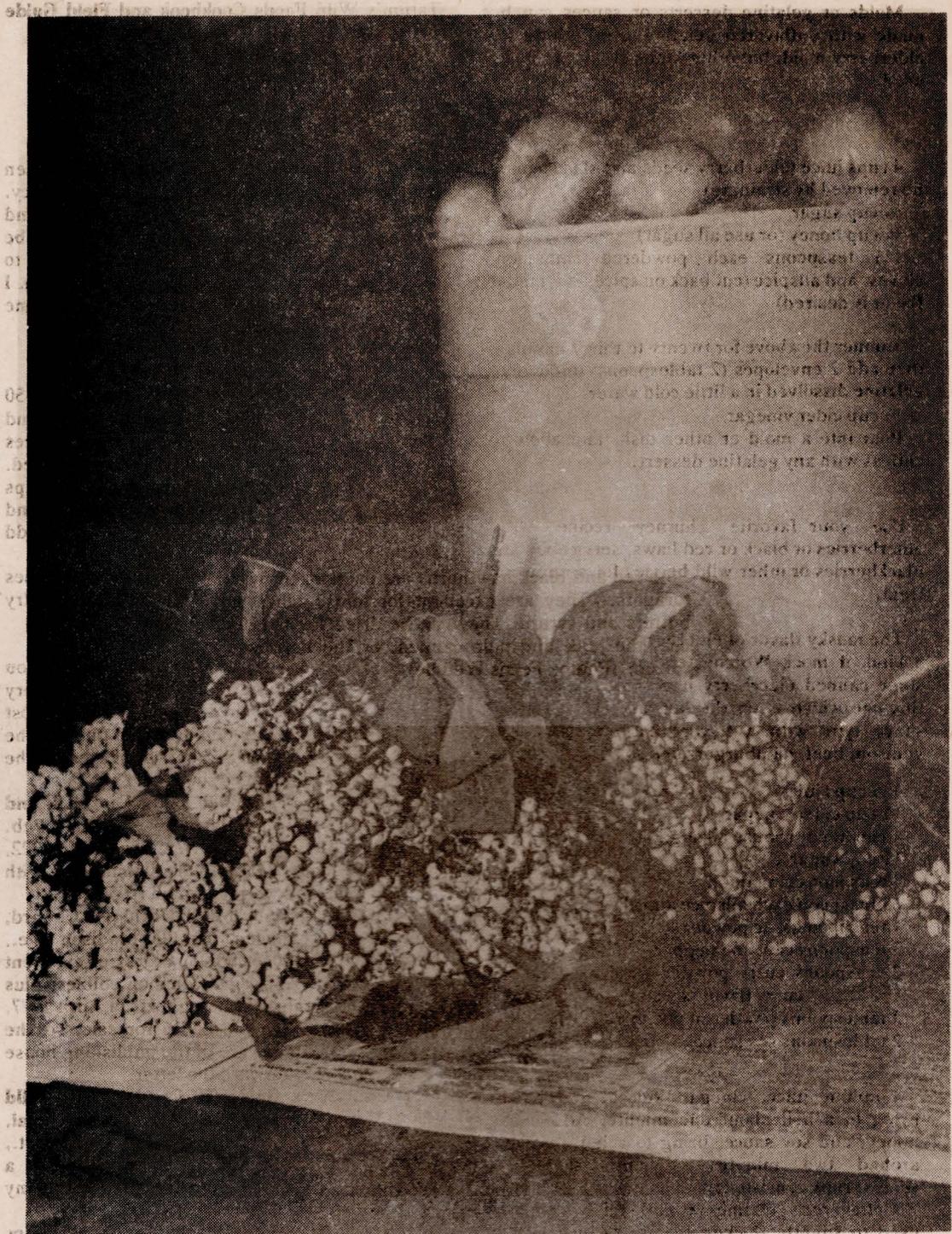
My favorite juices for this are a combination of elderberry and sumac, red haw and red currant, serviceberry and crabapple. Rose hips can also be used for this spiced jelly.



Both red and black hawthorns are overlooked by foragers. They are excellent for jams, jellies, butters and syrup. They can be dried for later use, the juice and pulp canned, or the berries frozen. (Photo: Ferris Weddle)



The red tart currants are ideal for mixing with other wild berries, or for using alone for jelly, jam, pies and other concoctions. (Photo: Ferris Weddle)



The versatile elderberry is one of the easiest to harvest--and uses for the berries include jam, jelly, sauces, pies and beverages. The berries dry well or may be frozen or canned. Young elder shoots are good pickled. This shrub has numerous alleged medicinal values. (Photo: Ferris Weddle)

Molds or gelatine desserts or sauces can be made with unflavored gelatine. Here's one for elderberry mold, but other kinds of juices can be used.

4 cups juice (elderberry seeds and skins should be removed by straining)

¼ cup sugar

¼ cup honey (or use all sugar)

1½ teaspoons each powdered cinnamon, cloves, and allspice (cut back on spices if a milder flavor is desired)

Simmer the above for twenty to thirty minutes, then add 2 envelopes (2 tablespoons) unflavored gelatine dissolved in a little cold water.

½ cup cider vinegar

Pour into a mold or other dish, and allow to chill as with any gelatine dessert.

Use your favorite chutney recipe with elderberries or black or red haws, serviceberries, blackberries or other wild berries for an unusual treat.

The musky flavor of elderberries lends itself to a kind of mock Worcestershire sauce. I used some canned elderberry juice recently to make this one which is on the hot side. It is a steak sauce type with a flavor that enhances elk, venison, beef, hamburgers and so on.

1½ cups juice

½ cup cider vinegar

1 cup honey (or use all sugar)

½ cup sugar

2 teaspoons cinnamon

½ teaspoon each allspice and cloves

1 teaspoon garlic powder

3 teaspoons cayenne pepper

2 teaspoons curry powder (or more if hotter curry flavor is wanted)

3 tablespoons powdered pectin

2 tablespoons soy sauce

Combine juice, vinegar, spices, and pectin, bring to a boil about one minute. Add sugar, honey, and soy sauce, bring to a boil, and boil around two minutes or until there's a semi-syrupy consistency.

Unflavored gelatine or cornstarch could be used to slightly thicken this sauce rather than using the pectin.

Both black and red haws make a delicious spiced butter. For two cups of haw pulp and juice, you'll need around one quart of berries. They are simmered until tender, then run through a wire sieve or colander to get the pulp and juice. This basic recipe comes from Billy Joe

Tatum's **Wild Foods Cookbook and Field Guide** (see references):

2 cups haw pulp

½ cup sugar (or substitute ¾ cup honey)

¼ teaspoon ground allspice

2 teaspoons cinnamon

½ teaspoon ground cloves

Combine ingredients, bring to a boil, then simmer until the mixture is the right consistency. I've varied this recipe by using more spices, and using pectin to help thicken it. Cornstarch can be used as a thickener, too, if one doesn't want to spend so much time cooking the mixture down. I also sometimes add an orange, chopped, or one half a lemon, chopped, skin and all.

CHOCHECHERRY SYRUP

Chokecherry syrup can be made with a 50-50 mixture of juice and sugar--four cups juice and four cups sugar, for instance. This requires longer cooking, so powdered pectin can be used. This is a basic recipe: 3½ cups juice, 4½ cups sugar, and one-half box pectin. Bring pectin and juice to a rolling boil for one minute, then add sugar and bring to a boil.

Syrup can be made from any of the wild berries and fruits--and for an amazing variety, try different combinations.

The above recipes and suggestions will get you started but I've found the following books very helpful. All of them should be available in most public libraries, or can be purchased through the bookstores or directly from publishers. The prices may have changed, however.

Billy Joe Tatum's **Wild foods Cookbook and Field guide**, 1976, published by Workman Pub. Co., Inc., 231 East 51 St., New York, NY 10022, price, paperback, \$4.95. Really outstanding with over 350 recipes covering around 70 plants.

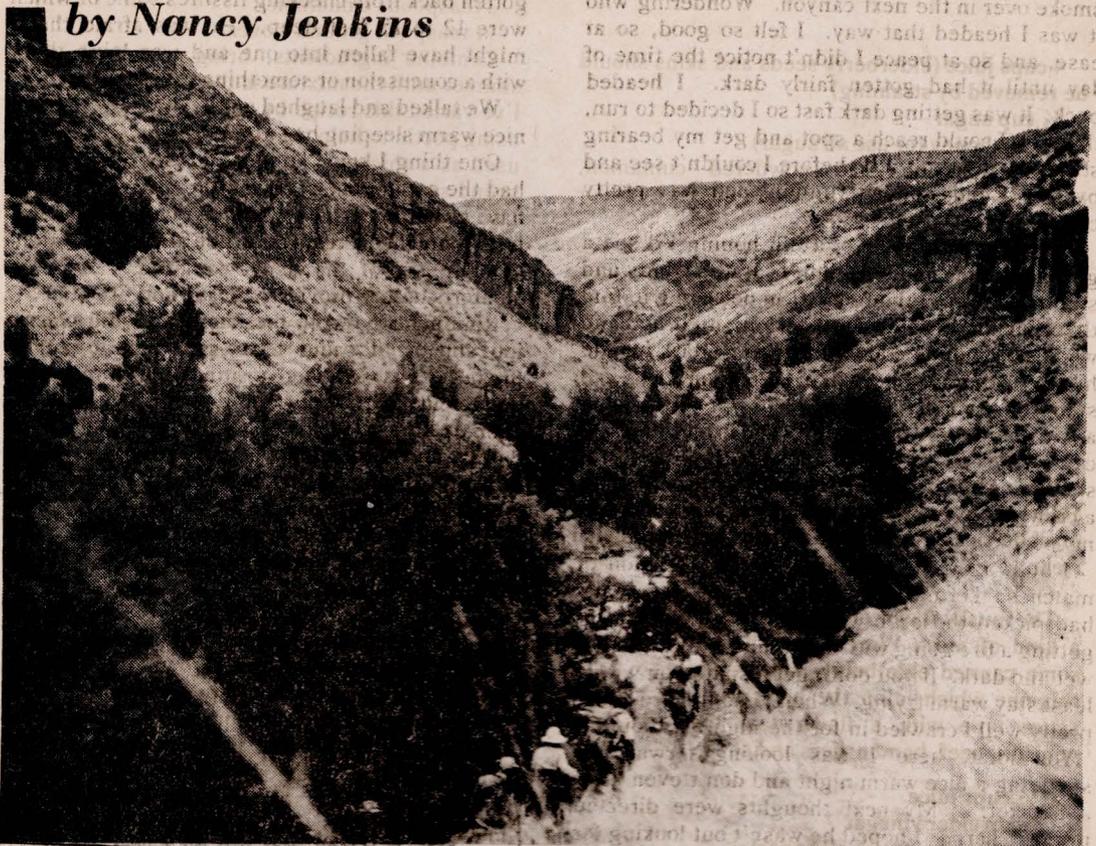
The Wild Flavor by Marilyn Kluger, Coward, McCann & Geoghegan, Inc. 200 Madison Ave., New York, NY 10016, \$8.95. Scores of excellent recipes covering the most common edibles, plus exotic dishes, and a charming text. In April 1977, the author still had the books for sale, so she should be written in care of the publishing house with a request to forward the letter.

A Naturalist's Guide To Cooking With Wild Plants by Connie and Arnold Krochmal, Quadrangle/NY Times Book Co., 10 E. 53rd St., NYC 10022, price \$10.95 unless there's a paperback edition now. Numerous recipes, many exotic and gourmet style.

A less pretentious cookbook that includes several wild plants as well as game and fish is "Savoring The Wild" published by the Montana Dept. of Fish & Game, Helena, MT 59601, price, \$2.00. A new edition may be out now--and a larger one. The department's magazine, **Montana Outdoors**, has frequent articles and recipes on wild foods. □

SURVIVAL JOURNAL

by Nancy Jenkins



Editors Note: The following article was written by Nancy Jenkins, a homestead student and survival instructor on a 26 day delinquent program conducted by the Center of Preventative Services in Salt Lake City. Nancy is an experienced survivalist and has a good feel for the outdoors. We thought you would be interested in learning her feelings while in a particularly uncomfortable situation. It is also good to know that **everyone**, including the experienced can get into trouble...

