

FREELY DOWNLOAD, SAVE, PRINT OUT AND SHARE THE PROJECTS AND ESSAYS ON THIS LIST

This is an exploratory work, and I am not responsible for anything anyone does as a result of reading or using the information referenced here. Readers must use their own best judgment in duplicating or depending upon any of the projects or concepts included in this collection.

#	Rev	Title	Comment
		<p>Those with alternative sources of shelter, water, food and energy are less controlled by political and economic extremes. These can also help others in need.</p> <p>Create a sustainable off grid infrastructure in your own backyard (or other property) as an oasis of freedom. These types of technologies can empower homeless and other forms of refugees to thrive in chaotic times.</p>	
		STRUCTURES	
01010		Any-stick dome	A dome from junk
01020		Durable covering cheap, durable	For covering structures and underground membranes
01040		Bolt-together frames	Basics of building and covering bolt-together frames
01045		Dome windows	External lighting and views for fabric covered structures
01050		Dome, 10' diameter on posts	This one used for bathing at an off grid encampment
01080		Dome, 16'8" diameter 210 sq.ft.	Economical, versatile, reusable frame can be built in a day
01330		Parabolic, 28' 14' high , 615 sq. ft.	Central structure at an off-grid encampment
01300		Low profile domes 24 ft dia.,	450 sq.ft; height=radius/2
01210		Dome Worksheet	Add radius and chord factors to calculate any size dome
01375		Wired tubes Minimum tooling	Build structures out of tube & wire with hacksaw & pliers
		Wire structures	contents
01510		7'6" wire shelter frame ht.=rad./2	Dome frame weighs 8.5 lbs. Complete frame=24 lbs.
01520		The Cozy 7-1/2 diameter shelter	Includes a stove built into the floor
01630		Oval wire dome, 10x20x2.5	A complex disaster – but an interesting story (carport)
		Other shapes	
01660		Hyperboloid	A tubular structure with a gracefully varying diameter
01690		Hyperbolic paraboloid	A strong and graceful roof structure
01700		Trihyperbolicparaboloid	Hexagonal roof form supported on three posts
01810		Decks from scraps	Use short pieces of recycled material to span large areas
01830		Hex8: Wooden structure	Hexagonal office space with sleeping loft, 8 ft. diameter
01840		Hex12 Wooden structure	Hexagonal building with upstairs desk, 12' diameter
01900		Earth materials	A few more tips on what not to try
		WATER	
02010		Water intro	Critical things to keep in mind concerning this need
02040		A 30 gallon tank	A clean trash can can be an economical tank'
02100		Stills	One means of purifying water
02110		Distilling sea water (theory)	Wave & tide energy assist water pumping and distillation
02120		Well pumps	Some of my semi-successful DIY attempts
02130		Cistern pump	Creative improvements applied in a developing nation
02140		Atmospheric pump graphic	Uses thermal energy to pump water in 15.7gal tank
02160		Cistern under garden (theory)	Developing a complete sustainable food+water system
02170		Wells	Boring shallow wells from commonly available hardware
03010		FOOD	
03230		High density garden	Gardening techniques that can multiply productivity

