## Parasites

Can be killed with Wormwood, and black walnut tincture.

## **Overactive thyroid**

Can be treated with lemon balm.

In most cases there are other herbs that can substitute for the ones mentioned here, but to list them all would take up too much space. This summary has not even scratched the surface of what can be accomplished with the use of herbs; but is included here so that you will have hope, and be encouraged to find some answers for yourself. Chances are that if you have any kind of a medical problem, there is an herb for it!

# Windmills

A very viable alternative energy source after the pole shift could be the windmill. Even in our modern society, with all its high-tech advantages, people are looking back into the past to discover that the windmill is a pollution-free way to obtain electricity ... back into the past for the idea; but forward again to the present, where we find the imagination and ingenuity, as well as the technology, to expand on this idea. Some high-tech marvels have been constructed, and wonderful aids for their creation have been fashioned; but unless your settlement is rich enough to go that way, your group will likely be looking at some home-made alternatives, and there are plenty of these available.



The subject of windmills and how to build them is a vast one; and for this summary to undertake descriptions of all the products available would run counter to our attempt to keep this booklet brief and portable. As an example, included above is a sketch showing how such a windmill might be constructed from a lawn mower.

There are, however, certain factors worthy of mention. For example: no matter which windmill you choose to go with, it will likely require battery power.

- Golf cart batteries are recommended, since they are long lasting, are eminently salvageable (because they are all over the place), and can be easily recharged.
- Placing your windmill on top of a ridge will lead to better performance; however the caution here is that it may be seen by others who do not necessarily have your group's best interest at heart. Recommended height, whether for a tower or ridge placement, is 70-80 feet.
- Wind speed, wind focus, and blade size are factors which should be taken into account.
- Ensure that your windmill meets the community's requirements. Check exactly how many watts each connected appliance will need, and how many watts it will take to run essential appliances at the same time.
- Ensure that your windmill can be manually maintained, easily disassembled and stored in a safe place, or otherwise equipped to combat continuous high winds, or microbursts. Microbursts can contain short-duration winds of up to 200 miles per hour). When high winds occur, smaller machines could be disassembled; larger ones could be equipped with a braking device which will automatically lock the blades.
- If you are in a colder climate, ice will be your enemy.
- A downwind generator is less subject to stress.
- Replacement spare parts are going to be needed to keep your energy source viable. If it moves, it's going to eventually wear out; but spare parts for windmills will also be a great bartering tool in the after-time.

Caveat: Ensure that the area around your windmill can be accessed only by those who are responsible for maintenance. Propellers are dangerous things which could be responsible for severed fingers, limbs, or worse, lost lives.

# Hydroelectric

Possibly the cheapest form of renewable energy is going to be some type of waterwheel. There are different kinds, but all will do the same thing—provide your settlement with a reliable source of electricity-hydro power steadily charges 12, 24, or 48V batteries working 24 hours a day, every day. Depending on the geography of your particular site, different systems may apply to you. For example, if you are living near a small mountain stream, or in a hilly area with streams abounding, the "high-head" system can take advantage of the altitude drop and may be the one for you.

#### The Micro Hydro-electric System

One of our Troubled Times Members has worked up the requirements for such a system, but one other raises cautions against connecting batteries in this way, since cells in a series for



charging can actually decrease efficiency and if one cell becomes shorted the other will be exposed to excess charging voltage, and this could result in failure of the whole system.

### **Pelton Waterwheel**

There are four systems: High Head Turbines, Medium Head Reaction Turbines, Low Head Turbines, and Flow-of Stream Turbines (gear pumps). As mentioned above, the geography of your particular site must determine which system is right for your settlement. It is recommended that your group research this area thoroughly, since there is a lot of documentation on hydroelectric systems. Sites with higher head are most desirable because they need less water, smaller pipe, fewer nozzles, and fare better in low water years; plus system installation is cheaper.

## Amazon Aquacharger

This would also be something for your group to take a look at. The Aquacharger is a turbine, generator, and control system designed to operate on an ordinary open, moored boat, and can run for 24 hours a day, unattended. Power generated is stored in batteries to handle 12V appliances such as lighting, refrigerators, etc., and inverters to operate 240V applications. According to its web page, this is a system which is simple to assemble, dismantle, and transport for relocation, a definite plus for the after-time.

