

Mo Morales
Zackery Denfeld
ACD 671: Material Innovations
December 15, 2010

COLLAPSE: A Design Strategy For Survival

“The people who control the world are losing control.” – Michael Ruppert

A growing inventory of researchers, theorists, writers, scientists, professors and philosophers agrees that the United States of America, and the lifestyle we citizens have indulged for the past 100 years, is on the verge of collapse. Some, such as Peak Oil theorist Dmitry Orlov, predict that within as little as ten years, give or take five, the U.S. will collapse as abruptly, devastatingly, and permanently as did the former Soviet Union in 1991. Many agree with University of California professor Jared Diamond, that collapse has already begun.

True for any compromising situation, having a plan to deal with possible threats is more than just good advice, it can mean the difference between life and death. Although people new to this topic may think that spending resources on preparedness and planning for the collapse of our way of life should be left solely to survival freaks and gun nuts, just indulging a modicum of thought on what your part of the world might look like if it did collapse will be an important step toward preparation in itself. If infrastructure is destroyed or disabled, or access to infrastructure is impossible, having a plan and stores in place will in most cases make the difference between perishing or surviving. And, if you are not moved to start a plan of your own after reading this essay, even having read it will better prepare you than you already are.

This essay will examine what collapse is from an historical context and how it could appear; provide practical strategies to consider when facing any survival scenario; present important criteria for evaluating your own safety and that of those around you; and highlight the extraordinary circumstances that can unfold from chaotic or desperate conditions. The assertions

of this essay are based on months of formal research of the most current publicly available information; informed by forty years as an outdoorsman with formal military survival training; and a decades-long feeling that the life I have lived as a middle-class American is unnatural and will evaporate in my lifetime. As with many of the sources cited in this essay, I am not attempting to convince anyone of the need to prepare for an emergency situation. I am simply providing background context, vetted information, and practical advice on how to increase your chances of surviving a dangerous loss of infrastructure.

§

“A society has collapsed when it displays a rapid, significant loss of an established level of sociopolitical complexity.” – Joseph A. Tainter

What exactly is collapse? Dictionaries define collapse as both a verb and a noun: to fall or cave in; crumble suddenly; a sudden complete failure; a breakdown. The keyword is *sudden*. Collapse is not something that occurs slowly like decomposition or decay. The suddenness is what makes collapse devastating. Like dropping from a thousand feet: it’s not the fall that kills you it’s the suddenness of the change from moving to stopped.

In practical terms, collapse is a failure of social, civil, or economic infrastructure resulting in significant loss of services including emergency services such as police, fire, and rescue; essential services such as electricity, water, heating fuel, sewage handling, waste disposal, and communications; and supply services such as food, gasoline, and materials. The reason collapse is such a threatening condition is because it means the loss of most, or all, those services at the same time or in very close succession. In this country right now, we are only nine meals away from complete chaos following the exhaustion of food in people’s refrigerators and cupboards if there is no access to more. Many voices in the streets, on bookshelves, in chat-rooms, and on TV talkshows are trumpeting a cacophony of claims while others are making good money espousing

doom and gloom, but are any credible? Absolutely. Let's take a look at some of the notable collapse theorists of today.

Chief among those shouting about collapse is James Howard Kunstler, author of *The Long Emergency*. Published in 2005, this brazenly direct analysis of our contemporary condition details factors that include a near total public blindness to our circumstances; the diminishing world oil production; the political repercussions of a post-oil global economy; the inability of alternative energy sources to fully replace oil while meeting an ever increasing global energy demand; and massive global changes due to climate, habitat destruction, diminishing potable water, pandemic, and industrial pollution. While not your most cheery read, it is compelling, especially when one considers Kunstler's emphasis that collapse will not come from any one threat, but through the combination of many perils, any one of which would be potentially crippling alone.

Also in the camp of theorists who promotes that collapse will come from a convergence of several serious challenges is UCLA professor Jared Diamond, author of *Collapse: How Societies Choose To Fail or Succeed*. Diamond compares the economic and geo-political details of several well studied societies including the Maya, Easter Island, the Anasazi, Norse Greenland, Rome, Rwanda and Haiti. These examples are used to demonstrate his five-point checklist of converging, collapse-inducing stresses which are: human impact on the environment (e.g. over consumption of natural resources), climate change (e.g. drought, ice-age), relations with friendly neighbors, relations with unfriendly neighbors, and a calculus of other political, economic, social, cultural factors. One striking commonality of the societies studied is an escalation of martial activity just prior to the collapse of larger societies. The Maya and Roman Empires saw an increasing interest in waging war with an accompanying rising popular interest in forms of violent entertainment, notably solo or team death matches. Is there a connection between the

growing popular interest in mixed martial arts “cage-matches,” and the proposed demise of the West?