For the first 10 days of a 26 day trip I had been out with a group in the desert with a knife, blanket and possible bag (a leather pouch containing an antler and piece of leather for making arrow-heads). We had been eating flour, sugar and oatmeal which was imported to us and any food the desert had to offer; watercress, prickly pear cactus, onions, mormon tea, biscuit-root, ants, worms and various other insects. We had plenty of water because the river had been flooded and we had also been snowed on. Brrr

Well the first part of our trip was over and I hiked out to meet my friend Larry. I was looking forward to eating more exciting food and sleeping in a nice warm sleeping bag. We drove into town to purchase groceries and on the way picked up a couple of girls who had gotten their car stuck and were up to their knees in mud. We pulled them out with our jeep and they came with us into town, then came back to camp with us for dinner. I cooked up a stew with lentils, carrots, celery, onion (plenty of onion) tomato sauce, hot sauce and water in a dutch oven. When it was ready I took out my knife, which I use for everything, handed one girl the only spoon we had and Larry handed the other his bone spoon. I laughed at that because I had eaten with it a couple of weeks earlier and discovered it has a taste all its own. He said, "Or if you'd rather use a knife," She did, wise decision. We blessed the food and dug in. The two visitors were somewhat hesitant. Later thinking about it I laughed, "We invite people to dinner and we have only one pot and one spoon, some hospitality."

After dinner everyone went for a walk. I wanted to be by myself so I took off in the opposite direction. Taking in the beauty of the area, the sandstone cliffs, the petrified wood and the smell of the rain coming, then I noticed smoke over in the next canyon. Wondering who it was I headed that way. I felt so good, so at ease, and so at peace I didn't notice the time of day until it had gotten fairly dark. I headed back. It was getting dark fast so I decided to run, thinking I could reach a spot and get my bearing straight. It wasn't long before I couldn't see and by now I had stopped running and was pretty confused.

I headed for the top of a hill hoping I'd see a glow from our fire but couldn't. It was windy and started to rain. I thought, "I'm not going to find them tonight," so I started picking up brush and wood as I stumbled along. It was so dark I could hardly see and I'd be walking along on rocks and step off into thin air and meet with the ground again about three or sometimes four feet down. I came across a wash and followed it looking for shelter. After I had checked two or three I found a crawl-in cave dry enough and big enough to suit my needs.

I built a fire using that good old invention of matches. Let me tell ya, I was sure glad that I had picked those up when we were in town-try getting a fire going with a bow and drill when it's wet and dark. If you don't get a spark you will at least stay warm trying. When I had the fire going pretty well I crawled in for the night. I thought, "You idiot, here I was looking forward to spending a nice warm night and don't even have a blanket." My next thoughts were directed towards Larry. I hoped he wasn't out looking for me and getting all wet. Then I decided he would know I had enough sense to get in out of the rain and I'd see him in the morning. With that thought I stoked up the fire and went to sleep.

Pretty soon I woke up because I got cold, added some wood to the fire then thought I'd take another crack at finding out where I was. I started walking up the hill but got discouraged fast. After walking about 10 feet I stepped off into thin air and met with a tree about three feet down. I decided to heck with that, besides it was raining pretty hard so I went back to my cave.

I woke up a second time thinking I heard the jeep, climbed to the top of a rock and saw a glow. "Oh boy," I stoked up the fire so I'd be able to find it if I came back. Also I stayed on the wash, kind of walking along seeing the glow ahead and to the side. I was trucking right along and all of a sudden whap...I ran right into a barbed wire fence. I figured out what it was and hopped over.

I walked into camp, the girls were there, but Larry was out looking for me. I decided to wait for him instead of taking a chance of getting lost again. I went to the jeep and hit the horn three times as a signal, I've heard bicycle horns that

were louder.

Shortly thereafter he returned and said I deserved a good whipping. Earlier he had driven the jeep up and down the road looking for my tracks. Of course he didn't find any. He had just gotten back from checking fissures some of which were 12 to 15 feet deep. He was afraid that I might have fallen into one and was lying there with a concussion or something.

We talked and laughed and I got to sleep in my nice warm sleeping bag after all.

One thing I know helped and that was having had the experience of the survival classes. They have taught me what I can do without, so I didn't freak out when I realized I'd be staying the night without any of the usual comforts. Just the comforts nature provided, a cave and fire.

Running around in the dark like I did wasn't too smart. I could have sprained an ankle, broken a leg, surprised a rattle snake and gotten myself bitten or any number of terrible things. I should have grabbed a long stick when I was stumbling around in the dark, to use as a feeler so I'd know when I was walking around in space and how far down it was to the ground. Don't know why, but I didn't think of that till later.

It's neat to have an experience like I did...getting lost and being able to enjoy it. I feel confident enough in the survival skills I know that even if I was lost a few days or so I would have handled and felt the same way about it: not to worry, I'll find myself sooner or later; and till then I know what to do, if it be a day or a month.

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FOOD

by Linda Jamison

Food is a prison to our soul unless we experience and understand its limitations upon our body and its function.

We do worry about some of the student's ability to make it in a real survival situation rather than a simulated experience. It's not too difficult to tell the "survivors" from those who won't make it. Those who are picky about their food, complain about the many discomforts, and there are many, worry about their appearance and won't participate in group sessions have a less than high "survivors" chance...unless they have the good fortune to have a leader who is patient and willing to bring them through regardless. That possibility is always an unknown factor in a real situation. Most of these non-survivors have never before missed a meal and have an unnatural obsession with food or dirt.

I have always figured that anyone can endure five or ten days on limited rations, even no rations if worst comes to worst and water is plentiful, but the reality of being thrust into a situation where the end is an unknown is an altogether different story. Group and individual morale fluctuates depending on the food situation. It's surprising how a dragging group of individuals perk up when a few apples or carrots are taken into camp. It's also surprising to see the "high" of the last day out as everyone starts discussing what their first meal will be after the trip. Great! You know you will be out 10 days, you can tell yourself most anything to get through and just that knowledge is the catalyst that makes all the difference, also you are in a learning situation relying on your instructor to teach you the skills necessary to 'survive'. You trust him or her to keep you alive for 10 days, and more realistically, to keep your level of suffering at a low ebb. But alas, after your initial training session, after the instructor is gone and its five

days over your 10 day experience limit, when you haven't eaten much substantial for four days and you'd give anything for an ashcake (and that's bad)...then is the real test. And that is why it's so important to know how you personally react to the lack of food...so you'll be better able to evaluate your situation and make necessary decisions. Everyone is a little different, some will surprise themselves with strength of character and stamina they never dreamed they possessed, others will display hidden leadership ability and concern for their fellow man but some will find weaknesses that unless checked "before" the test could literally mean the difference between life and death.

Sharing is a big thing in a moral survival group. (A moral group is a group of people who work together for the good of all.) Because food is a prime factor (next to water and warmth for protection from the elements) it can also present some real temptations and tests of character when it is available in camp.

We had an awakening of sorts when one of our assistant instructors turned out to be a hoarder. It is impossible to have a good repore with your students unless you're willing to share not only your knowledge but your food also.

You may surprise yourself by your attitudes of sharing. It's really difficult to say "this person will do well or this person won't" the proof of the puddin'...

A special kind of brotherhood develops from enduring hardships together and it's a good feeling to be able to share a few bites of biscuit root or wild onion or the bounty of the previous days trap line.

Having been on the tummy growling side of hunger both as a student and instructor, I have made a few observations that may be helpful to anyone who encounters a real survival situation as well as those who are planning to attend a

simulated expedition.

The two or three weeks prior to my first expedition my foremost concern was hunger. Having fasted for several days at a time during various periods of my life and for 24 hours on a regular basis, I was not looking forward to the symptomatic headache, dizziness and weakness which results from not eating, or drastically altering the normal diet.

Let me insert a few words here in regard to the "normal diet." A normal diet of prepared, refined foods which include the many poisonous substances necessary for long-term preservation of our foods is a long way from the way God intended us to use the bounties of the earth. As a result our systems are not as capable of contending with long term fasting or drastic dietary change as they would be for those who eat properly. My own diet is somewhere between proper and trying.

Those people who don't eat natural foods and who include refined food in their diet will inevitably experience headache and dizziness as the poisons are purged from the body. I know this from experience and have since tried to better my diet as a result. There were three students on that same expedition who were accustomed to eating a vegetarian diet and only unrefined foods and they did not suffer as the rest of us. Lesson: the symptoms are not caused by hunger or starvation but by poor diet and insufficient minerals in the system.

At any rate that first trip was helpful to me particularly in one respect...I learned how my body and mind would react to various degrees of hunger.

The first day we started out like a ball of fire, everyone had energy to burn and we hiked to our base camp and built shelters in high spirits. That evening we sat around the campfire and cooked ashcakes in the coals of our sleeping fires. Everything was great!

On day two we arose, bypassed our usual breakfast for another ashcake and hit the trail for a lesson in locating water. The afternoon was spent learning to build a fire by the bow and drill method and making traps which were set in great anticipation that evening. We retired on another ashcake.

Water and ashcakes are not exactly anyone's idea of great eating. The combination does keep body and soul together but by the end of the second day it was getting more difficult to hike to the water hole and back again. I became light headed when I stood up quickly and had a slight nagging headache.

On the third day I was experiencing leg cramps, nausea and more severe headache. This I was told is normal. That helped, at least I was confident that I wasn't dying and I knew they had never lost a student from hunger (or anything else for that matter.) We were to collect plants on

the third day and were each given a minute ration of salt. Salt depletion, I later learned, caused from hiking and exertion during the heat of the day combined with insufficient water intake (we got too lazy to hike to the water hole in spite of the instruction we were given to drink plenty of water) was the prime cause of my leg cramping. I have also learned since that first trip that some wild plants provide a natural source of sodium (nettles and sheperds purse in particular.)

One of the students caught a rabbit in his trap and a couple of others had collected edible plants and berries enough to go around so by the end of the evening of the fourth day we were in pretty good spirits.

The group eventually divides into working groups where the most successful trappers set all the traps and the plant-gatherers forage for everyone, the better cooks do all the cooking and scouts continually search for new water sources, game trails and areas where plants are abundant. This type of social order gives everyone more time for what they do best yet the spirit of sharing is also evolved. In fact, those who hoard or refuse to share are outcast.

Food and water, but mostly food becomes the prime topic of conversation on any survival trip and regardless of the other skills being taught, is given the most concentrated effort.

The smallest and most insignificant fare becomes terribly valuable under survival conditions. I've heard students exclaim, "if anyone had told me two weeks ago that I would get excited about eating this..." and it's true. You may be a meat and potatoes man at home but you'll swear that a few wild onions and yucca pods cooked in a pit are the best tasting food you've ever eaten bar-none. After my first trip I was allowed one piece of fruit and one vegetable as a way to "break the diet". I chose a peach and a tomato which I saved for dinner. I guarantee that I have never enjoyed anything as much.

Now don't get me wrong, a nice juicy steak or better yet a big salad with all the trimmings would be a welcome addition to any trip but the cramps, headache and dizziness are gone and the ability to function to capacity increases with time. Of course, as time goes on your ability to secure food plants and set traps successfully becomes more acute also...

In some groups there are individuals who become severely depressed on the second or third day of the expedition. They didn't know what to expect and were unable to cope with the new diet. This is the very time they should be concentrating on learning the skills necessary to secure food but their state of mind prevents them from functioning in peak condition.

On subsequent trips I have noted that after the third day it becomes much easier. The three day purge enables the body to readjust not only to the new diet of whole wheat ashcakes and wild plants

but also to the lesser amount of food taken into the body.

Americans normally eat from 4 to 6 lbs. of food per day and on a regular schedule. In a real or simulated survival experience there are no mealtimes. You eat when and what you can. Maybe once a day, maybe not at all, but after four days it doesn't seem to matter so much.

