for EABA







Age of Ruin^wv1.0

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Author's Note - When you get down to it, adventures and all good fiction is about exploring what we are as humans. The gadgets are cool, the weapons are neat and giving hell to bad guys is fun, but in the end it is about who we are, what we are and why we do it. A laser pistol or sword is just a means of expressing your will and intent, a way to magnify your desires, and in fiction any form of power is really just a means of demonstrating the character of the person who wields it. Luke Skywalker could have turned to the dark side of the Force and ruled at the side of the Emperor... but he didn't. And that says a lot about him. The struggles of the Knights of the Round Table were not so much against perils from without as they were against the perils of their own wants and desires. And perhaps failing against their own inner demons is why none of them ever found the Grail. Even things like pro wrestling are entertaining because they are driven by the backstories, showmanship and interaction of the personalities (it certainly isn't driven by skill with greco-roman wrestling techniques).

Age of Ruin forces you back to basics. It strips away most of the gadgets and gimcracks, even down to taking the shirt off your adventurer's back. Your strength is in your will, your ability to gain the support of others, and quite literally your ability to change yourself to meet new challenges. Your adventurer is often someone else's adventure.

Even though you will lack starships, rayguns or magical fireballs, you'll manage without them. There are still plenty of cool ways to kick ass and take down names, which is of course, just as important as all that philosophical crap in the first paragraph. Even though the history of the Age of Machines is forever lost to you, in your hands is the ability to shape the future, to find a way to turn the Age of Ruin into the Age of Rebirth.

Even if your adventurers don't know it yet...

Greg Porter

Age of Ruin

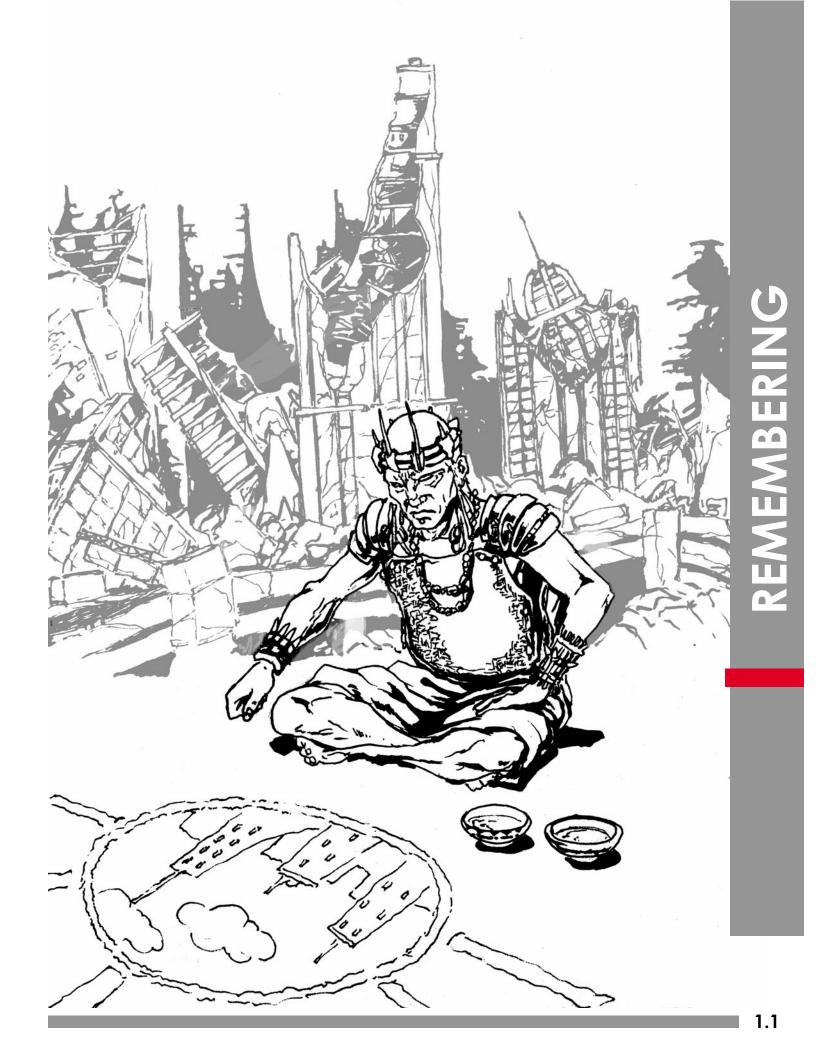
Tech Note - From the comments I received in the various stages of playtest, it might have been better if the technological backstory of **Age of Ruin** had simply been glossed over, a few technobabble sentences saying about how it all went down the drain, but not with enough detail to pick it apart.

But that's not what people expect from a **BTRC** product. **Age of Ruin** was not designed from the standpoint of "this is the world I want, how do I fudge things to make it happen?" Rather, it was "if I start with these premises, what is the world that I end up with?"

In the case of nanotech and **Age of Ruin**, there's a fine line between ending up with a world like Neal Stephenson's *Diamond Age*, or a very Drexlerian "grey goo" scenario, with not much in between. **Age of Ruin** is about finding that in between, a world where nanotech is possible, but not really under control.

Because at the very least, the gamemaster needs to see the guts and machinery of **Age of Ruin** in order to make the world their own, we have to present and explain all the gory details. Which leaves the world open to criticism by everyone who thinks 'we got it wrong' (even though no one has 'got it right' to give us something to compare it with).

Get over it. Age of Ruin's nanotech is simply something that is "there", like jump drives in a far future game, or magic in a fantasy game. You can accept these worlds even if you know the science is bogus or the magic is contrived. The only difference with Age of Ruin is that the world of the past is our real-world present, and that nanotech is just close enough to being possible that we feel cocky enough to say what can and cannot be done with it. If you're reading this, the idea of a gameworld based on a rogue nanotech disaster has some appeal to you. Just accept it, and hope we don't actually find out if it's right.



"The plague took my home and my car. It took my books and my heirlooms. It took my husband, and my children, and then it took even their bodies. It took my clothing, and my hair, and my fingernails. But the plague did not take me, though I wish that it had. Bands of naked savages roam the ruined streets, armed with shards of glass and rocks, in search for the only thing left to eat. Other people. Why, God? Why?"

- found scratched upon a pane of glass

THE FIRST TALE - It was your father's father's father's father's time. As the way they reckoned it, the year of some Lord two thousand and fifty one. We don't know who that lord was, nor how he reigned so long, only that this is how it was.

The Great Mounds were cities that teemed with unliving machines that did much of the work of the people, who were weak and soft, for their world was a friendly place. These machines were made of a hard thing known as metal, and a soft thing called plastic, and all were powered by an oil that used to flow from the ground. And their cities reached towards the sky, and their heroes stood upon the moon and the red star that is the planet Mars. And yet they were not satisfied.

So, their thinkers and doers set about to make machines in their own image. Not as machines like statues, but as egg and sperm of life, in machine form. This, they called nanotech, from ancient words meaning very small and way of craft. And it is said they knew this was dangerous, and they kept their charges tightly caged and in the remotest places. But, there were those in this soft world who had hardness to them, for their lives were not the life of ease of those in the great cities. And they sought to steal this nanotech for themselves. Some say to gain it as a treasure, others say to gain it as a weapon. No one knows anymore, though some still fight over the words, as you well know.

