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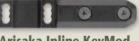
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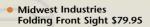




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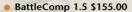
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PNTTM

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FEATURES

DON'T BE FOOLED BY THE GLITTER

The gold standard is the old standard in an economic collapse. Ry Peter Suciu

JACK OF ALL TRADES

Master the age-old art of bartering. By Frank Phillips

30

CHOCOLATE!

The sweet spot in your survival plan By Christopher Nyerges

GET INTO THE SWING

'Hawks and hatchets for survival situations

By Steven Paul Barlow

COVER AND CONCEALMENT

Confusing the two could cost you your life. By Larry Schwartz

DON'T BELIEVE THE EXPIRATION DATE

Why end-of-world predictions aren't a good bet

Rv Peter Suciu

AFRICA'S BACKYARD FIREARMS FACTORIES

Outlaws find ways to have guns. By Al J. Venter

MYKEL HAWKE DEBRIEF

Part two of our three-part conversation with survival expert Mykel Hawke Bv Brian M. Morris

HOW-TO

KNOCKING ROCKS INTO TOOLS

Rick Adams teaches the finer points of flint-knapping.

By Christopher Nyerges

NO MORE DIRTY LAUNDRY

Washing clothes in a survival setting By Christopher Nyerges

REVIEWS

THE CENTURY SIDE-BY-SIDE 20 GAUGE

Good things come in twos. By Will Dabbs, M.D.

CHEST PACKS MIGHT BE THE BEST PACKS

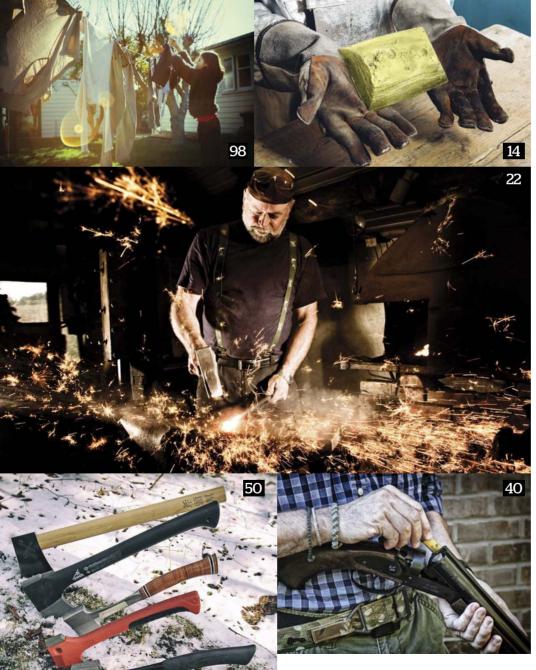
Carrying your EDC, made easy By Larry Schwartz





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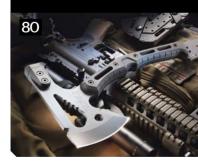
CHOICE CHOPPERS Hatchets and tomahawks that give you an edge

DEPARTMENTS

FIRST WORDS

NEW PRODUCTS

LAST WORDS



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COULD AN ECONOMY THAT GOES BOOM BECOME A ROOM FCONOMY FOR YOU?

am not an economist, nor am I any more a student of economics than the average American. The mere thought of this driest of topics typically makes my eyes roll back into my head. But it's an important subject that we should understand and be more familiar with because, in the aftermath of a major economic collapse, most of what we know about conducting business will be as worthless as our bank accounts.

That's why it's important to think now about what you should invest in that will have favorable, lasting and, hopefully, universal value in the future. By laying in some inventory of basic items that will be hard to find when they're really needed, you will put yourself in a good position at the trading table.

This month's issue features several articles about how to approach this challenge so you will be able to negotiate from a position of strength, not weakness. This is one game you do not want to enter as an underdog. And, yes, we discuss the idea of holding precious metals as a way to preserve today's wealth. That ought to be an interesting read for most people.

One point we make is that you will do pretty well on most counts by consistently making fair trades that serve the needs and wants of both parties. There has never been an environment that was completely free of conflict over transactions; that's why we have small claims courts today, and they stay pretty busy. But in dire times and the absence of due process, unhappy trading partners will be much more likely to take matters into their own hands to get their idea of "justice" by any means available.

One way to get into this true "free-market" mindset is to start practicing your haggling skills the next time you go to a garage sale, flea market or prepper show. You'll learn that while selection is best at the beginning of the event, price is usually best at the end. Bundling multiple items and increasing your purchase quantities are also good ways to reduce your unit cost. However, remember not to buy more than you need or can afford just to get a better price.

What makes this process really complicated is that for the most part, you'll have to decide now that you should invest in Kool-Aid so you'll have a stash ready to go when it's needed. But guess the wrong flavor, and you could be sitting on a bunch of worthless colored sugar for a very long time. You should be very deliberate about what you invest in and consider diversifying your holdings so you will have more options to make a deal.

For this reason, we also cover the belief that many people advocate: Learn a specialty or skill that will be in demand in the new economy. Certainly, knowing the healing arts would be among the most valued abilities, and the need is likely to be high, depending on the local population density, social and geographical environment and other variables.

There are other skills that will be sought after, and many of those might not require as much training and dependence on specialized supplies. For example, being the one with the rowboat and fishing net could make you popular with those desiring a few fish or a way across the river. We discuss a few of these in this issue as well

While neither your knowledge nor time will be limitless, with luck, they'll last longer than anything you could sock away and will be a dependable source of trade value for as long as the need to use them continues. As Benjamin Franklin said, "Remember, time is money."

In these scenarios, you could actually be sitting pretty in the new economy—as long as you make good choices and can protect your assets and defend your livelihood. Theoretically, that's where dealing "fair and square" comes into play. As long as both sides feel they have received fair compensation in the trade, there should be no more risk to you and your enterprise than there is in today's economy. Remember: There will be no small claims courts to mediate between disgruntled parties.

In a barter economy, everyone will be in business for themselves. Read on, and start off on the right foot.

-Mike McCourt



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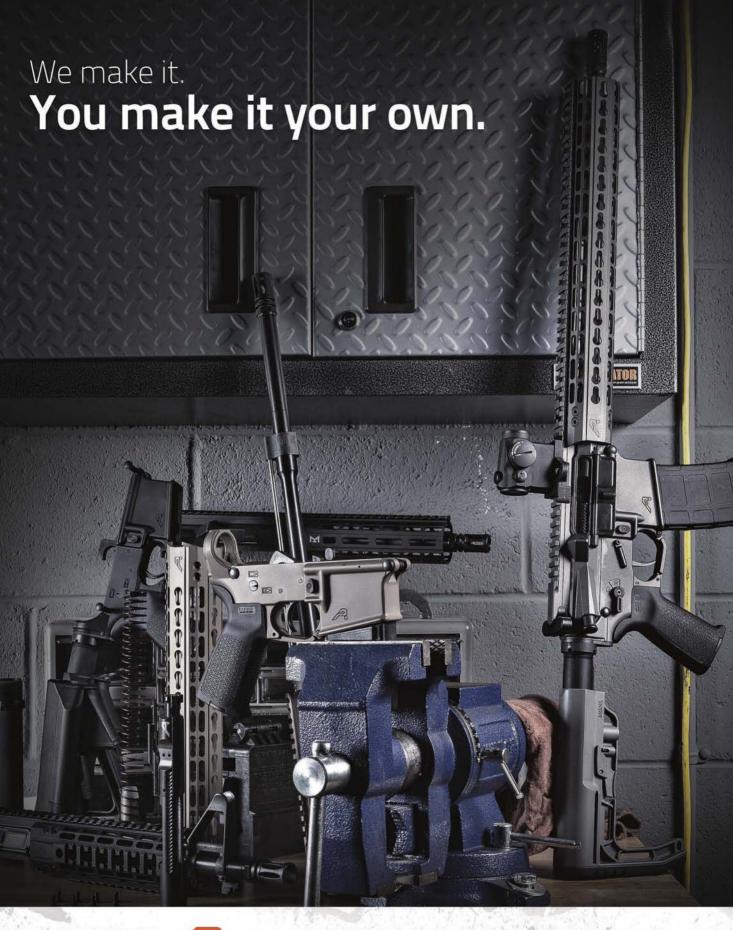
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HK Volkspistole

The VP series from Heckler and Koch represents the company's foray into the world of striker-fired handguns. With superb ergonomics and flawless execution, the VP9 and VP40 raise the bar on combat handgun performance. The newest VP9 Tactical includes elevated sights and a threaded barrel, while both versions are also now available with flat dark earth frames.

Features

- · Includes three 15-round (9mm) or 13-round (.40 S&W) magazines
- · Uncompromisingly reliable
- · Ambidextrous controls
- · German engineering and quality

MSRP

\$819

www.HK-USA.com

Springfield Armory SAINT Rifle

Launched amid a massive months-long advertising campaign, the Springfield Amory SAINT is the first new firearm line Springfield has fielded since its superb XD series handguns. The SAINT is a midrange utility rifle that incorporates the cool stuff you need without the fluff you don't. Focused on the prepared American who is willing to assume responsibility for their security, the SAINT is a reasonably priced, general-purpose working rifle that is very well executed. It is Springfield Armory's first new rifle since the M1A.

Features

- · 16-inch chrome-moly-vanadium barrel with 1:8 twist
- · 5.56x45mm NATO (.223 Rem)
- · Exclusive Bravo Company PKMT KeyMod handguard
- · Bravo Company buttstock and pistol grip
- · Optimized defensive carbine

MSRP

\$899

URL

www.Springfield-Armory.com

Comp-Tac Trojan Horse Long **Gun Case**

The Comp-Tac Trojan Horse Long Gun Case is designed to carry your favorite compact black rifle safely and unobtrusively. Looking like little more than a souped-up tennis racquet carrier, the Trojan Horse allows you to pack serious heat in public without alarming those around you. This case is heavy duty, well executed and amazingly inexpensive.

Features

- · Robust and well made
- \cdot Rigid side panels hide your long gun in plain sight
- · Measures 36x15x4 inches
- · Fits up to a 20-inch barrel with collapsible stock
- · Heavy-duty zipper is rigged for quick deployment

MSRP

\$44.99

URL

www.Comp-Tac.com



Air Force Texan Air Rifle

The .45-caliber Texan pre-charged air rifle from Air Force ain't your daddy's pellet gun. Launching lead slugs the size of your thumb at velocities adequate to take pigs or deer, the Texan brings centerfire power to the realm of airguns. For the serious shooter who is ready for something really different, the Texan is the air gun you can use for hunting, recreation and security.

Features

- · The world's most powerful production air rifle
- · .45 caliber
- · Pre-charged pneumatic air rifle
- · Up to 1,100 fps
- · Up to 500 foot-pounds of energy
- · Also available in .357 and .308

MSRP

\$1,054.95

URL

www.AirForceAirguns.com

NCStar ECO MOD2 Enhanced **Combat Optic**

The NCStar MOD2 optic offers a broad selection of features at a reasonable price. Orbiting around an illuminated-reticle 4X optical sight, the ECO also includes a laser designator, as well as red/white LED navigation lights. The top of the unit sports a set of fixed backup sights, and the entire rig is encased in a robust aluminum chassis.

Features

- · Blue reticle illuminator, green laser, and red and white navigation LEDs
- · Cast-aluminum body with tan powdercoat finish
- · Versatile enough for any survival application
- · Includes one CR123A battery

MSRP

\$229.99

URL

www.NCStar.com

HK SP5K

The new HK SP5K is a semiautomatic sporting version of the classic MP5K submachine gun. Featuring all that classic MP5 "cool," along with a nifty bungee sling and a removable optics rail, the SP5K feeds from a 30-round magazine and runs via the roller-locked delayed blowback operating system. As dependable as it is awesome, the SP5K is classy, refined and effective.

Features

- · Based on the classic HK MP5K submachine gun
- · Reliably feeds any 9mm bullet geometry
- · Smooth, reliable and rugged

MSRP

\$2,699

URL

www.HK-USA.com



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TOOLS & EQUIPMENT





Smith & Wesson M&P 9 CORE Pistol

The Smith & Wesson M&P CORE ("competition optics ready") combat handgun is an updated version of S&W's classic 9mm M&P that is now equipped to accept a sound suppressor and micro-red-dot sight. Available with both ported and threaded barrels, the M&P 9 CORE sports raised iron sights, interchangeable backstraps and a superb striker-fired trigger with adjustable overtravel.

Features

- · Race gun features at a reasonable price point
- · Capacity: 17+1 (threaded barrel)
- Run the gun either ported or suppressed by swapping out barrels

MSRP

\$919

URL

www.Smith-Wesson.com

Kel-Tec SUB-2000 Folding Carbine

Kel-Tec is a gun company that is reliably unusual. Its SUB-2000 pivots around its midpoint to produce a long gun that folds into a tidy, 16-inch package. The gun uses readily available magazines and snaps instantly into firing position. A bull pup design sporting low recoil and light weight, the SUB-2000 is versatile and refreshingly different.

Features

- · Perfectly sized for backpack carry
- $\boldsymbol{\cdot}$ Easily disassembled without tools
- Variants use Glock, SIG, S&W or Beretta pistol magazines
- · Available in 9mm and .40 S&W

MSRP

\$500

www.KelTecWeapons.com

AMG .22-Caliber Reloading System

Throughout the tumultuous path the American gun market has taken over the past decade, one of the most consistently hard-to-find staples has been .22LR ammunition. Now, AMG allows you to reload your own .22LR rounds without a lot of expensive hardware. AMG produces its own priming compound, but you can safely improvise your own out of matchheads or toy caps. Within the technical capabilities of any reasonably savvy American shooter, the AMG .22-caliber reloading system means you never need to run out of rimfire ammo.

Features

- \cdot A superb addition to any survival loadout
- Uses AMG primer compound or improvise your own

MSRP

\$74.95

URL

www.AMGSporting.com



Magnum Research Baby Eagle III .45 ACP Pistol

The Baby Eagle III from Magnum Research is an undated version of the Israeli Jericho service pistol—itself an adaptation of the Czech CZ75. The Baby Eagle III incorporates the aesthetics of the gas-operated Desert Eagle guns into something a bit more manageable. Built around an indestructible steel frame, the Baby Eagle effectively tames the .45ACP round in a platform that is both comfortable and effective.

Features

- · A lineage born of combat service
- · The "little brother" to the legendary Desert Eagle
- · Available in 9mm. .40 S&W and .45 ACP

MSRP

\$691

URL

www.MagnumResearch.com

Kimber Warrior SOC (TFS)

Available with a dark earth KimPro II two-tone finish, threaded barrel and a red laser sight, the Kimber Warrior SOC TFS (threaded for suppressor) is the apex predator among 1911 handguns. Incorporating Kimber's legendary quality in an Information Age 1911 combat handgun that just drips "cool," the Warrior SOC (TFS) is what other 1911 pistols aspire to be.

Features

- · Magazine capacity: 7
- · Desert tan Crimson Trace Rail Master laser sight · Kimber G-10 tactical grips

MSRP

\$1,738

IIDI

www.KimberAmerica.com

Cold Steel Rawles Voyager

James Wesley Rawles is a former Army Intelligence officer, author and recognized survival expert. The Rawles Voyager folder from Cold Steel sports a tanto-style, partially serrated blade that folds into an indestructible OD-green Griv-Ex handle Made from American CTS XHP steel and finished with a durable diamond-like coating, the Rawles Voyager is optimized for survival.

Features

- · Partially serrated 5.5-inch, tanto-style blade
- · Overall length: 12.25 inches
- · Reversible pocket clip
- · All profits on this knife are donated to charity

MSRP

\$144.99

URL

www.ColdSteel.com

THE GOLD STANDARD IS THE OLD STANDARD IN AN ECONOMIC COLLAPSE.

BY PETER SUCIU



UNCERTAINTY CAUSES PEOPLE TO SEEK STABLE VALUE, AND GOLD PROVIDES THAT CONFIDENCE.

he end of 2016 saw the price of gold trending toward \$1,100 an ounce. That was rather pricey for the shiny metal, yet it was still way down from its record high of nearly \$1,900 an ounce in August 2011. In fact, while gold rebounded throughout much of 2016, it was headed in a downward slide as the year ended.

That could mean that gold would be a wise investment in 2017—good news for so-called "gold bugs," those individuals who hoard gold in fears of economic downturns and even collapse. No doubt such individuals watched the news as

Russia and Germany—among other nations—began to hoard the shiny stuff. China and India still remain the largest markets for gold, while the United Kingdom has rather modest gold reserves. In the latter case, it is because, like the United States, the British currency is not on a gold standard.

A vegetable seller has to handle lots of cash during an economic crisis in the Weimar Republic (Germany), circa 1919.



> Below: A man uses a vegetable container to organize the large amount of paper currency received for a day's sales in a local market in Caracas, Venezuela.





∢ A buver from Shenvang, a city in northeast China, carried about 660.000 RMB coins and 20,000 RMB banknotes to a car dealer to buy a car.

In countries such as Germany, where there was massive currency devaluation and hyperinflation after World War I, bullion can still be purchased over the counter. Here, gold could be a good buffer against such economic downturns.

This is why in India it is estimated that three-quarters of Indian household savings are in gold—and interestingly, it is in jewelry, not in bullion or coins.

The reason many Indians and Chinese buy gold is that they have less access to financial institutions, and gold always has value.

Andrew Gause, author of The Secret World of Money, explained that gold has been a useful store of value for 6,500 years.

"Combine that longevity of gold with fears for the end of the world, and it is almost easy to see why prices go up," Gause pointed out. "Uncertainty causes people

ONE ADVANTAGE THAT GOLD COULD **HAVE IS NOT IF** THE ECONOMY **COLLAPSES** TOMORROW, **BUT AS A WAY TO** PREPARE FOR BAD TIMES TO COME.

> Right, top: Perhaps the most famous of modern gold coins South African Kruger rands were first minted in 1967 as a way to market South African gold. They are named after the former South African Republic President Stephanus Johannes Paulus "Paul" Kruger. It has the value of 1 trov ounce of gold.





> Right, bottom: Most of the gold owned by citizens in India is in the form of jewelry, not gold coins or bullion, as is more common in other countries

to seek stable value, and gold provides that confidence."

In other words, gold could be the best thing you could buy ... until you consider that it is heavy, difficult to transport and only has value where economies continue to function.

It is true that throughout history, gold was used as a form of currency, suggested Dr. Lawrence H. White, professor of economics at George Mason University. He explained that anything that could reduce people's faith in other currencies could result in the price of gold going up.

However, in the event of a disaster, financial meltdown or major crisis, people can be cut off from their supply of gold. White added that while people can, indeed, barter with gold coins, as they did for centuries, there is still the need to make change when you buy something. For that reason, gold has problems being used in normal transactions.

FROM THE MINE TO THE BANK

Gold has been mined for millennia, but as recently as a century and a half ago, raw gold straight from the mine was actually used as currency.

"Gold bullion had problems going back



⟨ Above: Raw gold ingot just made at a factory

⟨ Below: 1 kg gold bars. Around 300 kg of gold is spread on the table. COMBINE THAT LONGEVITY
OF GOLD WITH FEARS FOR THE
END OF THE WORLD, AND IT
IS ALMOST EASY TO SEE WHY
PRICES GO UP ...



> Gold in bar form from the mine is processed at the refinery to 99.999 percent purity.

to the days of the '49ers," said Gause. "Miners would head up the bar and try to buy a drink with just a pinch of gold. But no one knew exactly what that was worth. Gold in its raw form isn't easy to transact with."

That isn't to say that the U.S. federal government hasn't made it a little easier in the past. Over time, the U.S. Treasury minted millions of gold coins, but that ended in 1933, when the United States went off the gold standard. There are still some gold coins and pre-1965 silver dimes and quarters, now mostly out of circulation, that were minted.

"If you are trying to barter with gold, you end up paying by the ounce, and there is no easy way to get change." added Gause. "However, there have been ways to have coins, and that does make it a little easier."

Using gold, even as an investment to hedge against inflation, one needs to be careful who is offering the advice to buy precious metals, warned Gause. "You see those stories that China is hoarding gold, that economic collapse is around the corner," he explained. "Well, if you dig down deep enough, you find that it is the gold and silver dealers who push out those rumors, because they want people to buy their metals!"

One advantage that gold could have is not if the economy collapses tomorrow, but as a way to prepare for bad times to come. Gold, silver and even precious stones have an advantage in size that could allow someone to "compress their wealth."

While it is hard to carry more than \$10,000 in paper currency through airport security, a rare gold coin could pass scrutiny and prying eyes and quite easily make its way to Switzerland or some other nation. However, hitting the road could be more of a challenge, because Gause noted that \$100,000 worth of silver would still take up a bit of room in most current SUVs.

"It is still a better solution than what some in isolated republics, such as Zimbabwe, have had to endure due to hyperinflation," added Gause. "They recently printed a \$100 trillion note-and there was literally not enough room





> Above and below left and right: A gold pour is performed at the gold plant of a Western Australian gold mine. The finished bar is then transported to a gold refinery for processing to 99.999





> Below: Pure gold sheets are stamped into blank disks, to be minted into Krugerrands.

IF YOU ARE TRYING TO BARTER WITH GOLD, YOU END UP PAYING BY THE OUNCE, AND THERE IS NO EASY WAY TO GET CHANGE.



> A neat stack of 200g gold bars might be easy enough to transport, but it's still tough to make change for one of them—because they're worth almost \$10,000 each.



OTHER PRACTICAL ITEMS THAT MAKE MORE SENSE THAN GOLD INCLUDE FREEZE-DRIED FOOD, WATER—ALWAYS WATER—MEDICAL SUPPLIES AND EVEN SIMPLE THINGS SUCH AS SEEDS FOR VEGETABLE PLANTS.



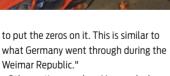
⟨ Above: Each

(Photo: Peter

Suciu)

case of water is bigger than a brick

of gold but weighs about the same.



Other nations, such as Venezuela, have also seen such devaluation, thanks to hyperinflation and the fact that it is now cut off from the International Monetary Fund (IMF).

"That is the danger that any non-IMF member faces," warned Gause, who added, "However, I doubt any modern industrialized nation would go through what the Weimar Republic went through. IMF nations today can't inflate their way out of problems."



better new currency in a time of crisis. (Photo: Peter Suciu)

✓ Left: This crate of Polish 7.62x25 pistol ammunition is just slightly larger than a gold "good delivery bar," but it could be a

> Below: A pile of screws and nails could be worth far more as barter items than gold after an economic collapse.



BARTER ITEMS

oarding gold coins might not be a silly idea, should you need to bug out following a pandemic, environmental disaster or other turmoil. Gold will always have value, especially in chaotic times, when a credit card is only good as an ice scraper and paper money is only good as emergency toilet paper. Gold coins might be the last true hard currency.

Yet, gold bars don't make sense. First, the weight is always going to be an issue, and second, a couple of bars could literally be worth an entire life's savings. So, unless you plan on going on the run and need to buy a mansion or airplane, a gold bar literally can't be spent!

To put this in perspective, a standard gold bar held and traded internationally by central banks and bullion dealers is called a "good delivery bar." It is 400 troy-ounces of gold and is usually 99.5 percent pure gold.

