

WHAT'S GONE? TECHNOLOGY IN THE WILD SOUTHWEST

For a start, computers. The technology to manufacture and repair microchips was destroyed in the war and the nuclear winter. A few well cared for computers managed to survive for a while, but they died a long time ago. There are a few "computing machines" around, but they're the equivalent of the early computers like COLOSSUS and ENIAC. They fill entire rooms, generate massive amounts of heat and chew power like you wouldn't believe. If you give them a few hours and keep them cool they can calculate out a few square roots, but that's about it.

Simpler electronics has survived, but is hampered by the inability to create or repair transistors. Transistors can be replaced by triode tubes, and other components by thermionic valves, but the end result is a lot bigger, much more fragile and uses a lot more power. A transistor radio for instance bulks up to four times the size, needs a much bigger battery and will break if you drop it. A walkie talkie (with batteries included) takes up a entire back-pack. A *heavy* backpack.

Television is gone. Black and white TV is theoretically possible, but no-one has been willing to put the time and money into re-developing it. Radio is used for news and communication, but there is not much in the way of music or radio shows - you tune in for the latest weather forecasts and news bulletins, and that's about it.

There is no telephone system. Governments and military organisations may have internal telephone networks in their headquarters, but the general public has no access to them. If you want to communicate over long distance, you use the telegraph. Most large to medium settlements are hooked up to the telegraph lines, and messages are charged at a fixed rate per word. You write out your message, hand it to the clerk and they send it out onto the network as Morse code. Another clerk at the other end decodes it, and writes it out as a telegram which is delivered to the recipient. If you want to pay extra your message can be encrypted, but the clerks at each end still get to read the unencrypted version. For really secure communications you need to encrypt the message yourself (and make sure the recipient knows how to decrypt it at the other end). Some settlements not connected to the telegraph network (such as Borden) can be reached by radio telegram, but this is more expensive.

There is no electricity network. Individual settlements and even some buildings may have an electricity supply, but power is not universal. Albany, Mt Barker, Denmark, Manjimup, Pemberton, Walpole, Windy Harbour, Borden and Busselton have citywide power grids - which is to say about a third of each city has a sporadic supply. Other settlements may rely on small generators, surviving solar panels, or (most likely) do without electricity at all.

Most of the major power stations are still using turbines salvaged from the Albany Wind Farm at the end of the war. These are approaching the end of their useful lives, scratch built replacements are being tested and developed but are not expected to be anywhere as near efficient.

Where street lighting is provided it is almost always long burning oil lamps. The only

exceptions are Queen Street in Busselton, Brockman Street in Manjimup and York Street in Albany which have electric lighting for some of each night.

Small devices are powered by chemical batteries. These take the form of heavy metal and glass boxes and cylinders, ranging from the size of a large paperweight to that of a small television. They are all rechargeable.

Water supply and sewerage are not centralised. Large cities may provide piped water to some areas, but it relies on gravity rather than pumps. Most people rely on rainwater tanks, deep wells or natural water courses. Toilet facilities range from a hole in the ground, through to buckets, through to septic tanks. Only the very rich can afford an indoor toilet, most of the time it's a dunny shed down the back of the garden.

There are no aircraft. The high octane fuels required for flight just aren't available any more. Experiments have been made with balloons and large kites, but there are more distracting spectacles than practical technology.

There are no cars or motor vehicles. Standard transport is auroch drawn carts or buggies. Horses exist, but are rare and very expensive, being all but wiped out by plagues after the war. Outside of the military only very rich individuals can afford them.

Steam engines are common sources of power. They are usually run on wood, but there are sporadic supplies of coal (brought out of Collie by teams of Scavs) and in Albany oil-rich whalebone is often burnt. There is one railroad, running between Albany and Mt Barker. This has three engines (recovered from museums) and is operated by the Mount Barker Rail Company.

Along the south coast much of the heavy transport work is done by ship, both steam and sail powered. The largest ship under sails is the STS Leeuwin - a pre-war replica of a 19th century clipper. The fastest ship is the steam fired PRS Resurgam - the most powerful warship in the south, if not the entire world (under the right conditions it can reach a speed of 20 knots). The largest port is at Albany, with the second largest at Windy Harbour.

Effective medicines are rare. Frankland State manufactures small quantities of penicillin, morphine and sulfa drugs, and traditional remedies for coughs and colds are available, but medicine is mostly limited to repairing injuries and treating symptoms. Surgery is possible, but risky, it's used as a last resort and relies on ether for anesthetic and medical alcohol for sterilisation (medical alcohol is highly concentrated - it burns readily and anyone drinking much more than half a glass of it *will* die, quite painfully). Reading glasses (essentially just magnifying glasses in a frame) are common, but proper corrective lenses are very expensive. Occasionally Scavs will uncover some useful pre-war medicines - these are very rare though and almost priceless.

Complicated mechanical devices are surprisingly common. Clocks are easily manufactured, although for one that's truly accurate you will have to fork out the cash. Wind up wristwatches are available, but most lose several minutes a day. Phonographs (record players) are a common source of entertainment, both electrical and wind up models are available. They can play pre-war vinyls but there is a small music industry

producing new recordings. Typewriters are available, including lightweight portable models, and much heavier professional electric ones.

Photography is common, although cameras are considerably bulkier than their pre-war ancestors. Film is bought in plates - one plate, one photograph, so if you want to take more than one you need to reload the camera each time. The majority of plates are black and white, or sepia - colour film is available but quite expensive, and the end results look somewhat pastel and faded out.

Some pre-war movies survive, but exist only in heavily edited versions carried from town to town by traveling entertainers who set up and show them on a screen (often just a glorified bed sheet) in the town square. While the images are in full colour the technology to read optical soundtracks no longer exists, so the films are rendered silent and are often intercut with title or dialog cards to explain the action (accompanying music is usually provided with a phonograph). They are also much shorter – a single reel runs to about twelve minutes and a three reel film (lasting a little over half an hour) is considered a real epic.

Many films don't attempt to tell any kind of story – they're compilations with titles along the lines of *Wonders of the Pre-war World* showing aircraft, skyscrapers and motor vehicles. Those that do tell a story often take major liberties with the plot, taking whatever footage has survived and cutting it together to tell a story within 20 minutes. The most popular edit of *Fight Club* for instance tells the tale of a man taking on gangsters in a series of brutal bare knuckle boxing fights to clear the debts of his sweetheart.

Traveling movie shows generally set up for one or two nights and a typical program consists of a one-reel compilation followed by two two-reel films, or a two-reeler followed by two one-reel compilations or comedies. Some less reputable operators also have a separate “adult education” showing later at night, although this usually depends on the attitudes of the local authorities.

There are some experiments being made in the production of new movies, however the market (and subsequently funding) is limited. After all who would want to watch a black and white movie about auroch farmers when they could see a full colour extravaganza full of spaceships, laser guns and motor cars?