The biggest problem with a geographically extended military campaign is that as an empire extends its reach, out-lying units become harder to supply and ever-increasing amounts of resources are needed to maintain them. As we find ourselves fighting not just a war, but two large-scale wars on the other side of the planet, a global ideological war on terror, and a nation-wide war on drugs, its a wonder we haven't financially imploded already. Or have we? Where are the resources to support these campaigns coming from? Who is paying for it all? We hear in political rhetoric statements like, “we are mortgaging our grand-children's future,” or that the burden will fall on our children, but in actual probability, the bust will land squarely in the laps of the current population.

Perhaps the most intense practitioner of collapse theory is former Los Angeles Police Department narcotics detective Michael Ruppert. With a a grouchy, I've-seen-the-worst-of-humanity-so-nothing-surprises-me demeanor taken straight from a dime-store crime novel, Ruppert pulls purposeful, smokey cigarette drags with long, pregnant pauses before issuing bold, clearly articulated statements that feel like responses to a legal deposition. He is one of the most recognized and vocal antagonists of our secretive, arguably corrupted government and has connected the dots that illustrate a convincing and frightening portrait of the real powers behind the scenes acting invisibly but before our eyes. Ruppert makes some bold charges, but his real value to me lies in witnessing his personal transition from an almost pathetically bitter, vengeful whistle-blower, angry at the world for its failures, to an almost enlightened, peaceful, gentle sage of a dawning era.

In his film *Collapse*, he describes three different types of passengers aboard the fated *Titanic*. When told of the collision with the iceberg and impending tragedy, the first group

scoffed and returned to the bar in disbelief that such a mighty vessel could sink. The majority of passengers were of the second group who froze in their tracks and drowned in panic with the ship's first bellowing groans. A third group asked, "How can we make some lifeboats?" I'd add that there was a fourth group whose class of travel gave them reservations on the few lifeboats there were, though admittedly, does not add much to Ruppert's point. He goes on to tell the story of the hundredth monkey which I will outline briefly.

After some nuclear tests that left a small Pacific island covered in radioactive dust, a group of scientist went back to study the effects of the radiation on the native wildlife. It occurred to them that they might be able to teach a certain species of monkeys to wash their bananas, thereby removing the hazardous, radioactive dust before eating them. After successfully teaching one monkey, they released it back to the wild. They noticed that as time went by, another monkey began to follow the example, later another, and one more a few weeks later.

This slow change in behavior went on for quite sometime with the scientists thinking the population would never catch on meaningfully. But after cataloging the one hundredth monkey that learned to wash its food, the scientists were shocked to see that the next day all the monkeys had adopted the new practice. In advance, I ask for forgiveness for however much I've butchered Ruppert's story, but I dare say, the details are not as important as the point, which is, social systems have population thresholds that must be crossed before a change in behavior is adopted by the entire society. We Americans, as ambassadors of the Western lifestyle, have not come even close to the hundredth monkey while Michael Ruppert came to an epiphany: his calling is not to train the hundredth monkey. Rather, Ruppert has found comfort in finding his audience in the *Titanic* crowd. His audience is not the first group who returned to their single malt whiskeys, nor is it the third group of those frozen like deer in the headlights. Ruppert is comfortable and happy to be working with the ones who were cleverly constructing floatation devices. And he has literalized the concept through a website called Collapsenet.com which even capitalizes on the

Titanic theme with the use of the term “Lifeboats” to designate groups of organized, likeminded folks in a growing list of geographical communities.

I offer a personal observation that the Michael Ruppert I was first acquainted with, the angry, chain-smoking one, has been replaced with a softer, seemingly happier, cigarette-free (though pot-friendly) version. This night and day difference is easily observed by viewing an epilogue interview in the bonus features of his *Collapse* DVD. I make mention of it as evidence that after finding one’s voice, it is just as important to find the right audience. Ranting and raving against the crowd, no matter how righteous, just makes the ranter and the crowd around him miserable.

On the lighter side of those taking collapse seriously is Neil Strauss, author of the informative and entertaining *Emergency: This Book Will Save Your Life*. Strauss is a journalist by trade and has earned recognition as a writer of popular culture, mainly for *Rolling Stone Magazine*. I highly recommend *Emergency* for its information about surviving countless hostile situations, but more so for its “if I did it, you can and should too” attitude. A rock and roll lifestyle journalist by day and fun-boy clubbie by night, Strauss was living the dream. But five historical events in the last ten years stripped away his ego-driven, hyper-distracted existence and revealed a necessity to wisen-up.

The book is an entertaining account of his real-life endeavor to become competent in a host of survival-related disciplines applicable to urban, wilderness, and desert settings and included countless skills such as weapons training, knife fighting, fire making, life saving, water finding, animal tracking, high performance driving, and identity falsification. His full-time, two-year endeavor earned him certificates as an EMT, marksman, Certified Civil Responder, graduate of several survival schools, and a citizenship in small Caribbean nation called, St. Kitts. Not a heavy historical account of collapse, the book excels as a motivator. This urban dwelling, liberal

progressive, creative-class, thirty-something, successful white guy completely changed his paradigm. Now he has a bunch of new skills and options for WTSHTF¹ in addition to the lifestyle he enjoys. The point is, one doesn't have to become a different person, adopt different politics, or even change anything about one's lifestyle to become educated and prepared to deal with WTSHTF. As it is said, "better to have it and not need it, than to need it and not have it." Preparedness is not a symptom of paranoia. But what to prepare for, exactly?