There are actually two different types of bars: cast and minted. Cast bars are made by pouring molten gold into an ingot mold; minted bars are made from gold blanks that have been hand cut. In both cases, a good delivery bar is 12.4 kilograms, or roughly 27.33 pounds. As of the end of 2016, the price for a bar of gold was just under half a million dollars (U.S.). So, anyone hoarding bars of gold is literally tying up a fortune that could be used for more-practical goods.

There are many other items the approximate size of a couple of bars of gold and actually weigh less. A 420-round tin of .223 (5.56x45mm) ammunition has roughly the same weight. Now, that is an example of "hard currency" that could be a lot more useful than a bar of gold.

Other practical items that make more sense than gold include freeze-dried food, water always water—medical supplies and even simple things such as seeds for vegetable plants. Imagine how many seeds for a post-society breakdown garden could fit in the space of a bar of gold and how much potential food it would yield.

In addition, "barter items," none of which are exactly expensive, would make a good alternative to a bar of gold. Nails, screws, zip ties and duct tape could literally be worth their weight in gold once the local Home Depot is looted and you have to hit the road. Gold can't secure boards over broken windows; nor can it be used to seal a sheet of plastic to keep the draft out.

"Gold is only useful in some very specific types of emergencies, ones in which there is still enough societal structure left to warrant a means of exchange but not enough structure so that the dollar has lost all value," said Trent Hamm, who authors the personal finance website The Simple Dollar.com.

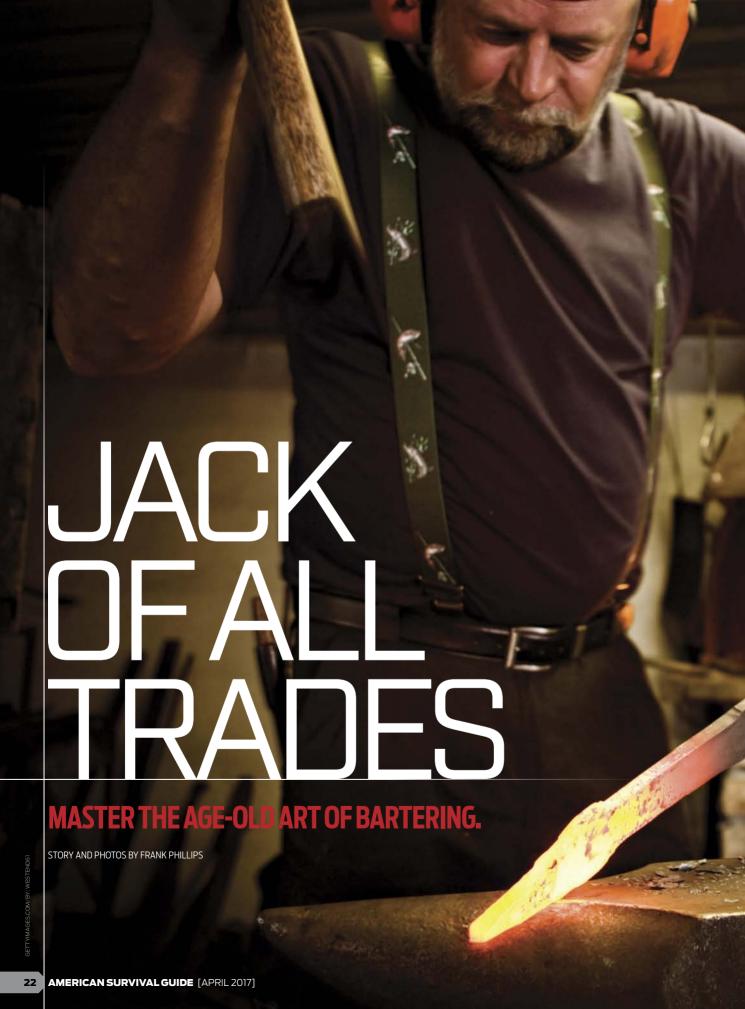
"In a true global pandemic, things like fresh water and edible food items will have value," Hamm added. "Gold will only have value if the market that develops in that world accepts it as a medium of exchange, which is far from a certainty. You need food and water; you don't need gold."

When considering what will get you through the bad times, "you should focus on necessities and protecting those necessities. as well as useful skills, not on a precious metal that may or may not have value in that environment," Hamm suggested.

In addition, while gold can be a great investment, just as with stocks and other commodities, it fluctuates in value. That means you want to buy low and sell high, but the reverse can occur: You buy when it is high and are forced to sell when it is low. This is why gold should be viewed with some skepticism as a hedge against economic collapse. Material goods could have a whole lot more value in the times to come.



> In a barter economy, food, ammo and medications might have more trading value than a gold coin or bar





> When stores are history, barter will be the only way to acquire the things you need.

needs and wants. Both parties can get what they want or need without having to first obtain third-party money to do it.

The biggest disadvantage to the barter system is deciding the level of trustworthiness of your trading partner. Is he a stranger with devious motives who engages you just long enough to see what wares you have in order to steal them and/or harm you? If he is trading goods for services, does he know how to do what he says he can do. and will he stick around long enough to complete the job? There are no warranties, no exchanges and no consumer-protection advocates if a trade doesn't go as planned. For instance, consider a deal that would involve trading guns or other weapons with a stranger who then might use those weapons to steal the rest of your supplies.

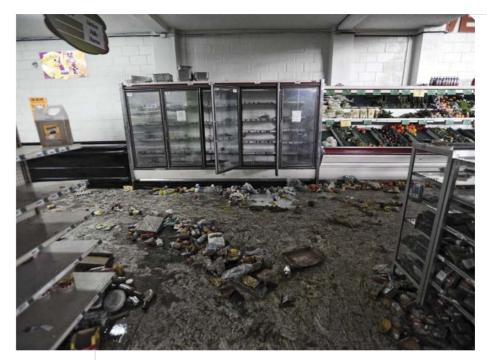
HOW TO BE "CACHE" RICH

The time to start collecting goods to trade and learning useful skills to barter with is now. This should give you plenty of time to develop, organize and stockpile a variety of things you've determined will be in demand.

Be Covert: You could clear a big spot in your garage or empty the closet in your guest bedroom and immediately pack it to

d Below: Staying organized is an important step in ensuring your cache of supplies not only stays fresh and updated, but also that you don't overstock a certain item or understock another.





THE TIME TO START COLLECTING GOODS TO TRADE AND LEARNING USEFUL SKILLS TO BARTER WITH IS NOW.

capacity with all manner of things. This, however, will impact your finances negatively and also alert anyone who lives near you to the fact that you've got a huge cache of supplies.

Be Gradual: The best method is to collect your supplies gradually and quietly. Buy one or two boxes of ammo every month or so. If you're an avid shooter, that is a reasonable amount to purchase. Plus, if you make a single, large purchase of something that has a shelf life—such as gasoline or allergy medication—all of that one thing will expire at the same time. How will you get rid of 50 bottles of Benadryl in a non-emergency situation before it all becomes worthless?

Be Organized: With the exception of grain alcohol, honey, beef bouillon cubes and a few other things, nothing will last forever. Be systematic and orderly. When you buy something new, write the date on it. Then, remove the oldest-dated case from your storage of supplies and dispose of them as you normally would. This keeps your cache fresh, and it keeps you from having to discard anything.

Make, and keep, an accurate list of what you have and where you have it. It will make condensing your supplies easier in a panic and keep you from buying too much of one thing.

Be Flexible: You do need a bartering plan, but you'll also need to be flexible with that plan. You'll need to be able to adjust your stash appropriately to account for the changes in taste, popularity and need.

Over time, you'll discover new items that might trade better (baby formula, heirloom seeds and calcium tablets, among others) and you'll want to adjust your cache of goods to reflect that change. Consider yourself a store owner—but one who hasn't opened for business yet. In order to be successful, you should stock the items people will desperately need. If those needs change, it is easier to make changes in a gradual manner.

Be Cautious: You might find yourself having to deal with someone you don't entirely trust, but there are some things you can do to protect yourself from fraud, theft or bodily harm:

- Don't go alone. Always have backup when you meet someone to trade with.
- Don't trade near your stash of supplies. Meet away from your supplies so the other party won't glimpse your hoard.
- Don't show what you have. Never let on how much or little of anything you have, because that knowledge will impact the values of the barter items.
- Never show desperation for a particular item. If you do, the price will skyrocket.



(If you choose to deal in guns and ammo, do so with people you know and/or trust.

- (Always be able to say no to any kind of trade.
- Never make the other party angry. The best deal is one in which both parties feel they made the best exchange.
- Never barter with something you might need. The only things you should trade are surplus items or those you are sure you won't need in the future.

protection, fire, tools and personal/shelter.

✓ Left: Coffee and

be good items to trade, because they

sweet drinks should

are popular and will

be among the first items to be sought

by heavy users.

Popular items will get used up quickly, and those are precisely the items you'll want to have plenty of to barter with. This may sound cold and heartless: Don't take pity on those people with vices. A caffeine, nicotine or alcohol dependency can be a powerful tool for you, because people will go to great lengths to maintain their habit. As a result, keeping tobacco, alcohol, coffee, tea and/or soda in vour supplies might be a boon to you down the road. This is especially true if these items will be of no use to you.

Here is a starter list of good items that will store well and be of value in a post-apocalyptic situation. There might be other items that will work for you in your particular situation.

FOOD AND WATER

- Fresh fruits and vegetables: Fruits and vegetables you've grown will fill a need for natural vitamins and minerals not found in other foods. The problem is that fruits and vegetables have very short shelf lives.
- **(Baking soda:** This will have broad appeal because of its many uses.
- **Grain alcohol:** Besides the obvious, it's also valued as a fuel, antiseptic, cleaning agent and other uses.
- (Butter: Real butter is available in a can

STOCKING UP

There are many items people will still need after a catastrophe has destroyed the means of their production. Anything you can cheaply buy now that cannot be easily produced in a bleak future—ammo, medicine, canned food, sugar, salt, etc.—is great to hoard for future trading.

Consider stockpiling items that fall into the five major categories of supplies needed in and after an emergency: food and water,

HOW DESPERATELY THAT ITEM IS IN DEMAND DETERMINES ITS WORTH AND SETS THE VALUE.



(Keep your supplies organized and inventoried. Don't let others know what you have, or its value-and vour security-might be compromised

that can last for a few years.

- **Canned foods:** They store and stack easily, can be had cheaply today and will gain value.
- Candy and gum: These simple delights might, for a moment, remove people from their current worries via a sugary treat.
- Cigarettes and cigars: Although they don't last more than a year at best, well-packed tobacco and cans of chew have much longer shelf lives.
- Live animals: Sometimes difficult and expensive to raise and transport, live animals, such as chickens, pigs and goats, can be quite valuable.
- **Coffee:** Demand will only increase after a catastrophe.
- **Cooking grease:** Anything related to cooking and flavoring will be valuable.
- Powdered milk: A prime commodity, certain brands of powdered milk have an indefinite shelf life.
- Canned meats: SPAM, for instance, is a great product. It's cheap, easy to store and will last a long time.
- Sugar: Sugar never goes bad, and it is very inexpensive ... now.
- **Salt:** Another multi-use commodity, salt is cheap and has a long shelf life.
- (Water purification tablets: Not intended for long-term use, these will trade well to those who need to treat questionable water.

YOU DO NEED A BARTERING PLAN, BUT YOU'LL ALSO NEED TO BE FLEXIBLE WITH THAT PLAN. YOU'LL NEED TO BE ABLE TO ADJUST YOUR STASH APPROPRIATELY TO ACCOUNT FOR THE CHANGES IN TASTE, POPULARITY AND NEED.



> The best thing about live animals is that they don't expire the same way eggs, milk, bacon and cheese do.

> As long as

it-whether to escape reality or to

lighten the mood.

Having a few cases of grain alcohol in

your collection will

be a boon to your bartering.

alcohol is available, people will drink









Above left: Sugar is one of those rare commodities that has a host of uses from wound care to coffee sweetener, so keeping several large bags of it on hand (and safe from bugs) will serve you in the long run.

⟨ *Left:* Even if vou don't smoke. keeping plenty of cigarette packs in your supplies will be good for trading. Many people smoke, and when cigarettes are difficult to come by, their value will skyrocket

√ Near left: Storing canned food is a great way to have a variety of tradable items in a small space. Plus, if the going gets really rough, you have excess food to eat.

- (Matches: The only way most people know to start a fire.
- (Petroleum jelly: From lubricating rifle actions to starting a fire, this item will be easy to trade.
- **∇ehicle fuels:** Although difficult and hazardous to store, and with only about a one-year shelf life, vehicle fuels will be in high demand.
- **Stove fuel:** Stove fuel can be used for heating, as well as cooking.
- **Lantern mantles and kerosene:** With electricity gone, demand for these will increase
- (Lighters and fluid: Another method of fire starting, these also appeal to smokers.

TOOLS

- (Hand tools: Wrenches, screwdrivers. saws, hammers and other tools will be key for those depending on self-reliance for survival.
- (Nails and screws: These are heavy, but cheap and easy to store. It's easier to repair and build with these than with vines and notched logs.
- (Plastic bags: They provide waterproof storage for a multitude of small essentials.
- (Batteries: Not everything can be recharged, and most people don't own rechargeable batteries and solar panels. It's best to keep AAA, AA and 3-volt lithium-ion 123A batteries in your stash.



Above: These ubiquitous red fuel containers can be used to store a variety of fuels-from gas and diesel to kerosene and lighter fluid.

 Right: Sadly, most people know only one way to start a fire: matches. That's good news for you if you've got several boxes of them. Take caution in storing them for a long time. They do absorb moisture and lose effectiveness.



- Cable ties, cord and rope: Zip ties, real 550 cord and various sizes of rope have a thousand uses and draw lots of customers.
- **Can openers:** Life is a lot easier if you have a can opener.
- Duct tape: The uses for duct tape are innumerable. Keeping a dozen rolls in your stash of supplies is well advised.
- Sewing gear: Mending clothing will extend wearability, especially if sewing factories are no longer operating. Needles, thread and scissors are small and can be stored easily in quantity.

> There are dozens of specialty skills that are essential to life after a disaster. Many of these skills are not widely known-giving anyone who does know them a valuable trading chip.





> Above: When things break, they must be fixed, and building supplies—specifically nails and screws—will be in short supply.

Gloves and masks: Survival can be unpleasant and messy. Death, damage and injury will require people to be protected from disease and filth.

PERSONAL/SHELTER

- Antiseptic soaps and gels: Keeping clean and germ free will still be important in a survival situation.
- **《 Antihistamines:** Antihistamines such as Zyrtec, Claritin and Benadryl are invaluable when people have trouble with allergic reactions.
- (**Bleach:** Used as an antiseptic, bleach can sanitize drinking water and eliminate mold and mildew
- Contraceptives: Birth rates increase, even after simple blackouts. Pregnancy and babies can be additional challenges many won't be prepared for. In addition, some contraceptives also serve other health and waterproof storage needs.
- Toilet paper and tampons: These items can be bought in large quantities and will always be in demand, as will other hygiene products.
- (**Toothcare items:** Items such as toothpaste, toothbrushes and floss are essential to good dental hygiene and a healthy life.
- **Soaps and shampoos:** Poor hygiene can lead to disease and illness, and natural cleansers might be hard to come by.
- (Razors and blades: These are small, cheap and have dozens of practical uses.

WHEN ENOUGH IS ENOUGH

It's not feasible to convert your home into a warehouse to maintain large stores of materiel in case of an emergency. So, how do you know how much of any one thing to store?

It comes down to a few factors: Price, space and mobility.

Price: Avoid bartering with expensive items such as flashlights, electronics and guns.

BARTERING CLUBS AND GROUPS

You don't have to wait for the world to come crashing down around you in order to test your chops. There are dozens of clubs and groups dedicated to bartering and trading goods and services, offering everything from trading houses and office space to cars and clothing. Here are five sites that would be a good place to get your bartering feet wet.

Shared Earth (www.SharedEarth.com):

Similar to the model of the old-time sharecroppers of early in the last century, Shared Earth is where you can find people willing to trade the use of their land in exchange for a percentage of whatever it is you produce.

c Zilok (us.Zilok.com): There is almost no good reason to spend a small fortune buying an expensive tool if you only need to use it one time. This site connects people who need specialty tools so they can borrow, rent or trade them.

U-Exchange (www.U-Exchange.com):

With listings from all over the world, this is a large and free site for people who want to list unwanted items and search for wanted items to trade.

Tradeaway (www.Tradeaway.com):

This site is a combination of garage sale, auction site and trading site, because anyone can bid on anything they like. They also have the option of offering another item as a trade. Services are also offered on this site.

(Swap.com (www.Swap.com): This site is only for trading. There is no money exchanged and no bidding. Billed as a consignment and thrift store site, Swap.com offers mostly clothing and fashion accessories, baby items, movies and books.





Below left: A dark world without electricity will always need
 batteries. Make sure to keep them in a cool, dry place and rotate
 them out frequently.

Below right: There will always be a need for feminine hygiene products, but if there are no women around to trade with, tampons work great at halting the bleeding from bullet wounds.





Far left: Since their invention in the 1950s, cable ties have taken a well-earned spot on the list of must-have survival gear.

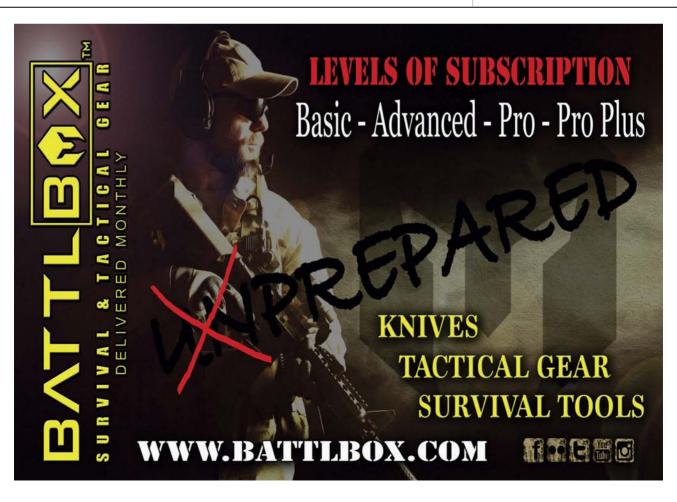
 Near left: Bleach is a powerful cleaning agent that sanitizes surfaces and can also help purify drinking water.

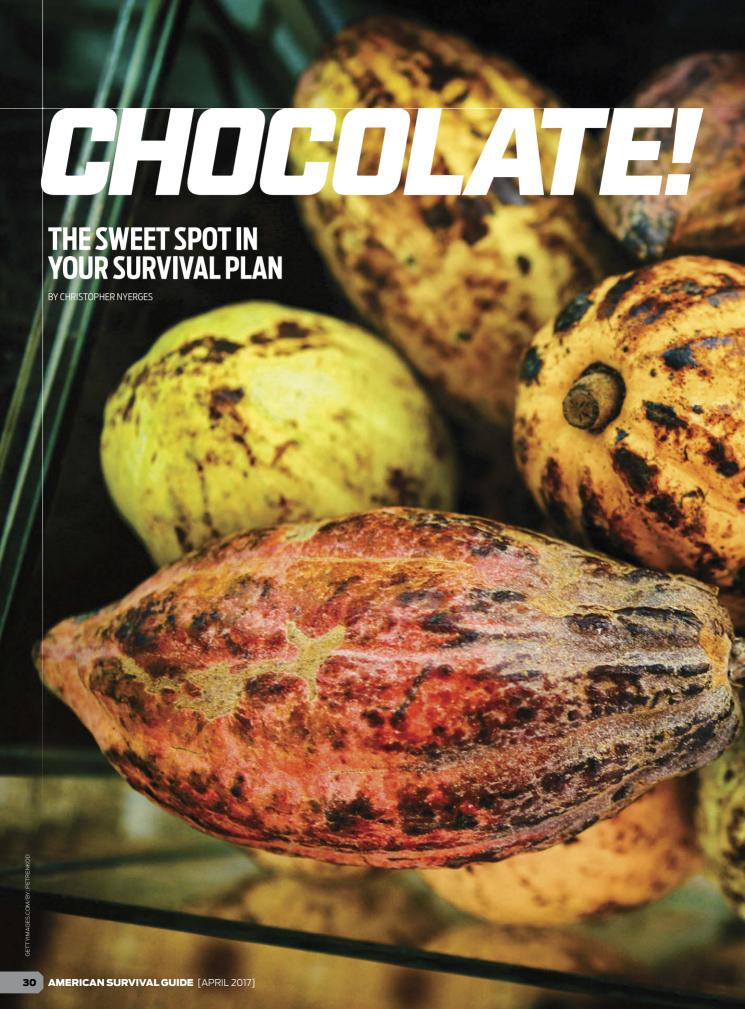
Unless you're very well off, to outlay a lot of cash now in the hopes that you will be able to trade it in the future is probably not a wise allocation of today's cash.

Space: If you already have limited storage space, converting that hall closet to a survival cache isn't the most practical idea. It might make sense to store your goods in a separate, but secure and easily accessible, location.

Transportation: A huge part of survival is the ability to bug out quickly and quietly. Having to pack the truck with a huge assortment of gear is conspicuous to those around you and is difficult to do quickly.

In the end, having a unique and useful skill and the wherewithal to practice and trade for it might be a large part of your barter plan—especially if it doesn't involve high material costs, large volumes of equipment and parts, and is easy to take with you if you have to bug out. **ASG**









UNSWEETENED BAKING CHOCOLATE IS PERHAPS ONE OF THE **BEST OPTIONS FOR** CHOCOLATE STORAGE.

white beans. Once picked, these beans are allowed to ferment for a few days or longer, at which point they take on their characteristic chocolate aroma and brown color.

Once dried, the beans are then exported and typically processed with modern machinery. However, it is certainly possible to process your own, as is often done today in Mexico. However, unless you live in the tropics, you won't be growing your own chocolate.

Stock up and store it in a cool dry place. Don't store it high up in a non-insulated cupboard. I learned that the hard way: Once, during a heat wave of more than 100 degrees (F), I found that all my chocolate had melted. At the time, I'd been storing chocolate nibs in glass jars, so I was left with a block of solid chocolate in each jar. So, if you purchase the unsweetened nibs (a good choice), store them in a solid container, and keep everything wrapped.

In time, chocolate develops a white coating and gets harder, but it is still edible. Properly stored, it will last almost indefinitely. Store it in the basement if you have one or in a low spot (remember: Heat rises).

Unsweetened baking chocolate is perhaps one of the best options for chocolate storage. It will keep the longest, and because it is unsweetened, you can melt or shred it and use it any way you wish. The unsweetened blocks are also of a uniform size and are ideal for trading. If you don't want to bother with unsweetened chocolate, 85 percent cocoa would be a good next choice as far as versatility and trade value are concerned.

During the normal manufacturing process, the beans are first "conched," which means that heat and grinding pressure are applied to produce a thick liquid called chocolate "liquor." When this chocolate liquor hardens, bitter "baker's" chocolate results. This is, indeed, bitter; and most people don't care for it because it has no sweetness.

When baker's chocolate is subjected to great pressure, both a liquid and solid result. The liquid is cocoa butter, and the solid is cocoa. Cocoa butter added back to baker's chocolate in greater amounts results in bittersweet, semi-sweet or sweet chocolate—three more grades or types of chocolate. The addition of milk creates milk chocolate. Sugar, vanilla and various other ingredients are also often added.