Age of Ruin

In the end, it did not matter, for the nanotech would be owned by no one, and by everyone. In the attempt to steal it, it escaped into the wild, and as all life does, it began to breed and spread. It lived on the hardness of metal, the softness of plastic, the oil under the ground, the grass of the fields, and the meat of men and beasts. The men in their hard machines tried to contain it, to corrode it with acids, even to call fire from the sky to burn the rocks to ashes, but still the eaters spread. As it ate the metal that held their cities against the sky, they crumbled to the ground. Men fled to islands far from land, but the nanotech followed them on the winds and consumed them and their machines, leaving nothing but dust to blow away on the wind.

As the world of men and machines was slowly being consumed, the elders of the Cheyenne hid underground in their mountain fastness, sealed away from the nanotech by great thicknesses of stone. There, they worked with making a new nanotech, one which would eat the first, and live on and in the bodies of men and plants and animals, to protect them. Many volunteered to step into the outside world of the eaters, to see if the new creation would protect them. Many died, but in time, a way to survive was found. The Cheyenne gave themselves unto the new nano, and stepped out into the world. The world of men was crumbling, but the work of the Cheyenne had helped to turn the tide. Even those who had perished testing the new nano spread it, and those who it touched survived longer, and the nano grew and evolved to protect men better.

The Cheyenne spread by walking, by taking their last flying machines and spreading far and wide before their machines crumbled to dust. All they touched survived, though the world around them did not. It is said that of the kinds of plants of the earth, fish of the sea and beasts of the field, many kinds perished in all but name. The lions, the tigers, the bears, oh my! Ferocious and terrible, now naught but dust.

When the dust settled in truth, the world was as you see it. The machines were gone, the metal, the plastic and the oil, all gone. The cities that touched the sky were now rubble and broken glass.

But many of the men and the women and the children survived. Their skins, once colored and soft, were now grey and rough. Where once they had strings of what they called hair, as you see on the old statues, none had any, not even the women, who prized this hair and lamented its loss greatly. Where they once had garments of plants and plastic, they now had only nakedness. Many who survived the days of Ruin died of starvation, for they were still a soft people.

Bitter were the first few years, and harsh the winters. Men had to learn to forage for food, to build fire for warmth, to learn all those things you children learned on your parent's knee, but they had none to teach them. They still taught their children of the old ways, for they hoped to return to the Age of Machines, and with all of their books of wood and oracles of metal gone to dust, only memory endured. They knew not that the Age of Machines was truly gone. But their children would in time know this, and by the time of their children, the wisdom of the Age of Machines was as much dust as its makers.

It was in the fourth year of this life, when those who survived had learned to become hard, that the first woman learned Shaping. And more, she was a child, not much older than you. Yes children, the first men lived for four years without ever Shaping once, and it was another generation before the talent was widespread. Those born in the Age of Machines never became strong in the talent, but those from after became the great Shapers of legend, from whom we know much of what can and cannot, and what should and should not be Shaped.

The nanotech in the world was alive, and all living things change. And so, that which was in men also changed. It did not know of itself, for the ability to think is given only to mankind, but it learned how to *understand*. It could be shaped by will, and in being shaped, changed the one who willed this to be.

The first Shapings were simple. Men fought among each other, maybe even more fiercely than they do now, but with fists and rocks. Those who could Shape learned they could make their skin like stone, and turn their hands into swords. In time, they were even able to fashion themselves weapons like the machines the people of the beforetime called guns. The early Shapers were terrible and powerful, but they also paid the price for their power, for they did not realize that Shaping takes its toll. Many made themselves into living weapons, and then found they were unable to become human again, or worse, had weakened their protective nano, and were consumed to dust, unstoppable by men, but destroyed by the unseen eaters.

After the Shapers came the Makers, those honored individuals who can make things akin to the ancient machines from their own bodies. The lights in our cave, our watchers and wards, these all come from our revered Maker, and the sacrifice she makes is why she does not hunt or gather or fight, for she serves the tribe in other ways.

Of the men on the Moon and Mars, no one knows. It is said that these are hard places, and so the men there may have been hard men and survived. If they live, they are beyond our ken and have no way to return, for they have not protective nano, and the Eaters would consume them as they did the Age of Machines.

This is the First Tale of Remembering, as told to me by my father on this first day of the year, as told to him by his father, and his father before him, and as you shall someday tell to your children. We are mankind. We fight and we strive. We love and we hate. We live and we die. Thus it has always been and thus it always will be.



TELL ME MORE! - Everything a player needs to know is seeded in the First Tale, and every player should read it before even *thinking* about making an adventurer. But, for the gamemaster and players, some extra info and detail is helpful. You're not going to get the full details until later, but here is a bit to tide you over until you get to that point in the rules.

How bad was it? - Damn bad. The author has a fondness for world-wrecking as a campaign backdrop, because chaos is so much more rife with possibilities for adventure than order is. Even so, Age of Ruin is a real "wipe the slate clean" apocalypse with few rivals. Slowly and painfully over the course of a few years, several billion people died and the worlds entire technological infrastructure was reduced to dust by nanotech run amok.

There are two possible **Age of Ruin** campaigns. The first is a world as described in the First Tale, several generations after the Ruin happened. The second is a world barely one generation removed from the Ruin, where it is still an ongoing process, and enclaves have with preparation, managed to hold the worst effects at bay over small regions. But, as pre-Ruin resources grow scarce, communities begin to fight over what is left, and players will have to decide whether their struggle to sustain the Age of Machines is worth the price they will have to exact from others to make it happen...

Want to image what it was like for a survivor of the Ruin? Look around you. Now remove everything within sight that is metal, dead organic material, or made from or containing any form of hydrocarbon. What does this include? Among other things, the steel supports inside skyscrapers, aluminum, copper wiring and plumbing, wood framed houses, asphalt roofing materials, cotton, wool, linen, synthetic fabrics, steel car bodies, rubber tires, many plastics, and all forms of petroleum from axle grease to lighter fluid and everything in between.

What does this leave? Silicon-based materials like fiberglass, optical fibers, glass, ceramics. Also leave brick, stone, asbestos and a whole lot of teflon and some of the other fluorocarbon-based inert plastics.

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Imagine an urban landscape turned into a literal pile of rubble as the skyscrapers crumble without their internal steel supports. Residential neighborhoods turn into empty lots punctuated by chimneys and brick walls. Asphalt freeways turn into gravel roads blocked by the rubble of collapsed overpasses, ending at rivers no longer crossed by steel-supported bridges. Industrial compounds and radioactive waste, no longer contained in steel holding tanks, pollute the water table and the land, and without modern sensors to alert people, they invisibly poison the survivors until irreparable damage is done.

No electricity, no Internet, no food distribution, no cars, trains, ships or planes. Virtually everyone is naked as the day they were born. A poisonous Garden of Eden with serpents under every rock. And it stays that way.

That's how bad it was, and what humanity has had to claw its way back from.

What do people know? - Ninety-nine-point-nine percent (or more) of knowledge from the "Age of Machines" is utterly gone, absolutely irrecoverable. Books? Made from wood pulp. Computer disks? Metals. Microfilms? Plastics. Aside from nearly sacred archives produced on eater-proof materials or encased in glass or eater-proof plastic, the only forms of stored information that have endured are stone tablets in museums and that stored in oral traditions passed down by the survivors of the Ruin. Passing on by memory alone the nature of a poorly understood global cataclysm has led to numerous beliefs about what happened, and the rest of the world in general.