We are so fortunate in this country to have the foods we "enjoy" available, not the foods we need to sustain life but the foods we "enjoy". And that is one reason there are few real "survivors" in the final analysis...because we spend so much time trying to decide and thinking what we are hungry for. We become pre-occupied with food for enjoyment rather than food for survival. And I'm just as caught up in it as anyone else but I know my limitations, I know that I will succumb if I dwell on sweets so I try to keep myself occupied to the extent that I don't have time to think about what I "want" to eat. I'm certainly not advocating that you purge your favorite foods from your diet, just that you be aware of your personal limitations and know that you will live without them. Know that in an endless situation morale will be down, people will be difficult to deal with, you will have cravings for your favorite foods and your body won't function as well as usual at first, and know that others have also suffered these things and made it out with no lasting scars and **SO CAN YOU**.

My husband, Dick Jamison, who conducts most of the Anasazi and Bitterroot Expeditions, has told me that his biggest gripe on the trail are those students who, after eating a huge meal the morning before the trip, complain about being hungry about 2:00 p.m. He claims that these are the people who invariably complain during the entire trip and who may as well have stayed home because they generally don't get anything out of the experience anyway due to their complaining.

I would like to say a few words about the preparation for a survival expedition. Anasazi and Bitterroot Expeditions takes students out "cold turkey" for the most part. Many of the participants have no outdoor experience and very little if any idea of what they will encounter. This is done purposely because it's far easier to teach someone who has no pre-conceived expectations or schedules they expect you to maintain.

I have seen people gorge themselves the night before and the morning prior to the trip so they won't get hungry for a couple of days. Not true...stretching the stomach only worsens the situation. It's far easier on your metabolism if you begin to taper off on the amount of food intake for a week or two until you are eating only one or two small meals per day. It is also smart to change from a heavy diet of meat and potatoes and begin eating raw fruit and vegetables. Eliminate sugar and other sweets which obviously won't be available in the wilderness.

This tapering process will help you glide into the situation rather than jump in like an elephant in a bathtub.

The same is true after an expedition. A Mexican dinner does strange things to a stomach that has adjusted to bland ashcakes and wild foods.

As a personal study I have made note of the various foods survival students choose after the trip. On one occasion when I met my husband in Southern Utah to ride home with him after a ten day expedition, I was agast at the choice of food he bought. For 450 miles he nibbled on sardines and drank several quarts of grape juice. Ugh!

Then, because of the chemistry of the foods he ate during the trip and the neutralizing effects of the grape juice he wound up in the hospital with kidney stones. Another student ate a whole chocolate cream pie, on still another expedition a student indulged himself by ordering (and eating in short order) a cheeseburger and fries, two tacos, two burritos, a milkshake and a large coke...against the advice of the instructors. This is by no means the proper way to dive back into the world of fast foods. Most participants crave fruit and vegetables rather than protein foods such as meat, cheese or other dairy products or sweets.

Another factor that hinders a few novice survivalists is a pre-occupation with dirt...in our clean society the greatest majority of us have the facilities to bathe our bodies and wash our food and utensils. In a survival situation the same "degree" of sanitation does not exist. Although we do try to maintain healthful practices, cooking in ashes, storing food in streams or drying meats for preservation is not as sanitary as home refrigeration. Consequently some students "freak out" at the sand and dirt that often mixes with their food. I've seen students refuse to eat food that was covered with a few ashes or food that had been dropped on the ground. As I have mentioned in previous articles, I never considered dirt in the wilderness as being "dirty". Besides, a little grit is good for digestion.

The student (and we are all students regardless of our experience) who can't learn to accept the conditions and flow with the situation just makes it more difficult on him or herself as well as others, believe me...no-one enjoys a complainer and that goes tenfold on survival.

After a few days on limited rations you lose most taste prejudices, I say most because I have yet to reach the point where I will eat grubs...you begin to "eat to live and not live to eat". I'd like to quote from an article written by Dave Christensen about one of the ten day courses he attended in May of this year (1978)..

"We seldom had more than a handful of food to eat each day, which was divided into about two meals. It consisted of roots, greens, mice,

packrat, chipmunk, ground squirrel, birds, snake and lizard. I must also mention that we considered roasting grubs as a possible new snack food.about the most wonderful thing that happened was when our hunger was at its worst and someone found a plastic Easter egg in the middle of nowhere. It had three candies in it which we divided between seven of us. I got a taste of a lemon salt-water taffy. Lordie! Did we ever get high on that. Having long forgotten the feeling of a full stomach, we were thrilled beyond belief to have a taste like a lemon meringue pie lingering on our tongues and senses for almost an hour. I can't explain to you how wonderful it felt, and undoubtedly that was the best food

experience in my life. We don't know how that Easter egg got out there, but I will always believe in the Easter bunny!"

Regarding the effects of the total experience he concluded his journal by saying, "By the end of the trip I felt I had found what it was like to be a human being for the first time in my life. I had found strangely enough that going without, I discovered what was really important in life and I wish I could hold onto this feeling forever."

Part II, will deal with the effects of food shortage during natural and civil disaster and how to prepare for such emergencies.

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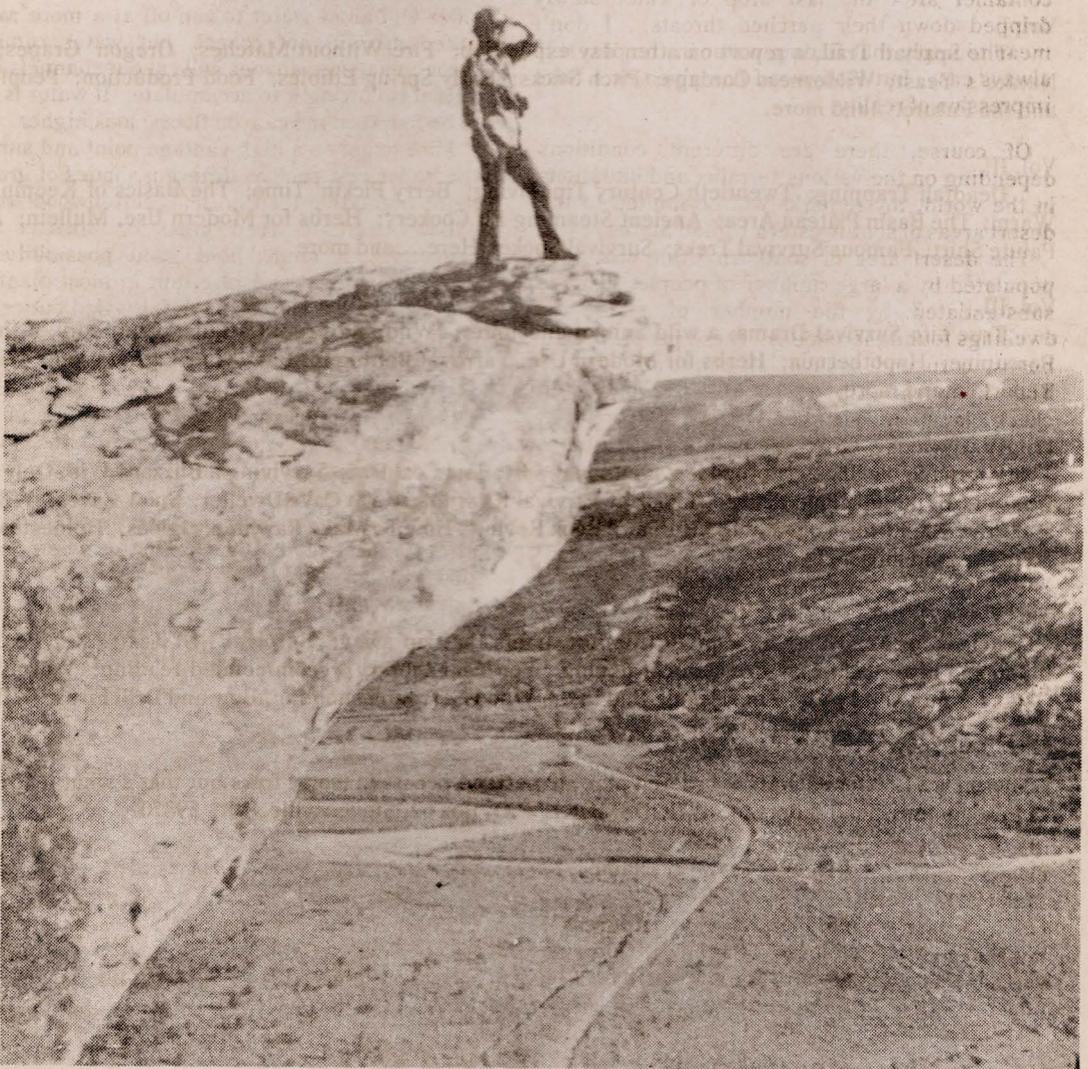
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The Trees are Green, the Grass has Ris', I Wonder Where the Water is?

by Dick Jamison



Unless placed in an emergency situation we seldom realize the importance of water. For instance, the first concern of most of my students is food. Perhaps this is due to the very nature of food and water. Food is something we can savor, chew, enjoy, and it stays with us for awhile. We also have to work to pay for the food we eat....water, on the other hand comes to us free, except for the monthly utility bill we are charged for transporting it to us for more convenience. In restaurants we are served a glass of water, even a refill, with no charge but seldom does anyone ever get a free meal.

Much has been written of downed pilots and lost patrols in the deserts of Africa. These accounts of suffering and death from lack of water are spine chilling and should serve to make us more aware of the importance of water, particularly in a survival situation.

When many people think of the desert and finding water they picture Gary Cooper, John Wayne or Cornell Wildé crawling across endless sand dunes, having discarded their water container after the last drop of water slowly dripped down their parched throats. I don't mean to imply that finding water in the desert is always easy, but Hollywood has given us a false impression of reality.

Of course, there are different conditions depending on the various terrains and situations in the world, my remarks will be limited to the desert areas of southwestern United States.

The desert area of southern Utah was once populated by a large number of people. This is substantiated by the number of sites and dwellings found there today. These people raised beans, corn and squash, all requiring water. They knew the importance of water and built check dams and irrigation systems for their crops. Today this entire civilization is gone...many claim it was due to drought conditions.

Now people come to this part of the country for recreation, they find a scenic, semi-arid desert with very little water. At least very little that is visible to the eye. Many vacationers never leave their vehicles because of the lack of water in the area...a shame because it is beautiful country to explore and hike if you are familiar with the availability of water and how to find it.

Here are a few pointers you should consider when looking for water in this type of terrain.

When keeping your eyes open for water indicators you can find enough to satisfy your thirst and need, although there are places in the desert where water is scarce and far between. That is why you must drink all you can hold when you do locate a good source, water will do your body no good if it is in your canteen. Of course, if you have a canteen, fill it at each water hole but tank up before venturing on.

In a survival condition don't eat any food if no water is available, food requires moisture for proper digestion and if there is no water the body will suffer from dehydration. Remember too, the body loses large amounts of water through perspiration. Sometimes we are not aware of these water losses because the moisture evaporates or is blown away or dried by summer breezes.

When searching for water there are some indicators to watch for. The Southwest is full of sandstone, red sandstone and white sandstone. The red sandstone is very porous and does not lend itself to holding water, don't look for water there. The white sandstone, on the other hand, holds water quite well, in fact I have seen holding tanks 8 feet deep and 10 to 12 feet across. During the winter and early spring months when the snow melts and the rains are abundant, water will collect in these holding tanks and stay all summer. Of course the summer sun will evaporate some of the smaller ones.

To locate these water pockets you must carefully study the terrain. Cliffs with steep sides will allow water to run off at a more rapid pace and will not collect, but water running through narrow canyons will cut out channels and pockets allowing it to accumulate. If water is not to be found on the canyon floors, look higher.

I like to get on a high vantage point and survey the indicators, such as differing shades of green, more vegetation than normal, cottonwood trees, willows, cattails, reed grass or tamarix and canyons that might hold good possibilities. Cactus does hold moisture, but in most plants is not easily available. It must be sucked out or the cactus cut up and used to generate moisture in a solar still.

Dry stream beds should not be overlooked. Occasionally you will find moist areas in the streambed, especially in the bends and where side canyons flow into the stream. Often water will run only a short distance and disappear into the ground. It is best to dig at sharp bends in the stream because this is where the water slows down and is most likely to be trapped.