BACK TO

I made my first "authentic" chocolate drink by steeping the coarsely ground beans of the chocolate plant in warm water and adding a little honey. If historians are correct, this was the type of beverage (called "xocolatl") that Cortez found Montezuma drinking.

He reported, "We found the whole beans guite oily. Once ground and made into a beverage, the drink had the color of weak coffee and was a bit oily. It had a pleasant bitter-chocolate flavor. One cup seemed as stimulating as two to three cups of coffee. It was good!"

Montezuma believed chocolate to be a food of the gods brought to the Aztecs by a healer or prophet who traveled over the waters (possibly Quetzalcoatl). To this day, chocolate is known to botanists as *Theobroma*, or "food of the gods." It was widely regarded as an aphrodisiac (that probably gave Montezuma the stamina to deal with his many wives!).

COMPOSITION

TYPE	CALORIES (per ounce)	FAT	PROTEIN
BITTER (DARK): No sweeteners added.	197	55%	10%
BITTERSWEET: Must contain at least 35 percent chocolate liquor.	170	45%	7%
SWEET: Must contain at least 15 percent chocolate liquor and no more than 12 percent milk solids.	162	35%	4%
MILK: Must contain at least 10 percent chocolate liquor and at least 12 percent milk solids.	150	30%	5%
COCOA (POWDER): All cocoa butter removed.	121	15%	18%

SOURCE: UNIVERSITY OF CALIFORNIA, BERKELEY, WELLNESS LETTER



Mayan priests perform a chocolate ceremony in Yucatán, Mexico, where the "Holy Eucharist" is a cocoa pod.



CHOCOLATE IS A VALUABLE ENERGY FOOD FOR ACTIVE INDIVIDUALS.

JUNK FOOD?

A woman I know saw me trying to select chocolate at a store.

"Chocolate!" she exclaimed. "Why are you looking for chocolate? I thought you only ate health foods. Chocolate is junk food!" Was she right? Is chocolate a worthless food-something to be avoided?

Because there are so many factors involved in making chocolate products, no two have exactly the same properties. In other words, when you try to answer the question, "Is chocolate good or bad for me?" you cannot do so without precisely defining what you mean by "chocolate."

Is it even remotely possible that chocolate might have some redeeming qualities? Fortunately, when you read medical studies of various "good" or "bad" effects from chocolate, they tell you what type of chocolate was fed to the test subjects, and in some cases, the brand of chocolate, as well.

Certainly, chocolate is fattening if you are sedentary and consume a lot. A small, 12-ounce candy bar typically contains about 220 calories. A couple of those a day will add up fast.

The raw bean does contain high amounts of theobromine and caffeine, but these oil-soluble, stimulating alkaloids are largely lost during the processing. An average ounce of bittersweet chocolate contains from 5 to 10 milligrams of caffeine, compared with 100 to 150 milligrams of caffeine in an average cup of coffee.

So, what about cavities and acne—two oftencited negative results of chocolate consumption?

Although it is commonly believed that eating chocolate causes an increase in the incidence of acne, there is no scientific data to support this. Numerous tests with acne sufferers who were fed large doses of chocolate showed that chocolate did not increase the incidence of acne. It is much more likely that people are simply eating chocolate at the age when they are getting acne.

As for cavities, at least three separate research centers have revealed that the cocoa powder within chocolate contains a substance that actually inhibits cavities—not a bad thing to know when you're looking for something to eat from your survival pantry.

> The fruit of the cocoa tree (Theobroma cacao) The cocoa beans are removed from the cocoa pod and dried before production





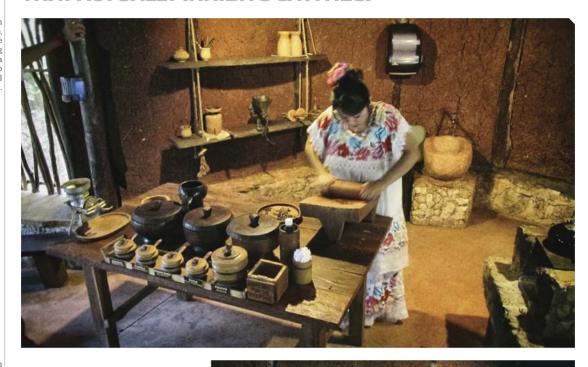
> Prudence Daniel of Los Angeles shows her popular "pie ball," which is a combination of chocolate and peanut butter. Daniel. founder of Prudent Pastries, uses only natural and healthful ingredients in her pastries and chocolate products.



> Some of the many chocolate bars available

AS FOR CAVITIES, AT LEAST THREE SEPARATE RESEARCH CENTERS HAVE REVEALED THAT THE COCOA POWDER WITHIN CHOCOLATE CONTAINS A SUBSTANCE THAT ACTUALLY INHIBITS CAVITIES.

A woman in Yucatán, Mexico, demonstrates the old way of grinding cocoa pods on a metate in order to make a traditional drink.



> Right: She then cooks the freshly ground cocoa nibs with water and honey to make a traditional drink.

THE BAD

The culprit in this case is not chocolate; it is sugar. Sugar is clearly a cause of cavities. Milk chocolate, for example, contains 55 percent sugar by weight. And most often, chocolate is made with "white" sugar, which is the "cocaine" of the food industry. White sugar is a foodless "food." In most cases, the worst thing about chocolate is that it contains so much white sugar. Most commercial chocolate products list white sugar (in any of its various guises) as the primary ingredient. When planning your food reserves, one



> Below: The Mayan glyph for cocoa: kakaw





← Left: Grinding chocolate is shown in an old Mayan glyph.

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ACTIVE COMPOUNDS IN CHOCOLATE

SEROTONIN: A neurotransmitter that plays a role in regulating mood. Although found in chocolate, it's found in much higher amounts in other carbohydrates.

CAFFEINE: This stimulant is found in very small amounts in chocolate.

THEOBROMINE: Cocoa beans are about 2 percent theobromine, a central nervous system stimulator that stimulates and dilates the blood vessels of the heart and brain, as well as the bronchii of the lungs.

PHENYLETHYLAMINE: An amphetamine-like substance also found in the brains of people "in love." Although found in chocolate, it's found in much higher amounts in meats (such as salami).

POLYPHENOLS: These antioxidants (also found in green tea and red wine) might prevent heart disease by preventing the clogging of arteries and lowering cholesterol levels. **CANNABINOIDS:** These chemicals, which are the active ingredients in marijuana, are found in very small amounts in chocolate and might influence the brain's own production of painkilling compounds. By "very small amounts," you'd have to eat about 22,000 pounds of chocolate to

SOURCE: LOS ANGELES TIMES SCIENCE WRITER USHA LEE MCFARLING; FEBRUARY 16, 2000

have any drug-like response.

way to sidestep the detrimental effects of so much white sugar in chocolate is to make your own by mixing cocoa (or bitter or baker's chocolate) with honey or other natural sweeteners. There are a few commercial chocolate bars that contain no white sugar, but these are not yet common and cost up to three times as much as others made with white sugar.

THE UGLY

More-common chocolate bars often contain more sugar than chocolate. That's OK if that's what you like, but because of the high sugar content, you'll get the bad with the good. And some people might want a quick sugar rush in certain emergency situations.

So, we now know that it's the sugar, not the chocolate, that's the cause of chocolate's sometimes bad reputation. Is there anything *good* to say about chocolate?



> Above: Farmer Serafin Guzmán checks his cocoa plantation near La Hormiga, Putumayo Department, Colombia.

A plantation worker turns drying cacao beans in the morning sun at Takalik Maya Lodge near the pre-Columbian archaeological site Tak'alik Abaj near the Mexican border.





THE IDEAL SURVIVAL FOOD

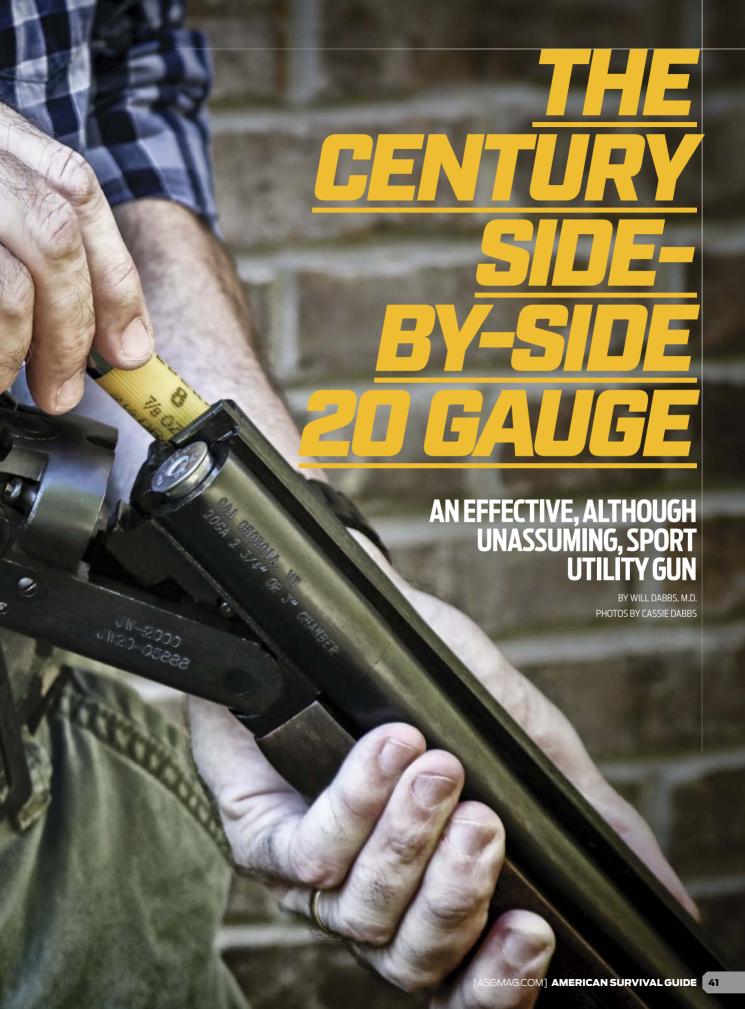
Ninety percent of a cocoa bean is digestible, comprising 40 percent carbohydrates, 22 percent fat and 18 percent protein. Chocolate contains substantial amounts of vitamins A, D and B2, as well as vitamins E and K, calcium, thiamine, riboflavin, iron, phosphorus, linoleic acids and phenylethylamine, which has been the subject of studies focusing on its beneficial effects for weight loss and mood.

So, whether you stockpile it to brighten up the inevitable bad day, perk up a boring meal or to trade for ammo or another critical need, chocolate is a versatile and beneficial food to have. It should be on your list. **ASG**









hat is the ideal survival firearm? Torrents of ink have been spilled over that one simple question. The quality publication you are currently clutching stands in mute testimony to the many-splendored options available to the properly prepared American.

The scenarios are easy enough to conjure:

goes to some feckless thug with a deactivated moral compass if you lack the means to secure it.

The options literally run the gamut. You will want a proper handgun (but that is a topic worthy of its own treatise). When it comes to long guns, however, the best answer might not be the most obvious.

There are currently between 20 and 30 million modern sporting rifles in America, most of which can generally trace their parentage back to either Eugene Morrison Stoner or Mikhail Timofevevich Kalashnikov, AR and AK rifles are compact, powerful, reliable and available. To the uninitiated, at least, they also look scary as heck.

Running the latest, greatest, black iron (and earning envious glances from your peers) is, indeed, great fun at the range. However, such theatrics might not be desirable should you find yourself congealed in traffic, trying to escape some catastrophe or surrounded by other survivors driven to desperation by hunger or fear. For the same reasons that conspicuous badges of rank might not be desirable in a combat zone, emerging from your vehicle sporting







nation from a backward, relatively undeveloped player on the world stage to the acknowledged

at a fraction of the recoil. Birdshot will keep

masters of making stuff well and in tremendous quantity. I imagine China's whole population busy turning out everything from Keurig machines to automobile radiators to Happy Meal toys. And another thing the Chinese typically do well is ... make guns.

I have in my collection an original Chicom folding-stock AK I purchased new at a gun show in 1984 for \$325. This stamped receiver underfolder sports exquisite workmanship, a gorgeous blued finish, three matching magazines, a sling and a bayonet serialized

RIFLED SLUGS ARE THE BALLISTIC **EQUIVALENT OF HITTING YOUR** TARGET WITH TWO HIGH-PERFORMANCE.357 MAGNUM ROUNDS AT THE SAME TIME.

THE CENTURY ARMS SIDE-BY-SIDE 20 GAUGE

Century calls its side-by-side 20-gauge coach gun the JW-2000. It is made at the Zhongzhou Machine Works in mainland China. These double-barreled guns would have represented the state-of-the-art in shotgun technology in 1885. Sporting familiar classic



importation of such pseudo-military stuff as this fell prey to an executive order under Bush "the First," but the Chinese still send us a lot of firearms our government deems "sporting" (whatever that means). These guns are typically rugged, aesthetically pleasing and inexpensive.

JW-2000

Century Arms built its business around providing American shooters with a wide variety of firearms not available anywhere else. Where once Century's forte was the resurrection of demilled firearms upon new virgin receivers, nowadays, it imports a great many unique guns, as well as account for the vast majority of all domestic American AK production. Century's line of side-by-side shotguns embodies its corporate ethos.

the JW-2000 are not up to what you might find on a collectible English sporting gun. On the other hand, unlike that refined piece of iron, the JW-2000 doesn't cost as much as your car!

Fit and finish on

lines, as well as a few thoroughly modern nods toward safety, the Century JW-2000 represents a great value.

For starters, the hammers are exposed but rebounding. This means the gun is not technically hot until the hammers are manually cocked. Because the gun uses separate firing pins and an intrinsic safety system, this also means the hammers cannot contact the firing pins unless the triggers are pulled. This keeps the gun from going off if dropped or if the thumbs slip off the hammers during cocking. There is also a sliding thumb safety that locks the mechanism in place, regardless of its configuration. With the hammers back and the safety on, the gun can be put into action in an instant.

The action locks closed when the hammers are retracted, and a common extractor makes removal of empties a breeze. There is a pair of serviceable sling swivels—critical commodities for any legitimate utility weapon—and the dark hardwood furniture is both ample and attractive. The steel components are all nicely blued. If you want to dial it up or down, the same gun is available in both .410 and 12-gauge versions.

In action, I carry a brace of spare rounds between the fingers of my left hand, just like the professional big-game hunters did for their double rifles back when Africa was a bottomless well of wildlife and creatures such as the rhino were still plentiful. I have found that when I am engaging threats such as venomous serpents, I can have the empties out and fresh shells in place in less time than it takes to describe. In fact, quite recently, I used my able Century 20 gauge to send a particularly vile moccasin perched atop a log not 20 meters from my back porch straight to snake heaven. At a slant range



of about 10 meters, a single barrel cleanly decapitated the beast.

PRACTICALITIES

Suffice it to say that my Second Amendment rights are fairly well exercised. I like guns, and my collection accurately reflects the depth of my addiction. However, amidst the black rifles, suppressed handguns, collectible iron, precision rifles and the like, nothing gets more real-world practical use than my inexpensive Century side-by-side 20 gauge. The JW-2000 points well and shoots straight while taking it easy on my high-mileage shoulder joints.

I use that simple, stubby shotgun to rid my Mississippi farm of venomous serpents, keep sundry vermin and pests in check, and maintain my indefatigable sense of self-confidence while strolling about on parts of the farm far from the hacienda. The rebounding hammer system means that the hammers cannot contact the firing pins unless the triggers are pulled. This prevents the gun from firing if dropped or handled roughly.

Whether the threat is a belligerent cottonmouth, a feral dog or just some errant two-legged ne'er-do-well with spectacularly poor judgment, my trusty Century 20 gauge deals capably with all comers. When properly stoked, there really isn't much this particular thunderstick can't do. These same attributes translate nicely to the "darker" places, as well.

Make a dispassionate assessment of your circumstances, finances and potential threats. There will, no doubt, be times when a long-range bolt gun that can deliver precision fires out to a parsec or a micro carbine sporting a 100-round drum, along with a rail-mounted Jacuzzi tub, might be the ideal tool for the task. However, if your trek out of the hot zone might involve the possibility of subsistence foraging or traversing urban spaces populated by throngs of less-than-durable, displaced leftists with sensitive constitutions, some variation on your granddad's old scattergun might be the better choice. I literally rely on mine all the time.

WINCHESTER PDX1 DEFENDER

Winchester was producing ordnance when George Armstrong Custer was debating whether or not to make the Army a career. In the intervening century and a half, Winchester has become one of the biggest names in American munitions. Producing the ammunition used by both civilian shooters, as well as U.S. military personnel engaged in the ongoing kinetic festivities overseas, Winchester produces many millions of rounds every day in the robust plant located in my small Mississippi town. Among hundreds of disparate calibers and loads, Winchester's PDX1 Defender line of ammo is purpose-designed to stop the threat.

Ham radio is not a toy



Banking on your cell phone or some toy "walkie-talkies" from the drug store to communicate when things go south?

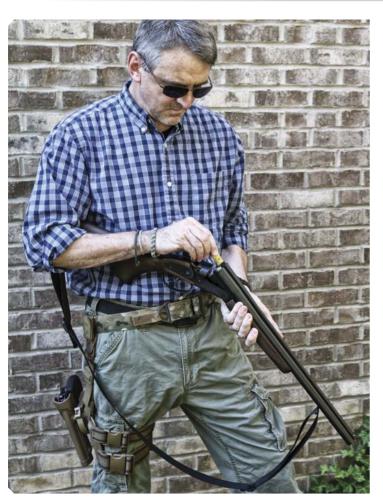
World Gone Silent has your comms needs covered: all in one kits with tested equipment, off-grid power, and the smartest training on the market. What good is your plan if you can't reach the people you care about?





The author's Century 20 gauge gets more use around his farm than any of his many other options.

WHEN IT COMES TO LONG GUNS, HOWEVER, THE BEST ANSWER MIGHT NOT BE THE MOST OBVIOUS.



Available in rifle, pistol and shotgun chamberings, all PDX1 Defender loads are optimized for defensive applications. Their 20-gauge variant pushes a ¾-ounce pre-segmented, pure lead slug at velocities of more than 1,500 fps. This high-tech projectile splits into three separate high-velocity fragments upon contact with a soft medium for maximum tissue disruption along three separate wound channels. The results are intuitively devastating.

Stacked fiber wads ensure smooth acceleration and modulated recoil. Low-flash powders and top-quality components provide the reliability required for instant execution, even if the rounds are stored for long periods. Such dependability brings peace of mind in that if this ammo must be used for real, the operator knows it will perform unquestionably.

Winchester's PDX1 Defender ammunition is what allows the humble 19th-century side-by-side 20 gauge to serve as a competitive defensive tool this deep into the Information Age. The combination of classic power and modern science brings unprecedented effectiveness to this time-proven platform.

Easy on the operator, yet profoundly effective downrange, PDX1 feeds my Century 20 gauge when I am out where the wild things roam. **ASG**

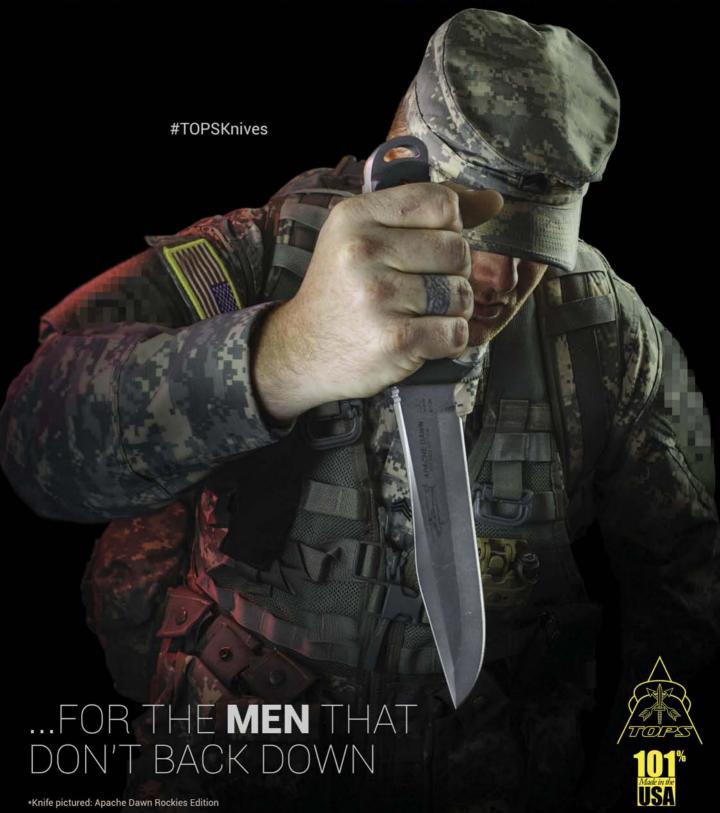
With a little practice, reloads on the JW-2000 take less time to perform than to describe. A brace of spare rounds can ride between the fingers of the support hand.

SOURCES

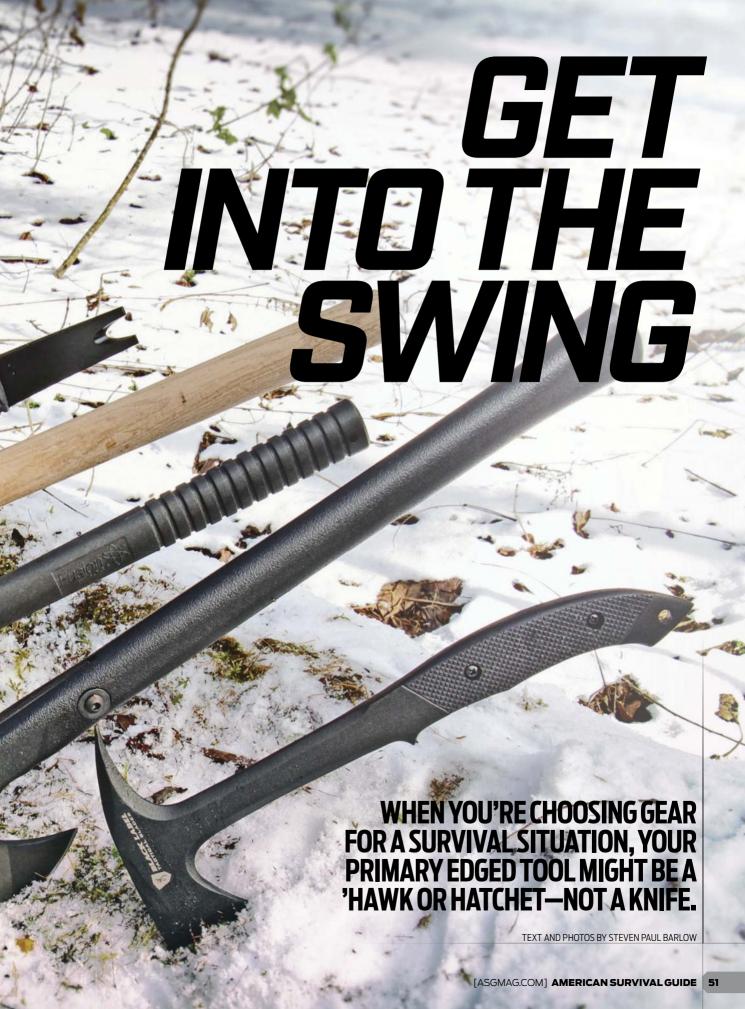
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TOPS KNIVES







BELIEVE IT OR NOT, THE HATCHET I'VE USED THE MOST WAS PURCHASED NOT IN A SPORT-ING GOODS STORE, BUT IN THE TOOL SECTION OF MY LOCAL SEARS.

ig survival knives receive a lot of attention as all-around tools for outdoorsmen. I own several, and I love all of their capabilities. But more often on forays into remote areas, I opt for a smaller knife, coupled with a lightweight folding saw and a hatchet or tomahawk.