That and stone statues are pretty much the extent of knowledge that remains from the Age of Machines, and they are the only tangible artifacts for adventurers to draw from when imagining the legendary age their great-great-grandfathers lived in. Several thousand years of recorded history, the accumulated scientific and artistic knowledge of an entire civilization, terabytes of Internet porn, erased beyond recovering. Some few of the survivors made their own baked clay tablets to record knowledge they felt had to be recorded for the ages. These include narratives and histories as well as now-useless tech knowledge and formulae. These tablets and petroglyph graffiti are the source material for many of the legends of the early days after the Ruin.

Since the Ruin did not happen overnight, there were some efforts made to preserve knowledge in ways that the rogue nano could not touch. Printed on inert plastics, or sealed between glass plates, some key information survives. But, there is a nearly superstitious bias against the science of the Age of Machines, enough so that those who attempt to practice it are considered outcasts, and must practice their cult in secrecy. While most of them are harmless, a few of these so-called Machinists have been responsible for the worst crimes and excesses of the past three generations, so attempts to use old knowledge to restore the Age of Machines are not favored.

This bias and general lack of knowledge does not make those in the Age of Ruin stupid, just ignorant. There is a difference. For the most part, ignorance of a past that can no longer affect them is just a facet of daily life that has occasional amusing moments. For instance, the skull of a T-rex in the ruined vault of a museum would be an interesting find. Did the creature live during the Age of Machines, or is it a recent thing? And what manner of creature has bones of stone? Or, it is just assumed that lions roamed wild in most places, since there are so many statues of them, especially the small lion-dogs that guarded the "restaurants" where one ate "chinese". Without a strong tradition of oral history and record-keeping, much of the developed world's recorded past and knowledge has simply vanished.

Neither of those words in guotes has context that a child in Age of Ruin would immediately understand. A child would understand the concept of reciprocal obligations, but would find it meanspirited that a "restaurant" which fed you as a guest would actually demand an obligation from you before that food had gotten cold on your plate. And while a child could understand the idea of a clan or a tribe, the notion of one based not on who your parents were but instead on the patch of land where you were born seems absurd, and the idea that a tribe could be as big as the "Chinese" is surely a myth. So, some things that are actually true are assumed to be legend. Similarly, it is accepted that the Ruin took place very rapidly, when in fact it actually took years. Enclaves kept technological civilization going for a generation or more after the rest of the world was Ruined, though at the end the fighting for remaining tech resources became exceptionally ugly and brutal, and ended up destroying much of what was supposed to be preserved.

The most common form of information in Age of Ruin is oral tradition. Each clan and tribe has its store of legends, history and genealogy, as well as practical knowledge for day to day survival. Oral traditions are also a major form of entertainment, and a good teller of tales and bringer of news is always welcome. Similarly, a form of information that has survived disproportionately well is music. Everyone had songs they remembered, and these were passed to their children, and to their children, and to the current generation. Sometimes words have been changed, or the songs might as well be in a foreign language because they refer to things or people that the singer has never seen (who was this Britney, and what was so special about her spears?), but the songs endure nonetheless.

For things that are important to a clan or tribe, oral tradition can be more than adequate, and the library of tales and lore available mean that while the science of the past may be lost, much of its results have been preserved. Modern medical technology may not be available, but modern medical practices and techniques are. Gravity, the weather, the motion and nature of the stars and planets, these are all matters of fact, not dogma or superstition. With oral tales being the main form of entertainment and teaching, there are lots of these tales. A clan may have thousands of hours worth between its members, and new ones are added every year as genealogies expand, practical knowledge is relearned and so on. By the time a child reaches adulthood, they have heard so many tales that lessons and admonishments may simply be in the form of references to one, rather than a direct statement about the behavior in auestion. If a young man is getting in over his head on a romantic issue, a friend might say "dude, you're going to Three Hills over her". That means nothing to us, but to the young man, it's a clear reference to some tale or parable warning of the consequences of following the path he's on.

A person in **Age of Ruin** may not know nor ever understand the nature of machines that make space travel possible, but they will still believe that it was once done, and that somewhere on the Moon there are footprints made by mankind. It has no effect on their daily lives, so it is not a matter of reverence or awe, just something that is accepted as part of the way the world once worked. Those lunar footprints don't put food on the table, so work first, philosophise later. These "useless facts" also get mixed in with religion and spirituality, and one can simultaneously believe that men might live in space, but also that they have somehow been transformed into angels, or spirits who have been banished from the surface world.

Beliefs? - Life for most people is not so hard that there is not time to sit and think about what it all means. None of the religions from the Age of Machines have survived intact, but none of them have truly died either. There are several religious and quasi-religious beliefs that people cherish and live their lives by, and perhaps some animosities between differing beliefs, though not so much as before the Ruin. In addition to the various sects containing recognizable elements of different pre-Ruin faiths, there are also quasi-pagans, and the aforementioned Machinists, who treasure pre-Ruin knowledge with enough fervor to qualify as a religion in their own right (though everyone else calls them a cult). As a thought for the gamemaster, consider how post-Ruin Islam would handle strictures on female modesty in a world where that much clothing would be too expensive or too hot to wear, or how Judaism would interpret Shaping (would modifying your body on the Sabbath be "work"?).

In addition, there are clan beliefs and tribe beliefs. Many people, like in more primitive times, never travel more than a day or two from the place of their birth, and can become insular. But, the ruins of the once-great road systems still criss-cross the land, making travel vastly easier than in primitive times, and the internal shaping of nanotech can give clan shamans the equivalent of short range radio communication. So, important information can travel fast, and ideas and people are pretty mobile. In combination with the clan notion of marriage being always to someone outside your own clan, there is a constant diffusion of ideas and new beliefs to keep any one region from become alien to another.

Tribes still have their own particular ethos, a sort of "national identity", but it is more of a pride in who you are rather than a hatred of anyone else. Clan or tribal loyalties are seldom so strong as to generate hatred for other tribes, and the less central nature of clan governance makes it hard to get everyone on board for anything that is clearly going to make life more complicated than it already is. People can find plenty of reasons to dislike their neighbors, but clan or tribal identity is generally low on the list.

That said, there are events looming on the horizon where unified forces will be brought to bear on the clans and tribes in **Age of Ruin**, and it will take a unified strength to overcome them, a cultural shift that may forever change the way people live...

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The secrets? - Every game world has its secrets, which will hopefully stay with the gamemaster for the time being. Players should remember that not everything is exactly as it seems (though it is pretty close), and that there are things going on that are both vitally important to the adventurers, and which the adventurers may be completely ignorant of to begin with (the hobbit didn't know it was the One Ring when he found it...). Or worse, adventurers may be badly misinformed about what's going on, and what looked like a good idea at the time could be anything but. Don't expect any suppositions you've made so far to be turned on their head, but do expect the gamemaster to surprise you on occasion. As an obvious case, the campaign region of Age of Ruin is the eastern half of the United States. Don't assume that the rest of the world's population has the same beliefs and ways of governance. That is something for the gamemaster to think about should the adventurers actually gain the means and motive to explore that far afield.

We can tell you that the reality of what happened is not exactly the same as told in the tales. As we mentioned earlier, the actual destruction of the Ruin was not as sudden as it is recounted in legend, nor as severe, and few tales go into the detail of how most of the casualties were due to deprivation and disease in the first decade of the Ruin, deaths related to the eaters, but not *directly* caused by them.

Clan origins of course glamorize the heroes of that clan, and minimize the accomplishments of others. Lost to history are the petty squabbles over irreplaceable resources, or tales of priceless artifacts destroyed out of spite rather than letting someone else have them, knowledge lost forever due to greed or thoughtlessness.