Water can also be collected from plants in early morning as the dew collects. The plants take in moisture during the day and release it at night, causing dew. A shirt or handkerchief will absorb the moisture which can then be wrung out or sucked directly from the cloth.

A solar still can be used to obtain water under ideal conditions but unless you are well equipped you probably won't have the materials necessary to build one.

A natural holding tank of sorts can be made with grass, stones and a piece of reed grass that will work in most instances. A hole about 3 feet deep must be dug beneath a cottonwood tree, preferably in the bend of a dry stream bed or in moist sand. Dig the hole as close to the roots of



Cottonwood trees evidence moisture. Often water must be uncovered in dry stream beds such as this.



Bob Kilgore points out some of the indicator plants. This willow grows in damp stream beds and near water.



Smaller catch basins can be found higher in the canyons but often are dried up by summer sun.



Deep canyon catch basins often contain hundreds of gallons of water that has collected from the spring rains and winter snow. This basin is eight feet deep and approximately 12 feet across.



Canyon springs are often found to contain enough water to supply your needs while traveling from one area to another.

the tree as possible. Line the hole with stones and fill it with grass. Place the piece of reed into the bottom of the hole and cover it with dirt. (Try not to allow the dirt to fall into the grass any more than necessary.) The tree will absorb moisture from the soil during the day and release it at night, this will be the time to check for water. Any water which may have seeped into the hole can be sucked up through the reed straw. The success of this method will depend on the area and amount of water released by the tree. It takes very little effort to construct and is worth a try if you are in need of water.

On one of our trips we had a particular student who complained alot, his biggest complaint was that he was forced (not physically, but of necessity) to drink water inhabited by pollywogs. Finally one evening his thirst got the best of him and he asked another student who was making a trip to the water hole to bring back a container of water. The fellow student smirked as he handed him his container and watched him gulp it down without a breath of air. Later he admitted that he had deliberately scooped up several pollywogs with the water. The complaining stopped and the students all collected their own "pollywog water" from that point.

Moral: if you are in a situation where water is scarce don't be afraid of contamination. The results of dehydration are far more serious than illness caused by impure water. Most water, even though muddy or inhabited by small "creatures" is pure enough to drink. Of course if you have enough facilities to boil your water before drinking, do so...if not, oak leaves will act as a natural purifier and charcoal from your fire

will sweeten bad tasting water.

Because water is your most valuable asset, you should base your camp nearby and forage for food from there. Never move long distances from your water supply unless you have located another source first. You can live for many days on water alone but only a few days without it.

Caution must be taken by wearing sufficient clothing, such as hat, long sleeved cotton shirt and long pants. Sure, it's cooler to wear shorts and no shirt in the summer to "beat the heat" but under survival conditions you are actually allowing the valuable water within your body to evaporate. Even if you are not "in" a survival situation, carelessness may cause one. Remember too, lack of water will impair your judgement and ability to function properly. You will need **all** your faculties if you intend to make it out alive. Some of the symptoms of dehydration include fatigue, headache, poor circulation, blurred eyesight, poor judgement and lack of coordination. The treatment is; drink plenty of water and get out of the direct sun.

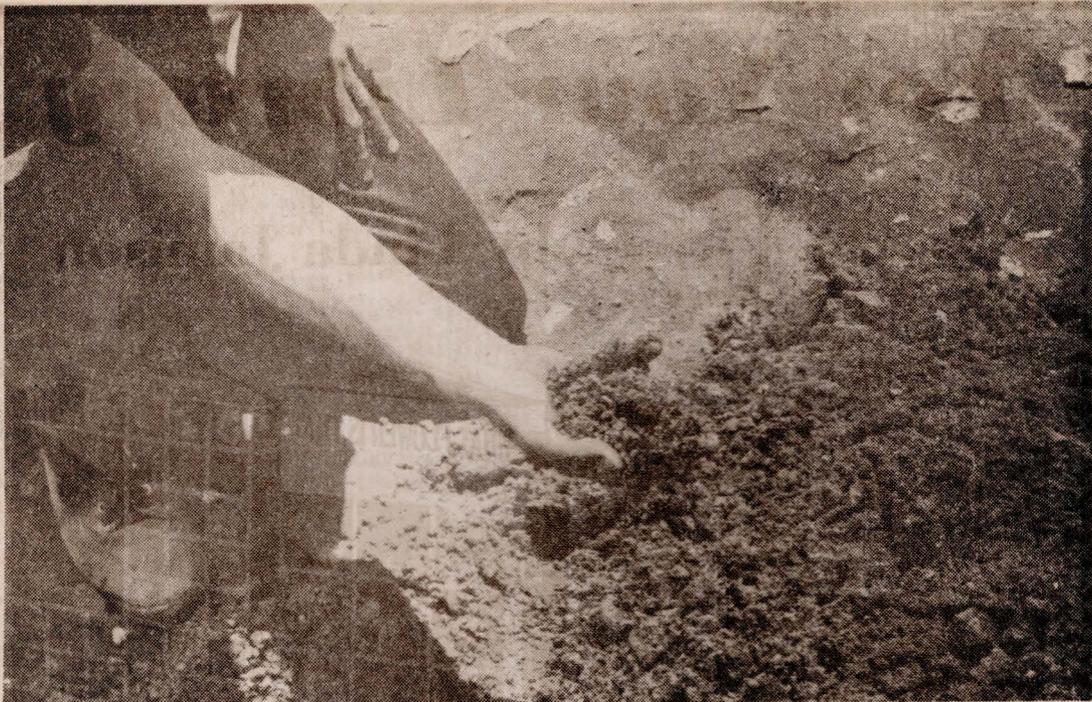
Interesting studies have been made of the methods of obtaining water by various tribes in Africa and other areas where water is scarce. Some tribes chew roots to obtain moisture, others drink the blood of animals, occasionally a small well will support an entire tribe. At any rate, the next time you pass a drinking fountain, take a long "free" drink and appreciate the ease of its availability.



Water will often run several feet then disappear into the ground. Areas such as this depression are often moist and water can be found only a few feet below.



Dig in the bend of the stream bed. (Here the water must slow down and is found only a few feet below the surface.)



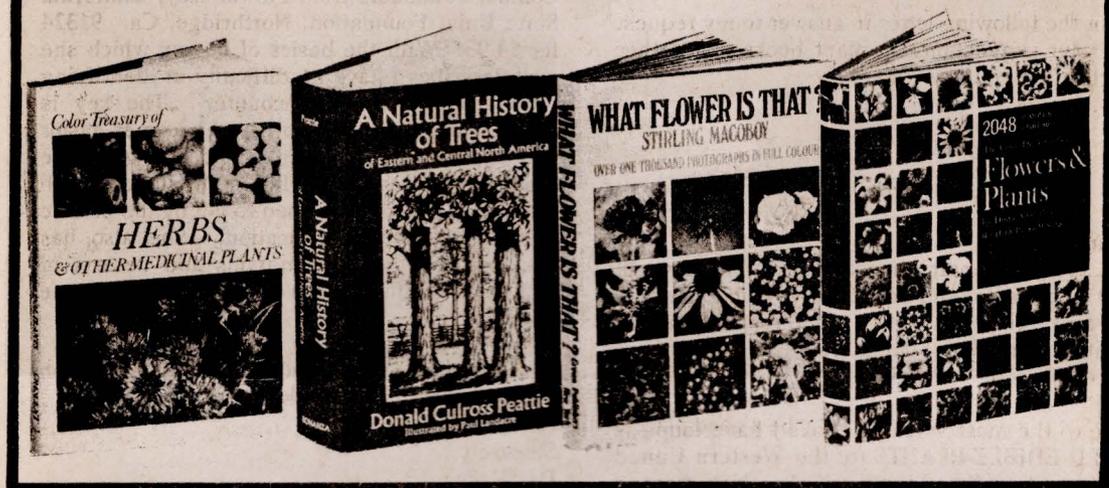
Moist soil signifies water below. This would be a good place to dig a small holding tank.



When digging in a dry stream bed it is often necessary to allow it to settle before drinking or to sift it through a cloth or handkerchief.

For Your Library

by Linda Jamison



Only **one** reader was interested enough to write for the name of the plant book I mentioned in the last issue...that could mean one of two things, no one is reading this feature, or you don't care whats on the market. In either instance I wonder about the advisability of continuing with "For Your Library".

Having been out on the road most of last month I didn't get a chance to review anything new to report on but had previously read a good book I think may interest you.

The title is **ANIMAL HUSBANDRY AND VETERINARY CARE** by Guy C. Lockwood, D.V.M.

I think I have mentioned before that living on a farm is a new experience for me and the proper care of animals is real challenge if you don't know what the heck you're doing. Thats me, we have had horses before but I had never gotten too familiar with the tender loving care of chickens and ducks. To tell the truth, even though my parents had raised chickens when I was small, I didn't know the first thing about them except that they lay eggs.

When we moved in to our farm house it was fully stocked with 15 chickens of various sexes, one mother and five baby ducklings, six goats, three cows, two horses and ten, give or take a couple, cats. Right off the bat the animals became my responsibility, and right off the bat one of the chickens decided to hatch a batch of eggs in an old wooden crate about five feet off the ground.

I was afraid she wouldn't get anything to eat, setting up there so long, so I set little dishes of feed near her and water too, then I worried that the baby chicks would all fall out of the nest and break their little necks. I contemplated moving the box down to the ground but we have **skunks** every now and then so decided the fall would be better than being eaten up by a skunk.

I know this sounds silly to those of you who are old hands at farming, but I also believe that somewhere out there are people just like me who want to try raising farm animals and don't know the slightest thing about it. That is why you need to have a copy of **ANIMAL HUSBANDRY AND VETERINARY CARE** on your shelf. It is written in simple, nontechnical language that the layman can understand, it is clarified with numerous photographs and drawings, it tells you how to get

started raising any type of farm animal and how to keep your animals healthy. Most important, it gives the **principles** of raising and feeding animals and supplies a lot of facts, figures and details that other books on animal raising leave out.

You can order it by sending \$7.95 for the softbound or \$10.95 for the hardbound issue to White Mountain Publishing Co., 13801 North Cave Creek Rd., Phoenix, Az. 85022.

I got the following letter in answer to my request for your suggestions on plant books from other parts of the country...

Dear Linda,

.....I am spending most of my time now in learning plants, and particularly edible ones, in my area. Thus I thought I would respond to your invitation in "For Your Library" to add to your list of books on wild edibles.

One of the most valuable books I have found is **WILD EDIBLE PLANTS** (of the Western United States) by Donald R. Kirk, Naturegraph Publishers, Inc. Hearldsburg, Ca. 95448 for \$5.95 in color edition paperback. It covers over 300 plants with very good line drawings and about 60 color plates. It is divided into sections describing plants found throughout the West, and plants peculiar to the Northwest, Southwest and Rocky Mountain States. He describes the plant, gives its habitat and description, distribution and how to prepare and use it. He is careful, gives an excellent introduction on toxicity and includes some good indexes.

Another "find" has been **TEMALPAKH, CAHUILLA INDIAN KNOWLEDGE AND USAGE OF PLANTS**, L. Bean and K. Saubel, Malki Museum Inc. Banning, Ca. The Cahuilla Indians lived near Palm Springs but they used plants from several botanical life zones in S. Calif. The book covers over 250 plants and is especially good in its treatment of the use and preparation of acorns which was the main staple of Indians in this area.

A more local book is **A SOUTHERN CALIFORNIAN'S GUIDE TO WILD FOODS**, Chris Nyerges, White Tower, Inc. P.O. Box 42216, L.A., Ca. 90042. It covers some 50 plants and has good line drawings but is not as careful as the above books. From personal knowledge of the area and the author's organization I would say it is best for foraging in eastern L.A. County, that is one of its main interests though since most

people would consider Los Angeles to be one of the last places on earth to go foraging. Nature, however, is everywhere.

I have generally found it a bit much to ask of an edible plants book to be a field guide too, so I have turned to other books for plant identification.