For one, I find a smaller knife handier for field-dressing game, preparing meals, repairing gear and fashioning snare triggers or whatever else I need. A saw and a hatchet or tomahawk are much more efficient at turning big wood into smaller wood without the risk of dulling or damaging my knife through chopping or batoning.

IS IT A HATCHET OR A TOMAHAWK?

The answer is a bewildering, "Yes," because if you're looking for exact definitions, there might not be one. Without getting into the history and development of chopping tools, here are some factors that might only serve to confuse the issue:

Some say that a hatchet features a wider, more wedge-like shape to its head and is heavier, making it more efficient as a tool for splitting wood. A tomahawk has evolved with a narrower profile, making it lighter and more responsive in recovering from a swing in order to be better suited as a weapon.

The trouble is that some hatchets, such as my Estwing Sportsman Axes, have heads almost as narrow as some of my tomahawks. The presence of a flat-sided poll, great for hammering, isn't definitive of a hatchet either, because some tomahawks have a flat poll instead of a spike.

For those tools with wooden handles, the rule of thumb is that a hatchet's head will have a more oblong eye and a handle that is attached with the haft coming in from



> Above: The long, 22-inch handle on the Cold Steel Trail Hawk provided good leverage and made limbing branches easy.



worthwhile tools to have in the wild, because they can perform many chopping tasks efficiently without the risk of dulling or damaging your knife. From the top: hatchets from Cold Steel, Gerber, Estwing, Buck and Sears/Craftsman



← The author relies more on a lineup of three tools-hatchet, knife and sawthan on one large survival knife. From left to right: the Cold Steel Trail Hawk, Esee-4HM knife and Outdoor Edge Flip N' Saw.

the bottom and then fixed in place with a wedge. A tomahawk head, on the other hand, is said to have a more rounded eye, and the handle is fed through from the top. The force of the swing wedges the head into place at the wider end of the handle.

But again, this doesn't always hold true. And what about hatchets and tomahawks of one-piece, all-metal designs or ones with fiberglass or plastic handles that fasten otherwise? In addition, neither can the length of the handle be a defining feature.

Regardless of how you define them, hatchets and tomahawks are very versatile for quartering downed game, building shelters, cutting or marking trails, chopping kindling, improvising other weapons and tools, or fashioning a travois for hauling game, gear or an injured companion. Holding a hatchet by the head, its edge pointed down, makes it effective for skinning large game.

FEATURES

The metal used in making a hatchet or tomahawk and the heat treatment process it undergoes can be quite different from those of a knife. That's because



√ For detail work and making more-precise cuts, choking up on the handle gives you greater control, as shown with this Cold Steel Trail

... HATCHETS AND TOMAHAWKS ARE VERY VERSATILE FOR ... BUILDING SHELTERS, CUTTING OR MARKING TRAILS, CHOPPING KINDLING, IMPROVISING OTHER WEAPONS AND TOOLS ... with a knife, you're more concerned with maintaining an extremely hard, sharp edge for cutting; with a tomahawk or hatchet, the idea is to make something that will withstand the shock of constant pounding and chopping.

As a result, tools made for chopping are typically made of slightly softer steel to absorb impacts. And while the edges are not usually as razor sharp, the carbon steel normally used in their construction is easy to sharpen. Better hatchets and tomahawks will be differentially heat treated. In other words, the edge will be made harder than the rest of the head. Try to choose a tool with a forged head rather than one that's cast, which can have more imperfections.

Handles can be of traditional wood or, often these days, of fiberglass, glass-reinforced nylon or polypropylene. Some hatchets and tomahawks feature very strong, one-piece metal construction. These reduce the chances of the handle breaking and are often covered with rubber, G-10 or some other grip-enhancing material. The drawback is



that they don't absorb shock as well as other materials, and that shock can be transmitted to your hand.

Wooden handles can deteriorate over time, but these handles can usually be replaced or even improvised in the field. And, in the case of some tomahawks, the head can intentionally be removed so that you can use it as a stand-alone hand tool for cutting, scraping, slicing or skinning.

PAST FAVORITES

Over the years, I've developed certain favorites when it came to hatchets and tomahawks. As a police officer, I carried a SOG Tactical Tomahawk in my patrol bag in the event I needed a tool more robust





> Above, left: A whetstone, such as this Lansky Dual Grit Puck Sharpener, and a fine file are the only tools needed for keeping the edges sharp on your hatchets and tomahawks.

Above, right: A wider, more wedgeshaped hatchet head is better for splitting chores. The size and shape of the piece of wood don't always allow you to stand it up to split it. (Here, there's a snow-covered downed tree beneath the visible branch; the author isn't chopping into dirt.)

Balance Indian

KEEP THE EDGE SHARP

A sharp tool is a safer tool. I touch up the edges on my hatchets and tomahawks with a whetstone—usually a Lansky Dual Grit Puck Sharpener.

When an edge needs more attention, it's time for the file. Clamp the hatchet to a bench, push the file against the edge from the bit toward the butt, and lift it off to return for the next stroke as you work down the edge. Turn it over, and sharpen the other side likewise. A burr or wire edge that might form can be removed with your stone. Don't use a high-speed dry grinder, which could ruin the temper.

While a tomahawk with a spike poll adds to its usefulness as a weapon and as a breaching and extricating tool, the author prefers models with hammering capability, such as this Cold Steel Trail Hawk.



A SAW AND A
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BATONING.

than my EDC knife for breaching, cutting open secret compartments for contraband, extricating accident victims or on search details in wooded areas.

Believe it or not, the hatchet I've used the most was purchased not in a sporting goods store, but in the tool section of my local Sears. It is a Craftsman 1¼-Pound Camp Axe with one-piece metal construction and an overmolded rubber grip. I liked it so much that I bought a second one. I've also gotten excellent use from a pair of Estwing Sportsman's Axes. Although they are good choppers, their narrower profile makes them a bit less effective for splitting.

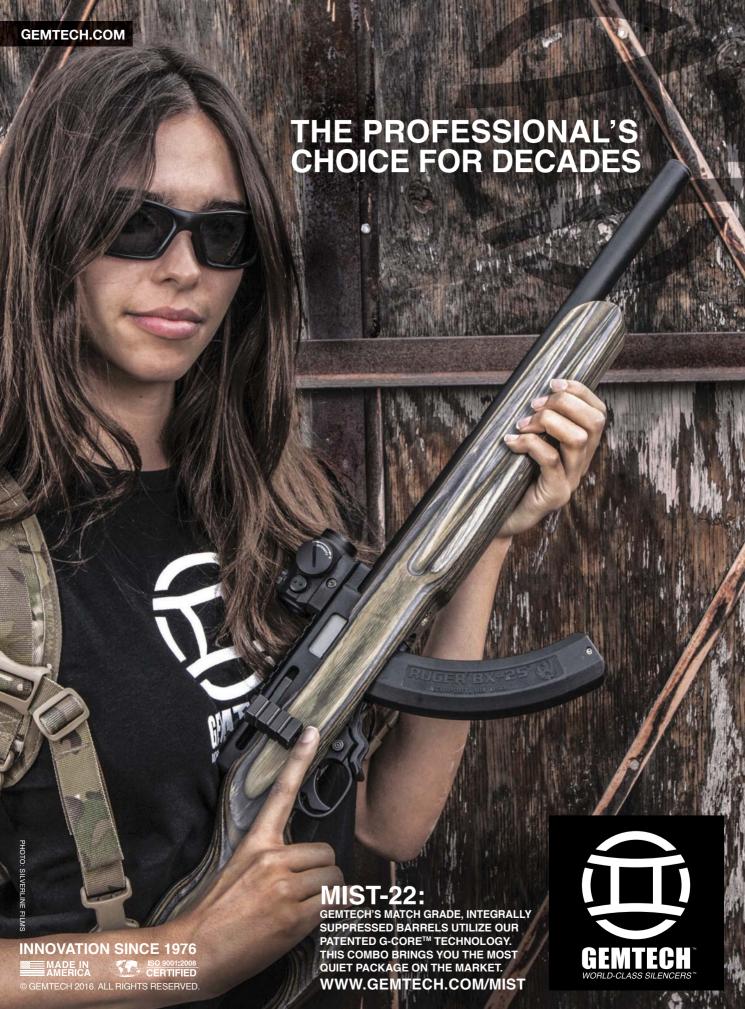
What do all of these have in common? They were well made, yet affordable. I put them through hard use, but I never abused them or pushed them beyond their design limitations.

CURRENT FAVORITES

At this time, I'm putting a trio of choppers from Cold Steel to the test, and I like them a lot so far.

The first is the Axe Gang Hatchet. It has a wooden handle and a substantial head with a 4-inch edge. It weighs a full 2 pounds and is configured perfectly for any chopping or splitting I need to do.

The second is Cold Steel's Trail Hawk. This is a traditional, wooden-handled tomahawk with a 2.25-inch cutting edge and a hammerhead poll. This is a small, lightweight (23.6 ounces) tomahawk, but it features a 22-inch handle, which gives it great leverage. It has proven to



be a great chopper and deep penetrator.

The third is Cold Steel's War Hawk. I was a bit skeptical of its polypropylene handle at first. But after putting it to use, I became a believer.

The 19.3-inch handle is attached with bolts to a long ferrule extending down from the head. It's very sturdy, and the 3-inch cutting edge is very effective. It also comes with a well-designed articulated sheath.

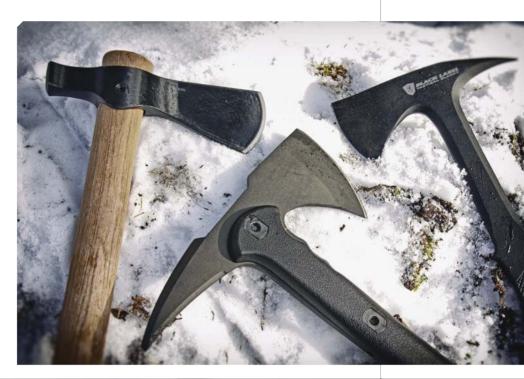
All three arrived sharp—not always the case with tools from other makers. I liked the fact that all three had rather long handles compared to the competition. Effectiveness wasn't sacrificed in the name of portability. And, like my earlier favorites, they were all affordable. At real-world prices, you can have all three for less than \$100.

Another tomahawk I've been putting to the test is a Browning Black Label Shock N' Awesome Tomahawk. It features one-piece metal construction and G10 handle scales. At just 13 inches long, it's smaller than most of my 'hawks and hatchets. You're not going to build a log cabin with it, but it's proving to be a useful tool.

Admittedly, if were traveling through jungle terrain, I might choose a good machete over any of these. And I'm not about to give up my big knives. But in the big woods of North America I frequent, I'll carry a 'hawk or hatchet. **ASG**

I LIKED THE FACT THAT ALL THREE HAD RATHER LONG HANDLES COMPARED TO THE COMPETITION. EFFECTIVENESS WASN'T SACRIFICED IN THE NAME OF PORTABILITY.

The heads on tomahawks can be attached to the handle a number of different ways or can be one strong, continuous piece. From the left are the Cold Steel Trail Hawk, Cold Steel War Hawk and Browning Shock N' Awesome Tomahawk.



Left: Cold Steel's
 Axe Gang Hatchet



Browning Arms

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The Defense Never Rests

couple of hundred years ago, when single-shot muzzleloading rifles were high-tech, a tomahawk was more apt to be an important weapon and not just a tool. But in a long-term survival situation, when ammo might be hard to find, tomahawks could, once again, play a bigger role in your defense.

Although I wrestled my share of drunks during my days as a police officer, I'll be the first to admit I'm not a martial arts expert, especially when it comes to the use of edged weapons. So, I consulted an expert to see what he had to say about tomahawks and hatchets for defensive use

Lynn Thompson, founder and president of Cold Steel, is a lifelong outdoorsman, hunter and weapons expert. He is a master of several martial arts disciplines. I asked Thompson what features he looks for in a tomahawk as a defensive weapon?

"From a survivalist's point of view, in a dire situation, when it's life and death, pretty much anything is better than fingernails," Thompson said. "But if we

are talking about best-case scenario or time to prep, I'd look for a wide blade with a curved cutting edge, pronounced 'horns' for thrusting or hooking, and enough weight to hit hard, but light enough to still maneuver with some degree of speed.

"It should have a long enough handle to give you the reach you need to oppose a knife or even a machete, but not too long, or else it'll become unwieldy and hard to recover."

But he'd prefer not to use the tomahawk alone.

"I'd also always try to pair a tomahawk with a fixed blade, but anything is a bonus. I always tell my students to fill that empty hand. It gives you a 'plan B' if you can't recover that head-heavy 'hawk fast enough and someone closes range. It gives you another object that can defend or attack. Remember, with a good tomahawk, you can improvise that other weapon or tool.

"It's a very versatile and adaptable weapon, but it does have some challenging aspects. It's not an easy tool to master, but it is fun to train. There are so many ways to use a tomahawk. It can bludgeon, slap, hook, parry, push, gouge and stab. It's a power, even against much larger weapons and opponents—if you know how to use it."

If nothing else, keep the 'hawk moving. It's a head-heavy weapon, tough to change angles or reverse direction. Keep it moving, and don't over-commit. I always tell my students to use the 'T': The top of the spine of the 'hawk can be used to push, catch, parry, block, strike, any number of things. It presents a larger surface area between you and your assailant."

A tomahawk will do unspeakable damage. In many cases, it can be one-hit, one-kill. That's not something to take lightly. But if you are reading American Survival Guide, you already know that. It's all about being prepared for the worst-case scenario. That's what a survivalist does."

Thompson has put together a set of DVDs, *The Fighting Tomahawk*, available through Cold Steel.



Choosing the right tomahawk can be a daunting task. The author gave up on the idea of having just one. From left are reasonably priced tomahawks from Browning. Cold Steel, Timberline Tactical, Estwing, Cold Steel and SOG

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arriors in combat, law enforcement officers on patrol and individuals defending their

homes have been injured or killed because they either didn't understand the basic concepts of "cover" and "concealment," they didn't apply them properly, or they failed to understand the distinction between the two. Whether or not they were taught about these tactics, they just didn't include their use in regular training and their daily activities.

The concepts of cover and concealment are both different and complementary. They can be used singly, or they can be used in concert with each other.

The purpose of this article is to ensure you know the difference between them and how to use them effectively, both separately and together.

COVER VS. CONCEALMENT

"Cover" is anything that can protect you from an incoming projectile, either by stopping it or deflecting it. Most types of cover will also provide you with concealment. Big exceptions to that rule are the solid-glass construction blocks that are used in some houses and commercial buildings. They don't conceal you or your movements but do protect you from most gunfire.

"Concealment" is anything that simply hides you from being seen or detected by someone.

WHAT IS EFFECTIVE COVER?

Cover is the more critical of the two concepts. It is, after all, what keeps you from being hurt or killed.

It is also dependent on what the bad guy is shooting. Materials that will stop a 9mm or other pistol round will likely not stop a shotgun slug or buckshot, simply because they have more energy behind them. The same thing goes for stopping a rifle bullet, which has even more gunpowder behind it.

In the first quarter of the 1900s, homes were constructed with walls that had multiple layers of plaster coupled with wooden slats and other denser materials. Those walls had a better chance of stopping the bullets of their day, but modern walls are just ½-inch drywall held in place with 2x4-inch studs and drywall screws.

Similarly, the furniture in our grandparents' houses was made from solid wood for the most part, rather than the particle board or laminates used today. Consequently, you can



) Above and right: Proper execution of the concepts of cover and concealment begin with lessons learned in training. Both of these trainees are concealed, but neither is behind good cover.



get better cover with the stone or concrete counter tops in the kitchen and bathroom. In addition, metal bathtubs are normally thick cast iron and can provide cover from small-arms fire.

Unlike what we see in the movies, most modern furniture and interior wall construction will not stop anything that is fired at you. John Wayne and Roy Rogers may have taken cover behind the bar or an upended table, but don't try that tactic if you are in a gunfight at home, the office or in a public building. Even pistol rounds can penetrate common office furniture and cabinets.

Today's furniture is mainly air under the upholstery; and any padding that is present won't stop anything. Metal cabinets and office conference room tables won't stop modern ammunition. Those big pillars on the interior and exterior of public buildings that look as if they are made of stone or concrete are really hollow, with a laminate on the surface that surrounds what is often a relatively small steel or concrete core.

So, what are we supposed to use for cover in today's world? Our best bet is to add to existing items. For example, an empty file cabinet or bookcase won't provide much protection, but if it is filled with files or books, which are basically 6 to 11 inches of wood fiber, it will provide adequate protection against small-arms fire. The same goes for office equipment such as copiers, which have a considerable number of metal moving parts on the inside.

> Near right: Glass blocks are the exception that proves the rule when it comes to cover and concealment. But they are also excellent for illustrating the two concepts: Although these blocks do not conceal you, they do provide you with good cover.

SOMETIMES, THE ONLY THING **YOU HAVE IS** CONCEALMENT. **SO MAKE THE MOST OF IT BY HIDING BEHIND FURNITURE, PUT-**TING A BLANKET **OVER YOURSELF OR JUST TRYING** TO BLEND IN WITH YOUR SUR-ROUNDINGS.

Because they are not solid, they don't provide as much protection—but they are better than desks and tables.

Movies, TV shows and books use automobiles as other sources of cover:



> Above, right: Unlike most furniture made of lightweight or composite materials, items such as this bed that is made of thick and solid wood can provide both concealment and cover to some one hiding behind the wooden parts.





> Right: Heavy wood tables such as these in the Boston Library can provide cover when flipped onto their sides.





∢ Above: Walls made of concrete, stone or brick provide excellent cover in an urban environment.

← Left: Modern interior walls are nothing more than wood or metal frames covered by drywall or sheetrock. They definitely won't stop a bullet.

COVER IS ANYTHING THAT CAN PROTECT YOU FROM AN INCOMING PROJECTILE, EITHER BY STOPPING IT OR DEFLECTING IT.

but in reality, most vehicles won't provide much actual cover from bullets without some sort of augmentation. Windshield glass might deflect bullets, depending on the angle, but that isn't something you can count on. Single or multiple rounds, especially from a rifle or shotgun, will break through and still be lethal. The best place to seek cover on a car is where there is the most solid metal. That means putting the wheels, transaxle, transmission, differential or engine block between you and the bad guys.

Of course, if you are outdoors, objects such as mature trees, concrete walls and dirt berms provide excellent cover from offensive fire.



Above: Paintball courses are excellent venues for practicing how to keep obstacles between you and your opponent so you can stay concealed when moving from one point to another.

√ Below: One of the best types of cover outside of the home is a dirt berm you can hide behind and still fire from. (Photo: Wikimedia.org)

IMPROVING EXISTING COVER

Even though most current building materials and furniture materials do not provide much protection, there are ways to improve them without making your home or office look like a bunker.

You can supplement the protection value of interior walls by adding gravel or sand between the sheets of drywall in each wall. To prevent the drywall from breaking and letting the filler spill out, you should either enclose the filler in bags or staple material such as burlap to the studs to hold it in.

Another option is to add metal plates at least $\frac{1}{2}$ inch thick behind one of the sheets of drywall. Using multiple thinner layers of metal to get to that $\frac{1}{2}$ -inch thickness will be more effective than a single $\frac{1}{2}$ -inch layer.

These fortifications can add a lot of weight to your walls; so if you make these changes



above the ground floor or basement levels, consider their impact on your home's structure. Likewise, be careful around electric lines if adding metal reinforcements.

Furniture you might hide behind couches, cabinets, servers, etc.—can be "up-armored" with steel panels or ballistic blankets in places not normally seen when they are in daily use.

Bedroom furniture can be enhanced in the same way. If your home-defense plan calls for using your bedroom as a safe room, adding a metal sheet or ballistic blanket that you can quickly pull out from under the bed is a good idea. Obviously, the head- and footboard, mattress and box spring will not stop anything.

Finally, you can augment the protection provided by your personal or work vehicle by replacing existing glass with bulletproof glass and adding ballistic blankets or steel panels to the doors and trunk area.

WHAT IS EFFECTIVE **CONCEALMENT?**

While most types of actual cover will also provide concealment, the opposite is not generally true: Most types of concealment will not provide you any meaningful cover. Their value is that they can stop you from getting shot by preventing the bad guy from seeing

AT TIMES, THE BEST FORM OF CONCEALMENT IS TO NOT MOVE, **BECAUSE MOTION IS NOTICED MORE** THAN ANYTHING ELSE.





⟨ Above: In this active-shooter training session, the cubicle walls provide concealment from the shooter but no cover. The gray file cabinet–if it were full of fileswould provide cover but not as much concealment. If possible, move two or more together to provide better cover. (Photo: Wikimedia.org)

← Left: These Air Force police officers would have been better off by turning their vehicle so that the wheels and engine block were between them and the threat. As they are. the doors provide concealment but no cover, and their feet and lower legs are exposed to incoming fire. (Photo: Wikimedia.org)



> Right: Although it is only available half the time and only useful if your opponent does not have night vision capabilities, darkness is an excellent source of concealment. (Photo: NavySEALS. com)



> Above and right: Sometimes, the only thing you have to protect you is concealment Do everything you can to blend in with your environment. This Marine rifleman is using his camouflage uniform, but if you are in your bedroom, vou could hide under a blanket. In the office, move a cubicle partition between you and the door. (Photo: Wikimedia.org)

where you are, what you have with you or where you are moving to.

Because effective cover is often hard to find, your best bet for not getting shot is to avoid being seen before you are ready and in position to take offensive action. Concealment can be some obstacle your opponent cannot see through, but it can also be something that keeps your opponent from seeing you.

Examples of effective concealment that can hide you while you are moving from one position to another are physical barriers (gullies or ridges, bushes, trees and high grass, and walls or buildings). Less-substantial visual barriers such as



CONCEALMENT IS ANYTHING THAT SIMPLY HIDES YOU FROM BEING SEEN OR DETECTED BY SOMEONE.

smoke, fog and dark shadows also make it harder for you to be seen by your adversary, but they are less likely than physical barriers to mute or mask sounds you might make.

Basic principles of camouflage can also help you conceal yourself. It is best for you to be totally hidden, but sometimes, you can't do that, especially when you are moving. Use the shadows when moving from one position to another or when you need to stop and don't have any cover to hide behind. Wear something that matches in color or shade with where you currently are or are going to. Conceal or ditch anything that doesn't. Putting a bright light source between you and whoever is trying to see you will help, because they cannot see behind the bright light. However, moving behind a flashlight





that you're holding is not a good idea.