The actual human stories and tragedy of the Ruin is lost to the present, for there was no way to really record it in detail. Suffice it to say that not everything you believe as truth *is* truth, and that's part of the gameworld you'll need to explore on your own.

That's all you need for now. Next chapter goes into creating adventurers, and the details of what life is and isn't will unfold as you see the nuts and bolts of building your adventurers. If you want to know about particular aspects of life in **Age of Ruin**, skip ahead to chapter 3.



"Replicating assemblers and thinking machines pose basic threats to people and to life on Earth. Today's organisms have abilities far from the limits of the possible, and our machines are evolving faster than we are. Within a few decades they seem likely to surpass us. Unless we learn to live with them in safety, our future will likely be both exciting and short."

K. Eric Drexler, Engines of Creation(1986)

INTRODUCTION - The world of Age of Ruin revolves around individual accomplishment and one's ability to create and work well with groups. Your adventurer will take the part of a member of a clan, or greatly extended family, which is in turn part of a tribe, which acts much as a sort of nation in dealing with other tribes. Of course, without any sort of real infrastructure or advanced technology, power can only be concentrated by charisma, leadership and ideals that others are willing to follow. In that sense it is a lot like many pseudomedieval game worlds, and you should keep it in mind. Are you, and are you willing to be, a leader?

First things first - Before you do anything else, you need to choose a tribe for your adventurer. You do not have to have been born into this tribe, but if not, you should figure out where you *did* come from. The gamemaster will give you the region that a campaign will start in, which will give you some idea of how to work the adventurer's background.

EXAMPLE: The Manhattan and Georgia tribes are not adjacent, so if the campaign starts in Georgia territory and you decide your adventurer was adopted into Georgia from the Manhattan, you should come up with a story that explains how you got this far south, and whether or not you have any old friends (or enemies) back up north in Manhattan territory.

The tribes we list here presume a campaign that is somewhere on the eastern part of the North American continent, but the personalties, rivalries and details can be adapted to just about anywhere in the world.

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Clans tend to mark the edge of their territory along the normal travel routes, like a "welcome to Virginia" sign you might see on a highway, using their tribal sign scratched or otherwise marked on rocks, with a secondary sign to indicate the clan territory within the tribe. Within a tribe's territory, usually only the clan mark is seen. Defacing, erasing or moving such markers is a serious offense unless it is part of a pre-approved border adjustment between adjacent tribes or clans. Long-standing friendships and treaties make these borders very permeable, and isolated enclaves of one tribe can often be found well within the borders of another, though such enclaves may be strictly limited by treaty as to the area they can draw from and the maximum population they are allowed to have.

Within and bordering each tribe are completely unaligned clans, even pseudo-tribes. These clans occupy sub-prime lands, and have to work much harder to survive. The organized clans seldom encounter them until population pressure forces a new clan to find territory away from the best and already occupied clan lands. When this happens, things get ugly and people get killed. People seeking a shortcut between various clan lands may pass through these unaligned territories, and you never know exactly what to expect. Look for trail sign, and examine it carefully.

The various tribes take their names from the names of the geographical region during the Age of Machines, which may go full circle, and hearken back to the names the original pre-Machine Age inhabitants gave the area. Some of the oldest individual clan names hearken back to military units assigned to guard particular resources during the last struggles against the Ruin, like Georgia's "Tusker", "Spartan" or "Iron Fist" clans. Tribal territories sometimes overlap, and that there are sometimes areas between tribes that are claimed by neither. The former are either areas of coexistence or continual tension, while the latter are often less desirable areas for some reason, or may be the territory of unaffiliated clans that either refuse to align with an existing tribe, or squabble so much that no one wants to deal with them.

These tribal distinctions are the largest of the population groupings. There are sub-tribes and super-clans, the entire hierarchy of territory and authority that people have squabbled over since time immemorial.

Manhattan: Based in the northeast, centered on Manhattan Island. The Manhattan are the continent's premier glassworkers, and the great mounds of their island are a nearly inexhaustible mine of raw materials. They alone have constructed a solar-furnace glassworks, which gives them a near-monopoly on certain glass and ceramics, particularly the solar cookers that bear their tribe's name. The Manhattan have gone as far as making finely crafted glass boats to help carry their wares from island to shore. These are sturdy enough, but only suitable for calm weather and are not sold to others.

The Manhattan tend towards hearth and home in terms of their Shaping aspect. The Manhattan are also semiaquatic. They are not entirely merfolk like some southern clans, but many members are skilled at Shaping themselves into forms suitable for swimming and diving in the murky waters along the coast.

The Manhattan tribe has numerous clans that dot the shore up and down the coast from their island, and these clans are largely involved in trading the goods produced by the island clans. They are a largely peaceful tribe. The usefulness of their wares and the isolation of their island means that few want to or can mount any sort of attack against them. Cheyenne: The Cheyenne have no home region, though they claim the northern Rocky Mountains as an ancestral home. The Cheyenne claim to be descendants of those who created

> the first protector nano and spread it across the world. Their clans have no set territory, but roam as their shamans direct them to. A longstanding tradition gives them right of passage through other

tribal territories, though if resources are scarce, relations can be strained. Clan numbers rise and fall as members marry out to the clans whose territory they pass through, or members of these clans are adopted into the Cheyenne way.

Cheyenne are disproportionately shamans, and their talents as farspeakers help the clans keep in touch with each other.



Delmarva: The Delmarva cluster around the Chesapeake Bay, down the coast to Carolina lands, and west to the Shenandoah valley, with isolated clans mixing

with the Kentuck in the Appalachians and further west. These co-mingled clans are usually on good terms, but there are local feuds that have sputtered on and off for generations. The Delmarva have a larger than average number of beast totem Shapers. Some look askance at them for this, and there are a variety of rumors (mostly false) about the extremes to which a Delmarva Shaper can alter themselves.

While there are pockets of poisonous land and water in the Delmarva tribal lands, just as there are everywhere, the Delmarva lands have more than their share. This has led to an unusual number of beasts of great ferocity and note, mutated or self-Shaped into dangerous caricatures of their former selves. These beasts tend to require more food than normal, and thus head for the best lands, which are also where the clans live. Many warriors have gone hunting these beasts, never to return.



Carolina: The Carolina occupy the regions from the west of Dismal Shoals out to the first range of mountains to the west, and south to the Savannah River. Clans tend to cluster along the rivers and coastline, but as the prime

locations fill up, new Carolina clans move into lands that have largely been unexplored.

If Shaping requires an altered mental state, the Carolina prefer using what they refer to simply as "Weed", which while it sounds the same, is somehow different than the "weed" which is plucked from around plants in the gardens. This weed is normally chopped up and brewed into a hot beverage, which is drunk in the hours before the Shaping is to be done.

The Carolina are strong shapers in the aspects associated with warriors, and some young Carolina seek to hire themselves out to other Tribes, to collect debts and obligations that will help them acquire the favor of their clan, act as an entrance to another clan or project themselves as being suitable mates.

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Ohio: They border what even in the Age of Machines was called the Great Lakes, and though this region is warmer than it was in those days, it is still the farthest north that men dwell in the Age of Ruin. No tribes live north of the Great Lakes, though the rare adventurer who explores up there for valuable resources may find unaligned clans that manage to get by somehow. The Ohio have no predominance of one type of Shaper over another.