§

"Not one in fifty, not one in a hundred people in our country have any inkling of the potential problems that we are facing." - U.S. Congressman, Roscoe Bartlett

In a presentation for the *Technology Entertainment Design* symposiums (aka *TED talks*), former editor in chief of *Discover* magazine, Steven Petranek, listed his top ten apocalyptic scenarios. I will list and briefly explain each, for taken as headlines alone, some seem ridiculous; that is, until you learn the facts behind them.²

1. **Mental Health** - We (humans) could lose the will to survive. Currently, depression is considered a global pandemic..
2. **Invasion by Extraterrestrials** - In 1992 astronomers began seriously speculating that there could exist planets revolving around stars other than our sun. In 1995 they found the first. In 2009 the first "Earth-like" planet was discovered and on July 11 of this year, the first planet with water was discovered. As of this writing, astronomers have cataloged 509 planet outside our solar system.
3. **Ecosystem Collapse** - The worlds oceans are already on the verge of collapse due to pollution, climate change, and over extraction of resources.

¹ When The _h_t Hits The Fan

² [Stephen Petranek counts down to Armageddon on TED.com](#)

4. **Particle Accelerator Mishap** - One of many experiments at the C.E.R.N accelerator in Switzerland is the creation of miniature black holes for the study of dark matter. The scientists are *confident* that the black holes they create collapse within microseconds.
5. **Biotech Disaster** - To protect its cultural heritage, Mexico outlawed all forms of GMO corn since the idea was even proposed. Yet, scientists recently found a gene engineered and patented by Monsanto in Mexico's pure, native corn fields.
6. **Pole Shift** - The idea that Earth's North and South magnetic poles haven't always been where we are accustomed to them being is over sixty years old. Contemporary science has deduced that polar shift occurs every one hundred thousand years or so.
7. **Giant Solar Eminence** - Not only is Earth's radiation shield, the magnetosphere, weakening, in March 2006, NASA reported that a giant solar storm was expected between late 2010 and 2011.³
8. **New Global Health Pandemic** - We have only one remaining antibiotic effective against the staphylococcus bacteria which has fifty-nine variants. Kunstler reports that the HIV virus is doubling every 5.7 years and it has barely begun spreading in India and China - countries which severely restrict news of the danger for cultural and political reasons.⁴
9. **Rogue Black Hole** - In less than 10 years, astronomers have gone from denying the existence of black holes to universally accepting that "Supermassive Black Holes" exists at the center of every galaxy. There are ten million dead stars (aka regular black holes) in the Milky Way Galaxy alone. They are not stationary and move along with all the

³ Philips, p. 1.

⁴ Kunstler, p. 170.

other bodies in the Galaxy. Thing is, we don't need to come all that close to one for it's effect to disrupt our cozy orbit around our own sun.

10. Huge Asteroid Collision - We don't know where all the asteroids are or the direction they are traveling. Of those we do, in 1989 a 50 mile wide asteroid came so close as to cross the exact path of the Earth where it was positioned only six hours earlier.

Petranek believes that we have the technology and knowhow to protect ourselves from all of these threats if we simply start thinking differently. But, he also makes the sobering point that if each was a time bomb capable of destroying us, every one would need to be defused, not simply most of them. While Petranek waxes about the big what ifs, I will discuss human societal collapse in three categories.

Economic collapse brought down the formidable and former Soviet Union in less than two years between 1990 and 1991. Though political factors were also at play, the three most significant converging factors that led to the destabilization were diminishing production of oil, political interests overextending their economic capacity, and a severely over-leveraged economy with huge debt held by foreign investors. If that doesn't sound eerily familiar, Dmitry Orlov, will go into 166 pages of detail about how the U.S. is in a nearly identical situation. Orlov predicts the fall of the U.S. will happen in between 2012 and 2022. Almost overnight, the 150 million people of Communist Russia were penniless and tasked to survive in a landscape of no commerce, no police, no jobs, no money, extremely limited food distribution, and a host of other challenges.

Orlov compares the two nations and after recounting the social, economic, and infrastructure devastation, concludes that for a variety of reasons, the U.S. population is much

more vulnerable to peril.⁵ He goes into specifics about such differences as housing norms. Because the Russian government owned the housing, there was no rush by private interests to evict non-paying tenants so people generally kept their homes. In the U.S. we are already facing a housing problem due to foreclosure and other financial processes that displace people without income. Another key difference Orlov notes about Russians is the ubiquity of “Kitchen Gardens” where families grow their own food. Even during the collapse, there was little change to this cultural norm. In spite of no money, people still ate quite normally because they were accustomed to maintaining subsistence gardens and bartering with each other for variety from surplus. We could do the same here, eventually. But how many years would it take to get people capable of producing food for their own families? And what to do in the long months in the interim should our centralized food production halt?