My hands down favorite and almost constant companion on hikes in my area is **A KEY TO COASTAL CHAPORRAL FLOWERING PLANTS OF SOUTHERN CALIFORNIA**, by Barbara J. Collins, obtainable from Flower Key, California State Univ. Foundation, Northridge, Ca. 91324 for \$4.95. With the basics of botany which she well describes I have no difficulty in identifying 90% of the plants I encounter. The key is dichotomous, easy to follow (and becomes easier with experience) and is accompanied by good line drawings of each plant. It has eliminated much of that nagging doubt I used to get by the picture method of plant identification. She also has similar keys for the mountains and deserts of Southern California available from the same place.

I continue to enjoy **WOODSMOKE** very much and am enclosing my subscription renewal.

Sincerely,
Dan Baker

My thanks to Dan for the comments and recommendations on books relative to the West. Now how about some of you Easterners giving us a few of your favorites?



Rabbit Stick Report

by Dick Jamison



For the past six months we have been contemplating the event called RABBIT STICK. Now all we can say is, "you should have been there!"

Rabbit Stick was sponsored by the Larry Dean Olsen Survival Association and members came from all parts of the United States and Canada to join in the activities. Larry Olsen developed the concept and, as with any program, there was a key man who made all the arrangements and spearheaded the festivities. In the case of Rabbit Stick it was Ron Zacharias, a survival instructor and former Youth Leadership student from BYU. Ron spent many hours seeing that all went well. As with all "first annual's" the first time is a real test and Rabbit Stick passed with flying colors.

Rabbit Stick was held south of Spanish Fork Utah on National Forest land. By the time I arrived a tipi camp had been set up and everyone was busy attending various sessions and work

shops including bow and drill fires, stoneworking, primitive tool making, pottery and tracking.

My first stop was the pottery session. The students were busy sifting sand and clay to be used for making the pieces of art that eventually came forth. The instructor was Warren B. Wilson, the originator of the Primitive Pottery course at Brigham Young University and one of the nations outstanding instructors of primitive pottery. As the day passed materials from the local area were transformed into useable items under Wilson's watchful eye. (Anyone interested in attending Prof Wilson's 10 day pottery course can contact BYU Division of Continuing Education, Special Courses and Conferences, Provo, Utah.)

Tom Brown, one of the nations foremost trackers was also in attendance. Tom came to Rabbit Stick from New Jersey. He soon had a following of admirers, not only because of his



Trading of bead work, skins, jewelry and other hand-made articles was carried out during periods of lull throughout Rabbit Stick.



Chow time included such pioneer fare as mutton stew, ashcakes and fry bread.



The nights were filled with singing and dancing around the campfire. The musical instruments were hand-made by the participants.



A special treat was enjoyed by all when a group of students passed through the Rabbit Stick camp on a 40 mile historic reenactment of an authentic Mormon handcart company.



A blend of pioneer and Indian cultures added to the atmosphere of the Rabbit Stick encampment.

talents and abilities in tracking skills but because of his likeable personality as well. In no time Tom had students tracking other students and searching for wild life tracks. Tom has a book currently being published called "The Tracker, the Story of Tom Brown". Government agencies and law enforcement offices have called Tom on numerous occasions to assist in finding lost hunters, children and others.

As I moved around camp I could feel excitement from the sharing and learning going on...the Navy sent four survival experts to Rabbit Stick and although their knowledge and training was primarily jungle survival they had experienced many useful skills which they willingly shared with others. They had learned primitive skills from natives in the Phillipines such as traps and fire building which proved to be very interesting.

The days were filled with learning and the nights were an experience of dancing and socializing. Indian dancers put on a great show for those in attendance and added considerably to the atmosphere of the rendezvous.

On the third day the mountain men in attendance shared their knowledge of muzzle loaders and let those who were interested take a shot at some of the targets set up. Many of them wore buckskins, which also added to the atmosphere.

A highlight of the event came about unexpectedly when a group of young people from Pocatello Idaho came in to camp dressed in authentic pioneer costumes and pulling handcarts. They were a part of Brigham Young University's summer pioneer program headed by Doug Cloward through Special Courses Dept. They had trekked approximately 40 miles on foot, experiencing the hardships suffered by the early Mormon pioneers as they came across the plains in the handcart companies. Many of the Rabbit Stick participants who were dressed in their buckskin "trappins" went out to greet the travelers and escorted them into the camp. The wagons were circled and students sang songs and explained some of the details of their historical trek reenactment.

Rabbit Stick closed Saturday with contests and special events then friends left unwillingly, looking forward to another year. Plan now to come to next year's Rabbit Stick, it's an event you won't want to miss.



Continued

Rabbit Stick



Pottery makers relax in the shade during the heat of the afternoon.



Kent Peterson loads his rifle while keeping a watchful eye on the other shooters.



Even the Navy got into the program. Here participants work on obsidian arrow points and knife blades.



Thanks to the mountain men in attendance anyone with the desire had an opportunity to shoot a black powder rifle at targets that were set up in the area.



Many of those who attended Rabbit Stick brought tipis, giving the camp an aura of authenticity.

Beat a Better Batch a' Butter

by Linda Jamison



One of the first skills I tackled after moving to the farm was making my own butter, through trial and error (mostly error) and a lot of helpful advice from friends and neighbors I have churned out all the bugs...It is amazing that cookbooks don't generally have directions for making butter but I guess on the whole, most folks buy theirs already made.

Because I don't have a churn I make my butter in my blender. It's a lot faster and I can go about my business for the few minutes it takes to turn cream into mother nature's best.

It takes about 1 gallon of cream to yield 3 pounds of butter, which takes up a lot less storage space than the cream. The first step in butter making is separating the cream from the milk. This is easy if you store your milk in the refrigerator over night in a 1 gallon (or larger) glass container. The cream will rise to the top and can easily be skimmed with a small cup or soup ladle. It takes about 24 hours for the cream to rise on fresh milk. If you want the cream to rise more rapidly you can cool it faster by placing the milk container in ice water for about 12 hours or cold running water (like a stream). Cold makes the cream rise more quickly. If you are using goat's milk it is almost a necessity to have a separator which separates the cream with centrifugal force.

Because it isn't too practical to churn a few cups of cream at a time, you will probably collect

cream over a period of several days before making your butter. It is a good idea to use the cream within 4 days to avoid an acidic, over-ripe flavor and to prevent your butter from spoiling too quickly. Chill new cream before adding it to the old or the warm temperature will cause the old cream to spoil more quickly. Before making your butter mix all the cream together and stir it well with a long-handled spoon so it will have a uniform thickness.

All cream should be kept at 52 degrees to 60 F. in the summer and 58 degrees to 66 F. in the winter while being churned. (get a dairy thermometer) If the cream is too warm when being churned the butter will develop too soon and will be greasy and too soft. If the cream is too cold the butter will not develop and you will have more buttermilk than butter.

Ripened milk (cow's) is more flavorful when used for making butter. To ripen milk just let it set out at room temperature (65 to 75 degrees) until it is thick and slightly sour. To ripen milk quickly just add 1/2 cup of yogurt (plain) or 1/2 cup cultured buttermilk. After ripening cool the cream to churning temperature before churning. Goat's milk should not be ripened before churning.

When using a blender to churn it will form beads in about 4 to 5 minutes. Keep mixing until the beads are about the size of a corn kernel. Turn off the blender and pour off the buttermilk. **DON'T THROW IT AWAY.** This is the old fashioned buttermilk (not cultured) that is so good for cooking.

Now here's the part I wasn't aware of the first few times I made butter...it has to be washed. If you don't wash all of the buttermilk out of the butter it will sour very quickly. To do this in a blender just add cold water in about the same amount as the buttermilk you have poured off and turn on the blender for a few seconds. Repeat until the liquid is clear. Don't leave it on too long or the butter will soften too much.

If this happens add a few ice cubes to the water before pouring it on the butter. (don't put the ice cubes into the blender, they are just for cooling the water) Be patient, you may have to repeat this process as many as 6 or 7 times before the

water is clear. You may also take the butter out of the blender and wash it in a bowl under the faucet. Knead the butter to get all the buttermilk out but don't spread it, that will cause it to become greasy.

The next step is to knead or cut out as much of the water as possible by pressing and squeezing it against the side of the bowl with a wooden paddle until no more water can be poured off. Again, don't spread the butter.

If you use a churn plan on spending more time and make sure it is thoroughly clean before you begin. It has been suggested that you fill the churn with water 24 hours before using it to assure that the wood will swell and make it watertight. Pour the cream into the churn through a strainer to assure that there are no lumps in the cream. Fill the churn only $\frac{1}{3}$ full. (this is true of a blender also) Churn about 20 times and lift the lid to allow the gas to escape, repeat after 20 more churns. Then resume churning (about 60 per minute) until beads of butter appear. This should take about 30 to 40 minutes but it will be 20 minutes before the beads start to appear.

I have a friend who makes her butter in a glass jar by filling it $\frac{1}{3}$ full and shaking it until the butter appears. The lid must be removed at least twice during the beginning of the shaking process to allow the gas to escape. This is just about as time consuming as using a regular churn.

A regular rotary beater can also be used but be sure to use a deep bowl to avoid splashing as the beads start to appear, whip at a constant speed until the butter is formed.

You can make cultured buttermilk from your homemade buttermilk by adding $\frac{1}{4}$ store bought buttermilk (cultured) to a quart of your own and allowing it to set in the refrigerator for 24 hours.

After the butter has been washed and kneaded free of the water it can be stored or salt may be added at this time to enhance the flavor as well as to lengthen the storage time. Depending on your taste add about 1 tablespoon of salt per pound of butter (2 cups). Work the salt into the butter by pressing and cutting it, do not spread it. Most people roll the butter into balls for storage in the refrigerator but it can also be stored in any glass container with a lid. Plastic containers tend to absorb other flavors from the refrigerator and taint the butter. Keep your butter about 2 weeks in the refrigerator or it may be frozen up to 6 months. Thaw it in the refrigerator for several hours or overnight before using.

If your butter still doesn't turn out the way you had expected some of the following problems should be considered:

Your cow may be eating strong tasting weeds which will cause off-tasting milk and cream. Do not feed cows strong odored

foods before milking.

Some feeds will produce hard fat and some will produce softer fats. Cottonseed meal and timothy hay produce hard fat while linseed meal, gluten feed and silage make easier churning butter.

Your animal may be too far advanced in the period of lactation. Milk from other animals may be added to this milk to overcome any possible effects.

Some animals just don't give good milk...if your milk is not easy to churn you may mix it with milk from another animal.

If the utensils are not clean fermentation may take place. Sterilization of all utensils will remedy the problem. You may find it necessary to pasturize your cream. (pasturized cream will not ripen)

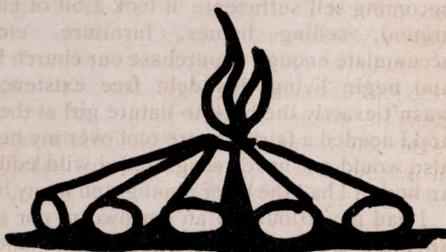
Your churn may be too full. Whether using a churn, jar or blender do not fill it more than $\frac{1}{3}$ full.

Sweet cream takes longer to churn than ripened cream, so you may want to add a little yogurt or buttermilk (cultured) if your cream is not beading in a reasonable length of time.

Your cream may not be rich enough. Ideal is about 30% butterfat. Too-fat cream will also be difficult to churn.

Your churning temperature may not be ideal. Remember, 52 to 60 degrees in summer and 58 to 66 degrees in winter are the proper churning conditions.

By following these guidelines you will take the "luck" out of your butter making...Its a great feeling to put a cube of homemade butter on the table with a basket of steaming biscuits and fresh eggs from your own chickens. This is what makes country livin' worthwhile!



SURVIVAL FAMILY

by Mary Bergman

Most of us remember 1973 as the year Watergate came to a head and President Richard Nixon resigned. It was also the year the prisoners came home from Viet Nam and were united with their families. I believe there was also some stupendous moon landing that year. At least I heard something to that effect while I was gaily washing out laundry in our mountain stream and bemusing the idea that should the astronauts have missed their destination and landed in our field they would have immediately radioed back that they had discovered a primitive society where people live without electricity, wash clothes by hand and appear not to have progressed since the ice age.