LESSONS LEARNED

Cover and concealment are best when used together. Cover can also provide concealment, so that is where you want to be. If you are not in a good position to defend yourself or from which to fight, you need to move to a covered position that will allow you to do that. Concealment will help keep you from being seen when you are moving from one covered position to the next.

Pick your route carefully to take advantage of each piece of concealment and cover available to you—even if that means moving in a circuitous route instead of making a beeline to where you want to go.

Sometimes, the only thing you have is concealment, so make the most of it by hiding behind furniture, putting a blanket over yourself or just trying to blend in with your surroundings. At times, the best form of concealment is to not move, because motion is noticed more than anything else.

So, the lessons to learn here are pick cover over concealment; take advantage of both; and if you have to move, do so with as much concealment and cover as possible. **ASG**

> Office and institutional buildings often provide a mix of cover. As shown here, the walls separating the hallways and the interior rooms are made of cinder block, which provides better cover than drywall, especially against small-arms fire. (Photo: Wikimedia.



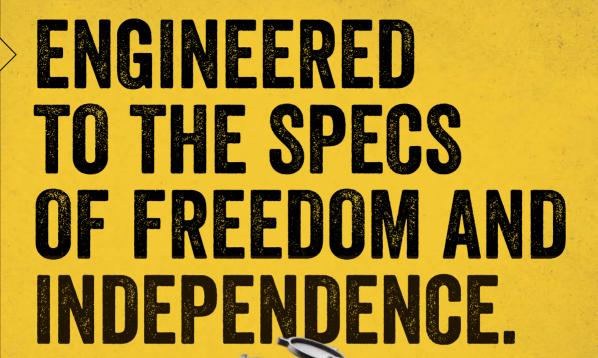


TRAINING

If you can't find a good instructor locally, refer to these organizations to learn where good training is available. Many groups can provide practical experience in the basics of how to use cover and concealment effectively, as well as how to use both when moving from danger to safety.

- **U.S. PRACTICAL SHOOTING ASSOCIATION; WWW.USPSA.ORG**
- **▼ INTERNATIONAL DEFENSIVE PISTOL ASSOCIATION: WWW.IDPA.COM**
- **▼ NATIONAL COLLEGE PAINTBALL ASSOCIATION; WWW.NCPAPAINTBALL.COM**







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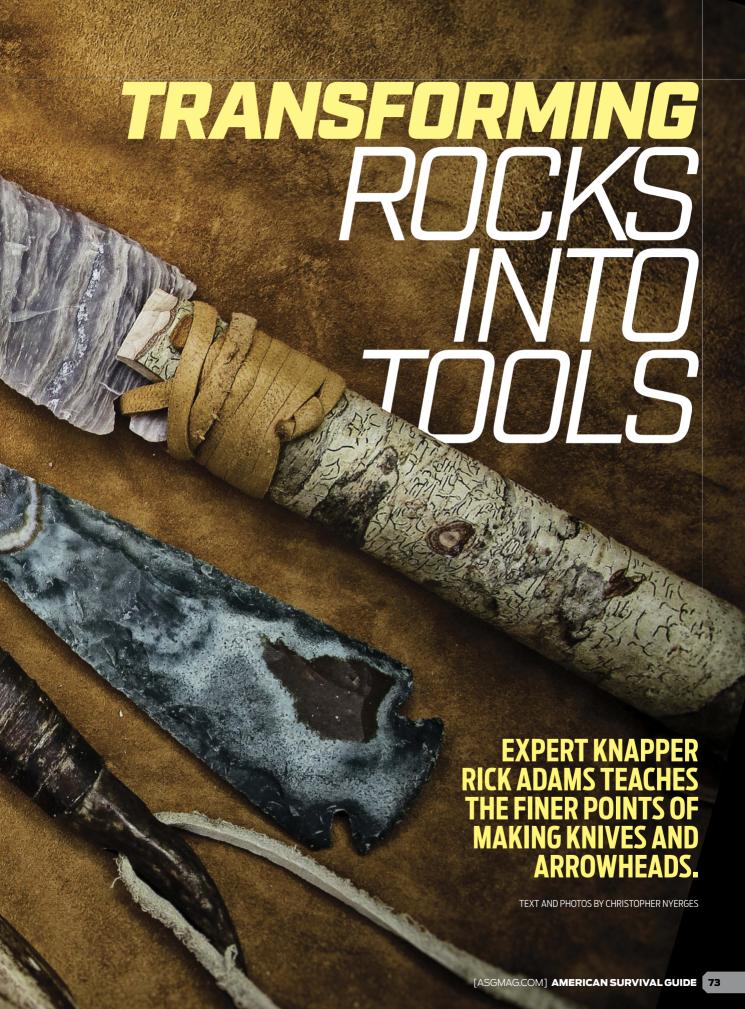
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was conducting a class on how to make arrows the Native-American way. Rick Adams, wearing a hand-beaded *Billy Jack*-style hat, quickly stepped up and helped the other students in some of the fundamentals of how to perform the complex task of straightening the wood shafts, cutting the nocks at both ends, securing the feathers and securing the stone arrowhead.

As I watched Adams, it was clear that he knew his way around primitive technologies. I could tell he was one of the rare ones who know by experience, not by having read about the old skills on the Internet.

After most of the students had made a few arrows, Adams shared with me some of his background and how he learned these skills.

He picked up some of the old skills through contact with members of his wife's tribe, the Dry Creek Rancheria Band of Pomo Indians in California. Adams says he had only gotten interested in the day-to-day crafts all people once took for granted in the last 14 years.

"I used to watch what some of the elders did," Adams explained, "but I had to do a lot on my own to try to make some of the



Two simple knives made by Adams. Left, a simple flake wrapped with leather for a handle. Right, a small hand knife, also wrapped in leather for a handle.

√ Below, A selection of fiint-knapping tools. From left: an Ishi stick, elk-antler flaker, copper-tipped flaker, nail-tipped flakers, two copper boppers, a homemade flaker, nails used for flaking, antlers used for bopping and rocks used for rough flaking.

AFTER COMPLETING THE FULL-DAY SEMINAR ON FLINT-KNAPPING WITH EARTH SKILLS, ADAMS PRACTICED CONSTANTLY IN HIS BACKYARD USING GLASS BOTTLE BOTTOMS.



YOU NEED TO SPEND AS MUCH TIME AS YOU **CAN DOING ALL** THE SKILLS IF **YOU WANT THEM TO BECOME** PART OF YOU

weapons and tools."

He can create a functional hunting bow from the branch of a tree and has learned how to make suitable arrows from mulefat shrub shafts or the shafts of any straight wood.

MAKING ARROWHEADS

I got really interested when Adams started talking about arrowheads and how he learned to make them, as well as stone knives.

He has also gone to some formal wilderness and skills schools such as Earth Skills and Tom Brown Jr.'s Tracker School in Santa Cruz, California. Adams points out that taking a class is only the beginning.

"You need to spend as much time as you can doing all the skills if you want them to become part of you," he advised.

After completing the full-day seminar on flint-knapping with Earth Skills,

⟨ Relow-Student Aiden shows a flint-knapped stone knife.

⟨ Bottom: Protection equipment should include gloves, goggles and leather for protecting the palm of the hand. Adams practiced constantly in his backyard using glass bottle bottoms. Eventually, he sent away for flint, which tended to work a little better. Flint-knapping is all reduction, reduction, reduction, and sometimes, a bucketful of rocks is turned into nothing but "debitage" (that is, the random and mostly useless flakes from knapping).

Adams soon learned about abundant roadside obsidian at a northern California site. so he collected a few bucketsful for practice. He learned to turn out a functional arrow point in a few minutes. However, he has also used flint, chert, glass and other materials. "Always work with what you can collect," Adams suggested.

THE KNAPPER'S TOOLKIT

On a recent afternoon, I visited Adams in his workshop to get a lesson about flint knapping. He had laid out a large tarp on the ground to capture all the sharp flakes that





would be produced. He then set up his chair, laid out his tools and other items that should be included in a knapper's toolkit:

- · A bucket of obsidian, which is volcanic glass. This is the raw material for making an arrowhead or a small hand knife.
- · A large, round rock for hitting the obsidian so large, flat flakes are created.
- · A "bopper stick," which can be a heavy copper pipe, a hollow copper pipe filled with lead or something similar. In the old days, this would have been a heavy piece of antler.
- · A flaker that originally would have been an antler tine or a bit of copper put onto a handle. Modern flakers often consist of a nail inserted into an approximately 1-inch-diameter dowel.
- · An "Ishi stick" is a type of flaker, typically a wood dowel of at least a foot in length. This stick is named after Ishi, the so-called "last wild Indian in California," who used such a device for making his arrowheads. Ishi was fond of using an old nail for his flaker.
- · A roughener, which can be a sanding block or smaller, rough-surfaced rock.
- · Safety equipment: Adams uses goggles and gloves. He also wears a palm protector, which is simply a piece of leather with a hole cut into it for the thumb to go through. He also uses various leather pads to protect his thigh when working.

THE PROCESS

A lot of knappers love obsidian, which is a volcanic glass. When it fractures, the edge is sharper than a surgeon's scalpel. But it's also very brittle, and if you cut food items with an obsidian knife, there's a danger that tiny flakes could break off into the food. For this reason, knappers also use other materials-flint, petrified wood, agate and chert, to name a few.

Adams began with a large chunk of obsidian, making sharp hits on one side with a rock in order to create flakes off the bottom. When obsidian cools after it flows out of a volcano, it actually has a texture or grain. A whack with a rock sometimes produces excellent flat flakes, but not always. It took several whacks before Adams had a flake that was big and flat enough to work further into a knife and an arrow point.

Remember, the art of flint-knapping is reduction, reduction; and how you do that reduction is everything. So, depending on the way the chunk of obsidian broke, Adams would sometimes



Rick Adams shows a copper bopper (left) and an antler used for rough flaking.



Percussion flakers. From left: a copper flaker, antler tine,
Adams hits a block of obsidian with a round stone. nail-tipped flaker and an Ishi stick





Note the pattern of flakes that break off from the main



Adams attempts further reduction with a stone. Unfortunately, this chunk of obsidian eventually broke in two.



A flat flake is produced.



This flake is flat and not wayy in the cross section. It is a good blank from which to make an arrow point.



◀ After a bit of work, Adams shows an arrow point in the making



Fine-shaping with a copper percussion flaker



◀ Roughing the edge with a small sanding block



√ Fine flaking with a copper percussion flaker



Adams shows a functional point.



The point, with a bit more refinement

ASIWATCHED ADAMS, IT WAS HE KNEW HIS **WAY AROUND** TECHNOLOGIES.

switch to his bopper, made from a short piece of thick dowel wood topped with a copper cap that had been filled with lead. He also had boppers made from antlers and some that were hollow copper tubes filled with lead.

Adams turned the piece over and over, studying the direction of the grain. He looked at the blank in his hand and told me where the tip and base would be. He then rubbed the edge with his sanding block and examined the piece again.

Next, he picked up one of his pressure flakers—a thick dowel into which he'd inserted a nail-sized piece of copper. He held the blank in his hand and then pressed onto the edge with the pressure flaker. If he did this just right, a flake would come off the bottom of the blank. Adams then went all around the edges, reducing more and more, a little here, a little there, always pressing from the top side to remove a flake from the bottom.

One of his pressure flakers was an Ishi stick. Adams used this to remove tiny pieces along the edge of the stone. He continued with this process as the point





began to take shape, occasionally abrading the edge with his sanding stone. Holding the little arrowhead in the palm of his gloved left hand, Adams carefully applied pressure to the edge of the stone with the Ishi stick while also carefully pressing the stone upward with his left hand. It is a meticulous, artful act, one that can result in a deep cut to an unprotected hand if either hand slips.

A beginner should understand these principles but will only actually learn by doing, by making mistakes and by continuing until the mistakes are minimized. Obviously, you will use up a lot of raw material, and you might have to endure some cuts and scrapes during the learning process.

In addition, sometimes the flaking works out just fine; other times, it doesn't. The piece Adams had begun working cracked in two, and although a bit frustrated, he picked up another blank and again began the process of pressure flaking to reduce the blank to a point or knife.

As a by-product of knapping, you produce a lot of very sharp flakes on the ground. Many of these flakes ("debitage") are incredibly sharp and are functional knives in their own right. In the old days, these simple flakes were sometimes used as-is for certain jobs. We picked up several that were sharp enough to skin a rabbit.

A STONE KNIFE

Arrowheads are generally about 1 or 1½ inches long, with two sharp edges that come to a point. The bottom corners are often flaked out where the point is attached with sinew to the arrow shaft. They are not designed to be held in the hand.

A knife is just a variation of an arrowhead. A flint knife is typically longer—maybe 3 or 4 inches. It could be knapped so that it can be wrapped onto a handle, similar to the so-called Hoko knife. But for practical, everyday use, the stone knives that were made in the old days were relatively small. They could be worn in a pouch around the neck or wrapped with a turn of leather for its handle.

Adams flaked out a knife to show that the basic principle is the same, except that he focused on one edge, not two, and tried to keep a slightly fatter base to which a handle or leather strap might be attached.



A view of a large obsidian flake breaking off



 ${\mbox{\ensuremath{\checkmark}}}$ Percussion flaking using a protector in the glove



Adams breaks off a flake from a chunk of flint.



✓ Note the pattern of flint flaking.



A flat flake with a sharp edge, suitable for a simple knife



√ Flaking out a simple hand knife



◀ Working a simple hand knife with an Ishi stick

A finished hand knife



The finished hand knife up close



A view of the deb itage on the ground after knapping. This underscores the importance of laving down a tarp before beginning work.

REFERENCES

There are many fine resources out there to teach a beginner the fine art of flint knapping.

Perhaps the best book on the subject is *The Basics of Biface Knapping in the* Eastern Fluted Point Tradition: A Manual for Flintknappers and Lithic Analysts, by Errett Callahan (Piltdown Productions). It is fully illustrated and uses specific terminology to define each step of the knapping process. Another excellent book on the subject is Flintknapping: Making & Understanding Stone Tools, by John C. Whittaker. Old Tools, New Eyes, by Bob



STEP-BY-STEP POINT **MAKING**

Remember to always wear eye and hand protection, including a leather pad for your hand.

- Find suitable material: flint, obsidian. quartz, agate, petrified wood, toilet tanks, etc.
- 2 Create a "cliff"—a 90-degree angle in the rock where you can knock off blanks.
- 3 Blanks should be flat in the cross section, not curving either way and not too thick.

4 Reduce the blanks little by little with a pressure flaker until you've achieved the desired results.

I greatly appreciated the tutoring Adams gave me in knapping, and I think he's taken a liking to me: Over the years, he has begun to learn Pomo words from his wife. So far, he has greeted me by calling me "paluchi" (white man) and said goodbye by calling me "bah'tea" (old man). But it is OK; we are friends. ASG



A simple hand knife, wrapped with a piece of leather for





GUIDE

CHOICE CHOPPERS

'HAWKS AND HATCHETS THAT GIVE YOU AN EDGE

BY STEVEN PAUL BARLOW PHOTOS COURTESY OF THE MANUFACTURERS

hen your ventures take you to faraway or potentially dangerous places, your choice of gear is critical. Tomahawks and hatchets have always been some of the most useful tools for improvising what you need and for doing double duty as close-quarters weapons.

Since its inception as a basic, but essential,

hand tool for Stone Age humans, there have been countless designs created for a huge array of applications.

We've assembled a selection that reflects the wide variety of styles, materials and prices available today. Considering the diversity of tasks you might need to handle, you might find it necessary to have more than one of these in your collection. ASG

GEVER



TOPS Knives HAKET

Overview

"HAKET" stands for "hawk and knife emergency tool." Designed by Allen Jensen, it's a modular design that, when assembled with the outfitter head, features an axe edge on one side and a knife blade on the other. That head can be taken off and used as a knife or scraper separately. Also included is what is called the Alligator Alley, which is a barbed spear head.

Both heads attach through a slot in the hollow handle and are secured by a bolt/ nut combination that can be tightened by hand. Sheaths fit over the sharp edges, and the tool can be stored in the included nylon case.

Specifications

- · Overall length: 15 inches
- Cutting edge: 1.94 inches (axe); 2.55 inches (knife)
- · Weight: 2.5 pounds
- Handle material: Hollow chrome-moly, para-cord-wrapped

MSR

\$240

www.TopsKnives.com



Cold Steel Axe Gang Hatchet

Overvier

Cold Steel's Axe Gang Hatchet harkens back to a classic Chinese design and features a differentially heat-treated, drop-forged head of 1055 carbon steel, which makes it hard enough to maintain a sharp edge with a body that can absorb shock. This is the hatchet used by "Rick" in *The Walking Dead*. I've put this hatchet to the test and found it to be a great chopper and an excellent hatchet for the money.

Specifications

- Overall length: 20.25 inches
- · Cutting edge: 4 inches
- · Weight: 32 ounces
- Handle material: American hickory

MSRP \$25.99

Ψ<u>2</u>3.5

www.ColdSteel.com



SOG Tactical Tomahawk

Overview

The SOG Tactical Tomahawk has been around for quite a few years but still offers a good value. It's based on the Vietnam Tomahawk design. It's the right blend of length and weight to chop effectively, yet it carries easily. The 420 stainless steel blade offers excellent penetration with both the blade and spike ends. A black ballistic nylon belt sheath is included.

Specifications

- · Overall length: 15.75 inches
- · Cutting edge: 2.75 inches
- · Weight: 24 ounces
- Handle material: Glass-reinforced nylon

MSRP

\$64.25

URI

www.SOGKnives.com



Outland Equipment Multi-Mission Axe

Overvie

Outland's Multi-Mission Axe is available in 15- and 19-inch lengths. Each is made from one piece of \$7 steel and features a 3.9-inch blade with a modular, bolt-on hammer poll. There's a full-sized pry tool on the end of the handle, as well as a seatbelt cutter that's positioned to provide additional reach into vehicles. Hex nut tools are incorporated in the handle. The quick-access modular sheath system accepts accessories to allow for belt or shoulder carry, MOLLE attachment or vehicle mounting. A ziopered case is included.

Specifications

- · Overall length: 15 or 19 inches
- · Cutting edge: 3.9 inches
- · Finish: Gray Cerakote
- · Weight: 2.5 or 2.9 pounds
- Handle material: G-10
 over steel

MCDE

\$425-\$445; \$455-\$475

HIDI

www.OutlandEquipment.com



Best Made Straight-Hold Hatchet

Overvie

This hatchet is made in the United States and features a drop-forged head of 1060 alloy steel that's hand ground. The straight profile of the lacquered Appalachian hickory handle makes chopping with the blade or pounding with the butt end equally effective.

Specifications

- · Overall length: 13.5 inches
- · Cutting edge: 4 inches
- · Weight: 1.2 pounds
- Handle material: Lacquered Appalachian hickory

MSRP

URL

www.BestMadeco.com



Cold Steel Trail Hawk

Overview

The Cold Steel Trail Hawk is a lightweight, traditional tomahawk of drop-forged 1055 carbon steel that comes sharp from the factory. This 'hawk provides excellent chopping and hammering power, thanks, in part, to the 22-inch American hickory handle that gives you plenty of leverage. It's affordable, effective and easy to carry wherever you venture. A Cor-Ex nylon sheath is included.

Specifications

- · Overall length: 22 inches
- · Cutting edge: 2.25 inches
- · Weight: 23.6 ounces
- Handle material: American hickory

MSRP

\$41.99

URL

www.ColdSteel.com

G GUILLE R



Boker Plus Tomahook

Overview

Boker's Plus Tomahook was designed by Colin Despins with inspiration from age-old designs of the Celts, Vikings and Native Americans. Made for hard use from one piece of SK-5 steel, it features a large, 5.625-inch blade on one side of the head and a protrusion on the back side that makes an excellent glass-breaker. A chisel at the top of the head offers more capability.

Specifications

- · Overall length: 181/8 inches
- · Cutting edge: 5.625 inches
- · Weight: 1.8 pounds
- Handle material: Recessed
 G-10 scales over steel

MSRP

\$169.95

URL

www.Boker.de/us



Browning Shock N' Awesome Tomahawk

Overvie

Browning's Shock N' Awesome Tomahawk performs very well for its size, making it an effective tool you're more apt to carry than leave at home. Designed by Russ Kommer, it's constructed of one-piece steel with checkered G-10 handles, providing a secure grip. It includes an excellent molded belt sheath.

Specifications

- · Overall length: 13 inches
- · Cutting edge: 2.625 inches
- $\cdot \, \text{Weight: 1 pound, 9 ounces} \\$
- Handle material: G-10 over steelz

MSRP

\$119.99

URL

www.Browning.com/products/knives.html



Colonial Knife Corp. T200 Tomahawk

Overview

Brand new from Colonial Knife is the T200 Tomahawk. Unlike earlier models, this tomahawk is made entirely in the United States. It's made from one piece of 8670 tool steel with a 3.5-inch blade and 2-inch spike. It is 14 inches long overall and features black-over-orange G-10 handle scales. The included black Kydex sheath has speed clips and is MOLLE compatible.

Specifications

- · Overall length: 14 inches
- · Cutting edge: 3.5 inches
- · Weight: 1.73 pounds
- Handle material: Two-tone
 G-10 over steel

MSRP

\$500

URI

www.ColonialKnifeCorp.com



Gerber 14-Inch Hatchet

The Gerber 14-inch Hatchet features a forged head with PTFE coating. The high-visibility handle is glass-filled nylon. A matching molded-plastic sheath is included. I have lots of experience with the earlier Gerber Camp Axe of similar design and found it to be sharp, well balanced and rugged.

- · Overall length: 14 inches
- · Cutting edge: 2.6 inches
- · Weight: 22.6 ounces
- · Handle material: Glass-filled nvlon

MSRP

\$62

www.GerberGear.com



Estwing Sportsman Axe Special Edition

I own a couple of Estwing hatchets, and they've always performed very well. This special-edition model (E24ASEA) features one-piece, drop-forged metal construction with a black powder-coated finish and comfortable, stacked-leather washer grip. A sheath is included.

- · Overall length: 14 inches
- · Cutting edge: 3.25 inches
- · Weight: 1.9 pounds
- · Handle material: Leather over steel

\$49.99

www.Estwing.com



SOG Base Camp Axe

The SOG Base Camp Axe is a onepiece metal hatchet with forged head and a flat back for hammering. Because of its one-piece construction, there's no need to worry about the head loosening when you're far from civilization

Specifications

- · Overall length: 16 inches
- · Cutting edge: 3.4 inches
- · Weight: 33 ounces
- · Handle material: Thermal molded rubber over steel

\$80

www.SOGKnives.com

G GUIDE R



Gerber Downrange Tomahawk

Overview

Whether you have to get in or have to get someone out, the Gerber Downrange Tomahawk can get through doors, drywall and other obstacles with ease. It's a professional breaching tool featuring axe blade and hammer surfaces of 420HC steel on the head and a serious pry bar on the end of the handle. The cutaway section of the head serves as a handle when using the tool as a pry bar. A MOLLE-compatible sheath is included.