## Aquagens (Water Generators)

These are towed, water-driven generators; but before you start assigning people to flip around your site towing these things along, observe the diagram below. This portrays a method for building such a generator on an anchored, floating platform. It would be worth at least looking into a system such as this one.

Once again, it must be pointed out that this is a vast subject, and that much documentation is available therefor, and there is still time to carry out the research to determine which particular energy source would be best suited to your site. Keep in mind that Hydro power is more stable and easier to set up than wind. All one needs is an induction motor run pump (run it in reverse with enough pipe to run up stream to get sufficient head pressure); a proper size AC capacitor to tune it for AC generating, and a battery to zap it to get it started.

# Steam

We must put our faith and our resources into more tried and true energy-producing methods, and one of these is the production of steam. The use of steam engines is an old concept whose time, in a smaller package, may come again. Just as an example, from Jade Mountain comes the 5HP Liberty which produces up to 2000 Watts

and heats 50 gallons of water from ambient to boiling each hour. If your group has decided to opt for wind power, such a boiler could be used as a backup for cloudy days when there is no wind, or it could be your main energy source. This boiler is cited



merely as an example. There are many others available on the market which could be better suited to your purposes.

There is nothing very complicated about setting up and using a steam engine. Components could be stashed until after the pole shift, and then be reassembled by the mechanically minded of your community. We tend to think of steam engines as the heavy monsters that run things like locomotives. If steam power is to be used to supplement other forms of energy, a low-pressure boiler system is more than sufficient to drive, say, a waterwheel. There would be another benefit: steam engines require distillers, so that a byproduct of its use would be distilled, "safe" drinking water, a must after the pole shift.

Remember, though, that steam production itself is dependent upon another form of fuel, and in the absence of coal and/or oil, this is probably going to be wood or something alcohol-based. There will likely be a lot of wood available from downed trees, and this may be abundant on your site. Alcohol, which is a bio-fuel, could prove more difficult.

### Lubrication

Keeping your steam engine lubricated is going to be important. Mineral- and naturally-derived oils were used with some success in circumstances similar to pole shift conditions, although it is unlikely that mineral oil will be available, at least in the immediate after-time. The use of Gulf Coast filters, which will recycle the oil that you use, should extend your lubricating power for a few more years.

#### Caution

The invisibility of steam does make it dangerous to handle, but hopefully only experts will be engaged in this activity.

### **Spare Parts**

As well as the chief components for your steam system, remember to bring as many spare parts as you can. If you know what you are doing, boilers can be assembled from scavenged car parts and other such scrap metal after the pole shift.

# **Bio-Fuels**

After the pole shift, gasoline will not be available; therefore we are going to have to get creative. There are replacements for gasoline, alternative fuels which, though some of them are clumsy to produce and may very well be put into the category of "backup" sources, are mentioned here in the interests of "throwing ideas into the pot", ideas which may spark the imaginations of some of your group members, so that maybe more innovative ways of producing such fuels, or at least making them more viable, may be forthcoming.

### **Methane Gas**

This is a gas produced by all kinds of biodegradable waste. It burns hotter than, say, natural gas, therefore less gas is required to perform the same energy tasks. Technology exists to store and capture this gas, and care must be taken, when doing this, NOT to let oxygen mix with it. This is a form of fuel used quite extensively in the Third World, and there is plenty of documentation for research by your community. Remember, too, that the muck which causes methane can be used as fertilizer after its utilization in this regard is over. If enough gas can be produced, it will run your generators and provide electricity. Very little needs to be done, for example, to a Diesel motor to make it run on methane gas. Tough to compress, methane is better used to run stationary motors. Page 123 of the Readers' Digest book, *Back to Basics*, shows a methane digester, and a small methane storage tank.