That was the year that we decided as a family to live as if a national disaster had occurred. We shut ourselves off completely from the world and lived solely on what foods and basic supplies we had stored within our home, which is an old remodeled church house in Porterville, Utah.

It wasn't something that we simply decided to do on the spur of the moment. We had observed conditions in the large metropolitan areas, read a great deal about the possibilities of chaos coming to our overly dependent society and then we began to take steps to wean ourselves from that society.

We knew that in order to pursue our course we would have to be as free of debt as possible and so that was one of the first steps we took toward becoming self sufficient. It took a bit of moving around, selling homes, furniture, etc. to accumulate enough to purchase our church house and begin living this debt free existence. I wasn't exactly the back-to-nature girl at the time and I needed a fairly secure roof over my head. I also would not have recognized a wild edible or an herb if I had the color photograph in my hand.

I had never touched an earthworm nor grown anything worth eating with my own hands. I knew practically nothing about canning and was definitely not taking any prizes with my home made bread. So, as you can see, I had a few

survival strikes against me to start with. Tom had been raised on a farm, although he had done little in the past twenty years to exercise those farming muscles.

It took a number of years to prepare for our sabbatical from society. The area of preparation included study, food and clothing storage, home production, establishing a private home school for our children and supplying alternate sources of power. With the money we had saved from selling homes and property we purchased enough supplies to last our family for at least six years. The attic and basement were filled to the brim with over 600 cases of food, many gallons of water, thousands of pounds of coal, tons of wheat, 40 truck loads of wood and misc. supplies.

Large underground tanks held gasoline and diesel fuel. The power sources had been carefully prepared including a gas driven generator, a D.C. battery system and a water wheel. Our home was a virtual fortress with cannons at the doors, steel mesh covering all exposed glass, bolt and chains on entrances, bars and grills on windows. We felt that we were ready for almost any eventuality. However, as is true in most human endeavors we were overly confident of our ability as one single, lone family to survive without being integrated with other families of like mind. **CONFIDENCE IS THE FEELING YOU SOMETIMES GET WHEN YOU DONT FULLY UNDERSTAND THE SITUATION.**

We had felt prompted because of our own personal feelings, intuition, or inspiration to attempt a one year survival seige but we soon learned how much we were actually dependent on others for services, goods and companionship.

Our year of family survival became a year of meditation, reflection and simplicity. It was our year to dig beneath the surface, to find out whether our family could endure hardships. It was our year to develop family unity, to hunt wild foods. It was our year to study, to fish mountain streams, to begin teaching our children in our



Our new home was the remodeled Old Porterville Ward Meeting House that had been erected in 1898.

own school. It was our year to explore the natural assets around us, gain an understanding of ecology and develop the art of bartering. It became a turning point, a focal point for all other years, because, it was a tremendously challenging year.

Our children ranged from age one to fourteen at the time and I would like to insert a few words from our daughter Cathy's journal, written at the time. She is the eldest and therefore had to assume a great deal of responsibility for our survival.

"I'll say one thing for that year---if old candle wax ever comes back into vogue, we have a corner on the market. Some may think that eating by candlelight is romantic. I promise you, after about three weeks the romance is gone; but then if we could see what we were eating....."

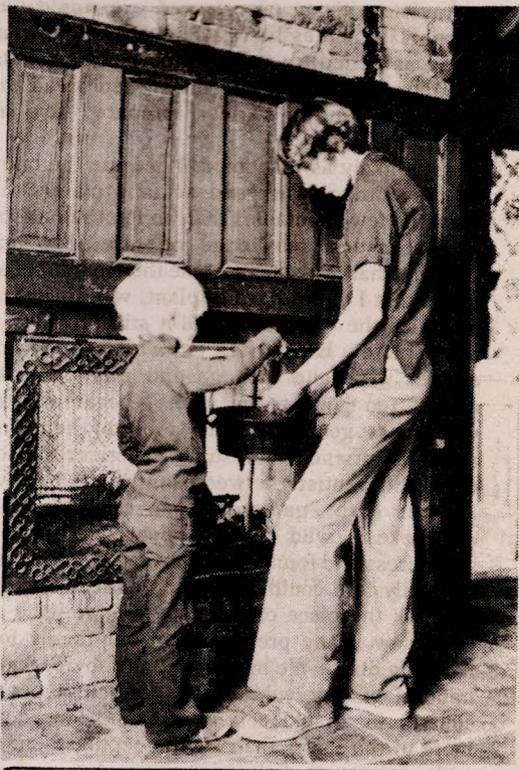
Cathy was growing up in a year of austerity where we all had to pool talents, resources, wits and prayers in order to keep the home fires burning and the last shreds of our insanity.

"All of us found ways to amuse ourselves. The boys would fish, Katrina would plunk on the piano and compose sonatas, and Mom would sit in the corner and giggle (Just kidding, Mom!!!!), and I would ride my bike into Morgan for my beloved dancing lessons. My teacher offered me a student teaching job to pay for my lessons, so three times a weeks I pedaled while dreaming of becoming another Anna Pavlova. I learned a great deal about patience as I taught little girls how to plie and grande jete."

Cathy found her respite from what otherwise might have been a difficult situation and each of us must realize as we try to become self sufficient that there are those among us who would die without a touch of culture, a trinket to delight the eye, a song or dance to bring solace to the weary soul. To some this food fills a very real and important hunger.

Cathy has since graduated from our home school at the ripe old age of fifteen, entered college and is now preparing for graduation from Weber State College in Utah. She does most of the student choreography for Weber State and was recently elected Woman of the Year by the Fine Arts Department. But, due to a deteriorating condition in her hip sockets, she will probably never dance seriously herself again. However, I do feel that our experiment in survival gave her a great deal of fortitude which has sustained her in this new endeavor.

As for Tom, my long suffering, inventive, and much maligned spouse, he also gained a great deal from our adventure into the realm of self reliance. He had to take the brunt of the physical burden, generating power, organizing supplies, hauling wood, coal, making repairs, and in general, performing dozens of daily jobs to keep us from being too cold, too uncomfortable, or simply too unbearable.



Our life-style enabled us to experiment with various methods of cooking without electricity.



The children enjoyed roaming the hillsides and foraging when plants were in season.

Anyone with an experienced eye would have merely laughed as I struggled with whole wheat bread and tried to convince the children that it was more spiritual to eat unleavened bread than the high fluffly variety prepared by my neighbors.

As unlikely as it seemed, I became the one to do the outdoor work and actually planted and grew the few vegetables that we found flourished without much knowledge or care. My main source of harvest soon became the mountains as I found that I didn't have to plant, weed, cultivate or mulch the wilderness and it still provided for me. I merely had to find out where the various edibles were and then go and pick. This was almost too good to be true. I became a true wilderness gourmet. With a bit of help from manuals, friends and sorry experience I soon could differentiate between sunflowers and wild lettuce. We gathered berries, Jerusalem Artichokes, wild peas, spearmint, onions, watercress and found that delectable additions to our daily fare could quickly be added. Rose hip tea took the place of our daily orange juice and even now is the preference of our family for a morning drink. We have found that by perking a handful of any wild berries (edible types, of course) in an old coffee perculator we derive more of the flavor than from steeping them and with a minimum of electricity.

I took my fair haired boy and girl to the local golf course after every rain fall to harvest the mushrooms that were more prolific than the golf balls. I soon found that these seemingly innocent

children of mine were not only picking mushrooms, they were also picking golf balls out of rather precipitous places and selling them back to the golfers at a sizable profit. Well, you can't put free enterprise down. So they continued to go to the country club, but sported a bag in each hand, one for mushrooms, the other for golf balls. I would drop the children at one end of the course, then go to the other end where there was a picnic area under a group of shade trees.

As summer came on I noticed that this foliage overhead offered more than mere shade. There were apples, apricots and plums covering my private bower!!! I was so ecstatic I quickly sampled some of the unripened fruit to make sure that my eyes were not deceiving me. Now, remember, I had just spent an entire winter without a single piece of ripe, fresh, delectable, store-bought fruit. Talk about Eve in the garden, I didn't need a serpent to tempt me. As summer wore on and the fruit began to ripen I realized that the type of people who frequented the golf course were not the type of people who picked fruit to take home and bottle. I soon felt like this was my own personal orchard and I jealously guarded every apple and plum from intruders. Finally I got permission from the caretaker to pick all that we could eat at harvest time and that he would actually consider it a favor to not have to pick it all up as it fell to the ground. Needless to say, we began picking as soon as the apricots were ripe and continued until every last apple was safely stashed in our root cellar. Truckload after truckload of apples, bushel after bushel of

apricots and baskets of several varieties of plums. I made fruit leather, dried apples, apple sauce, apple cider, jams and jellies. At one time I had over 56 crates of fruit sitting in the living room waiting for some type of processing.

We had one experience with our home pressed cider which I should pass on so that others might not have (or might have, depending on their preference) the same experience. We pressed about 200 gallons of cider and put it in 17 gallon barrels thinking that we would have delectable cider for the winter nights ahead. The first day it was like drinking the most beautiful nectar of the gods. The next day it became more beautiful and by the third day it began to have a delightful tang. By the fourth day there was a touch of foam on the top and by the morning of the fifth day the lids were beginning to raise off our containers. The foam was rising higher and higher. We were delivering free cider to all our neighbors, some were getting a bit tipsy on it, while others pretended not to notice the punch our cider packed. By the seventh day we had a line out the front door awaiting the daily ration of our Apple Jack. By the eighth day all our brew was gone and the neighborhood had a hangover. The next batch we brought to a boil and put into containers that could be properly sealed to stop the fermenting process.

Yes, there were a few times when the general consensus of opinion was that we were a bit daft. Such as the day our two year supply of railroad ties caught fire in the backyard and it took five fire trucks to put out the blaze. And the time the entire East Canyon Creek backed up behind the debris in our waterwheel and the whole thing had to be dynamited. And what about the time I filled the mink cages with my wash to allow the river water to agitate the clothes and leave me free from the pounding wash-on-rocks-routine, and the whole contraption floated down the creek. And what about the time when Tom took the children up the canyon with a drag behind our paint pony and all the children were dressed like Indians. And the time I picked rose hips on the opening day of deer season. The farmer moved all of his beef steers into the pasture where my rose hips were and I had to slide between cow pies and horns to get to my valuable berries.

There were those who said they knew us, but wished they didn't. There were those who said they had never so much as set eyes on us, but had heard wild stories. There were others who chuckled from a distance. But there were also those who stuck true blue, admitted they were our friends and were proud of it. These were the ones who said "How are you?" like they meant "How are you?" They cared about our entire



Teaching the children in our "home school" was a unique experience.

welfare and that was enough to keep the kindred fire burning within us.

I faltered once, and it was obvious enough for all to see. One evening we attended a local Christmas party with a number of neighbors and friends. Our children were at home going to bed by candlelight. They would read to one another and tell stories until the last eyelid closed. They would snuggle up by the fireplace until the last ember flickered and died. Meanwhile, we were eating a delicious ham dinner with all the trimmings (and I was being overcome with guilt, remorse and good old fashioned home sickness for the traditions of a lifetime.) Lights twinkled on their tree, the presents gayly wrapped sat at purposely rakish angles beneath its boughs. After ten minutes of festivities I turned to Tom and whispered, "I must leave, I can't endure this another minute." He told me that it was good for my tolerance and that I must eat the dinner or be considered rude. I hastily partook of the buffet offerings, gobbled up my plate without a social word to anyone and ungraciously made my exit without so much as a thank you to the hostess. Tom made our apologies, saying that we were needed at home and came out to join his crying wife in the snow. Several days later we scraped enough money together to make a trip to Ogden to purchase a few goodies for our humble Christmas feast. This was the one time we broke down to go to the store. It was Christmas Eve and I had many feelings within myself about how my children would feel without their traditional Christmas. Needless to say, there was not a store to be found that was still open, even the tree lots were closed and chained. We returned home very disheartened but thinking that we at least had some canned turkey in the attic, pumpkins in the root cellar, fruit cake mix, dried bread for dressing, and some hardtack candy in our storage. I had several items that I had made that could be wrapped and called gifts. I had reconciled myself to a home storage Christmas by the time we arrived home to find a huge butterball turkey and the trimmings in a box on the front stairs. There was no note but we knew that it had been left by one of those people that often said "How are you?" and meant "How are you?"