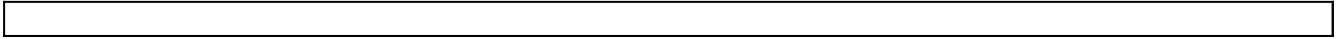
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03050	Water saving gardens	Build a remote garden supplied by water that can be hauled
03080	One Day Garden Sustainable food	Don't hoard; plant a small garden each day
03040	Trench format garden	Facilitate mechanization of a captive water table garden
03051	Quanset frost cover	Simple cold weather protection
03250	Compost Comfort Lazy & efficient	Keep the nutrients of fall leaves in your own soil
04010	Lighting	How light is used greatly affects the amount needed
04030	Electrical	There are more ways to do this than most realize
	ENERGY – FIRE	
05005	Keeping warm	Structure features that can reduce the energy needed
05030	Using wood stoves	Important installation considerations
05040	Basic stove	Cheap to build, highly efficient, eco-friendly
05045	Dome flue exit Graphic	http://technosmith.com/contents/05045-dome flue exit.JPG
05050	The Dragon Under \$40 in 2022	A small, cheap high-efficiency wood stove
05060	Small boiler	Attached to "Dragon" to heat water and produce steam
05080	Stove with reflector	Great for heating patio area
05100	Retrofit wood stove	Efficient, clean, installed in existing fireplace
05110	Small forced air heater	Shroud a "Basic stove" and force air through it
05120	Prunings burner.pdf	Clean efficient disposal of orchard waste
05140	Rammed Earth Stove	Build from highly compressed earth with tiny % cement
05150	Cottage kiln	Wood fired production of art and utility objects
	COOKING	
05200	Why a cook stove out of mud	Fuel efficient, smokeless solution to primitive kitchens
05210	Small stove carved into the earth	"little mud"
05225	Backyard stove	Cook outdoors during the summer
05230	StoveTopOven	Invented to cook a girlfriend's birthday cake
05240	Cook stove from a scrap of pipe	You can't make an efficient stove more easily than this
05250	Cardboard cooker solar power	An easy and cheap way to "crock pot" anything
	SOLAR +	
05300	Introduction to solar	There are more options in solar than most realize
05340	SolarHeatedAir	Greatly increase efficiency of solar heated air
05350	Solar Hot Water	Economical way to heat your above ground pool
05360	Heliostat	A high-tech device with many possibilities
05380	Wind	Generally inconsistent and seasonal, but great in places
	MANIPULATING ENERGY	
05410	The Energy Tree	Opportunities and pitfalls
05415	Perpetual motion of fools	Fun projects for those who love to fail
05420	Reality for the masses	If you have dumb friends, this helps you recognize them
05430	StoringEnergy	There are more ways to do this than you might think
05450	Pumping heat	Using mechanical energy you can make hot or cold
05470	Energy systems	Managing of energy sources, storage, and conversion
05480	Heat powered engines	Converting thermal energy into mechanical energy
	See 05060- Small Boiler	Attachment to dragon for heating water or making steam
05500	Steam engine 3 moving parts	I made this public domain so no one could patent it
05510	Stirling	World's most efficient engine was invented by a minister
05520	Check Valve Power	Concept engine – also intentionally in the public domain
05525	Stirling data table	Calculates available outputs under various conditions

05530	Wet Stirling	Yet another creative way to create mechanical energy
05540	Odd engines	Creative applications from simple physics
05560	Jet engine in my house	Another don't anyone (else) try this at home story
05600	Refrigeration	Various ways to cool things
05620	Linked Stirling	Yet another way to pump heat
05630	Storing cool	More refrigeration basics
05650	Ice chest air	Forced air cooling invented during an emergency
05660	The Cool Earth	http://technosmith.com/contents/05660-cool%20earth.pdf
06000	TRANSPORTATION	Avoiding petroleum and expenses relating to cars
06010	Recycling cart	A stronger, larger and legal alternative to grocery carts
06030	MobileHomeless	Made for a homeless friend who lived in it for 5 years
06040	Folding bike graphic	Needed a compact bike to store under my desk at work
06050	Compact bike graphic	For awhile I had a \$100 bounty on the first one to ride it.
6060	Bike in Berkeley video – .avi	My friends in Berkeley couldn't figure it out either
	HEALTH	
08020	Bath pan	Cheap, lightweight, answer to bathing, or laundry
08040	6" auger	Use for well or toilet pit
08050	8" auger	Use for toilet pit or well
08070	Off Grid Toilets	A radical sanitation improvement over existing practices
08110	Low tech composting toilet	A clean and simple solution to a need we all have
	MORE	
09010	home sheetmetal basics	Simple techniques to equip you to solve many problems
09020	Splitting rocks	Not everyone needs this – but I did, so here it is
09030	Petro chemical replacement	Introduction to a science to reduce need of petroleum
09040	Starting car with a weak battery	Answer to a desperate need one stranded freezing morning
09050	stepper motor from alternator	I needed to computer-control something in small steps
10010	Enterprise	
	LIFESTYLES	
13040	The Jesus Camp	technosmith.com/contents/13040-jesus camp.pdf
11010	Portable cottage	Montana de oro
11020	How to sleep in your garden	
11030	Context of ministry	Living a life that makes sense
12560	Starter Camp (infrastructure)	
11530	Liability form – initial draft	This is only a draft; has not been reviewed by a lawyer
	PRESENTATIONS	
11510	Changes – graphic	
12530	Homeless action items	power point presentation
12010	Hexagon display maze	49 panels, 30x22.7 feet of creative display maze
12012	Small display maze	26 panels, 20 x 21 feet
	ESSAYS and OPINIONS	
13020	Prove Me Wrong (quantum physics)	Reconsidering theories about gravity and light
13030	News Media	How to analyze news media bias
13090	American Preppers	A history of American Prepper mentality
	OUTLAW UNIVERSE	
13060	The Outlaw Universe	The physical universe has a message for us
13061	Introduction to Christianity	Basic understandings that unite all Christians
13063	The Christian Culture	Who we are since Pentecost