## **Bio-Diesel Fuel**

A most useful resource in this regard is the book by Joshua Tickell, *From the Fryer to the Fuel Tank, how to make cheap, clean fuel from Free Vegetable Oil.* This contains all you will probably ever need to know about making bio-Diesel fuel. There are many presses available for pressing seeds to make oil for these fuels, and as much information to demonstrate how it is done. This is a proven technology that will, however, depend on the ability of your group to produce enough vegetables and oilgenerating enough seeds to make bio-Diesel fuel a viable reality.

### Wood Gas

Wood gasification, also known as producer gas generation, is considered to be possibly the safest way to create alternative fuel. Producing gas from solid wood is a



simple technological step. There is much documentation concerning both production and use, including cautions that must be observed. Wood gas is conveniently handled and can be burned in various existing devices. A properly designed burner combining wood and air is one relatively safe way of doing this. Production of wood gas can be achieved in two ways – incomplete combustion, or destructive distillation. With the destructive distillation method other forms of fuel are generated (albeit in smaller quantities), chief among these being methane gas, which might make up 75% of the mixture thus produced. Either production route will yield an easily handled fuel quite capable of replacing fossil fuels, natural gas, or liquefied petroleum gases. Wood gas can also be stored at low pressure – 3 to 5 psi – in a simple tank. This fuel has been very successfully used to run a car, as the car with attached burner in the photo above; so why not a good-sized generator, particularly as there will be a lot of charred wood and dead trees lying around after the pole shift. Another benefit of this setup is plenty of charcoal, which can be used for cooking, heating, and firing the wood gas maker.

#### Alcohol

The technology for making fuel from alcohol has long been available, and as of now, alcohol is relatively easy to make. Rendered more difficult, however, by post-pole shift conditions, making fuel grade alcohol will be even harder. For use as a motor fuel, alcohol needs to be 180-190 proof.

#### Ethanol

Of the alcohol-based fuels, Ethanol seems the best for our purposes. In this society, Ethanol is mostly used to make an Ethanol/ gasoline blend, but Ethanol is a fuel in its own right, and has been used in Brazil in its pure form for the last two decades. Although Ethanol is clean-burning and environmentally friendly, all alcohol-based fuels are corrosive. This corrosiveness can be offset by the modification of engines to better accommodate these types of fuel, but this will likely have to be done before the pole shift, so your plans must be pretty specific in this regard. Some yeasts have been genetically modified (such as Saccharomyces yeast) to ferment both glucose and xylose simultaneously into Ethanol, rendering the process of making Ethanol both faster, and less expensive. However, the trick will be to obtain a culture of such yeast before the pole shift, if alcohol-based fuels are going to be important to your group. This yeast still produces some biproducts that must be removed from the Ethanol; but the ability to ferment glucose and xylose simultaneously enables more fuel to be made from an amount of plant material.

### Methanol

This has also been suggested as an alternative fuel, however it is quite poisonous as well as being corrosive. It is also not the easiest thing to ferment, particularly as the process of manufacturing alcohol-based fuel is in any case problematical. Another benefit: Although alcohol is going to be difficult to make, both for drinking purposes and fuel production, there is an added benefit which would make the effort worth your while. Mix alcohol (the drinking kind!) with herbs, and you have a great medicinal tincture. Use any part of an herb (but roots are especially good), cut into pieces and place in a closed container with just enough alcohol to cover it. Let it sit for a minimum of 14 days (but the longer you eave it the stronger it will get), shaking it one or more times a day. Using some kind of filter (a fine mesh cloth is good), squeeze out as much of the liquid as possible, filtering out the larger particles. If the first batch is not strong enough, you can do a second batch with the results from the first, using the squeezed-out liquid as if it were fresh alcohol. Echinacea is a good immune system booster, and a good candidate for this kind of tincture.

It must be pointed out that the subject of alternative energy is vast, and there are other fuels, and methods of making them, which have not been mentioned here. Your community is urged to research this topic thoroughly, and keep an eye out for future developments.

# Alternatives

In the matter of fuel, there is not much which is conveniently available now that will be so after the pole shift. For example:

### Solar

Due to the lack of bright sunlight for at least two decades, this fledgling technology will also be useless to us. Particularly in the case of solar energy, much hope is being pinned on its use, and it is time to look reality squarely in the face and realize that any such hope in this setting is false and misleading.