The last significant difference Orlov illustrates that I’ll mention here is the distribution of essential services. In Russia, hot water, for example, is a state owned plant that produces all the heat for a given town. As long as people were willing to keep it running for their own good, even without pay, the hot water flowed to every household. Here, hot water would depend on having a water supply and electricity or gas supply and the money necessary to pay for both. An economic collapse in this country would have millions of people starving to death and or dying of exposure in the winter simply based on those differences alone.

But Russia isn’t the only economy to have collapsed. In fact, there were four other significant economic collapses of the 20th century including Germany’s in 1933, Argentina’s in 1999, Iceland’s just two years ago, Greece would have collapsed this year if not propped-up by the European Union, just like economies of Spain, Portugal and Ireland. Let us not forget the very real economic collapse of the U.S. in 1929. Those days are not looked back on fondly by anyone who lived them, poor or wealthy.

⁵ Orlov, p. 105.

Civil collapse introduces a different scenario and is characterized by the loss of physical infrastructure ruined by the likes of an earthquake, severe flooding and other natural catastrophes and man-made ones as well, like a large-scale industrial accident or a nuclear meltdown. Civil collapse is well illustrated by the recent events in Haiti that left its capitol city, Port-au-Prince, leveled. A government, an economy, even good will among the people all remained intact, but the water supplies, hospitals, electricity, food production and distribution, and countless other elements of civil society were wiped out. The lack of ability to quickly restore these essential civic systems has led to secondary disasters of cholera epidemic and a flailing economy due to severe disruption.

In 1986, the Chernobyl nuclear plant melted-down in the Ukraine on the boarder of Belarus, both Soviet republics at the time. We in the West were not exposed to much reporting about the situation beyond the usual sensational value. However, the region still suffers from health and environmental obliteration twenty-five years later. To this day, people as far as 100 miles away must test their home-grown vegetables with a Geiger-counter to check for the presence of radio toxicity. And though the reactor was in Ukraine, it sat on the boarder of Belarus which is downwind from the prevailing air currents in the region. Thus, an innocent bystander, if you will, caught the brunt of the ensuing radio-active fallout which fell primarily on Belarus and was recorded as far away as Hawaii only three days later. In fact, in an effort to stem panic, the Russian government withheld news of the disaster from its citizens for seven days.

A survey of notable examples representing a spectrum of severity include the 6.7 Mw Northridge earthquake in California in 1994, the tsunami that devastated Indonesia in 2006, and the 7.9Mw earthquake in Sichuan, China in 2008. But few national disasters here in the U.S. exemplify civil collapse more acutely than Hurricane Katrina in 2005 with the official death toll at 1,836 people from seven states. The wind, water and flood damage of that disaster is

legendary, but what is more to the point of this essay is the lawlessness of the scene. Gangs of thugs robbed their fellow denizens, law enforcement was caught looting, and police convicted of shooting an unarmed citizen and burning his body.⁶ A “Bullies with Badges” posse is not the kind of protection I will feel safe with When It All Goes Down (WIAGD). As supported by the events in Rwanda, Orlov asserts that when make-shift militias, formed of mixtures of law enforcement, private security forces, ex-military members, and radical hacks break down, conflict can run unchecked and quickly spiral out of control into racial cleansing and genocide.⁷

Social collapse is the most potentially violent of the three types identified here and can follow civil unrest, revolution, or war. It often explodes with little warning and can even come from the government itself as in our own Civil War in 1861. There are countless flare-ups that threaten this type of collapse in the Middle East. The collapse of Germany’s Weimar Republic in 1933 and again twelve years later with the fall of the Third Reich in 1945. The ongoing civil war in Somalia is another recent example. But the most alarming case of social collapse in recent history can be found in the fall of the Rwandan government in 1994.

The assassination of President Juvenal Habyarimana in April of 1994 was the spark into a powder-keg of ethnic tension leading to the deaths of 800,000 civilians in less than three-and-a-half months. “Neighbors hacked neighbors to death in their homes and colleagues hacked colleagues to death in the workplaces. Doctors killed their patients and school teachers killed their pupils,” wrote Philip Gourevitch in his provocatively titled book, *We Wish to Inform You That*

⁶ Kunzelman, Michael. *3 New Orleans Police Convicted In Post-Katrina Killing, Burning Of Body. The Huffington Post.* HuffingtonPost.com. posted and viewed December 14, 2010. Web. <http://www.huffingtonpost.com/2010/12/09/3-nopd-convicted-henry-glover_n_794782.html>

⁷ Orlov, p. 62.