13062		God's kingdom (Until Pentecost)	The culture that quietly inherits all
13065		The Rogue Empire	The Defeat Of The Dragon (The final 3-1/2 years)
13100		Candor	An off-grid adventure novel – Free read and download
13120		Poetry that happened	
13200		Approaching Final Days	
13210		Event Matrix .pdf format	A spreadsheet relating end-times subjects to Bible references
13311		End Times Subjects	
13150		Revelation Commentary	Revelation, as explained only by other verses in this work
13330		Revelation 12	http://technosmith.com/contents/13330-rev12.pdf
13130		A Modern Bible Translation (ASV)	A free download of the entire Bible in public domain
13420		Adventures Have you ever....?	With the God who loves, forgives, and protects
Books In Print			
13530	+	Expatriates of Babylon Sample, first five pages Purchase link Expatriates of Babylon	Part one of a fiction trilogy. A resourceful individual winds up homeless following a layoff. He develops a new quality of life for street survival and interfacing with society.
13540		Arland Sample, first seven pages Purchase link Arland	Part two of trilogy; Modified biosphere technology begins to grow locally sustainable communities in Arizona deserts.
13550		The Livewood Sample, first eleven pages Purchase link The Livewood	Part three of trilogy. A rebellious student finds his path in a project to develop space colonies. This one starts in New Mexico, but eventually gets off the ground.
		Surviving the Streets an Future Purchase link Surviving the Streets and Future:	This is a hard copy compendium of the technical section of my web page. Most of its projects and many more are available for free at technosmith.com
		Journeys of the Heart Purchase link Journeys of the Heart:	Nonfiction poetry that is born of real life experiences. This is followed by a series of true stories of adventures that inspired the poetry.
		Avoiding Deception Purchase link Avoiding Deception	Exposes corruption in the early church and today, as revealed by the Bible.
			http://www.lulu.com/shop/william-huff/expatriates-of-babylon/paperback/product-22307591.html
			https://www.lulu.com/shop/william-huff/arland/paperback/product-23471631.html
			https://www.lulu.com/shop/william-huff/the-livewood/paperback/product-22558115.html
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Access to books in print			
Surviving the Streets and Future: This is a hard copy compendium of the technical section of my web page – Since most of its contents are available at technosmith.com			
The Livewood: Part three of trilogy. A rebellious student finds his path in a project to develop space colonies. This one starts in New Mexico, but eventually gets off the ground.			
Avoiding Deception: Exposes corruption in the early church and today, as revealed by the Bible.			
Journeys of the Heart: Nonfiction poetry and adventure that is born of real life experiences			

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