### Coal

Unless you are sitting on top of a coal mine, and have the technology and resources to access it, this will not be a viable form of fuel after the pole shift.

The same goes for conventional oil. Even if there is a well smack in the middle of your site, the likelihood of your group having the technology to refine the crude is not great.

#### Geothermal

Let's be very clear about this: you don't want to be anywhere near today's known geothermal sites when the pole shift hits. They are likely to get much more than their fair share of "rock 'n roll", and will be dangerous places in which to be. Because the pole shift will break up tectonic plates into smaller fragments, new geothermal sites will be created. However, even in countries riding a fault, like Iceland, there are only a few places where this heat surfaces. Mostly you have to dig and drill for it, and without today's machines, accessing geothermal heat, if it is not already present, is going to be impossible. Should chance or foresight put you near a usable geothermal source after the pole shift, its most common use will be water distillation.

At this point, you and your group have established a high tech settlement, self sustaining and secure. Communications with the outside world, to check on loved ones elsewhere and to share information with other communities, will now become your focus.

It is this setting that the next topics address.



Oil

# Communications

Given the distances between settlements, the difficulty or nonexistence of transportation, and the dangers inherent in traveling around after the pole shift, ways must be found for settlements to communicate. The Internet as we know it will be dead; there will be no phones, no satellite links, nothing of our modern communications network will be left, and it is up to us now, while there is still time, to devise a way for people to keep in touch, when keeping in touch could mean the difference between life and death for some, or all, of your community. Here below are some of the ways in which this could be accomplished; and these ideas, plus anything else your group can come up with, should be implemented and practiced upon, so that all in your group having charge of communications can familiarize themselves thoroughly with their use.

### **Shortwave Radio**

Used extensively for emergency communications when the grid has been rendered useless, this means of interaction between various communities is the primary source of hope for the after-time. This will be difficult, especially in the beginning as the atmosphere will be full of junk thrown up by the aftermath of the pole shift. The ionosphere, upon which a lot of ham radio communication relies, will be ripped away; and because of all the turmoil experienced by the Earth, communications will be disrupted immediately after the pole shift. However, by the time radios are working, the ionosphere will have re-formed, but will be nearer to the Earth. Because of this a different angle of bounce will have to be achieved for shortwave communication to be effective.

But ham radio operators are resourceful, and there are methods which, with a little tweaking, could be used to compensate, things such as groundwaves, moon bounce (although this would require



fairly sophisticated equipment, and some scheduling since both the transmitting and receiving stations must be able to see the moon), and meteor scatter propagation. This does depend, though, on knowing when and where the meteor trails are going to occur, so it may not be quite as useful post pole shift. However, since the Earth's atmosphere will likely be bombarded with meteor debris as the 12th Planet is passing, in the time just prepole shift, this will be a good means of communication. This is a vast and fascinating subject, and all ham operators are familiar with ways to compensate when preferred methods of communication are unavailable. Ensure therefore that you have a few ham radio operators in your group; this will save your lives, probably more than once.

#### **Morse Code**

Easiest of all transmitters to build is one that will generate Morse code; so that if, for any reason, telephony cannot be supported at your site, communication with other sites can be achieved with Morse. As a matter of fact, if you have any old TV's or other wireless equipment around, a one-valve AM transmitter which operates in the low end of HF (say 80 meters) could be built. It will transmit globally, and would require no shielding from electromagnetic pulses, as valves are not particularly sensitive to EMP. Also, a valve is a lot easier to unplug and store than is a solid-state radio, if EMP is a source of concern. Morse code is simple to learn but does take a good deal of practice, but it is certain that the effort will be well worth your while.

### **CB** Radio

Simple to operate and requiring no license, the CB radio looks good for local communications in the after-time. Having a range of approximately 15 miles, the only problem with this could be if you have a site with a lot of hills, since hills would block your transmissions. If you have a license, a 2-meter handheld radio would be useful in this regard.