*Tomorrow We Will be Killed With Our Families: Stories from Rwanda.*⁸ The events are summarized by this BBC News account:

In Kigali, the presidential guard immediately initiated a campaign of retribution. Leaders of the political opposition were murdered, and almost immediately, the slaughter of Tutsis and moderate Hutus began. Within hours, recruits were dispatched all over the country to carry out a wave of slaughter. The early organisers [sic] included military officials, politicians and businessmen, but soon many others joined in the mayhem.

Encouraged by the presidential guard and radio propaganda, an unofficial militia group called the Interahamwe (meaning those who attack together) was mobilised [sic]. At its peak, this group was 30,000-strong. Soldiers and police officers encouraged ordinary citizens to take part. In some cases, Hutu civilians were forced to murder their Tutsi neighbours by military personnel. Participants were often given incentives, such as money or food, and some were even told they could appropriate the land of the Tutsis they killed.⁹

I highlight this horrific event to reinforce the point that collapse happens suddenly and swiftly. The socio-economic tensions in this country appear manageable in these times of normalcy but could easily burst at the seams when challenged with the additional stresses of a “Beans and Bullets” scenario. Like the painful events of September 11, 2001, there may be no warning WIAGD. There may be no indication of when or where or how, but many reasonable people are paying attention to world events, if not ignoring mainstream media entirely they are reading it differently, paying attention to their intuitions, and no longer need convincing: soon it will pay to be prepared. So for what and how are they preparing?

§

“We can’t solve problems by using the same kind of thinking we used when we created them.” – Albert Einstein

⁸ Strauss, p. 38.

⁹ uncredited. *Rwanda: How The Genocide Happened*. BBC News Africa. BBCNews.com. updated December 14, 2010. accessed November 14, 2010 <<http://news.bbc.co.uk/2/hi/1288230.stm>>

Whether or not we like the institution of insurance, as a society, and individuals, we buy it. We pay for insurance on our cars to protect us from things we expect will never happen. Homeowners have insurance for a whole different set of possible events that they expect will never happen, and if you rent your home you are well advised to spend a few hundred dollars each year protecting yourself from a loss. There is really nothing different about survival preparedness. It can't hurt you to have it and it probably won't change your values – at least not for the worse. It doesn't have to cost any more than the other forms of insurance you probably already buy. Even if fully prepared for the worse, you can expect not to have to implement your strategy. Most importantly, WIAGD, you'll be really glad you made the investment of time, stores and knowledge. But equally as important is that knowledge, though important, isn't nearly as valuable as practice. So you read how to start a fire with a few sticks, that's great! But when you're cold, wet, and hungry are the worse conditions to make a go at it for the first time. The same is true of any skill you will read about. Knowledge is good, but experience is key. On the other extreme, great if you do, but you don't have to have a second passport from another country, get EMT certified, attend a week-long knife skills seminar, and take a high-performance driving course to benefit from some time and effort spent learning useful survival skills.

My recommendation for anyone who is new to preparedness is to start building a physical library of documents. Whether books or printouts collected in a binder, having a real storehouse of survival knowledge at your fingertips is paramount. It is also a good idea to expect that you might not always be reading it in the easy chair of a cozy living room, so take measures to protect your books and printed pages from rain and rugged use. Use plastic sleeve protectors where possible and store the books in ZipLock bags. Another thing about simply having survival books but not practicing the techniques under non-lethal conditions: “You can walk into any store and there are five survival manuals you can buy that will kill you. Same with those edible plant books. I recover the bodies in their pathetic shelters that didn't work because they learned it badly,”

warns renown survival instructor Tom Brown Jr.¹⁰ Also, the right technique in the wrong conditions can lead to serious problems, so one of the first tasks is to know the Do's and Don'ts of survival. One example is the common misconception that sucking the venom from the wound of snakebite with the mouth can reduce or eliminate the harmful reaction. This is not true and in fact could harm the victim further or expose another if it's someone else who's attempting to extract the poison orally. If one is evading a pursuer, a potentially life saving fact for a smoker is that the light from a cigarette cherry can be easily seen two miles away on a clear, moonless night. Facts like these are trivia for many, but gospel for others who intend to mitigate their own suffering in the face of collapse.

Once you've made the decision to start a library you will want to begin learning. Remember that as you build your knowledge, the setting you find yourself after TSHTF could be an urban or a natural one. So learn techniques for both where applicable. Some of the most important things I recommend researching and learning are:

- first aid, CPR, and if possible advanced life saving
- shelter fabrication
- fire types, fire-making techniques (it is very important to practice them until they become skills)
 - basic fire building such as "tee-pee" or "log cabin" (don't make the mistake of thinking that just because you can competently make a fire in your home fire-place with ideal materials and conditions makes you capable of starting a fire from scratch in the wilderness)
 - fire starting, and the "triangle of fire" (heat, fuel, ignition)
- water sourcing and storing in urban and natural environments
 - water purification techniques

¹⁰ Strauss, p. 253.