Specifications

- · Overall length: 19.27 inches
- · Cutting edge: 3.5 inches
- · Weight: 1.9 pounds
- · Handle material: G-10 over

Menn

\$328

LIR

www.GerberGear.com



Wetterlings Swedish Axe Works Outdoor Axe #118

Overvie

With its 19.25-inch length, the Wetterlings Outdoor Axe bridges the gap between small hatchets and full-sized axes, making it more capable for bigger jobs than other hatchets. A heavy leather sheath is included with the hatchet. The company recommends that if you do take a two-handed grip on this tool, you conduct your chopping from the kneeling position for

Specifications

- · Overall length: 19.25 inches
- · Cutting edge: 3 inches
- · Weight: 38.8 ounces
- · Handle material: Hickory

MSRF

\$119

URL

www.Wetterlings.com



Mykel Hawke HASP Tool

Overvie

greater safety.

The Mykel Hawke HASP Tool is a shovel, axe, hatchet and pick—all in one—and the pick head doubles as a brush hook. It's made of carbon steel that is powder coated. The HASP features a Micarta handle and leather sheath and is manufactured in the same factory as Condor machetes.

Specifications

- · Overall length: 19.6 inches
- · Cutting edge: 5.5 inches
- · Weight: 2.85 pounds
- · Handle material: Micarta

MSRF

\$115.99

URL

www. Hawke Brand. com



5.11 Tactical VTAC Operator Axe

The VTAC Operator Axe is another professional-grade tool designed with Kyle Lamb of Viking Tactics. Made of SCM435 stainless steel with a black oxide finish, the Operator Axe is 24 tools in one and includes a bearded axe blade, hammer, prv bar, 3/8 - and 1/2-inch-square drive holes, 1/4-inch hex drive/lanyard hole metric and standard markings, seven metric and seven U.S. hex wrench openings, nail puller and sheet

Jimping on the shaft and handle provides multiple secure grip options.

- · Overall length: 15 inches
- · Cutting edge: 4.6 inches
- · Weight: 1 pound, 10 ounces

· Handle material: Steel

\$159.99

www.511Tactical.com



Half Face Blades Bleeding Heart Tomahawk

The Bleeding Heart Tomahawk is hand-crafted of S35VN steel by former U.S. Navy Seal Andrew Arrabito, founder of Half Face Blades. He combines his experience as a hunter and outdoorsman with his training and execution as a top-tier operator to create dependable, mission-ready tools. Both ends of the Bleeding Heart Tomahawk head are designed for efficient penetration, and the handle shaft extends beyond its slabs for use as a prying tool. The lanyard hole is centered in the widened end of the handle, which also helps the user maintain a good grip on the tool.

- · Overall length: 12 inches
- · Weight: 1 to 1.5 pounds, depending on handle selected
- · Cutting edge: 23/8 inches
- · Handle material: G-10

\$850

www.HalfFaceBlades.com



Mora Outdoor Axe With Mora 2000 Knife

The head of the Mora Outdoor Axe is made of boron steel with a black ED coating. The handle is polypropylene. A black leather sheath is included. This kit includes a Mora 2000 knife with a 4.3-inch, profile-ground blade of Swedish cold-rolled stainless steel.

- · Overall length: 12.5 inches
- · Cutting edge: 3.5 inches
- · Weight: 18 ounces
- · Handle material: Polvpropylene

MSRF

\$66.99

www.Morakniv.se/en

G GUILLE R



CRKT Chogan and Kangee T-Hawks

Overview

These CRKT T-Hawks, designed by Ryan Johnson of RMJ Tactical, bring modern engineering to the traditional tomahawk concept. The Chogan features a hammer head, while the Kangee has a spike. Both are fashioned of 1055 carbon steel with Tennessee hickory handles.

Specifications

- · Overall length: 19.13 inches
- · Cutting edge: 4.21 inches
- Weight: 2 pounds, 1.4 ounces
- Handle material: Tennessee hickory

MSRP

\$69.99

www.CRKT.com



Spyderco Szabohawk

Overvie

Designed by Laci Szabo as a rugged tool and close-quarters weapon, the Szabohawk features full-tang construction of D2 steel with a black, protective titanium carbon nitride coating. It has a flat-ground, 2.16-inch blade edge and a hammer poll, as well as a pry bar tip. Its balance point is more toward the middle instead of being head heavy.

The Szabohawk includes a molded Boltaron sheath and a padded, zippered storage pouch.

Specifications

- · Overall length: 11.88 inches
- · Cutting edge: 2.16 inches
- · Weight: 24.9 ounces
- Handle material: G-10 over steel

MSRP \$349.95

www.Spyderco.com



Cold Steel War Hawk

Overvieu

I've used this tomahawk and found it to be an excellent value. It features a well-designed head with a sharp cutting edge that chops and penetrates very well. The long, 19-inch overall length provides better leverage than shorter 'hawks and keeps adversaries at a safer distance. The excellent articulated Secure-Ex sheath keeps it safe to carry.

Specifications

- · Overall length: 19 inches
- \cdot Cutting edge: 3 inches
- · Weight: 29.5 ounces
- $\cdot \, \text{Handle material: Polypropylene} \\$

MSRP \$42.99

URI

www.ColdSteel.com

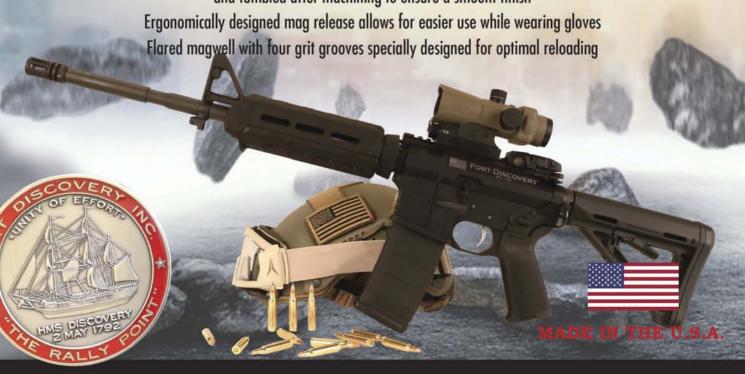
ALE ALESE FAILS

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BETTING EVERYTHING ON END-OF-THE-WORLD PREDICTIONS COULD LEAVE YOU A LOSER.

BY PETER SLICIL

WESTERN RELIGIONS BASED ON ABRAHAM HAVE NOT HAD EXCLUSIVITY ABOUT PREDICTING THAT THE WORLD WOULD END.

t has many names: Armageddon, the Apocalypse, the Rapture and even the Last Judgment. Since the days of Abraham, religious leaders have been predicting that the end is near.

Given the current state of affairs, it can be safe to say that in many ways, the world is, in fact, going to hell. But, the problem is that many who buy into these "end-of-days" prophecies literally aren't thinking about surviving; they're thinking about the afterlife.

These prophecies suggest there won't be a tomorrow. For those subscribing to these doomsday predictions, this often results in their taking actions that go against rational planning. People who bought into those fears quit their jobs, sold their houses and waited for the coming of the end. Then, when the sun rose the next day, they were left with an emptiness of spirit ... as well as a paucity of worldly goods.

For every Noah and the Flood, there have been countless-and far less uplifting tales—about the guys who got it totally wrong. One of the most notable such "aftermaths" is today known as the "Great Disappointment," which was the Millerite movement's reaction to Baptist preacher William Miller's proclamations that Jesus Christ would return to Earth in 1844. Many of Miller's followers gave up their possessions in anticipation of the end. After the prophecy went unfulfilled, reactions included anger from those who were left spiritually and financially empty and ridicule of the believers by people outside the community.

Millerite leaders were left bewildered and disillusioned, while multiple Millerite churches were vandalized, and one was even burned. However, such disappointment only fractured the group, and a number of individuals who had ties to the original Millerites founded their own



short-lived groups—some of which continued to prepare for Christ's second coming. Giving up hope was not an option, even if many members gave up everything else.

"Strange as it may seem at first blush, most people aren't embarrassed by failed prophecies," says Dr. Lorenzo DiTommaso, professor of religious studies at Concordia University in Montreal. "What if you believed that this world was irredeemably corrupted, and its imminent end represented the culmination of human destiny—with a good dose of justice thrown in? If so, then the big question on the morning after is not What do I do now that it hasn't happened? but Why didn't it happen?"

◆ Below: The Siege and Destruction of Jerusalem by the Romans under the Command of Titus, A.D. 70, by David Roberts (1850)

THE SECOND COMING

Many of the end-of-days prophecies throughout history have been rooted in the



FOR EVERY NOAH AND THE FLOOD, THERE HAVE BEEN COUNTLESS—AND FAR LESS UPLIFTING TALES—ABOUT THE GUYS WHO GOT IT TOTALLY WRONG.



Abrahamic religions that include Judaism, Christianity and Islam. Among the earliest of these prophecies was the Essene sect of Jewish ascetics who believed that the Jewish revolt against the Romans in A.D. 66-70 was the beginning of the end-time battle before the arrival of the Messiah. Simon bar Giora, the leader of the rebel faction, was so convinced the Messiah would come and save his people that he had coins minted to declare the redemption of Israel.

Instead of redemption, however, the Jews saw the city of Jerusalem sacked by the Romans and the destruction of the Second Temple. A Third Temple, known as Ezekiel's Temple, has been prophesied in the Book of Ezekiel, but because the Al-Agsa Mosque

⟨ Above, left: An artist's depiction of the construction of Noah's Ark from the Nuremberg Chronicle, published in 1493 (Public domain)

✓ Below: The Dome of the Rock in Jerusalem. Its location on the Temple Mount has presented problems for centuries. (Photo: Peter Suciu)

 ← Left: An early-18th-century Greek icon depicting the Second Coming (public domain)

and Dome of the Rock—the third-holiest site in Sunni Islam—are located on the Temple Mount, it truly might be end of days before the Jewish temple is ever built on the site.

The early Christians, too, had their own end-of days-prophecies. As the Romans adopted Christianity and the religion spread throughout Europe, these prophecies also spread. They were usually based on the belief that the Second Coming was coming soon!

Among the earliest examples was in 365, when the French Bishop Hilary of Poitiers announced that the world would end that year. This was followed by predictions by Hippolytus of Rome, Sextus Julius Africanus and Irenaeus that Jesus would return in the year 500-only to be revised by Africanus, who predicted the end times would come in the year 800.

Just as Y2K was a recent fear due to the arrival of a new millennium, so, too, was the year 1000 feared by many, including Pope Sylvester II. Riots occurred across Europe, and many sold all their worldly goods to make a pilgrimage to Jerusalem in hopes of being saved.

Following these events, many people



were left poorer, and some became disillusioned. However, those making the predictions tended to not question their faith.

"The typical answer to a failed biblically based prophecy is not that the data is wrong, but that the *interpretation* of the data is wrong," explains DiTommaso. "Scripture can't be in error, so when Doomsday Pastor Jones preached that the end of the '70 weeks of years' of Daniel, Chapter 9, culminated—for example—on 15 December 2016, and the 16th dawns, it's not the *Bible* that's wrong, but Pastor Jones's calculations. Disillusionment for certain. Some people lose interest in doomsday timetables; others double-down or find another authority figure or perhaps even work the prophetic data out for themselves."

ISLAM'S VIEW OF THE END

DABIO#

One of the more dangerous modern "doomsday cults" could arguably be the Islamic militant/terrorist group ISIS, which, after capturing the Syrian village of Dabiq in

> Below, top: The first two covers of the ISIS propaganda magazine. Dabig

> Middle: John Koskinen of the President's Council on Y2K Conversion spoke with the media on February 29, 2000, about scattered and minor computer glitches around the world.

> Bottom: Authorities move the bodies of victims of the Heaven's Gate mass



< Above: Suspected cult group members of Pana Wave Laboratory wore white clothes to help neutralize the waves that were harming their leader's health. They temporarily stayed at a closed primary school in Fukui, Japan (2003). The cult has been likened to Aum Shinrikyo—the group responsible for the deadly gas attack on the Tokyo subway in 1995.</p>

2014, made claims that the Prophet Muhammad prophesied that the town would be the setting for an apocalyptic battle between the Islam faithful and a foreign invader.

That event was a catalyst that led to the group's ability to recruit foreign fighters, many of whom truly believed this to be an end-times battle. The village's name has since been used for the official ISIS propaganda magazine.

This is just part of Islam's own end-of-days prophecy, in which the *Mahdi* (the "guided one"; "redeemer") would rule for between five and 19 years, depending on interpretation, before the Day of Judgment, when he could rid the world of evil.

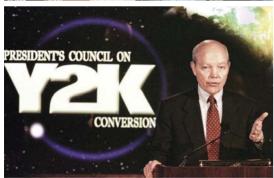
What could be seen as an odd twist in this prophecy is that the Mahdi isn't actually referenced in the *Qur'an* but was rather found in the *hadith*—the various teachings and traditions of the Prophet Muhammad that were collected after his death. According to these teachings, he would arrive and join with the Second Coming of Jesus Christ ("Isa" in Islam), and together, the two would defeat the *al-Masih ad-Dajjal* (the "false Messiah" or Antichrist).

Shia and Sunni Islam view the Mahdi differently, however. The Sunnis believe the Mahdi has yet to come, while Shiites believe the Mahdi has been born, only to disappear and remain hidden from humanity until he reappears to bring justice.

Several men have already claimed to be the Mahdi. One of the most notable was Muhammad Ahmad bin Abd Allah, a religious leader in the Sudan in the 1880s. Influenced by earlier Mahdist movements in West Africa, as well as taking influence from Wahhabism (a branch of Islam), he sought to create an Islamic empire in advance of the second coming of the Prophet Isa. He died just six months after capturing the city of Khartoum from Anglo-Egyptian control. His followers retained control of much of the Sudan until the British, under General Horatio Kitchener, led a re-conquest of the region in 1898. The "Mahdi's" tomb was destroyed to prevent it from becoming a rallying point for supporters (but was later rebuilt).

Just as the Mahdi in the Sudan didn't bring about the Day of Judgment, it looks as if ISIS will also come up short. In October 2016, the Turkish-backed Free Syrian Army drove the militant group out of Dabiq.

THE KHILAFAH FLOOD





END OF DAYS, THE EASTERN TAKE

Western religions based on Abraham have not had exclusivity about predicting that the world would end. While Buddhism is based on the belief that time is eternal, there is the view that time is cyclical and that humanity passes through phases from enlightenment to delusion. As delusion grows, a savior figure, known as the *Maitreya Buddha*, will appear. Only through his spiritual teachings and leadership can humans attain *nirvana*.

The good news is that while Buddhists tend to preach against material possessions, they don't expect their followers to give up the goods as the end times—or, in their case, the delusion times—approach.

ONE OF THE MORE DANGEROUS MODERN "DOOMSDAY CULTS" COULD ARGUABLY BE THE ISLAMIC MILITANT/ TERRORIST GROUP ISIS ...

(Daesh (also known as ISIS and ISIL) members and Taliban militants are arrested in Jalalabad, eastern Afghanistan, on December 6, 2016





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Hindus have a similar cyclical view, one in which harmony can give way to a degenerative stage. The last stage is known as the *Kali Yuga* (the "age of the demon Kali"; "age of vice"). During this time, rulers would be unreasonable, would levy high taxes and no longer see a duty to promote spirituality. However, at the end of this time, it is believed that Kali will appear to destroy the wicked and save the virtuous, thereby restoring humanity to its most virtuous state.

However, the most ominous of Eastern religions that prophesy doomsday might be Aum Shinrikyo, a cult founded by Shoko Asahara in 1984. It was responsible for the Tokyo subway sarin gas attack in 1995. Asahara based his religion on his own interpretations of elements of Indian and Tibetan Buddhism, along with Hinduism and incorporating millennialist ideas from the Christian Book of Revelation and even the writings of Nostradamus.

While membership in this new religious movement is around 1,950 members, many of whom live in communal compounds, the group has remained under the watch of Japanese authorities. Members of the group are unable to file resident applications, and this has denied them social benefits, including health insurance.

Local community groups have also created efforts to keep members from obtaining jobs and keeping members' children out of school. Aum Shinrikyo, which has spread to other countries, was banned in September 2016 in Russia and declared a terrorist organization. In many of the above cases, the end-of-the-world prophecies did lead to destruction and devastation. leaving many dead and others with destroyed lives.

"There are many problematic social issues raised when the persons who believed in our hypothetical 'Doomsday 15.12.2016' sold their houses, cleaned out their accounts and moved to Mount Shasta," DiTommaso points out. "Then (they) woke up on the 16th, homeless and on top of a mountain. These persons were left in a bad position."

As you can see, past end-of-world predictions with specific end dates have been wrong 100 percent of the time. So, in spite of the panic and anxiety that are such a common part of American life these days, don't let yourself get spooled up by apocalyptic forecasts. **ASG**

- > Right: Members of the Aum Shinrikyo ("Supreme Truth") sit on the ground to perform a rite on April 24, 1995, to pay tribute to the late science and technology minister of the sect, Hideo Murai, who had been stabbed to death the day before.
- > Below: A commuter is treated by an emergency medical team at a makeshift shelter before being transported to hospital after being exposed to sarin gas fumes in the Tokyo subway system on March 20, 1995, during a Aum sect attack.





New England farmer-turned-Baptist-preacher William Miller predicted the world would end on April 22, 1843. He preached and published enough so that he had convinced thousands that the Rapture was coming. Many sold everything. While the group disbanded, many formed what is now the Seventh Day Adventists.

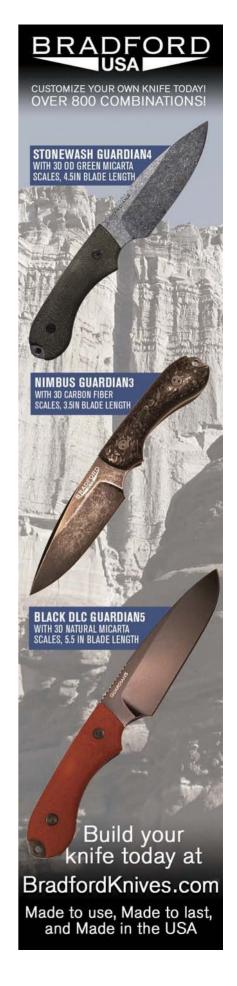
In May 1980, televangelist and Christian Coalition founder Pat Robertson informed viewers of the 700 Club that the world would end by 1982. The world didn't end and neither did the 700 Club, which is now one of the longest-running TV shows. It currently runs on the Freeform channel (formerly CBN, which became The Family Channel, Fox Family and then ABC Family).

On March 26, 1997, 39 members of the San Diego UFO cult named Heaven's Gate committed suicide. They believed an alien spacecraft was following the comet Hale-Bopp and that by committing suicide, they would be reborn aboard the craft.

Y2K was widely feared—and overhyped by the media. It was based on concerns that computers wouldn't be able to tell the difference between the year 2000 and the year 1900, with experts predicting massive blackouts and nuclear meltdowns.

While most professional Mayanists and others who studied the Mayan calendar noted that there was, in fact, no forecast of impending doom, there was a









I HAVE HEARD OF VARIOUS SO-CALLED SHORTCUT WAYS OF DOING LAUNDRY, BUT MOST OF THEM DON'T REALLY GET YOUR CLOTHES CLEAN.

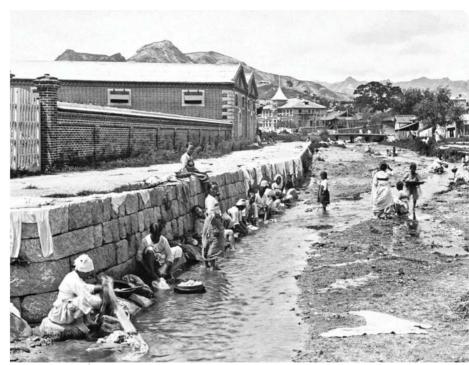
on which the windows and doors were merely openings in the walls. Every day, I'd see how all the people washed their clothes in the stream, usually with rocks. It took me a few minutes to walk through the area, and I always tried to see what all the people were doing.

It was already hot in the morning when I went to school. The young children were mostly naked, and the women had the clothes stretched out on flat rocks. The clothes had already been soaked in water. and the women were rubbing parts of the clothes with small rocks, presumably to take out stains. (Later, I was shown the types of rocks used: They were oval shaped and fit into the hand, and although they looked smooth, their surfaces were actually rough, like fine sand paper.) Some used a type of decomposed granite, and others worked with sandstone. Then, they laid the clothes out on the stones to dry in the hot afternoon sun. When I walked home from school. I'd often see them removing the dry clothes.

Clearly, a washing machine is not vital to life. But it was invented because people wanted and/or needed more time to do all the other things in life they deemed far more important than washing clothes by hand. Clothes are so essential to our daily life—whether in the urban jungle or in the remote outback—that I am often surprised how little attention is given to clothing and fabric selection in so-called "survival manuals."

NATURAL FABRICS VS. SYNTHETICS

Anyone who has ever washed clothes knows that some fabrics clean up better than others, and stains from certain substances are harder to remove than others. In general, from a survival standpoint, I regard cotton and wool (and other natural materials) as superior to any of



> Women wash laundry in a California stream circa 1904.



A woman hangs her laundry to dry in front of her home in Port-Au-Prince, Haiti.

the man-made synthetic fabrics on the market, with only a few exceptions. Yes, it's true that polyesters will last longer and will hold up better to rugged abuse, including being washed by stones, but overall, I believe the comfort and breathability of natural fabrics far outweighs the benefits of synthetics.

When you're out shopping for clothing, try to think long term. Will this garment hold up to rugged use? Will I be able to sew it if it tears? Does it have a lot of pockets? Would I be comfortable wearing this if I were suddenly stuck in some disaster and had to wear it for the next two weeks?

In addition, read the labels that tell you how to clean the garment. And those "delicate" garments that should only be taken to a dry cleaner? Perhaps you really don't need those.

COMING CLEAN

OK, your clothes are dirty, but you don't have soap or water. Now, what? Many times while practicing survival skills in the desert, we'd remove our clothes, shake them out and lay them in the sun for a bit. After that, we'd turn them inside out and lay them in the sun for another hour or longer. Then, to keep ourselves clean, my mentor showed us to simply do a dry scrub with a natural bristle brush, which removes dirt and takes off dead skin cells. It might sound like torture, but you really feel refreshed after doing this.



∢ A Tibetan woman washes clothes next to a river.

PRACTICAL SURVIVAL SKILLS, SUCH AS WASHING YOUR CLOTHES BY HAND, ARE NOT JUST FOR THE HOMELESS, SQUATTERS OR DESTITUTE, LOW-INCOME PEOPLE ... SURVIVAL SKILLS ARE EMINENTLY PRACTICAL, ALL THE TIME, EVERYWHERE.

Eventually, you'll get to some water, and you'll want to wash your clothes. Let's begin

A bar of soap is easy to carry. So many people these days are practicing self-reliance skills (such as soap-making) that you should have no trouble finding a local source of homemade soap. Try local farmers markets—or try learning the soap-making process yourself. It's really not that hard.

If you don't care for bar soap, just use some liquid detergent and carry it in your pack in a plastic squeeze container. Make sure you twist the lid on tight and maybe even pack it in a zippered plastic bag.