### **Packet Radio**

This is going to be one of the best ways to communicate. A

terminal node controller sits between the radio transmitter and a computer, enabling either CW or digital communication. There are many advantages here. Packet radio needs no external controls, and your station would not have to be listening all the time. Keeping the radio on at your site could be a serious drain on power resources, plus this could facilitate your whereabouts being traced. Messages could be sent with the packet radio's email facility, followed by a fast shutdown of the system. Digital mode would probably mostly be used to send information from one settlement to another, such as medical texts, etc.

### Towers, Antennas, and Repeaters

Each of these three components has the ability to "stretch" radio communications, but each could also be a source of danger. High towers and long antennas could stick out like sore thumbs in an empty landscape, and would declare your presence loudly to any interested party. Repeaters, requiring their own power sources and also needing to be placed at some distance from the base station, would necessitate trips from the settlement for equipment maintenance, which increases the likelihood of running into undesirables. Direct settlement-to-settlement communications using a rotating antenna could be a more viable proposition; but this would not diminish the likelihood of your community being detected.

Also, we must remember that to be most effective, arrangements concerning radio communication should optimally to be made between communities before the pole shift occurs, since, due to the difficulties inherent in any after-time communication, the chances for spontaneous location of other settlements on the air are not good.

# Self Defense

When we think about self defense, two concepts mainly spring to mind: one is defense by the use of the martial arts; the other, a plea at a murder trial. But when considered in conjunction with the pole shift and the after-time, self defense must take on a much broader perspective, and must literally mean "self defense", as in defending oneself and one's community against everything from wild animals to looters, from inclement weather to out-and out assaults upon the land by nature; from the threat of disease, to the onslaughts upon our persons of life itself. In a way, this whole booklet could be considered a self defense handbook; here below are some simple pointers through which communities and individuals can defend themselves from the more obvious and prevalent dangers.

#### Low Profile

This is one of the best self defense mechanisms that could be employed by a community. This should be cultivated even before the pole shift comes upon us. Do not go around telling people who don't share your views (or even those who do, but are not planning membership in your community) where your location is, what kind of supplies you are going to stockpile, where those supplies are going to be hidden, or give any details at all concerning your preparations. Falling into the trap of boasting to perceived friends could get you and your group into an awful lot of trouble, should these persons survive the pole shift and, either through sheer laziness or just plain disbelief, have failed to make their own preparations. After the pole shift, keeping a low profile will mean camouflaging your site to the best of your abilitywindows that can be heavily shuttered are one option. It has been suggested that a building with no windows at all might be a good idea, but not if some members of your group are claustrophobic; however, having windows that can be uncovered at safe times may or may not contribute a lot to the morale of those inside the building, depending on whether or not they can face what is out there, both weather wise, and with respect to the changed landscape. This is a decision your group will have to make beforehand. And especially in the time right after the pole shift, being careful about communication with the outside world could be most important.

#### Diversification

As far as it is possible, do not put your eggs in one basket; in other words, divide up your supplies and cache them in different places. Thus if one cache is found and looted, your community will not be left with no life options. If, in the present, you are ordering supplies by mail, do not have them sent to the address of your survival site. If a backup survival site is feasible, this would be another ideal solution, but for most, setting up one survival site is going to be difficult enough. Whatever your situation in this regard, ensure that you have a planned escape route in the event that disaster strikes. Provide each member of your group with a survival package and make certain that these are always kept close at hand. In the event that your group should become separated, at least survival will be possible until you can find each other again.

#### Alarms

If you have a fairly high-tech settlement, there are motion detection devices which could be adapted to emit a sound to alert those inside to the arrival of intruders. Low-tech, but just as effective, would be a perimeter alarm—something as simple as a trip wire attached to something noisy, such as one or more tin cans filled with stones. A constant patrol of your camp would be a great idea, as would a night watch. Also, if you have people in your group who have an aptitude for espionage, scouts could be sent out every so often to see who or what is near, so that the threat to your community could be assessed and planned for, before it comes upon you.