The Ohio are excellent crafters of cloth, using both rock wool, fiberglass and glass fiber to good effect. This skill lets them sew clothing that protects them from winter's chill, and also armor to protect against beasts and hostile clans. These wares are measurably superior to that made by other clans, and are exported by Ohioan and other traders. They compete with and trade with the Manhattan for body armor, using each other's wares to make a composite cloth-ceramic form of protection.

The Ohio pay a price for their own wares. Many of the mound cities they mine for materials carry hidden hazards from the Age of Machines, and even with precautions, the mining and working of rock wool has its dangers.

Georgia: This tribe occupies what used to be the Florida panhandle, Georgia, Alabama and the parts of Mississippi that are still above water. The width of the Mississippi has halted their spread west, and the few clans that have tried to set up west of the great river have been wiped out by forces still unknown, but assumed to be Okie clans. The Georgia are generally seen as peaceful, but are off times viewed with suspicion because they have a higher number of demon Shapers (mental powers) in their bloodlines. This is usually unwarranted, for most Georgia are respectful of the lives of others, and demon talents can make for excellent shamans and arbiters.

Discord has recently arisen between the Kentuck and the Carolina, and while the Georgia have not taken any sides in the matter, they are watching matters closely and have offered to mediate any conflicts.

Kentuck: Kentuck have a high prevalence of hearth Shapers. Without an ocean coast nearby, their winters can get harsher than even the more northern Manhattan, and their Shaping abilities tend towards the hearth and practical matters of survival.

From secret traditions dating back to the beginning of the Age of Ruin, the Kentuck have retained the knowledge of distilling. Not as precise or elegant as in ancient times, but as the fermentation process ends and most would drink the results, the Kentuck quickly boil their product through fire-sterilized glassware, and store the resulting liquid in similarly sterilized bottles. Even with these precautions, they have a fairly high failure rate, and any batch that seems to be spoiling is enjoyed while it is still good. The surviving distilled beverage is exported at a hefty markup, partly because of the labor involved, and partly because of the scarcity of good bottles. Shapers among the Kentuck who need altered mental states for certain Shapings tend to rely on alcohol both as part of the preparation, and as an energy source for the Shaping itself.

Okie: The Okie are considered a "lost" tribe to the people of the east. As the great Mississippi widened and became uncrossable to all but Shaped and strong swimmers, the Ohio and Georgia gradually stopped trading with and marrying into the Okie, and over the generations, even farspeakers have had no luck contacting them and few Cheyenne migrate far enough north to cross the Mississippi, except for a few isolated wanderers who often fall prey to the hazards of the largely untamed west. Those who ask for what word has come from the Cheyenne farspeakers who live on the far side of the great river get no suitable answers from the Cheyenne leaders.

The Okie were also known as the plains people, for their tribal lands had few places with suitable building stone. The Okie lived among their herd bison both summer and winter, and were very skilled with their horses. A scant handful of Okie clans exist east of the Mississippi. A few are in the far north of the habitable lands, on the edge of Ohio territory, and a few more are on the eastern banks of the Mississippi. The rest have migrated to the less desirable lands inside other tribal territories, where they are seen as outsiders and interlopers, tolerated for now, but who will eventually have to ally themselves with another tribe and lose their identity, or be forced out by other expanding tribal populations.

TRIBE NOTES - These bare-bones outlines are for the "5th generation" **Age of Ruin** backdrop. The "1st generation" gameworld has its own setup, one which will *likely* lead to the other, but you never know. Adventurers can (and are often expected to) do *amazing* things if they put their minds to it, including saving the world. Of course, that is part of the overall theme for the 5th generation scenario as well.

You can get a passably accurate feel for the nature of the world and geography and the interactions by imagining the early colonization of North America by the Europeans. There are the superorganizations that are tribes, and within that, individual villages or clans. Just as between the Europeans and American Indians, there is some tech disparity and specialization across the region, with hunter-gatherers, herders, fishers and semiagricultural types in small towns. Everyone *isn't* on perfect terms with everyone else, but there is still enough of everything to go around, so there isn't a lot of pressure towards taking the other guy's stuff.

While things are mostly primitive, there are exceptions. While physical travel may be through means as slow as it historically was (walking or on horseback), the old road and railbeds are still there, and mountain road cuts and tunnels still usable to speed travel over the mountains. Communications can be very fast, and while medical tools are far from modern, they are still better than 17th or 18th century instruments, and the medical knowledge is far better.

So, as you move on to making an adventurer, keep in mind this mix of the old and new, and think of not only who and what the adventurer will be, but also how they will interact with other tribes and clans they will run into in their travels. ADVENTURERS - Everyone is built on 80A and 40S, with up to 30 more points from Traits. The lower than normal amount of points for skills reflects that there are very few opportunities for organized learning. To learn any skill outside that known by your own clan requires that you travel to find a teacher, travel which may involve danger from the wild, crossing tribal boundaries, diplomatic negotiations and a host of other time-consuming activities.

Note! - An adventurer who starts the game "married" can create a mate based on 60A and 20S, with up to 20S of Traits. Children are optional (but eventually inevitable). Being married doesn't give or cost points. The benefits and obligations counter each other.

Adventurers who need Shaping (the ability to modify your body by use of internal nanotech) will need to set aside at least 5S for Shaping skill, and +5S for each ability they want to have. Keep that in mind when picking up points from Traits. Skills will be easier to improve with points gained from adventuring, but not having good skills to begin with means you might not survive long enough to get those points...

Free skills and abilities - All adventurers are assumed to have the free skills:

Tribal culture:	+0d
Scrounging:	+0d
Native language(spoken only):	+0d

Scrounging skill is based on the climate or region where the adventurer was raised. All of these skills are counted as having been bought at the 5S level, and may be improved.

Adventurers also have a free Gifted ability, which is the ability to resist harmful environmental nanotech with an "armor" of their Fate. This counters the normal eater nano that is more or less everywhere. Those who do not have this Trait die in a matter of days to weeks. A side effect of this ability is a greyish cast to the skin and a nearly complete lack of body hair.

Many adventurers, depending on their tribe of origin, will have a mandatory Forte and Weakness on Fate, and all adventurers have a minor Enemy (which has to be defined) and a minor Friend (which is assumed to be someone in their clan).

None of these free skills or abilities listed above cost or give points to the adventurer.

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Physical features - Adventurers can be of either gender without penalty, and of any "ethnicity". Being recognizably from an uncommon 21st century minority would require a bit of explanation and approval from the gamemaster. For instance, having Asian features is no big deal, but having an adventurer of pure Korean descent would take a bit of doing.

The "average" adventurer is a mix of African, European and meso-American appearances. Skin is tanned as appropriate for clothing worn, with a slight greyish cast from protective nano, and no one has any body hair longer than peach fuzz. Height and weight vary over the normal human range, but height is generally several centimeters shorter than pre-Ruin norms.

ATTRIBUTES - Attributes work normally within the Age of Ruin gameworld, with some modifiers on Fate.

Fate - All adventurers have inherent nano, which protects them from the eater nano that pervades the environment. This is the previously mentioned Gifted ability. All adventurers are required to have a Fate of at least 2 in order to resist environmental eater nano (those with less than this are dead, so it has been strongly selected for from an evolutionary standpoint). A higher level of Fate reflects any extra protective nano the adventurer might have, and also the maximum level of control they can gain over it. The ability to alter one's self by use of internal nano is known as Shaping, and it operates on Fate much the same as Fate is used for spells in other **EABA** supplements. To use any degree of Shaping safely requires a Fate of at least 5, and +3 more for each Shaping after the first you want to have active at any given time.