Since that time we have continued to have the simplest of possible holiday celebrations as we discovered to our delight that our Christmas of homemade games, putting puzzles together and playing as a family was the most joyous we had ever had. "Thank you" still belongs to someone who taught us a very big lesson that year. When I was writing my book, SURVIVAL FAMILY, I was instructed by my publisher to leave out the part about the Christmas turkey because, he said, if there should be an actual disaster there won't be any turkeys dropped on porches. But now that I have a little bit different perspective, I believe



Since "our year" we have delivered two babies at home with the aid of a physician.

there will still be those same people alive during a disaster and they will still be the type that put turkeys on peoples' porches. If they can't purchase one, perhaps, they will provide venison, pheasant, or home ground beef, but disasters do not destroy Christmas-turkey-type people. Those are the ones who flourish..

I hope I have given a small sampling of what our life was like during our experiment in survival, there is much of the technical in our book, how much actual food we consumed, how we heated our home, how we delivered our babies, how we taught our children in our own school, how we heated water and how we stayed sane throughout the entire experience and why we have still remained a Survival Family five years later. I would like to conclude with an excerpt from Toms' memory of our experience.

"I gained a freedom which I had never experienced in my entire lifetime. I became involved in some very exciting projects which I hope will help me to contribute something of value that will last beyond the time which I will occupy on this earth. I discovered that our creator can run this entire universe without the help of the American dollar and that I can even run my own family without it. The almighty dollar became very insignificant when compared to the deeper, more intangible values which I discovered during our year of family survival!

P.S. "My wife tells me I am almost bearable to live with now!

Harvest Recipes

The following recipes can be adapted to produce from your garden or made with canned products. All are "tried and true" recipes enjoyed by the Jamison family for years. Thanks to Irene Jamison for digging them out of the recipe box to share with WOODSMOKE readers...

Scalloped Peas

raw potatoes, peeled and sliced thin
2 cups cooked, drained peas
1 cup diced carrots
1 can mushroom soup (or your own recipe) mixed with a small amount of milk
Ritz crackers or bread crumbs
Hamburger, browned with onion
salt and pepper or your own seasonings

Crumble crackers or bread crumbs in the bottom of a large baking dish. Place a layer of sliced potatoes on first, cover with a layer of hamburger then peas mixed with carrots. Repeat and pour soup over the top. Crumble more crackers or bread crumbs over the casserole and bake at 325° for 30 minutes or until the potatoes are tender.

Baked Corn Casserole

2 cups creamed corn (or 1 can)
2 cups whole kernel corn (or 1 can)
½ cup grated onion
½ cup chopped green pepper
2 pimentos, chopped
¾ cup of milk
1 egg, well beaten
salt and pepper to taste
mix all ingredients well and put in greased baking dish

Top with:

1 cup rolled cracker crumbs (or bread crumbs)
1 cup grated cheese
¼ cup melted butter

bake at 350° for 1 hour.

Spiced Beets and Onions

2 cups onion, sliced
2 cups fresh cooked beets (or 1 can)
½ cup vinegar
¾ cup water or beet juice (juice is best)
1 stick cinamon
4 cloves
¼ cup sugar
½ tsp salt
dash of pepper, dash of garlic powder

Combine all ingredients, bring to a boil and simmer gently for 10 minutes. Serve hot or cold. If served hot add 1 Tbsp butter. Improves with age, will keep for weeks if refrigerated.

Zucchini Casserole

2 raw zucchini squash, sliced thin
2 large raw potatoes, sliced very thin
12 to 14 squares of American or Swiss cheese or grated cheese
2 large raw onions sliced
1 ½ lbs hamburger, browned and drained
1 qt canned tomatoes or 4 medium sliced fresh
salt and pepper to taste

Line a baking dish (greased) with zucchini. Next add a layer of potatoes and top with 6 cheese squares or grated cheese. Cover with sliced onion, hamburger and tomatoes. If using canned tomatoes, thicken with a small amount of corn starch. Bake at 350° for about 1 hour or until potatoes are tender. After baked, top with remaining cheese before serving.
This casserole is just as good reheated.

Roasted Pumkin Seeds

Remove seeds from pumpkins when ripe and wash thoroughly. Dry on a clean dry cloth for at least 24 hours or until completely dry. Paint the bottom of a shallow pan with butter, lay seeds on the pan in a single layer and salt well. Bake at about 400° for approximately 10 minutes then turn on the broiler for a few minutes to brown well. Shake the pan occasionally to be sure the seeds are buttered on all sides. Tastes best while still warm. Stores for about 1 month without becoming rancid.

Field Care is Important

by Ernest Wilkinson

Much good meat spoils and goes to waste each year, not necessarily from warm weather, but from improper preparation and handling. This would mainly apply to the game meat taken each fall by hunters that are not familiar with the care of meat in the field, but it could also apply to rural people in the process of learning how to butcher and care for beef, goats, and other domestic animals.

Here are some suggestions on the care of meat in the field in hopes that it might be of use to some readers and perhaps help to keep that meat in good edible conditions, be it wild game or domestically raised animals.

To start with, don't run the animal around and around the corral or pasture before dropping it for butchering because a heated animal makes tough meat. The same principal applies to deer, elk, or similar game that has been run from ridge to ridge by other hunters before you shoot it.

After you have dropped the animal, remove the intestines immediately and prop the cavity open to let the animal heat escape. Getting the animals heat removed from the carcass during this first hour or so can be very important in determining the future storing and eating of the meat.

Generally when you butcher a domestic animal, you have the equipment ready for the job, so I will sort of steer this article towards game animals taken in the various hunting seasons where you might have to improvise and act accordingly to weather conditions, the equipment available, and other factors. The same general principals of cooling and storing game meat can also be utilized for domestic meats.

The process is dressing or gutting an animal is basically the same - cutting the skin open from the annus to the throat and pulling out the windpipe and gullet, lungs, heart, liver, stomach, and the complete intestinal tract, so will pass over that duty and get to keeping the meat in good edible condition.

During the dressing process, be careful not to puncture any of the intestines so that the fluids

drain onto the meat and start spoilage. Cut away or clean any bloody spots as spoilage can sometimes get started earlier in these areas. A cloth carried in your pocket can be used to wipe these areas dry or a handful of snow in cold conditions does a good cleaning job by rubbing it on the area and then brushing it away.

If it will be awhile before you start cutting up the carcass or moving it out to storage and the insides are removed, prop the cavity open with sticks so that the body heat can start escaping. If the weather is warm, do not leave the carcass exposed to the sun as this creates heat and defeats the cooling purpose. If it is a deer or similarly sized animal, you can usually drag it to the shade of a tree or other brush. If it is a larger animal such as an elk, you can gather some old snags and broken tree limbs, form them into a rough tepee shape over the carcass and then cover the stick frame with boughs, grass or whatever you can find to create shade. This allows the air to circulate under the shade frame for cooling and also keeps the birds away from the meat.

If a large animal, the cooling process can be helped along by skinning and then cutting it into quarters to hang up or laying it out on a rock or log in the shade. If during midday in warm weather when the flies are still moving about, you may have to stay by the meat and swish them off with a willow or evergreen bough. Then when the sun goes down and the flies quit moving, you can go into camp or your vehicle. Then you can arrive back in the morning before sunup and pack the cooled meat out to storage.

There are numerous ways, besides standard refrigeration, that this meat can be stored for later use. If in cool mountainous country, hang the meat in a shady area and wrap each piece in some type of cloth or mesh material to protect against the flies. During the day, wrap blankets, tarps, or similar material around the meat to retain the inside coolness. At night, take all wrappings off the meat to let the cool night air circulate around it. Then before sunup, again

wrap it with the blankets or tarps to enclose and retain the cool night air around the meat. By repeating this process each day, properly dressed and cooled meat can be kept in edible condition for many days, depending on the time of year, temperature, altitude, and other factors, of course.

If the meat is to be cut up and frozen, I prefer to let the carcass hang in a cool place for several days to age before freezing as this makes the meat more tender.

The important thing to remember is to get the animal dressed out and the animal heat removed as soon after the kill as possible. Then keep the meat clean, the flies away from it, cool and out of the sun. Do not wrap meat in plastic or similar material when hanging before freezing or it will spoil much faster than when air can circulate around it. Do not leave a carcass on the ground overnight while waiting to move it the next day because the underneath side cannot cool. Hang the meat or else prop it off the ground with sticks or rocks so that the air can circulate to carry away the body heat.

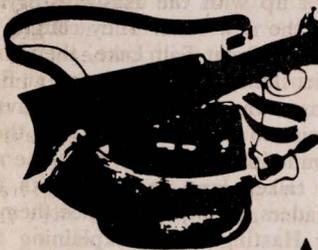
Do not attempt to carry meat in the closed trunk of a car on a hot day as it can sour in an hour or two under these conditions with no air moving around it.

If the weather or other conditions do not advocate keeping the meat, and if no freezer facilities are available, it can be home canned in glass jars or cut into thin strips and dried as jerky for later use. But no matter how you choose to store this meat for later use, remember that it can be no better than the care and the immediate cooling it receives in the field.

When skinning the animal, also remember that the hide is very useful if properly cared for. It takes as much time and effort to tan a poor hide as it does a good one, so use care during the skinning and don't end up with a lot of knife holes and marks. After the skin is removed from the animal, trim off the excess fat and meat, lay it out flat in the shade and sprinkle salt on the flesh side making sure to cover all areas and flatten out any wrinkles. It can then be rolled flesh side together for storage until tanning.

Let's use proper care and not waste the meat or hide.

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The Donner Party

A tragic story of survival in the old west

One of the truly tragic stories of survival in the early West is that of the Donner party. In 1846, the year Brigham Young and the Mormons camped in Council Bluffs, more and more wagon trains moved west along the road which now stretched all the way to California and Oregon. James Clyman, one of the most experienced of the Mountain Men, was traveling east that year to find out what the rest of the world was doing. He remarked in his well kept diary, "There were at least one hundred wagons we passed going west and one thousand people."

For six hundred miles they were scattered out traveling single file. For ten days Clyman never lost sight of the wagons. By now the road west was well known, and parties were forming fast to find new fertile land at now cost and greener pastures just across the next row of hills. By this time the rules to follow were well established from experience gained since 1841. Few parties suffered greatly if they took along at least eight months food supply in their wagons and kept night guard over draft and other animals. The plains Indians were not hostile except to steal stray cattle or fun off a few horses or oxen.

One exception to the rule was the Donner party. We will touch merely the main facts in this notorious tragedy; entire books have been written exclusively on this one subject.

The Donner party led by Georg and Jacob Donner, and James Reed, consisted of forty wagons, probably the largest party so far to strike out for California. They had the best reasons for a successful trip; their equipment was the very best, and leadership strong, intelligent and experienced. The party traveled smoothly across the plains states, reaching Fort Laramie in June 1846. Here they first heard about a new and shroter road through the mountains, recommended by Lansford Hastings who had just ridden in from California on the new road.

Hastings was an ambitious man, had written a book about emigration, called "Emigrant's Guide to California". The fact that he had written a book and was an educated man caused people

to take his advice seriously. He was surely more to be trusted than an old dirty mountain man who could hardly read or speak English. The truth was that Hastings wanted to set up an independent country in California, and had planned on meeting all California emigrants in Wyoming, then leading them to California on his shorter route. He did catch the Bryant party who came ahead of the Donners and led them into Utah through Echo Canyon, then down the Weber Canyon into Salt Lake Valley. They had real problems going down the Weber Canyon. Wagons rolled down the violent stream and it was necessary to cut down brush and trees every step of the way. Reed of the Donner party decided to catch up with the Hastings-Bryant party to explore the new road. They caught up with them south of Great Salt Lake, then road back to the main Donner party camped at Fort Bridger. Hastings was not with him, having broken his promise to come back and lead them through the mountains. James Clyman, the old mountain man, talked long and hard with the Donner party leaders, trying to convince them to forget the new Hastings road, explaining the great difficulties of crossing the rugged Wasatch range and the greater obstacle; the great dry salt desert west of the lake. Clyman of course knew all about this desert from Jedidiah Smith who hae crossed it in great difficulty in 1825, and nothing had happened since then to make it any easier.