- how to gather and or hunt food in urban or natural settings
- communication methods, common symbols, and rescue signals
- navigation using the sun, stars, compass, wrist watch
 - small collection of current local, regional and world maps (Even if you know your city well, having a detailed local map will provide information about possible routes of travel or dead-ends that aren't based on the roads and routes you may be intimately familiar with. Consider that you might not be traveling on streets at all)
 - in the northern hemisphere, you can locate south by pointing the hour-hand of a wristwatch at the sun. Half-way between the hour hand and 12 o'clock is south. In the southern hemisphere, the same method indicates north.
- monitoring and managing mental health (your own and other's)
 - managing stress, regulating fear, controlling panic, recognizing and treating shock, staving depression (it might surprise many to learn that grooming is very important for keeping spirits up, to feel fresh whenever possible, and to promote personal discipline)
 - understand Lost Person Behavior (LPB) (early detection of these symptoms can make a life/death difference: Speeding up, disbelief of maps or instruments, disrobing or discarding equipment, lying down in defeat, assuming no one will find you, traveling in direction of least resistance) ¹¹
- camouflage
 - changing the perceived shape of a mass by reversing the light and dark features
 - completely transforming the entire body shape and texture "Ghillie Suit"
- cultivation, storage, and preserving of food and seed

¹¹ Haslett, p. 42.

This is by no means a complete list, but it represents the most important set of skills your life may depend on. There are countless other skills that would undoubtedly be handy or even essential to know such as:

- a martial art or other unarmed combat skill for self-protection
- weapons and firearms training
- improvised explosives and booby-traps
- lock-picking and “hot-wiring”
- hacking, neutralizing or subverting security and surveillance systems
- tracking and evading
- formal wilderness, arctic, jungle, sea, and desert survival
- high-performance driving and basic aircraft piloting

A very important consideration that will have to be constantly checked for validity is what is the actual threat? Is it physical such as mob or warfare, climate related, an organizational breakdown? And equally important is how long might the threat last? These decisions are important because they will determine what strategy to take: Bug In or Bug Out?

Since there is no way to predict when a qualifying event will take place there is no way of knowing where you will be when it happens. Therefore you’ll want to be prepared for the two only possible conditions: you’ll be at home, or you’ll be away from home. A safe assumption is that if you are away from home when the first signs of trouble appear then you are going to want to get home either because you’ve planned and agreed ahead of time to rendezvous with your family there or you determine that it is best to get to your safe place. In either case, you will want a “Get Home Bag”. The purpose of the GHB is self-explanatory. It’s meant to keep you alive for a day or maybe two as you make your way home. It is best to assume you won’t be driving, but if you are, all the better. If you are in or near your vehicle regularly, you might want to keep it in

the car, but it also highly recommended that one be accessible at the place you spend most of your productive hours such as your place of work or study. A good and detailed description of a GHB, suggested contents, and organization strategies can be found on the web at www.survivalcache.com^{12 13}. In addition to a couple energy bars and a bottle of water, a few unexpected items that should be considered are:

- ear plugs – alarms and sirens can severely hamper concentration especially those in elevators and commercial buildings (I always carry a pair of foam plugs in my pocket)
- sunglasses – protect your eyes and conceal your intentions
- window punch – a hand-held, spring-loaded tool effective for shattering all types of windows including architectural and is much less conspicuous than a chair, bat, or brick
- USB thumbdrive preloaded with scans of important documents such as passport, driver's license, social security card, green card, marriage cert., mortgage docs., etc.

If you are at home, or you've made it home, you're probably in the best place to determine if you should stay put, referred to by "preppers" as "Bugging In." You may choose to split, or "Bugging Out." For your Bug In stores, it is recommended that you have plenty of food, water, heating fuel and other supplies to last several weeks or months. It is also recommended that certain stores be stockpiled separately for their barter value such as spices, razors, lice soap, and liquor, but avoid bartering with essential supplies unless absolutely necessary. Many hard-core preppers recommend having a stash of supplies away from the home that you can get to after deciding to leave home or not going there in the first place. The debate rages, but proponents suggest a place in the wilderness and or a publicly accessible household storage unit on the edge of town. Where ever you decide to keep rodent and moisture-proof stash, some

¹² <<http://survivalcache.com/three-tier-survival-gear-kits/>>

¹³ <<http://survivalcache.com/urban-survival/>>

recommendations for a Bug In inventory can be found on the web at the same site mentioned above.¹⁴ It is important to give some forethought to the conditions you can most likely expect in your safe place. Do you live with family, alone, or with roommates? How will you organize yourselves? What will you do if refugees plead, beg, or demand to be taken in? Depending on the conditions, more people can be a blessing or curse. Regardless, with them come more eyes and ears for standing guard and tattle-tailing; more hands for working, protecting, and pinching; and more mouths needing to be filled and making noise. More people means the potential for more camaraderie but also more conflict when cohesion is essential. More people means more ideas, but not necessarily good ones. If you take them in, perhaps you are easing your conscious or protecting your stores from theft. Maybe sending them away will compromise your location if you are hiding or create a future threat. One strategy might be to take the middle ground by offering supplies, but not letting them stay.