There are endless bar and liquid soap choices these days, so a lot has to do with

your personal preferences. However, if you're going to be making do in the backwoods, do your best to bring along the purest soap you can find so you're not polluting the water or the soil. Read the ingredients. Avoid coloring agents and non-natural perfumes.

Here are some of my preferences: When carrying bar soap, I will bring along a bar that was homemade by any of my





⟨ Far left: Pounding laundry on the banks of the Ganges River, India

 ✓ Near left: Clothes hung on a line to dry in the wind in Venice, Italy

half-dozen friends who regularly make their own soap. Sometimes, I carry Fels Naptha laundry bar soap. For liquid detergent, I might carry Basic H, a completely biodegradable soap (but it is pricey). And almost as good: Ivory dishwashing liquid and the Seventh Generation soap line.

SOAPS FROM NATURE

What if you didn't have the time or opportunity to plan ahead? You're just out somewhere, stuck; and among many other things, you need soap. What can you find in nature for soap?

In fact, there are various soap plants found all over North America that have been used for generations by Native Americans and pioneers. You can begin your research into your local soap plants by inquiring at native plant societies and the botany departments of local colleges.

As an example, many (but not all) leaves of the yucca plant can be shredded, rubbed with water and produce a saponin-rich soap. This soap is excellent for washing clothes, sheets, diapers, your hair, your body, your dog, etc.

Fruits and flowers of the widespread Ceanothus genus (mountain lilac) have long been used as soaps just by rubbing them between the hands with water.

Once, while backpacking for a week in Sequoia National Forest, one of my hiking partners, Jojo, introduced me to another way to stay clean. Each day, we took a swim in the river, although we had no soap. We'd been handling pine needles to make shelters, and we had tar sap and dirt all over our hands and arms. Jojo found a little oval rock, smaller than a golf ball, whose surface was flat but rough like smooth sand paper. He showed me how to rub my skin with such a rock, and the pine sap came right off. (Ever since, this has been referred to as a "Jojo stone.")

WASHING BY HAND

I learned to wash my clothes by hand when I didn't have a washing machine. I took one or two small items with me into the bathtub (I took baths, not showers) and hand-washed each item while in the tub. This required approximately 50 to 100 hard squeezes and some twists and agitations to get the clothing item clean, and then it would be hung out on my "solar clothes dryer." I began to enjoy that process. It wasn't long before I never took any more trips on my motorcycle with a full load of laundry to a laundromat. On rainy days, I hung my clothes indoors or in

Yucca plants (Hesperoyucca whipplei) are common on Western and Southwestern hillsides in the United States.

a covered area where they'd dry by the wind, as I saw the Amish do in rural Ohio.

There are many hand-washing devices that can be purchased at Lehman's, Real Goods or Amazon; for example, the scrub board. Personally, I have never cared for this device and never found it useful. But the fact that it is still being sold must mean some people do find it useful. You can often find these at second-hand stores.

There is also a device I have seen advertised that essentially comprises a toilet plunger and a 5-gallon plastic bucket. This can be easily made at home: You buy a plastic bucket with a lid and cut a hole in the lid so you can put the handle of the plunger through the lid. You add your dirty clothes, water and soap into the bucket, and plunge away! This has its adherents, and it's not that hard to do, although I find I can get my clothes cleaner just by washing them by hand. A bucket certainly helps when washing clothes in a primitive setting, but I don't find that a plunger is all that essential.

I have heard of various so-called shortcut ways of doing laundry, but most of them don't really get your clothes clean. These ideas include such things as adding laundry, soap



IN FACT, THERE ARE VARIOUS SOAP PLANTS FOUND ALL OVER NORTH AMERICA THAT HAVE BEEN USED FOR GENERATIONS BY NATIVE AMERICANS AND PIONEERS.



> Yucca leaves can be shredded and rubbed with water to produce soap. (Photo: Gary Gonzales)

Near right: Rubbed between the hands with water, the soapy berries of the Ceanothus plant make a great soap for washing clothes or the body.

and water to a plastic bucket, securing the lid and then rolling it around for a while. Maybe; but probably not. There's really no substitute for just getting in there and washing your clothes by hand.

NO SOAP?

It might happen that you need to "do laundry," but you don't have any soap.
Just washing your clothes by hand in water is better than nothing: Agitate the clothes and work each piece until you see the water getting dirty.

For a stain, you can try what I've tried on occasion: I start with a somewhat oval stone, usually smaller than a golf ball. Get one that is smooth but with a surface that feels like fine pumice. Use the stone to gently rub out the stains in your garments. However, don't rub too hard, or you'll damage the fibers of the fabric. Then, while the clothes are wet, hang them out on a line in the sun with the stain exposed to the sun.



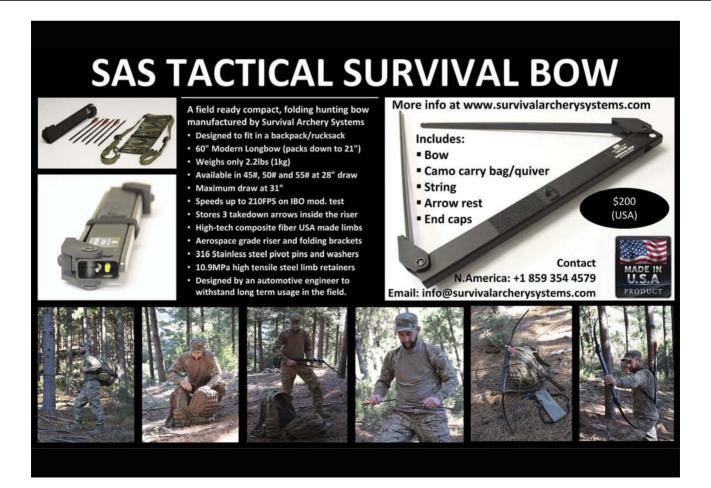






> Rubbing the skin with a Jojo stone does a surprisingly good job of removing dirt.

clean spots on laundry.



DIY STAIN REMOVERS

You're in the backcountry with minimal supplies, or you're hiding out during a period of social unrest. You still want, and need, clean clothes. Yes, there are a million stain removers you can buy at any supermarket, but are there any stain removers you, yourself, can make?

Stains can be removed by a variety of methods, depending on the type of fabric and what caused the stain. And if you don't have any of those commercial stain removers, you can use one of the tried-and-true methods that have worked forever. Your main ingredients will

IN MOST CASES, YOU CAN IMMEDIATELY SEE IF YOUR SCRUBBING IS GETTING THE DIRT AND STAINS OUT.





> Above, left: Timothy Snider displays an old-fashioned washboard.

Above, right:
Baking soda, lemon
and a brush can remove many stains.
For a down-home,
do-it-yourself stain
remover, also add
borax and vinegar.



> Snider shows a plunger and bucket "washing machine"—a method some use to wash clothes.

typically include water, sunlight, white vinegar, baking soda, borax, hydrogen peroxide, lemon juice and alcohol.

Simple Stain Remover. For a stubborn stain, while the garment is still wet from washing, spray some vinegar/water or lemon juice/water onto the stain, and place the garment in the sun so the stain is in the sun. The combination of the vinegar/water or lemon juice/water and the sun is often sufficient to bleach out the stain.

Homemade Stain Remover. Mix baking soda or borax in equal amounts with white vinegar. Scrub this onto the stain with an old toothbrush and wait 10 to 20 minutes before washing.

Homemade Spot Remover. Mix 1½ cups water, ¼ cup liquid castile soap and ¼ cup liquid vegetable glycerin. Pour this in a spray bottle. Spray the stain as soon as possible, and then wash the garment.

Stain-Removal Soak. Combine 1 cup water, ½ cup hydrogen peroxide, ½ cup baking soda. If possible, soak the stained laundry in this overnight, or pour this mixture into your washing bucket, along with the stained clothes.

Ink Stain Remover. Try using alcohol. If you have an alcohol-based product such as a hand sanitizer, try rubbing the stain with that. If you have isopropyl alcohol, give that a try. Also experiment with liquor ... on the stains, that is.

WHERE TO WASH

If you're in the backcountry, don't wash your clothes in a stream. At the very least, think of those who might be drinking from this source further downstream. If you're using only natural soap from plants you collected and you're far into the backcountry, this might not be a big issue. Nevertheless, on general principle, you don't want to pollute the sources of drinking water.

Instead, fill a bucket with water, and add your dirty clothes. It helps to soak the clothes for a while, even if just for an hour. Put your bucket in the sun so the water warms up a bit.

If you have a way to heat your water, add it to the bucket. If you planned ahead and purchased a solar shower, you can heat your laundry water in the sun and never have to make a fire. (Sometimes, a fire is not convenient, and if you're in "enemy territory," it might not be advisable).

When you're ready to clean, you can go over the garment and scrub particularly bad areas with a brush and soap, a stone or whatever you have for this task. In most cases, you can immediately see if your



FABRIC SAVVY

Refer to Christopher Nyerge's book, How to Survive Anywhere (second edition, Stackpole Books, pages 124 through 127), for a complete comparison of fabrics. He is a long-time survival instructor and author of over a dozen books. Contact him via www.SchoolofSelf-Reliance.com.

I consider hand-washing a very normal thing to do. Wash some of your own clothes, hang them up to dry, and let the sun refresh them.

Practical survival skills, such as washing your clothes by hand, are not just for the homeless, squatters or destitute, low-income people; nor are they only for surviving "the end of the world." Survival skills are eminently practical, all the time, everywhere. **ASG**

Women of Sestine, Belgrade, in former Yugoslavia, wash clothes on the bank of a river.

scrubbing is getting the dirt and stains out. Then, just scrub the garment by hand. I've found that about 200 hand squeezes is sufficient for the average piece of clothing.

BY THE OCEAN

If you're ever out at sea or stranded near the ocean, try to wash your clothes with fresh water as often as possible—salt, wind and extreme sea temperatures will wreak havoc on your clothes.

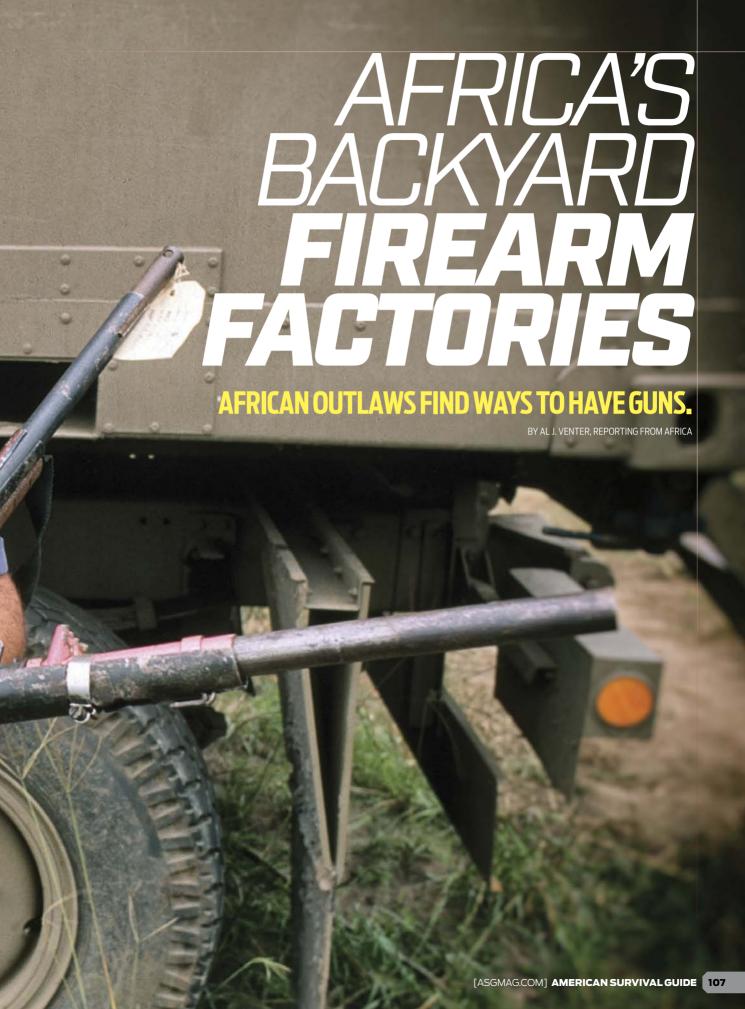
ALWAYS PRACTICAL

I found that I had a more "intimate" connection with my clothes after cleaning them by hand. And somehow, this reminded me of some of Thoreau's commentary that we should learn to live better with less.

I learned what it takes to clean difficult stains and about the different fibers and textures of fabrics. I began to buy sensible clothing—always opting for wearability and practicality, and rarely because something was in style. Before I set out in the morning, I would often think, What if some disaster befalls me today and I am forced to wear these same clothes for days or longer? Would my clothes be comfortable? Could I move around easily and run in them? Will they be easy to clean? Gradually, I eliminated all clothing that no longer served my needs.







here are conflicts going on in Africa today that have a direct bearing on what is happening in some gang war turfs in the United States.

Those involved do not need factory-made firearms, because they can make the guns themselves. In Africa, it is an enormous and burgeoning "backyard industry."

More to the point, these basic weapons are being produced in quantity—many of them primitive, barely functional and crudely put together. And they can kill. Most times, they do so very effectively.

Should firearms eventually be restricted from private ownership in America, there is no question that there are a lot of individuals who will follow this African tradition and start producing their own.

THE PROLIFERATION OF PRIMITIVE FIREARMS

One needs to look very closely at how this is being done, because there are both lessons and warnings here. I have been embedded with local police, air force and army in Africa on numerous raids in what is sometimes an extremely dangerous region. Some remarkable firearm hybrids have emerged. For instance, one particularly evil-looking device was made from parts taken from a plow.

This illegal handgun, shotgun and rifle manufacturing industry continues unabated, largely because of corruption and the complicity of most governments in sub-Saharan Africa. In this regard, another point made by the venerable Nelson Mandela was that "it is very active in my own beloved country, which turns a blind eye to the appalling suffering associated with the proliferation of these weapons."

The sad truth is that as this article goes to print, South Africa's much-depleted security services are fighting a low-intensity struggle in the lush farmlands of the Zululand of old, as well as other outlying areas in the interior. The numbers of victims are relatively modest: two dead in a village the day of this writing and another somewhere else the day before.

But, as in Northern Ireland in years past, some of the issues were intense enough to have involved the military—in this case, the South African Army. For many of those involved in the killings, it was, as the saying goes, "payback time."

Those not hacked to death in these ongoing vendettas are shot with a variety of firearms, many of them homemade. And because some of these guns can be put together on any backyard porch, it's



... BECAUSE SOME OF THESE GUNS CAN BE PUT TOGETHER ON ANY BACKYARD PORCH, IT'S IMPORTANT TO TAKE A CLOSE LOOK AT THEM.

> Above: A little creativity turned what was a tool of construction into one of destruction.



> With a police chopper for backup, a group of law enforcement officers corners a pair of weapon smugglers in a sugar cane field.

important to take a close look at them. All are lethal. More salient, many are adaptations of the ubiquitous "Saturday night special"—the historic weapon-of-choice of many American youth gangs.

Also, this is a "big business" industry. The guns are made in makeshift facilities, with thousands produced each year. Most see ready use in a country that has one of the highest murder rates in the world (17,000 people killed last year), with many of the victims shot to death

The majority of these firearms are cheeky adaptations of 12-bore (gauge) shotguns. It is the weapon that is most popular in less-developed regions because of the spread of its lead pellets and the impact. The rationale among those who use shot shells is that there are no telltale ballistic "fingerprints" for forensics to work with afterward.

Other firearms range from primitive adaptations of the Kalashnikov AK-47 to drilling through the barrel of a starter's pistol so it will chamber a .38-caliber cartridge. In the long term, it probably cannot be used very often, but it will have adequately served its purpose.

Curiously, there is an astonishing number of military carbines about: AK-47s, .556 mm South African army R-4s (the South African hybrid of the Israeli Galil), an occasional FN 7.62 mm or a former Portuguese Army G3 brought across the border from Mozambique.

... THESE BASIC WEAPONS ARE BEING PRODUCED IN QUANTITY—MANY OF THEM PRIMITIVE, BARELY FUNCTIONAL AND CRUDELY PUT TOGETHER. AND THEY CAN KILL.



 Ahove Members of the police and army with some of the weapons recovered in a raid



A poacher arrested with his haul of illegal weapons, snares and booty

As police operations begin to take effect, it is hoped that this illegal arsenal is thinning.

THE PREFERENCE FOR 9MM PARABELLUM

The 9mm adaptation falls within the higher echelons of illegal production because of the ready availability of ammo. Legal South African arms factories produce huge supplies of Parabellum cartridges, much of it going abroad as exports.

Most of the people living in the embattled zone will disagree about the destination of this ammunition. Barely a week goes by that farmers and, increasingly, their families, aren't killed or wounded in road ambushes or onslaughts on isolated homesteads in attacks that are taking place throughout the country.

Since the African National Congress came to power in the early 1990s, more than 3,000 members of the white farming community have been murdered. Many of those involved maintain that as the attacks increase, with scores of farmers killed each year, it's little more than a concerted effort to drive them off their properties. They point to the fact that along the Tugela River and farther south, in the foothills of the Drakensberg Mountains and elsewhere, some farms have already been abandoned.

During visits to KwaZulu/Natal since 2007, I was to see a lot of evidence of this trend for myself. Farm killings are only part of it: There





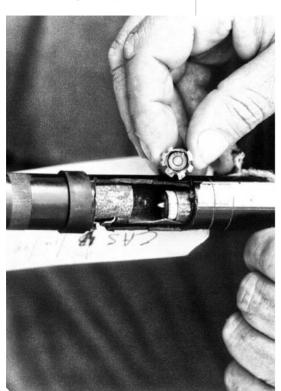
) Above left: A pair of pistols, the bottom one capable of firing 9mm and used in a cash heist

> Above right: A primitive 12-gauge shotgun pistol

THE TOOLS CAN BE AS RUDIMENTARY AS A HAMMER, A HACKSAW AND A FILE, TOGETHER WITH A YOUNG BOY WHO WILL PROVIDE THE MUSCLE TO DRIVE A SET OF COWHIDE BELLOWS OVER A CHARCOAL FIRE.



> Right: A fairly effective homemade rifle chambered





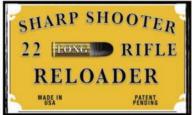
√ Above: An improvised shotgun recovered from a shack in
Zululand

Left: A remarkable improvisation for firing a 9mm Parabellum round



The army moves in on a house identified as a store for illegal firearms.

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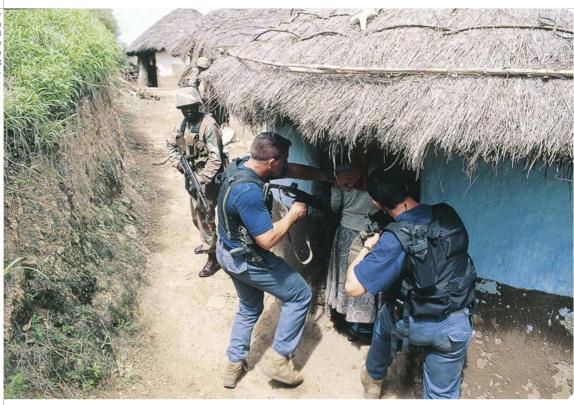
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USA

> Police and army units combine for a raid on a Zululand village where illegal weapon manufacturing took place.



THERE ARE MORE PEOPLE DYING VIOLENTLY IN SOUTH AFRICAN CITIES TODAY THAN IN ANY OTHER COUNTRY IN THE WORLD OUTSIDE A WAR ZONE, WITH THE SINGLE SINGLE EXCEPTION OF MEXICO.

are more people dying violently in South African cities today than in any other country in the world outside a war zone, with the single exception of Mexico.

IMPROVISATION SUPER-SEDES SAFETY

Despite an increased security presence in much of South Africa, criminals have become more active. And as long as these dissident elements are hunted by the South African

Police Service, they are obliged to turn to their own resources to acquire weapons. Apart from those stolen, there have been some remarkable homemade adaptations.

It was found that technical expertise, while basic, was largely improvised and very rarely involved machines. In the countryside, where many of these "workshops" are situated, there is often no electricity.

The tools can be as rudimentary as a hammer, a hacksaw and a file, together with a young boy who provides the muscle to drive a set of cowhide bellows over a charcoal fire.

The author was shown a starting pistol that had been made into an effective single-shot weapon. It was .22 long-rifle caliber and had been used in a political assassination that was big news at the time. A prominent political figure of Zulu ancestry had been shot behind the ear from a range of inches. The man died instantly.







A close-up of an improvised 12-gauge shotgun. It looks primitive, but it works just fine at close range.

> Recovered Ilegal firearms, including the Soviet-era PPsH subble being held by the officer

A few more of the weapons I handled were nothing short of dangerous. One or two had fairly large gaps between the receiver and the barrel (which, when the shooter is on the move, are usually carried separately). Alternatively, the cartridges were so loose-fitting that the gun emitted a sheet of flame from the breech.

"Often, if the piping is too big for the cartridge, a short length of wire is wound around the base of the brass to keep it in position," a police officer familiar with the illegal trade in firearms told me. "This is often the case with the 9mm Parabellum pistol."

The most basic system, he reckoned, was to improvise and have two lengths of ordinary metal piping, one fitting neatly into the other. A small, sharp piece of steel—the firing pin—would be soldered to one end. With the cartridge in place, you literally banged one section of the "gun" hard against the other. Obviously, you need to take great care where it is pointing just then.

"Tricky, but it works, although not always if you've been drinking, which is often the case," said Mike P., another policeman who did not want to be identified because he is still involved in ballistics work. Also, he added, "you have to know how to hold it ... fingers have been severed in the past."

A new development, he explained, had been to take toy pistols or revolvers—the kind children play with—and drill out the barrels for use in bank holdups (for which South Africa is now a world leader).

If, for instance, an AK is not available, the 9mm Para is still the preferred caliber. Another armorer said these improvised firearms worked very well for five or six rounds, after which the barrels tended to split.

ADDING BITE TO THE BULLET

It is generally accepted in Natal that the best homemade weapons were, for a long time, made by a fugitive known to the police as "Dum-Dum" Dumisane. He was appropriately named: Having eluded the police for years, he taught his associates how to nip off the tip of a bullet, which always results in the victim being seriously wounded. It says a lot that the inappropriately named "dumdum" bullet was banned generations ago by the Geneva Convention.

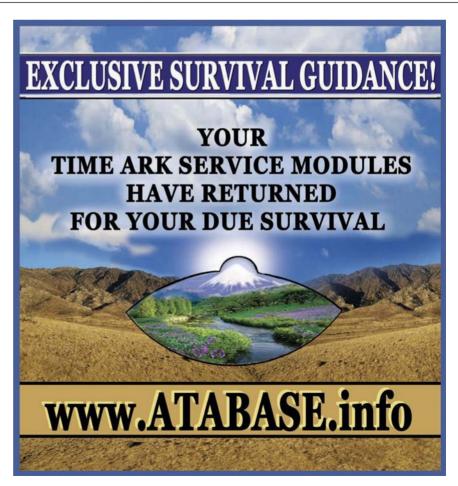
Dumisane is also a bit of shotgun boffin. One of his creations was recovered while I was there. It was 12 gauge and could be fired as a handgun. (Those who have tried it say you need strong wrists.)