Here the Donners made their one big mistake; they paid more attention to Hastings than to the experienced old mountain man.

The Donner party was already two weeks late and, remembering the Stevens party struggle in the Sierra snows the year before, could not resist the temptation to take the shorter road. After all, why travel 500 extra miles? Some of them would live to regret that decision.

Reed had taken the Weber Canyon road. It was declared impassable, so they decided to take the Hastings road through the Wasatch Mountains east of Salt Lake City. They started, first hacking their way south and then west through the

canyon now called Parley's Canyon. By cutting trees, brush, digging rocks out, leveling hills, they finally succeeded in getting one wagon to the bottom of the canyon, only to be faced by a huge rock formation that completely blocked the narrow entrance.

Retracing their steps back to the upper Weber Canyon near present day Henefer, Utah, they started another assault on the mountain straight west, literally making a road with axes, picks and shovels. They cut down trees and brush, removed rocks, filled depressions—every inch of the way a struggle. Reaching the top of the mountains, they then turned south, then west going down the relatively easy slope of "Emigration Canyon" into Salt Lake Valley. It took them three weeks to get through the rugged Wasatch Mountains, only to find the dreaded Salt Desert facing them. They were now two weeks behind schedule. It was September 1st, and 800 dreary miles still remained between them and their destination, Sacramento, California. With no grass or water ahead, they cut and loaded the wagons with as much grass and water as they would hold. Then striking northwest from the south side of Great Salt Lake, they headed straight across the dry, salty, muddy plain. Oxen were tired from the tough mountain crossing and everyone was fast losing hope as the wagons, one by one, ground to a halt in the marshy salt desert. Finally the oxen were unhooked and taken ahead to the spring the were unhooked and taken ahead to the spring in the mountains ahead while the women and children were left for a time in the abandoned wagons. With oxen refreshed and rested, they were able to go back and pick up most of the wagons. However, four wagons had to be abandoned and at least ten oxen wandered off alone in search of food and water.

This desert crossing lost another ten days. They were now 300 miles behind the wagons that took the old "longer" road by way of Fort Hall and the Snake River. If Hastings had shown up now, there would have been one more quick death recorded for the 1846 emigration.

By October 5th, the Donners finally reached the Humboldt River and started the long route west across Nevada to the foot of the Sierras. At this point and much to their dismay, they found the Paiute Indians hostile and ready to steal cattle every night. Then, to add to their problems, two of the men in the party had a fight and one was killed. James Reed, one of their most capable leaders was blamed for the death, so to keep peace, he and his family, wagons and cattle were left behind. Later, however, they caught up with the group at Donner meadow.

Now the party really became depressed. Snow had started falling in the Sierras, food was getting scarce, Indians were stealing and killing their small supply of beef cattle, even driving off the few oxen left. The "hard luck" party was

making another mistake by not keeping guard at night.

They started up the Sierra foothills, reaching the meadow north of present Donner Lake. They made camp. It was now October 31st. Five foot snowbanks stopped them from trying to get thru the pass. It kept snowing, with no let-up to allow for melting and run off; it just piled higher. They then decided to make winter camp in the meadow and built cabins of logs and brush. Game was not to be found and they were not equipped to live through a winter in the mountains. A few men were sent ahead on horses to get help. Snow fell deeper and deeper, cattle were all gone and the beef cattle and oxen which were to have been kept as a reserve food supply soon were gone. After all food supplies were used, the party finally resorted to cannibalism. This entry from Breen's diary gives an idea of the despair and hopelessness the people sank to:

"Those who first ate the human flesh averted their faces and wept. The names of the first seven of the relief party, grimly plodding in single file across the snow, should be written in gold. Matter of fact, eight-year-old Patty Reed said, 'Well, Ma, if you never see me again in one piece, do the best you can with the pieces.' Reed, leading the relief party, met two of his children who had fallen exhausted and unconscious on the snow trail. Aunt Betsy Donner, 'that kind and motherly soul' crying out in hysteria, 'What do you think I cooked this morning? Shoemaker's arm.' "

Finally the horsemen came back with food and the remnant of the Donner party finally reached Ft. Sutter.

During this parties' trip to California, made for the purpose of finding new opportunities and possible fortune, there had been one murder, two accidental deaths and forty people had died. Forty-seven had survived. The Donner party had seared in burning human flesh the image of its tragic emigration.

Most historians blame Lansford Hastings for this sorrowful disaster. It is true he strongly urged a route that had not been tested with wagons, and he had tried to further his ambitions to set up a kingdom in California; but in fairness we must say that the Donner party leaders had a choice and simply made the wrong decision, while others followed the advice of Mountain Man James Clyman and made a successful trip to California. □

Trip Report

by Dick Jamison



When the schedule is made up for the year and trips are arranged I can't help but wonder what is in store for the group. This year most of the trips have been conducted in Southern Utah. I like to run trips in Southern Utah for several reasons. The main reason is the country itself. Southern Utah is beautiful, red ochre soil, red and white sandstone, large deep canyons cut by nature itself. The area also abounds in Indian culture. Abandoned by the Anasazi around 600 to 1000 a.d. their dwellings still remain, giving the feeling and spirit of the primitive existence. I personally like to experience this feeling and I like for the students to have the same feeling but that doesn't always happen, some get into it and others don't.

This year's schedule started out with a ten day instructors course which met in Blanding, Utah. In fact all the trips conducted so far have met in Blanding. I knew that the trip would not be dull after I picked up a fellow by the name of Dave Christensen on the way down. Dave was the first buckskinner I had taken on one of my trips, not to say they aren't invited. Dave's personality was

exhilarating from the start and never let up the entire ten days.

The group really got into it from the beginning, setting traps, working on skills and exploring the canyons for plants. Dick Knowles, a survival instructor from California, added to the trip with his knowledge of plants and other useful information. The nights were filled with singing around the campfire, helping to take the edge off our growling stomachs, (caused by our new diet). Trapping was successful and plants abundant at that time of year. It was a good trip.

The first five day trip in June was a little different. The participants were great but due to the moisture from the winter months insects were very abundant. In fact from my elbow to my wrist I counted 47 bites. But I couldn't hold a candle to Federico Astiz, and Outward Bound instructor from New Mexico. All the students took it in stride. Gary Holden added enthusiasm to the group and the smiling face of Carol Merritt (who had never even been camping) helped make the trip successful. Each student got involved in their own way and in the end no one really wanted it to



Bob Gardner tries to decide whether to eat this fellow for lunch. One of the many collared lizzards found in the area.



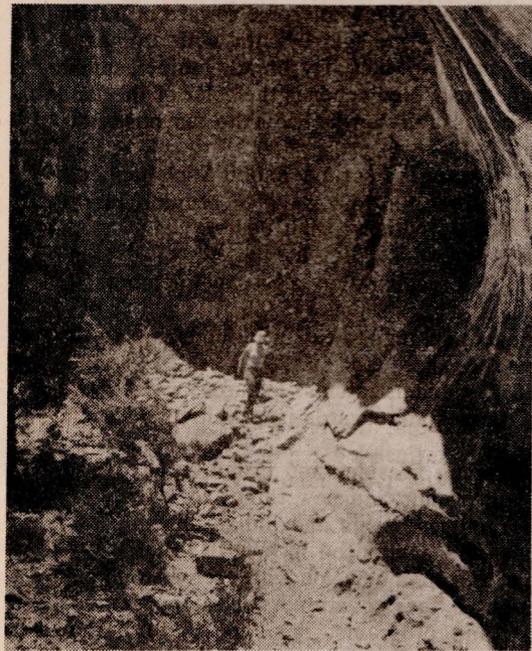
Teacher is taught. Dick Jamison gets instruction in juggling from Allison Thomas.

be over.

One week later another five day expedition began. This time some of the faces were familiar to me because I met many of the students at Rabbit Stick a few days before. A new trip and new personalities, such as Cecil Hamilton from Kansas City, a fellow as big as a mountain with a heart to go with it. His knowledge of plants was very useful to us and he was always willing to share with the group. People like Bill Engler and Shelley Mueller from California made everyone adopt a pleasant outlook. Skills were learned, bows and drills smoked away, people slept side by side in the dirt, but no one complained. Cuts caused from chipping obsidian were bandaged by Larry Romanoski, an E.M.T. from Michigan. Even some entertainment was provided by Allison Thomas. Allison is quite a juggler and in no time she had several of us juggling three rocks at once.

There are times when I would like to stop running trips for awhile, but then I have an opportunity to share a part of my life with people and they share theirs and it all ends in a bond of friendship that couldn't be traded for any other experience. I came away from the expeditions this year with the love and friendship of people I would never have had the opportunity to meet otherwise.

I had a beautiful summer, how was yours?



Indian culture is very apparent in the area where the expeditions are conducted. Here students get a look at the past.

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***Plus**, as a member you will be invited to Rabbit Stick. Rabbit Stick is difficult to explain. One must experience it to understand it. In a timeless land, when the desert becomes your one comfort and sustenance, the feeling of competence blends with the Anasasi. That bond shared with others of a kindred nature is the wholesome reward of Rabbit Stick. It is the stone age revisited with aromas of dripping fat, ashcakes, fry bread, juniper smoke and sagebrush. Red ochre is the color of the land and the faces of those who know the canyons of the Anasasi.

Each year, in the spring, Rabbit Stick happens. Friends gather for four days of reunion in the canyons of a Southern Utah desert.

There are:

1. No registration cost to members of I.D.O.S.A., guests pay \$45.00.
2. Plenty of things to eat--wild foods, sheep, fry bread, ash cakes, etc.
3. Skill demonstrations, lectures, workshops.
4. Contests and awards in primitive skills and styles.
5. Evening firesides and primitive lore.
6. Old friends and new things to learn.
7. Trading sessions and Indian dancing.

Times are announced in **WOODSMOKE**.

***Plus**, as a member, you will receive significant reduction in fees to attend special expeditions, courses and programs. Some of the programs include 10-day primitive survival expeditions, trapping expeditions, edible and useful plant tours

***Plus**, as the head of a household, you may



register your immediate family in any of the seminars, the conferences, and any of the special programs at the same reduced fees per person for the regular non-member price. Your membership includes your family.

*Plus, for YOU as a member of the Association, there are numerous opportunities for in-depth study and PARTICIPATION with those who know the arts of self-sufficiency. This kind of growing association builds friends and cooperative efforts by friends to make our world a better place in which to live.

As a member of the Association, you will be a participant in a worthy organization for a membership fee of only \$37.50 per year. This means active participation by receiving a journal designed to educate you for self-sufficiency; reduced prices on specially chosen and written books; attend seminars and conferences, be eligible for reduced fees and prices for additional survival expeditions, courses, homestead living experiences, and many special offers for members only; receive a discount for family members for the seminars, conferences, and special programs; and receive opportunities for personal participation and contact with experts and leaders in Rabbit Stick. The Association puts you in control of the very best methods developed by people all over the country to help you gain proficiency in becoming self-sufficient.

I would like you to join with me. Please fill in the form below and mail it. We will immediately register you as a member of THE LARRY DEAN OLSEN SURVIVAL ASSOCIATION.

Sincerely,

Larry D. Olsen

Larry D. Olsen
President, L.D.O., Inc.

.....
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Send to:
Larry Dean Olsen Survival Association
P.O. Box 1301, Salt Lake City, Utah 84110

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WOODSMOKE HUMOR



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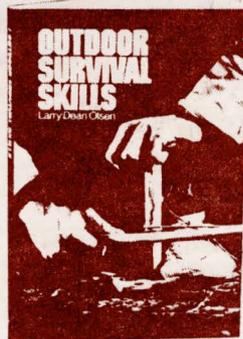
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Larry Dean Olsen instituted a survival training program at Brigham Young University. His innovative skills as well as his knowledge of the primitive arts led him to be selected as the technical director for the film, *Jeremiah Johnson*. He has conducted survival workshops, worked with scouts, and annually leads survival trips to wilderness locations. He was given the national award for creativity in 1969 by the NUEA for developing the most innovative university course.



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