If it is determined that the best bet is to Bug Out, one will want to be prepared with the right stuff. The Bug Out Bag (BOB) is a challenge to really prepare adequately and keep to a manageable weight, but the right setup should last from three to ten days depending on the experience of the survivor. It is meant to get one away from where you are to a place fairly distant and keep you self-contained for the duration. A decent list of suggested items in a BOB can be found on survivalcache.com.¹⁵ The key to survival at any level is conservation of energy and resources. Wasting energy and resources of any type, whether it's through unnecessary activity, excess fuel, or leaving a flashlight on a moment longer than necessary, is always discouraged.

After you've made the determination to Bug Out, you may have to consider whether you go it alone or in a group. Even if you start alone, you may encounter an opportunity to join a

¹⁴ <<http://survivalcache.com/tag/bug-in/>>

¹⁵ <<http://survivalcache.com/starting-my-bug-out-bag/>>

group later. This is a hotly contested topic and usually divides along personal beliefs about the nature of mankind itself. If one believes people are generally good natured and benevolent, they will be more inclined to join a group. Those who believe people to be self-serving and opportunistic will tend to favor a solo strategy. My advice is, as always: pick the right tool for the job. A few truths and generalities can be drawn either way. One truth is that the solo traveler cannot enjoy the security of the 'round the clock look-out. A general truth is that people enjoy and even need companionship. And a generalization is that humans are naturally social. To my surprise, the majority of survival blogs that I combed for this research promoted groups over the lone wolf, with many strongly asserting that it is solely through group efforts that individuals will survive.

One glaring challenge for many folks is deciding whether or not to keep weapons, particularly firearms. I will say this with certainty: any weapon you are unpracticed with is more of liability than a strength. A weapon of any type used unskillfully can result in grave injury to you or a "friendly" when it is mishandled. Also consider that a weapon used incompetently can either be ineffective at best, or at worse taken control of and used against you. So if you do decide that weapons should be on hand (they sure won't be available WTSHTF) it is imperative that you put your ego or fear aside and, especially in the case of guns, learn safe handling for, maintenance of, and competence with the weapon immediately after taking possession. Know under what circumstances it should and can be employed effectively and not. A thought on knives as weapons: The quickest way to end up stabbed or sliced with your own knife is to spring it on someone without either knowing how to fight with one, or giving a remarkably convincing performance of the same.

There are many different types of firearms commonly found as hand guns, rifles, shotguns, and machine guns. They have different intended uses, primarily determined by their accuracy over distance and you should know what those differences are for the gun or guns you intend to

have. In general, hand-guns are effective up to distances of one to two hundred feet or half of a city block, shotguns to three hundred feet or two blocks, and rifles to a quarter mile. Machine guns are assumed to be out of the reach for this audience thus will not be covered beyond a mention.

What makes shotguns so valuable is their versatility. Not only are some extremely effective at close distances, other types are amazingly accurate at long distances more suited for a rifle. The main reason for this flexibility lies in the ammunition. Shotgun shells come in all types of strengths and compositions to fill a multitude of purposes. Bird shot, shot, and slugs are the most common. It is beyond the scope of this essay to detail the differences, but the importance of knowing these different types is stressed and keeping a stock of many different types on hand will yield the most effectiveness overall from the tool. In fact, regarding ammunition in general, it is advisable to keep as much of it in safe, dry storage as you can possibly manage. Maybe have smaller stores distributed in different zones of your home. Consider a small stash outside, inside, downstairs, upstairs, and certainly in the Bug Out Bag. Keep extra magazines pre-filled and safely at the ready. Most importantly, never look into the business-end of a weapon under any circumstances; always treat a firearm as if it is ready to fire and dangerous; and before you point it at someone, make sure you're prepared to suffer the consequences of what happens after that.

§

"Some of the most gruesome, incomprehensible stories of survival revolve around not being able to master disbelief." - Cameron Smith

There's a fraternity party at full swing, maybe even a bit past its glory. People are drunk and acting stupid, folks mill around in disbelief that the police will probably be called soon if they haven't been already. Are you the type to wait until the flashing red and blue lights pull-up in the

street and cops start arresting folks or do you have the coherence to start walking before TSHTF? The oil party has peaked, the karma police is on the way.

If you're inclined to start walking, you may be interested in an organization called TransitionTowns.org. This world-wide network is an organization that promotes changing our relationship to energy and nature now, in part to ease the shock of a global collapse from peak oil and climate change. Focusing primarily on creating social networks of like-minded people, promoting home gardening, and energy independence, the transition town movement has steadily grown to thousands of practitioners in hundreds of cities world-wide since it began only six years ago. Networks like this will make a huge difference through and following collapse.