NO SHORTAGE OF SHOTGUNS

About half the weapons brought in while I spent time with the South African police were 12-gauge-caliber shotguns that were factory manufactured or improvised. An officer pointed out that ammunition was plentiful; just about every farmhouse has a box or two of shells. More significantly, in close quarters, it is difficult to miss your target—whether or not you've had a few beers.

Quite a few members of the police with whom I worked out of Margate Airport had taken fire from these improvised weapons; several had ended up in the hospital with serious wounds. One had taken the full impact of a Remington 870 12-gauge shotgun in the chest. Even though he was wearing body armor, the blast knocked him down, half concussed. Apart from a bruise the size of a plate that stayed with him for months, he wasn't badly hurt. But just 6 inches higher, he reckoned, and he would have taken it full in the face. **ASG**









American Survival Guide: What drew you to the Army and to volunteer, not only for Airborne training, but then to volunteer for, and ultimately become, a Green Beret?

Mykel Hawke: I was kicked out of junior high school for fighting as a gang leader, defending ourselves against a lot of older, bigger bullies. I was a straight "A" student and in the chess club. But I never went to high school.

I was shot and stabbed before I ever joined the Army. I had friends going to jail for murder and friends who were murdered. I knew I would meet the same fate if I didn't change something. It seemed to me the only way to break the cycle was to get an education.

The only way my poor butt was going to get an education was to join the military. I didn't have a clue what a Green Beret was! I went in and got a lot of training in communications (05B [Army radio operator], 3IC [radio operator-maintainer] and 3IV [unit-level communications maintainer]). Then, a Special Forces recruiter found me.

I was asked to join because I was a sergeant after two years with PLDC (Primary Leadership Development Course) and Jump School. So, I read three books about them and decided that this is who I wanted to become. These men were the real-world heroes I was raised by and about whom I grew up reading and watching movies. So, I tried out and made it. It was the best choice I ever made.

When I went through the Special Forces training for the fourth time—this time, as an officer in the Detachment Officer Qualification Course (SFDOQC) in 2002—survival training was not taught throughout the training in the actual SERE Course (Survival Evasion Resistance Escape). They only taught it for three days. SERE had recently become an official part of the initial training. received by those soldiers earning their green berets, which was a great addition. Prior to this, SERE was given as an advanced training course that only some Special Forces soldiers would choose to attend later in their careers; and many chose to skip "Camp Slappy" training!

ASG: What type of survival training did you receive during your Special Forces training?

MH: Nowadays, all Green Berets receive SERE trading as part of the SFQC (Special Forces Qualification Course). SERE training



One of the books
Mykel has written:
The Quick and Dirty
Guide to Learning
Languages Fast

Mykel Hawke has

oreign military units

conducted training

presentations for

as shown here

teaches Special Forces soldiers how to survive in a full spectrum of environments, including becoming prisoners of war, hostages or being detained by another country during peacetime scenarios.

This also used to be a stand-alone advanced class that I took in 2005 as a captain and team commander. But now, it is included as mandatory training, and it is another great improvement in training that resulted from our lessons learned after many years of combat. The school teaches soldiers how to survive in the wilderness, how to evade capture and how to escape if they are captured.

Only military personnel can be prisoners of war, but all other forms of captivity are applicable just as much—if not more—to civilians. Many places offer "SERE-like" training, but it fluctuates greatly, and the levels of training competency vary quite a lot. American



"... THE MOST POWERFUL AND POSITIVE PROOF OF DEDICATION TO THEM AND THEIR CAUSE IS TO BE ABLE TO COMMUNICATE WITH THEM IN THEIR NATIVE TONGUE. THIS IS WHY WE LEARN LANGUAGES."

Survival Guide University is currently working on offering training for civilians in surviving, escaping and evading captivity, so keep an eye out for that coming real soon!

ASG: After holding several military occupational specialties within the Special Forces, you decided to transition over to become an officer. Why did you do that, and how hard was it for you to not only get through that training, but to then re-qualify as a Special Forces officer?

MH: This is a funny story. I had actually gotten out as an 18D (SF medical sergeant), 18E (SF comms sergeant), 18F (SF assistant ops and intel sergeant) SFC. I did five years of contracting in war zones such as Azerbaijan, Colombia, Haiti and Sierra Leone. I was actually a country manager in these conflicts and nearly died many times. This was well before 9/11.

One day in Colombia, I nearly died three times. I was with a famous SF general. After it was over, he told me I should come back in and share what I had learned with the new SF troops. When 9/11 happened, I answered the call. And that is the second funny part of the story. I was a producer for ABC, living in Los Angeles as a single father of two teenaged sons when 9/11 went down. My sons and I saw the second plane crash into the second tower—live on TV. I told my sons at that moment, "This is war, Gents, I can stay out as a single dad or go back in. What do you say?" They both answered, "Dad, go kick some bad-guy ass!"

So, I did. I went back to Special Forces Officer School as an "old" guy, non-rangertabbed, noncombat arms (I was a medical service officer), and I was not only National Guard. I was a second lieutenant—the lowest of the low!

They tried everything to fail me. They sent me to every advanced school, hoping I'd get

kicked out, but I passed everything with flying colors. So, they finally let me do the Special Forces Officer course. Again, I did super in the course, with my peers and all the psych evals they threw at me.

Bottom line: When it was all done, after my combat tour, they asked me to come back to the school and help update their course to fight the current threat, because they were still teaching Vietnam-era doctrine at that point. Things are a lot better now.

ASG: Why do Special Forces soldiers have to learn another language? What languages do you speak?

MH: What sets (Army) Special Forces apart from all other Special Operations forces is that we are created and designed to do unconventional (aka: guerilla) warfare. That means working with, living with, living like and looking like the locals. We have to know their customs, culture, religion and language in order to understand how best to work with them. So, the most powerful and positive proof of dedication to them and their cause is to be able to communicate with them in their native tongue. This is why we learn languages. I was rated in seven languages, paid for three and studied a few others. I have a best-selling language book called The

Mykel Hawke England Hawl during filming in a Louisiana havoi



Quick and Dirty Guide to Learning Foreign Languages Fast.

ASG: Let's talk about television for a minute. What is the most dangerous situation you have ever been in on camera, and how was it resolved?

MH: The most dangerous injury for me was on *Lost Survivors* doing an improvised rappel on a blind descent when the rock face gave out. All I could do was manage my way down and burn up some flesh—or crash and burn.

The most dangerous illness was when I nearly went down with heat stroke on the open sea. We couldn't use a tarp to block the sun, because the film crew couldn't see us under it. So, it was quit or take an enema. I took the enema and survived.

The most dangerous for Ruth [Mykel's wife] was also heat stroke. The first episode we did, I told Renegade 83 (the production company) that we couldn't film in the middle of the day in the desert. They made us, and Ruth nearly died. I forced them to call in the medic. They started listening to me after that. And we taught a good lesson on TV: Drink or die.

ASG: What do you think is the biggest problem with survival-based reality TV today?

MH: Too much is faked and too many frauds. There are no real certifications for it, so any quack can claim to be a survival expert. TV is made by folks in Los Angeles and New York who have no clue about the bush, so we get B.S.!

ASG: What are some important survival topics you rarely see covered on reality TV because they are not "sexy" enough or just don't make for good TV but are important for our viewers to master in order to increase their chances of staying alive?

MH: I'm real big on navigation. After all, if you can get home, you survive. But it's too boring for flashy TV execs. That is one reason we were very proud of our show, Lost Survivors; it focused on teaching navigation.

The other thing we like to focus on is edible and medicinal plants. We did some in every episode of *Man, Woman, Wild*—and it was always the first thing they edited out.

ASG: Those of us at American Survival Guide University pride ourselves on always advising our readers to be slow and methodical in a survival situation in order

The ALTAIR Training Facility in the Florida Everglades was the location chosen for filming several American Survival Guide University training segments with Mykel Hawke

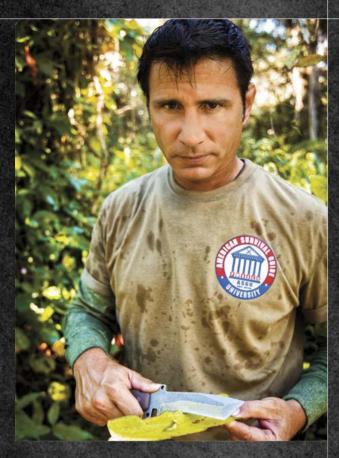


to conserve energy and minimize the risk of injury or illness. Quite often, we see so-called "survival experts" trying to walk out of a desert or climb a mountain at the hottest time of the day with little or no water. Do you think they are potentially putting viewers' lives at risk by teaching unsound survival techniques?

MH: Most of those "stunts" are faked and extremely wrong. Those folks would never have the energy or hydration to run up a mountain and get ice to drink, and it's damned dangerous to teach jumping off cliffs and going into caves, tunnels and such. They do it for the drama and to look like big heroes, but they are zeroes in my book, because that



> Mykel Hawke on location on Aitutaki, one of the Cook Islands in the Pacific



"THE MAIN WAY WE HUMANS LEARN, SAD TO SAY, TENDS TO BE BY FAILURE RATHER THAN BY SUCCESSES. SO, FAILURE IS AN IMPORTANT PART OF LIFE AND AN EXTREMELY IMPORTANT PART OF SURVIVAL."

will get folks killed.

Also, I hold those "experts"—and the networks—responsible for those dangerous teachings. If a network says this person is a doctor, and they give bad medical advice, and it turns out they're not a doctor, then it's a double wrong to the viewer, because they've been lied to and their lives put at risk.

ASG: Other than yourself, of the most widely known and respected survival experts who have had or appeared on survival-based TV, whom do you think is the best overall?

MH: My personal fave of the celebrity survivalists is Ray Mears. He is truly into the art of survival. I love Lofty "SAS" Wiseman, but he's kept out of the TV light.

ASG: There has been a considerable amount of controversy over the years involving survival reality TV stars staying in hotels each day after a shoot. How do you feel about that practice, and what was the longest you ever had to survive in the wilderness?

MH: It's been well publicized about Bear Grylls in hotels. I think Bear is a great guy,

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but I never considered him a survivalist.

We had a great producer when we made our shows. He made sure we were able to speak truthfully and say we lived in the shelters we made. We did ... and it sucked!

But that was the mission: Live it, do it, teach it. We're proud our suffering entertained, but more importantly, it educated. We're pretty sure the *Dual Survival* folks stay in hotels, because we've had way too many fans and friends tell us so. But that is between them and the public.

For us, the longest we stayed [in the wilderness] was five days. We usually try to do it in three, but sometimes, we needed four to make it. Once we got stuck. I think it was Alaska at a bad time of the year (the "thaw"). The weather was bad. A blizzard coming in forced us to have to tap out for the second time, which I hated. But it was real, and we had to own it. Sometimes, folks die.

ASG: You are one of the few survival TV personalities who have aired their failures in an episode. How important do you think that is in driving the point home to people that no one, not even a true survival expert, is exempt from the power of Mother Nature?

MH: The main way we humans learn, sad to say, tends to be by failure rather than by successes. So, failure is an important part of life and an extremely important part of survival. That's why it's key that folks study and practice. While we never like to fail, we are proud to own our failures and teach folks the importance of preparedness, readiness—and most of all, respect for Mother Nature.

Weather is fickle, terrain can change, disasters can happen. We must all be mindful that we are but part of this life, and the universe does not revolve around us; nor does it stop when we perish. The secret is to go with the flow and pay attention. Take your time while moving with a purpose. Look around and be situationally aware. The more you see, the more opportunities you can exploit and the more dangers you can avoid.

ASG: Both you and Ruth have achieved fame over the years. What is the best and the worst thing about being famous?

MH: I never set out to be on TV. I never imagined it and never cared. I was teaching survival to kids in Costa Rica, and MTV Road Rules found us and asked me to help. I did, and it grew from there.

Ruth had dedicated herself to photography and ended up in front of the camera. We both are actually private people and enjoyed the anonymity prior to television. However, it is a great honor when folks like our work and tell us how we united families. And, as a teacher, it is a wonderful thing to know I've been able to help more people learn. We consider it a blessing, for which we are thankful.

ASG: You are quite well known in the television industry as a survival expert. Your name and image are plastered all over the Internet, and you have your own line of survival products. Have you ever had trouble finding work in other fields you are skilled in—such as the security consulting field, medical field or the intelligence field—because of your fame?

MH: I held top secret clearance, and I've been awarded State Department Small Contractor of the Year. I've taught soldiers, as well as civilians, for many years. It is interesting how continuing to do so seems odd to some. They ask questions such as, Why are you teaching or operating? And my answer is always the same: I was me, doing this before TV, during TV; and even now, without TV, I am the same. Nothing has changed, other than they have seen me on TV!

ASG: You are a family man. How hard is fame on your family? Have you or anyone in your family ever been stalked?

MH: The only thing hard about the fame was being stalked by a former brother. I won't go into the details, but we feared for our lives and that of our son. Sad to say, we still do. There are so many ways it impacts your life that only those who have been stalked can understand.

ASG: Do people often recognize you in your day-to-day life? Do you still try to be the "gray man," or have you embraced your fame?

MH: We do get recognized a lot. I never seek it; sure don't embrace it. I ignore it. If someone says, "Man, do I know you?" I just smile and say that I don't think so. If they can call me out for any of my shows, of course, I'll own it. If I see they're vexed, I don't leave them like that. Quietly, off to the side, I let them know and then ask them to keep it low. They smile, I smile, we go on our way, and it's all good. ASG







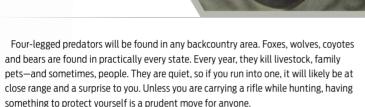






> Far right: The zipper flaps on your chest pack make it easy to quickly access your firearm when you need to. (Photo: Larry Schwartz)

> Near right: Hill People Gear Kit Bags were some of the first chest packs to make it onto the market. They have a zippered pocket on the outside and two compartments on the inside-one for your handgun and ammunition and the other for organizing your smaller items. (Photo: Larry Schwartz)



Two-legged predators can also be encountered in backcountry areas and are even more dangerous than the four-legged variety. We have all run into individuals who have some level of mental illness that can make them a hazard to others. Hunters come across marijuana-growing operations while moving through the woods. In the Southwest, illegal immigrants and the armed guides who bring them across the border are a real and constant danger to anyone hiking, camping or hunting in the area.

CHEST PACK CHECKLIST: WHAT TO LOOK FOR

Chest packs come in a variety of sizes, shapes and materials and range in functionality from simple pockets to multiple compartments with features for organizing all your smaller EDC gear.

The main features you should consider when picking a chest pack are:

- A way to securely carry your concealed handgun and at least one spare magazine;
- Enough room to carry all the things you want or need to carry;
- (Easy to put on and wear, either over or under your clothing;
- A profile that is not so bulky that it restricts your movement or keeps you from using your bow or gun;
- A discreet design that is not overly "tactical" looking;
- (A way to organize smaller items; and
- Easy handgun access.

HOW TO USE THEM

You can wear your chest pack over your outer clothing layer so it is easy to reach everything inside. This works well if you anticipate a situation in which you will need to draw your gun quickly for defense or if you want to be able to access its contents with just one hand if you need to.

My preferred method of wear is under any outer garments I might take off during the course of the day so that I always have the chest pack on my body. This is in keeping with my policy of always having my EDC items on my body when in the backcountry (or in the "front country," for that matter). By wearing it under my outer garments, I don't have to worry about taking it off and putting it on every time I change my clothing layers. The down side is that I need to open my outer layer to access the pack; but I don't mind that.



To help get to the contents of your pack quickly, whether you wear it inside or outside your outer layer, orient the pack and its zippers or snaps so that you can easily open them with your non-dominant hand and then reach in with your dominant hand. Some packs are designed with a separate compartment for your handgun so that you can leave the zipper open on one side to make it easier to reach in and draw.

WHAT ARE YOUR OPTIONS?

Hill People Gear: Hill People Gear sells five variants of its Kit Bag chest pack: the Original, Recon, Heavy Recon, Runner and Snubby. As their names imply, each model is designed for a different end user. These packs are made from 500 denier (500D) Cordura nylon and come in Foliage (gray/ green), khaki, Coyote Brown (tan) and Ranger Green (olive drab).

These Kit Bags have the simplest design of the three models described in this article, with one compartment for the handgun next to your body and a second compartment away from your body. The latter compartment contains two small





smaller EDC items. Kifaru also makes an organizer with pockets and elastic loops to help you organize small items. It does not come with shoulder straps, but you can attach a binocular harness to the connections on the back of the Tombstone or make your own harness from webbing.

Bison Gear: Bison Gear is the third company that offers a full-feature chest pack as a stand-alone product. Its Chest Pack and Harness product features one compartment with a fabric divider

The section next to your body contains a mesh pocket that covers the whole side of the pack. You can place larger items, such as magazines, a space blanket or a first aid kit, in the mesh pouch. A handgun can fit between the mesh pocket and the fabric divider.

The front side of the divider has a number of slot pockets for small items and two larger pockets on the outer side. This inner compartment also has straps on either side

These chest packs from Action Gear Pro (top) and DeSantis Holsters (bottom) are similar designs that include a pocket with hook-andloop closures in the back and a pocket with elastic loops for organization on the front. The Action Gear Pro pack is slightly larger and can easily accommodate a pistol with a 5-inch barrel. (Photo: Larry Schwartz)

that can be used to hold it open at a 90-degree angle to make it easier to see and use what is contained in the slot pockets. It also has a full-length zipper on the outside for holding frequently used items (a map, compass, camera or phone, to name a few).

Bison Gear is a semi-custom sewing shop, so you can get its products in pretty much any combination of fabric or colors. The company currently offers the Chest Pack, made from heavyweight wool, in camo, gray, camel and green; hemp canvas in brown; and a durable, water-repellent polyester called Wolfskin in Predator Fall Gray or Predator Fall Brown.

Of the three chest packs discussed, the Bison Gear unit is the lightest and quietest while still having both holster and organization features.

The products from the three manufacturers above provide room and features for your handgun and EDC items. Additionally, the following two companies make bare-bones models designed for joggers and hikers who just want to carry concealed in addition to carrying a few items, such as a phone or wallet.

DeSantis Holsters: The Road Runner is a casual running concealment holster that can be worn under or over your garments. It is a lightweight pack made of black nylon and includes padding in the ambidextrous gun pocket next to the body. The outer pocket has room for kevs. wallet. ammo. etc.

Active Pro Gear: This company's Jogging Concealment Holster lets you carry a small- to large-frame gun comfortably and concealed without it banging against your body while exercising. It doesn't look like a gun rig, so no one will suspect you're carrying.

THE BOTTOM LINE

There are many ways to manage your everyday carry items, but my preferred solution is the chest pack. This single container is always on my body and can hold my EDC, including a handgun and extra magazines.

Chest packs are comfortable to wear, easy to access and don't need to be moved around as clothing layers are removed or equipment is changed out. You will find them to be extremely useful and great additions to your current gear mix. ASG

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Bison Gear

(800) 276-4681 www.BisonGearOnline.com

DeSantis Holsters (800) 424-1236 www.DeSantisHolster.com

Hill People Gear (888) 464-1875 www.HillPeopleGear.com

Kifaru International (800) 222-6139 www.Kifaru.net

ADDITIONAL COMPANIES

Alaskan Guide Creations

(435) 630-0829 www.AlaskaGuideCreations.com

Black Ovis (801) 559-7556

www.BlackOvis.com



Gear packs both have hook and-loop closures that can be pulled back on either side to allow ambidextrous access to your firearm. (Photo: Larry Schwartz)

⟨ Far left: Four-legged predators present a hazard to backcountry travel and activities throughout the United States. Having a handgun to protect yourself is both prudent and recommended.



AD INDEX

April 2017

ADVERTISER	PAGE
Aero Precision	7
American Gunsmithing Institute	132
Atlas Survival Shelters	69
Battlbox LLC	29
Bradford USA	113
Bravo Company	2-3
Condor Outdoor	131
Doom and Bloom, LLC	129
Fort Discovery	85
Gemtech	57
Grace Holt / ATABASE	97
Hogue Grips	121
Holosun	61
Major Surplus & Survival	10-11
Mykel Hawke	39
Nat-Safe	105
O.F. Mossberg Firearms	71
Ready Made Resources	37
Sharp Shooter	89
Survival Archery Systems	87
TOPS Knives	49
Tormach LLC	129
TPS Arms	119
Waterwise Inc	59
World Gone Silent	47

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VAST RUS

FLEXIBILITY, CREATIVITY AND INNOVATION WILL WIN THE DAY.

e've talked a lot in this issue about how to conduct the business of life in a grid-down economy and how you can see new value in some of today's mundane stuff. Even if you will have, and take advantage of, opportunities to gather and trade safely with other people, this part of life will be very different from the way it is today.

Of course, you'll be dealing with a lot of other unusual demands at the same time, so you might be thinking this one will just get lumped in with all the other adjustments you'll be making; that is, you'll deal with it as it comes up and make do with the outcomes. Sorry; that's not a good plan.

What if the familiar proverb, "The more things change, the more they stay the same," doesn't apply in your version of the future? With so many new and dynamic external influences to adapt to, it's possible you'll be blindsided by the fact that you won't be able to use much of your current shopping expertise to satisfy your needs. The conveniences we take for granted today will be luxuries—if they'll be available at all—in many of the future scenarios you're preparing for.

You will need to be able and willing to assess, adjust and adapt to thrive and support the rest of your group.

One of the essential characteristics of a successful survivalist is a high level of flexibility that will enable and promote the necessary creative and innovative juices to flow to be able to roll with the punches. Instead of relying on a habitual method that takes you between points A and B today, you'll first have to decide if A and B are still important and, if not, what your new goals are. Only then will you be able to plan how to achieve them.

Because more of what you do will relate to what you need, as opposed to today's emphasis on wants and desires, your decision-making process will become more thoughtful and calculated. Whether you're bartering for food or deciding where to hunker down, you'll evaluate many variables to prioritize your needs and determine your course of action. By using a creative or innovative approach to meeting your needs, you will increase your options and become more efficient and effective

Humans are naturally and historically resistant to change, often even resorting to violence to maintain the status quo simply because "that's the way we've always done it." However, in many cases, doing things the same, old way is restrictive and wasteful.

Many business organizations embrace a "continuous change" model that espouses the benefits of steady modifications to their processes and their products. This is by choice—a choice you won't have if the world goes to hell. By the way, note that change, simply for the sake of change, is a destructive influence and often results in serious negative impacts to the system it is allegedly trying to improve.

By responding creatively to new hurdles and challenges, you'll probably realize there are more-efficient and effective ways to achieve your goals. By adapting, you'll be positioning yourself ahead of those who will resist the new reality; and that will be a huge advantage for you.

Being flexible and innovative is a good thing and probably ought to be more of a part of how you approach decisions today. You could even think of this as practice for what the future might hold. If you can train yourself now how to approach choices and important challenges by considering the types of constraints and limitations you might have in the future, you will be much better prepared, both practically and emotionally, to adjust to the limited options you'll face in the future.

You owe it to yourself to scrutinize everything you do to find opportunities for improvement and efficiency. After all, who's more deserving of those advantages and benefits than you? **ASG**



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