Fate can also be used to modify dice rolls, as is normally allowed in **EABA**, but only in ways that can be explained by an instinctive stress response that somehow involves a spontaneous modification of the adventurer's nano. As long as it is reasonable and the gamemaster allows, go for it. The normal means of reducing damage by 1d or increasing a skill or Attribute roll by 1d are usually allowable. If you want to add detail, use of Fate to modify die rolls can only be explained by use of • power modifiers (• if the gamemaster is feeling generous).

SKILLS - Many normal, mundane skills are next to useless in **Age of Ruin**, simply because the skills require tools that are no longer available (like computer programming), or operate against things that no longer exist (like lockpicking). When you buy skills for an adventurer, make sure that skill can actually be used! If you want a skill but are not sure if it is applicable, just set aside 5 or 10S from your points and finish reading the background notes first.

Outside of medical teachings and knowledge useful for agriculture and animal husbandry, there are no "sciences". No metallurgists, no computer programmers, no electricians or physicists. What remains of the true sciences is the rituals and passwords of the Machine Cult, a secret and sparsely distributed forbidden religion. While they have little practical use for their scanty scientific knowledge, the ability to solve problems (rather than recite rote knowledge) is a nearly foolproof means of identifying members to each other.

This leaves plenty of useful and necessary skills for adventurers. Being able to find food by hunting or gathering is a learned art, as are the abilities of tracking and stealth. Goods are still made of materials unaffected by eaters and all the skills and wiles people use to interact with each other never go out of fashion. In addition to the skills that do remain usable from the normal set, the following substitutions and extra notes need to be made.

AGILITY SKILLS (Combat)

Shapedshooter - Projectile weapons that are Made or Shaped can be fired using an unskilled Agility roll, but require a skill different than one used for conventional ranged weapons like spears, bows or atl-atl's. This skill can be specialized to be more effective with a particular type of Shaping. Melee weapons formed by Shaping can use the same skill as conventional ones, but an adventurer can choose to specialize in Shaped melee weapons if they want to.

Formthought - If a person Shapes their body beyond the normal range of motion or capabilities of the human form, they will be less capable of manipulating it properly, and would use an unskilled Agility roll instead of Agility whenever such a roll is needed. Formthought is experience with such greatly altered forms. For 5S, the adventurer gets to use their default Agility. This could also be bought as an Experience to negate a -1d Agility penalty for a using an extreme Shaping.

AGILITY SKILLS (Trades)

Potter - Clay can still be worked and made into useful objects, though very few clans have the resources to make water-resistant fired pottery in quantity. In a dry climate, this skill would also cover the proper way to make adobe bricks. In wet climates it covers the making of fired bricks, if there is sufficient heat available.

Glassworker - Glassworkers are uncommon, for there are few places and ways in which sufficient heat can be generated to melt glass. However, this skill also covers the shaping and repurposing of glass shards left over from the Age of Machines, and the skill can be specialized in either reclaiming or glassblowing. At a level of +2d, the skill covers the techniques for making high-strength ceramics, which are only made in a handful of places in the game region.

Stonemason - Most clan structures are made of stone, either the natural kind, or repurposed blocks of cement. Working stone with stone tools is a laborious process. This skill can also be based off of Strength, and in addition to knowing where to find good stone and how to work it, a mason knows how to build the basic structures most clans use.

Weaver - The two fabrics available to most Age of Ruin adventurers are fiberglass and asbestos, neither of which would be a first choice for garments in most societies. Weavers know how to scavenge fiberglass and sometimes asbestos, and have some idea of the precautions to take when working with these materials. Weavers also can turn thread into cloth and vice versa, and make functional, protective or ornamental garments.

Toolmaker - Toolmaking, along with the ability to reason, separates men from most of the animals. A polished stone awl, a flaked stone or glass blade, a plastic-handled stone axe, hammer or fiberglass atl-atl, all are tools of a sort. Most tools available in an Age of Ruin campaign take several hours to make if you have the right raw materials, and sometimes a good source of heat. They would be a Challenging(9) task, and you can spend more or less time on the task to adjust the difficulty of the roll. It is an accepted fact of life that things break, so being able to make your own replacements is a common ability. Those who are close-knit with their clan may simply exchange obligations instead of having this skill, such as trading food bagged with a glass-tipped spear for replacement spear points. A toolmaker with +2d skill or more can make complex or mechanical tools, including those made from advanced ceramics or scavenged pre-Ruin materials.

AWARENESS SKILLS (Academic)

Shaman - In Age of Ruin, the shaman is a combination of spiritual advisor and physician. This is an Advanced skill, and successful use is good for either a +1d to a patient's Health roll to recover from injury, or a +1d to a person's Will for Shaping skill rolls. A clan shaman would have a +1d in this skill (cost of 20S), while a shaman-in-training would have +0d (cost of 10S). Only the most aged and experienced shamen would have a +2d in this skill (cost of 40S).

Science - Science, *all* sciences, are lumped into one category, much as they would have been in ancient times when someone might have been called a "natural philosopher". Knowledge of science includes a little bit of mathematics, physics, chemistry, biology and the ability to engage in speculative thought and to at least attempt things according to a scientific method. "Science" skill covers the formulation of chemical compounds other than drugs (which would be a Shaman skill), mechanical design, experimental processes and such, but with the note that recording the results of experiments requires Literacy, which is a separate skill.

Science is an Advanced skill, but its successful use really only allows a +1d to someone else's Awareness to try and understand what you are talking about. This can be useful if you are trying to convince someone about something, or explain how or why something needs to be done, but most of the time, the person you are talking to is not going to be able to explain it to anyone else (so you convince someone with status, and then have them use their position of authority to help you get things done).

Science is seen as a suspicious skill. It is not prohibited except by the most conservative clans, but anything that might recreate or seem similar to the excesses of the Age of Machines is going to make people very edgy. As a result, most who have the skill do not let others know the full extent of their knowledge, and take pains to avoid using the skill in such a way as to bring notice to it. This anti-science attitude is not universal, but is very common. The towns and clans that support themselves through activities involving advanced materials or processes will be more supportive of "science" relating to those fields, like ceramics, distilling, etc.).

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AWARENESS SKILLS (Other)

Scrounging - This works as normally described, but adventurers can also have Scrounging skills related to a particular natural or leftover resource. So, you could have scrounging skill for "fresh water" or "fiberglass". You will still not find these resources where there are none, but if it is available in an area, you have a better chance of finding it.

Language - Within a campaign area, it is easiest to say that there is a common language, in this case English, with tribal dialects and ways of speaking being easy to identify, and understood enough to get the point across. The default +0d skill a person has in their native language should suffice for most purposes. To speak without your own tribal dialect is a Average(7) task on this roll, and to do a good imitation of another dialect is a Challenging(9) task, which would be rolled once in a conversation, and again any time a skill roll has to be made during that conversation (you have to find the right way of saying skill-specific words).

Literacy: Most people only have rudimentary literacy. In Age of Ruin, it means they can make clan and tribal identification signs, compose a sign to represent themselves, or recognize many of the signs belonging to individuals in the clan and important individuals in neighboring clans and tribes. This limited written language is stylized, using only a few sizes and shapes of tapered strokes and circles, and is not suitable for any kind of written message more sophisticated than "Greg of clan Black of the Delmarva made this mark".