#### Weapons

This is something that will have to be discussed by communities, and discussed thoroughly. Once you have committed yourselves to an option, it will be too late to change it after the pole shift. If you do decide that weaponry is a must, then consider the "silent" option. A noisy battle could attract helpers or rescuers, but could also bring other enemies. Ensure that those who will be handling your weapons are thoroughly familiar with them, and well trained in their use. Failure in this regard could result not only in destruction of your community through outside forces, but in some circumstances, destruction from the inside by those who do not know what they are about. Remember too that children and weapons do not mix or that, if they do, the mixture usually produces tragic results; so that particularly if guns are your choice, keep them in a secure place, but one with easy access.

#### Site Selection

The location and layout of your site could be extremely important. Besides roving gangs of hooligans, there will probably be military types around, with only their own best interests at heart. These soldiers may have vehicles, and it might be wise to choose a survival site into which these vehicles cannot penetrate. Superior firepower is also a good possibility; so that if your site is invaded by the military, and no other course presents itself, abandon the site so that you and your community can live to build another day. In other words, discretion is very definitely the better part of valor. Be totally familiar with your site, even though the layout may be changed after the pole shift. The more familiar you are with it before hand, the better your grasp of such changes will be. Be very aware of all your supply caches. Such familiarity will give you the upper hand when it comes to your own survival, even if escape is the only thing that you can plan.

# Transport

Imagine a world where there are no bus stops to wait for that handy bus; no subways or trains to quickly transport us to where we need to be; no planes to whisk us to the other side of the globe in a hurry; and, perhaps worst of all, no cars! Bad as the transportation system in your city might be, it will appear, in retrospect, as a model of perfect scheduling and blinding speed, as you are perhaps slogging through the mud and debris of a post pole shift world. Not only will there be no fuel available to run any kind of transportation system, but the nature of the terrain itself will render such a system impossible. Roads will be torn up, bridges down, and your highways a muddy mess. Traveling around post pole shift will not only be extremely difficult and hazardous with regard to the terrain, but, at least in the beginning of the after-time, because of the roving gangs intent on perpetrating all kinds of assaults upon the unwary, will be downright dangerous. If, however, you must travel, either because you are on foot, or because there is somewhere you absolutely have to be, there are ways to go that will render this exercise, if not easy, then at least a viable proposition.

#### **Tires and Wheels**

Tires, obviously, are going to be a problem. Automobile tires are too heavy; bicycle tires too light. Fix flat tires by stuffing as much stiff foam rubber (tight cell is best, but open cell works) into the tire as you can get, and still have the ability to put the tire back together. Foam may have to be cut into smaller pieces in order to accomplish this. Also, stuffing the small pieces into the tube first, stuffing the tube into the tire, and prying it onto the rim would be another way. Not as easy as it sounds; but the results would be worth the effort. Easier right now to purchase pre-shaped foam tube replacements from stores such as Wall Mart, put in just like the tube. Tubetype tires can probably be made near-puncture proof by filling with two parts foaming rubber, or flat fix, available at autoparts houses, or, alternatively, a 2 part epoxy mix (the softer, more rubbery type). Theoretically you could wear the rubber off and still keep going. No matter what decision you make, patches for tube tires should be kept in stock. Generally, things with larger diameter wheels are easier to push or pull by hand, especially over rough ground. Wider wheels work best for mud and sand, and although larger diameter wheels would be best for our application, one must take into account the mass and weight of these wheels as compared to the mass to be moved so as to keep the unit light and efficient. For stability, wheels should be a good distance apart, with the

load close to the ground, and near the center of the axle.

#### Carts

One way to move things around in the after-time could be provided by carts which could be adapted for use over rough ground. One of the best suggestions is an old military cart used to carry ammunition, if you can find such a thing. These are expensive, but would take a lot of abuse, and have solid tires. Garden carts, large-wheeled furniture dollies, and large red wagons are also good possibilities. Another great option is a double-wheeled hunting cart. These vehicles are rugged, and will go through any terrain, easily pulled by one or two people. An added benefit here is that when not being used for transportation, this will serve as a cot! And then there is always the "pack trailer". Can be purchased now from recreational or camping suppliers, but could easily be assembled, should the need arise, likely with things just lying around after the shift. One of our Troubled Times members, five foot six and 150 lbs, claims she has no trouble pulling one of these trailers on camping trips, and documentation on their construction is out there for your group to follow.