On the subject of depletion and our country's dependence on cheap oil as related to the flailing economy, Jared Diamond said, "When financial systems collapse, it is the harbinger of things to come. When trust is gone you don't have a society, you have a group of individuals all of whom are looking out for themselves."¹⁶ I already sense it wafting in the air like a coyote smells a wolf upwind. A storm is brewing and people who don't want to suffer any more than necessary are perked-up and prepping.

This essay has introduced some key thought-leaders on what many feel is an inevitable and drastic change to life as we have been living it here in the U.S. for the past eighty years. These contemporary cultural influencers are sounding the alarm of impending collapse of this country, if not the entire planet. Some theorists such as Michael Ruppert and Richard Heinberg are focused on a threat primarily resulting from a Peak Oil crisis, while others such as Dmitry Orlov, James Howard Kunstler and Stewart Brand promote a hypothesis of converging conditions. Survival strategies were offered to deal with environmental, economic, and conflict scenarios.

¹⁶ Diamond, Jared. *Collapse*. National Geographic Channel

We looked at three different types of collapse, specifically, civil, social and economic collapse, and what conditions for survival each might present. These types of collapse were illustrated by examples from human history including ancient civilizations of the Anasazi, Maya, and Romans; recent modern societies such as Weimar Germany, Rwanda, and the former Soviet Union; and contemporary events including Hurricane Katrina in 2005 and Haiti in January of this year.

The last part of this essay strongly encouraged the start of a survival information library and recommended taking steps to water-proof the documents. It was also recommended that the reader become familiar with the three different types of supply stocks called Get Home Bag, Bug Out Bag and Bug In Bag with a link to listings of things to include in each and an explanation of the use for each. Other strategies to consider included the taking-in of refugees or not, surviving alone or in a group, and weather or not to stock and use weapons. One thing that wasn't mentioned above but is highly recommended is to acquire a survival manual by John Hasslett and Cameron M. Smith called, *Wilderness Survival for Dummies*, a title in the official "For Dummies" series of D-I-Y books. This 2009 publication is informative, well written, concise, simply worded, well illustrated, and grounded in effective, thoroughly vetted information and techniques that could save your life if implemented as recommended and under the proper conditions. If you buy one survival guide, your \$20 are well spent here (I purchased a used copy in pristine condition at Powell's World of Books in Portland, Oregon for \$8.95).

In closing, I posit that survival is the original design activity which has been practiced by humans for hundreds of thousands of years. These skills were once as commonplace as driving, shopping, and internet surfing are to us today. From the comforts afforded by technology and cheap oil energy, we have become complacent and basically incapable of providing for ourselves and families from the bounty and lessons of nature as our ancestors did only four generations

ago. In lieu of these formerly innate skills, preparedness is the most effective way to save your skin.

Survival practices utilize design-thinking through problem solving, hand-crafting, improvised construction techniques, sustainable strategies and community-building. And, when your life is not depending on it is fun, and when your life is depending on, absolutely essential. Start building your survival muscles today, as starting tomorrow is too late.

“The Long Emergency is an abyss of economic and political disorder on a scale that no one has ever seen before.”
- *James Howard Kunstler*

May knowledge, skill, common sense and a lot of luck be with you.

Bibliography

Collapse. Dir. Chris Smith. based on the book by Michael C. Ruppert. Bluemark Films, 2009.

Film.

Diamond, Jared. *Collapse: How Societies Choose to Fail or Succeed*. First Edition. Viking Adult, 2004. Print.

Haslett, John and Cameron Smith. *Wilderness Survival For Dummies*. First Edition. Wiley Publishing, New Jersey, 2009. Print.

Kunstler, James Howard. *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-First Century*. First Edition. Atlantic Monthly Press, 2005. Print.

National Geographic: Collapse: Based On the Book by Jared Diamond. Dir. Noel Dockstader. National Geographic Channel. 2010. Film.

Orlov, Dmitry. *Reinventing Collapse: The Soviet Example and American Prospects*. New Society Publishers, 2008. Print.

Petranek, Stephen. *Stephen Petranek counts down to Armageddon*. TED.com. TED Conferences LLC. posted September, 2007. accessed October 12, 2010. Web.

Philips, Tony, PhD. *Solar Storm Warning*. NASA Science News. National Aeronautics and Space Administration. posted March 10, 2006. accessed December 13, 2010. Web

Ruppert, Michael C. *Confronting Collapse: The Crisis of Energy and Money in a Post Peak Oil World*. Chelsea Green Publishing, 2009. Print.

Ruppert, Michael C. *Crossing the Rubicon: The Decline of the American Empire at the End of the Age of Oil*. New Society Publishers, 2004. Print.

Strauss, Neil. *Emergency: This Book Will Save Your Life*. First Edition. It Books, 2009. Print.

Tainter, Joseph A. *The Collapse of Complex Societies*. Cambridge University Press, 1990. Print.