True literacy, an ability to read and write complex concepts, is beyond most people. Its not that it is too hard, it is just that people get by quite well without it. Being able to read and write an approximation of Machine Age English is will be specialization of the default language skill. For 5S, an adventurer can read and write at a +0d level, though the meanings of many Machine Age words will be beyond them. For instance, they could read and speak the words "computer mouse", but have no idea what it is, what it looks like or what it does. True literacy used for anything but religious purpose is seen as unnecessary and dangerous by many clans, a sort of "gateway drug" that lures people into eventually becoming Machinists. And true enough, many Machinists are literate. As a result, most teaching of literacy only follows for those who have shown loyalty or excellence in a particular faith, or have the inclination for a professional life as a religious teacher.

While the average person is not literate, they can recognize writing when they see it, and often consider it suspicious. The only exception is writing carved in stone that is left over from the Machine Age. This is considered to be innocuous, though asking what it says and trying to figure out how it works is one of those questions children quickly learn not to ask, but often figure out anyway.

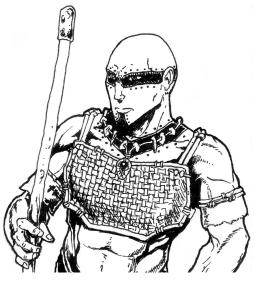
Anyone with a native language skill roll of 2d+2 or more can read and write basic "trail sign" (any adventurer with an Awareness of 2d+2 or more has this for free with their +0d "native language" skill roll). Trail sign is marks that can be scratched on rocks or made from a handful of pebbles or stream gravel, or even painted in mud on a wall. They convey basic meaning, but of course, accuracy is only as good as the information available to or the intent of the person who put them there.

It is said that trail sign is the most ancient of languages, created by the last hard men who roamed the earth before the Age of Machines. Some think this is true, but many Machinists think it is just a way of making some types of writing more socially acceptable than others.

Daoshi Delmar

Strength: 3d+0 Awareness: 2d+1 Agility: 2d+2 Will: 2d+1 Health: 2d+0 Fate: 3d+0

Shaping: +0d one talent: +0d Scrounging: +1d Throwing: +1d Brawling: +0d Lore: +0d Literacy: +0d Science: +0d



Daoshi is a young man of the Delmarva tribe, named after his Machine Age great-greatgrandfather, said to be a man born on the other side of the world, a member of the Cheyenne whose flying machine crashed near the eastern shore while spreading the first true protector nano.

Daoshi tends to spend too much time in the nearby ruined city, looking for and looking at things the rest of his clan does not approve of. He rebels against authority, and his mother figures he is either headed for ruin, or for greatness. Unlike tribal and clan identifiers, trail sign is impromptu, done with quick strokes with whatever is handy, and varies somewhat from tribe to tribe. Trail sign basically tells you about what is nearby. It is written not by whoever or whatever is nearby, but by other travellers who have passed that way.

Unspecified danger Bad water] Travellers not particularly welcome Good campsite Not safe here Be ready to fight Friendly christians Friendly shaman ✓ Guardian animals Unconditional hospitality A farspeaker lives here Be careful what you say There is nothing here $/ \setminus_{\land \land \land}$ Storytellers especially welcome Tribal elders here Work or payment expected for hospitality Prospersous Poor Paying work available + People will lie to you Well defended Food plentiful Swift travel nearby

Lore - Oral tradition is a part of daily life, from childhood rhymes that help people remember the types of harmful plants and animals, to legends of one's own heroes, to the epics that give context to treaties and feuds. Lore is a combination of history, entertainment, teaching and social activism. Anyone can use it as an unskilled roll (Awareness minus 1d) to help remember some bit of trivia from their clan's or tribe's lore, but only those who have the skill can attempt to use in a way to influence others. Lore can often be used as a complementary skill with Leadership and many Awareness skills. Lore can be specialized towards certain topics, aspects or tribal affiliations.

WILL SKILLS (Other)

Leadership - This works according to the simple guidelines listed in EABA, and is worth mentioning simply because personal leadership ability can be very important in Age of Ruin. It represents your ability to motivate and convince others. Between two people of equal status, reputation or other skill, the one with the higher Leadership skill roll will likely be the one who wins the argument or gains the majority of popular support. Leadership can also be used to modify what might otherwise be a bad first reaction, by using cultural knowledge and charisma to smooth over possible points of friction.

Shaping - Shaping is the Will-based skill required as a pre-requisite for all nanotech self-modification. Each particular discipline has a separate skill, which is required to activate that ability. An entire chapter is devoted to Shaping, so there will not be a lot of detail here. For now, realize that Shaping does have its risks, *cannot* be done on the spur of the moment, and does not let an adventurer violate normal laws of physics (e.g. no teleportation, flight would require ridiculously huge wings, etc.).

Assume that you will need at least 10S for one Shaping ability and 5S for each ability after that. Shaping talents are hierarchic, which means you cannot learn some abilities until you have mastered lesser ones. Add to this that virtually everyone has a particular strength with an aspect of Shaping and a weakness in another, so a person with extremely diverse Shaping talents is quite rare.

Note - If you started designing an adventurer already, you've noticed that the low number of skill points puts a serious crimp on things, especially when some of the important skills are Advanced skills or have applications that require a +2d level of proficiency. You can't be good at everything. Even being passably talented in several areas is difficult. Much of the "economy" of **Age of Ruin** involves dealing with specialists who can do the things that you cannot.

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TRAITS - As usual for a gameworld, there are Traits specific to it, and those which are adjusted in some way.

• Age - Standard rules for age apply. It is more likely that there can be adventurers below the age of 16, as young adults often carry their share of the work, take lesser roles during hunts and carry messages between clans.

• **Blessing/Curse** - Unlikely in this gameworld. However, everyone is *required* to have a Forte and Weakness on their Fate.

Enemies - Quite common. Unusual is the adult who does not have a feud running with someone. However, most enemies are minor ones, and proper application of experience points and actions that would mitigate or mollify the Enemy can get rid of them. No starting adventurer is likely to have more than two Enemies, and no more than one major Enemy.

Experience - Uncommon, but available. Little heavy armor is worn, nor heavy loads carried for long periods, so that experience is less needed. Northern clans may have experience that helps them ward off the cold of winter, and southern ones experience to handle the heat of summer. The gamemaster will be the arbiter of whether or not a particular Experience is appropriate.

Fortes & Weaknesses - Everyone except those of strong Okie or Ohio blood are required to have a Forte and a Weakness on Fate. These do not give points or count towards the maximum number of points in Traits an adventurer can have.

Adventurers can have a Forte for one of the aspects of Shaping, or Ways. These Ways are:

Hearth - Home & hearth utility Warrior - Combat related Shaman - Healing and communication Totem - Theme-based shapeshifting Demon - Mental powers Maker - Item creation

A Forte in one of these gives the adventurer +1d on their Fate for the level of effects generated by that type of Shaping (or if appropriate, to resist effects generated by that Way). It does not affect their base level of Fate for purposes of cumulative penalties.

The Weaknesses cover the same Ways, and would give the adventurer a -1d on their Fate for effects generated by that type of Shaping. An adventurer can also have a 20 point Weakness that is a -1d penalty to *all* Shaping effects. The adventurer is just as immune to eater nano as anyone else, but they lack the ability to control their inherent nano as well as others.

Traditionally, some Ways are seen as opposites of each other, and the gamemaster *should* require that particular Fortes and Weaknesses be taken in pairs:

Forte	Weakness	Clan affiliation
Hearth	Demon	Manhattan, Kentuck
Demon	Totem	Georgia
Totem	Shaman	Delmarva
Shaman	Warrior	Cheyenne
Warrior	Hearth	Carolina

Makers are outside the normal structure, and someone with a Forte as a Maker can have any Weakness, and someone with any other Forte may have Maker as their Weakness with gamemaster permission. There is no Forte or Weakness related to the specialized Shapings done by Machinists.