#### Boats

There will be a lot of water around after the shift, and it would be well to be prepared for this. There are many boats that could be taken with us into the after-time, which could now be cheaply bought and stored against the need. Besides all of the rubber dinghies, canoes, rafts etc. that would fill this bill, there is one boat which would be great for this application, and this is the paddleboat. Using no gasoline and no oars, all it requires is strong leg muscles, and there you have your local transportation! Of course if you wish to live on the water, you could have builtin transport with a houseboat.

### Bicycles

These may not be able to be used immediately after the shift, but should be taken into the after-time, in whole or in part, for use later, when perhaps, in some parts of the world at least, the mud and debris will have settled down a little. One of the suggested vehicles which may work is an off-road mountain bike with puncture-proof tires. The Quadra cycle, or quad recumbent pedal car, looks like a really interesting mode of transportation, at least over flat terrain.

### Electric

Electric tractors and off-road vehicles become practical if a power source is carried for recharging or, alternatively, if the traveler can stay close to a fixed-location generator. The advantage of an electric tractor would be its ability to pull behind it a trailer for family and possessions. Primarily suitable for flat, windy terrain, there are some interesting ideas out there right now for the design of a "sailboat" type car, and your community would do well to mount some research in this area.

### Motor Homes

It appears that motor homes may be too lightly constructed to be of much use during or after the shift, and although this could be remedied, one or two domes could probably be built for the same cost.

#### Snow

If you are in a winter climate, snowshoes and skis would facilitate traveling.

# **Birth Control**

This is a very tricky issue under any circumstances, but one which must be addressed thoroughly by your group before the pole shift comes upon us. There will be young women in your community eager and willing to have children, but the pros and cons must be very carefully weighed. What are your present resources? How sustainable are those resources, and what is the prognosis for adding to them in the future? What is the state of health of your group, and are conditions on your site optimal for supporting children? These and many other questions should be asked and answered before a decision is made as to whether or not your community should bring children into the world, and as to when this should be done. It will not be a question of one family deciding to have a child; the whole community must be involved. Here below are a few different methods of contraception; but whether or not you decide to use them, or any others, is entirely up to you.

#### **Herbal Contraceptives**

Queen Anne's Lace is the herb mostly mentioned in this regard, but from a reliable source comes the information that results, when using herbs as contraceptives, are not consistent.

### **Plug and Play**

From the Aboriginals of Australia comes this method which is crude, but effective. It requires some primitive surgery. A hole is made in the base of the male penis, into which a wooden plug can be inserted. During intercourse this plug is removed, enabling ejaculation to take place through the hole in the base of the penis. When conception is desired, the plug is left in place. Not exactly an attractive solution, but desperate situations do require desperate measures.

### The Acid Test

One suggested method is to insert a vinegar-soaked sponge into the vagina, prior to intercourse. A piece of string attached to the sponge will ensure retrieval after some hours. The acid will cause an environment hostile to sperm. It must be assumed that the juice of any citrus fruit will have the same effect.

### **Modern Contraceptives**

If you are planning on taking supplies of anything into the after-time, things like birth control pills and condoms aren't going to take up that much space. Just as an example, 48 condoms would take up less space than a small roll of toilet

paper; a year's supply of birth control pills would occupy the space of a 16-ounce jar of peanut butter. Your biggest problem could even be collecting such pills, unless you have a physician who is willing to prescribe a year's supply. But certainly for the immediate after-time it might be as well to have these things available.

#### Sterilization

More drastic than some of the above-mentioned methods and likely to be safer, would be sterilization. But both vasectomies and tubal ligations have been known to fail, and if this is going to be done, it should be performed at least a year before the pole shift, since if these methods are going to fail, they usually do so within the first year.

Modern means of contraception have not always been available, and any that you take with you into the after-time are not going to last forever. Cultures previous to ours must have had their own methods of dealing with this situation. And remember, the safest of all birth control methods—but the least fun—is total abstinence.

This concludes the offering by Troubled Times, Inc. of solutions to problems that would be presented by a catastrophy such as a pole shift and life immediately afterwards.