An adventurer might also have a Weakness on Will as relates to Shaping, which means they do not have the mental focus needed to do Shaping well, and take a -1d on Shaping skill rolls (but would not have any penalty on the *effects*). Someone with both of these Weaknesses would be at a great disadvantage when it comes to Shaping.

Friends - Just as most people have Enemies, they also have a Friend in their own clan. The free Friend an adventurer gets represents family support and mutual obligations. Major Friendships are uncommon, and adventurers will probably not start with more than three Friends (their free one, and two others). A Friend can also represent a debt obligation of some kind, for half the number of points. A minor Friend would be a large gift-debt, and a major Friend would be a life-debt. The trick is, once these debts are called in, the "friendship" is nullified and the points spent are gone. • **Gifted** - Adventurers begin play with a free Gifted ability, the ability to resist the pervasive 0d+2 eater influence with an "armor" of their Fate. Adventurers can also begin play with this Trait to allow them to exceed human norms, to have an abnormally large spread between Attributes, or to have a nano-based paranormal power. This power would be required to have the following power framework, in addition to any other modifiers on it:

-	Starting cost	-10
•	Requires minimum Fate of 8	-10
	State-based duration	+15
	Cannot be altered	-10
Framework base		-15

The adventurer must have a higher than normal Fate (at least 2d+2) to have a permanently gifted ability, this ability lasts as long as they live, and the effect is their normal Fate. Effects that do half-lethal damage based on Strength are reduced by a further 1d, and the result adds to punch damage.

This power must follow the normal guidelines for a Gifted power. That is, its presence and/or use is usually outside the adventurer's control. Having permanently toughened skin or blunt spikes sticking out of your forearms would be examples. Even though you could consciously use the latter as a weapon, their presence is not something you can control.

Armspikes:

Framework base		-15
	Requires mundane skill	-5
	Half-lethal damage	+30
	Adds to an attribute	+30
	Only for punches	-10
	Reduced 1d effect	-10
Total		+20
Cost		10A

An adventurer with armspikes and a Fate roll of 2d+2 would have arm spikes with have a damage of their Strength roll plus 0d+2 in half-lethal damage. If their Fate later increased to 3d+0, the spikes would increase to a damage of their Strength roll plus 1d.

At gamemaster option, Gifted abilities can be modified in play. The adventurer with the arm spikes might find a way to tweak them so they were pointed, and did lethal instead of half-lethal damage. Such abilities would have to be bought without the "cannot be altered" modifier, which would generally make the Gift cost 13A instead of 10A. You would have to decide on this expense when you make the adventurer (being able to buy off the "cannot be altered" modifier would make it kind of pointless). Some common Gifts are below. Note that most of these will be a permanent alteration to the adventurer's appearance. This can range from distinctive to disfiguring. The fact that these Gifts are present in several percent of the population means that they are generally accepted. These Gifts can usually be upgraded with experience, but starting adventurer's should be limited to the base Gifts. Note that these Gifts are useless unless the adventurer has a base Fate roll of 2d+1 or more, and their utility goes up markedly with increased Fate (a Gift for an adventurer with a Fate of 3d+1 is far more worthwhile than for an adventurer with a Fate of 2d+1).

Gifts (10A):

- Arm spikes: The adventurer has bony ridges on the forearms and outer edge of their hands. These give a half-lethal punch damage of Strength minus 2d.
- Bearskin: The adventurer's skin is leathery and tough enough to turn their Fate minus 2d in non-lethal or halflethal damage. This counts as a worn armor for layering purposes.

Fleetfoot: The adventurer has a slight increase in leg length and a restructuring of the legs and feet. They have a x2 running multiple (double their normal Walk, Run and Sprint speeds). A similar Gift is available for swimming.

Tireless: The adventurer has increased lung and liver capacity, and can add their Fate to their Health for all endurance and fatigue purposes (but not recovery of bruises or lethal injuries), with a maximum effect of double normal Health.

Bug-eye: The adventurer's facial features are all exaggerated. Larger eyes, ears and nasal cavity give an overall sensory bonus equal to their Fate, which they can split between sight, hearing and smell. In addition, the bonus level by itself can apply in special conditions. For instance, a hearing sensory bonus of 0d+2 could also be a sensory Awareness roll (by itself) of 0d+2 to hear ultrasound.

Note! - While a Gifted ability might cost the same or more than a similar Shaped ability, the abilities gained through a Gift do *not* apply a penalty to the adventurer's Fate (a problem which does apply to Shapings).

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• Larger than Life - Possible in Age of Ruin, but the cost makes it of low utility for the expensive version of the Trait. It can be bought for one Attribute and its associated skill rolls (for 10A), noting of course that it is useless unless these rolls are at least 4d+0 to begin with. It is something to think about as a long-term investment towards making a legendary adventurer, but spending 10A on the Trait and then spending enough on the appropriate Attribute and skills to get the 4d+0 skill rolls may make the adventurer rather one-dimensional at first.

Looks - Standards of attractiveness are about the same as they would be in any aboriginal society. Clothing is often minimal, and nudity is not a taboo. Everyone in Age of Ruin is virtually hairless. The best a man can manage is a light case of "fiveo'clock-shadow", and head or body hair rarely is more than a few millimeters long. One alteration to looks that adventurers can get is tattoos. These would be a variety of permanent decorations on and across the body that underliably mark the individual's clan affiliation. This does not give any inherent bonus or penalty, or cost or give any points, but can be very important on a case-by-case basis. For good or ill, it shows where your loyalties lie and serves to identify you to any and all onlookers. These tattoos cannot be removed short of completely removing that piece of skin, and cover enough of the body that cosmetic attempts to fake or cover them would quickly be discovered.

• Motivation - All adventurers should have a goal or goals, reasons they are "a cut above". The gamemaster can reward the player who gives the best written description of what the adventurer is and why they do things the way they do. This adventurer gets 5A or 5S that is outside the normal point limits. To avoid any sort of bias, you can also have each player read and rate each of the other adventurers motivations, rating it on a 1-5 scale. The description with the most points wins. So, if you want these free points, you have to work for them. Use the notes in EABA and the material in the next chapter to help shape the background and motivation of your adventurer.

• **Mythic Archetype** - If the group of adventurers can meet the qualifications, there is no reason why they cannot gain the benefits of this Trait.

• **Pain Tolerance** - Never required, but if an adventurer already has a high Will roll because they are a leader or Shaper, it wouldn't be a bad idea.

• **Personality** - All of the normal personality aspects apply. A few can be formalized into codes of behavior common in **Age of Ruin**. These modifiers on rolls and game limits do not apply to everyone *claiming* a particular faith, only to those who sincerely practice it.

Christian: Christianity survives, though not in the form someone from the Age of Machines would recognize as any particular faith. Islam and Judaism survive as well, but are an extreme minority in the region described. Post-Ruin "Christianity" will emphasize internal purity as well as the notion of accepting the grace offered by the sacrifice of the Son, though there is still heated argument over the nature of the particulars. It is not the success of your deeds that is important, it is your motivation for doing them. Successfully doing the right thing for the wrong reason is less worthy than trying to do it for the right reason, but failing. A true post-Ruin Christian would have one or more levels of "altruism", a desire to do good simply for the sake of doing good and a hope of inspiring others to do so as well. This does not make them pacifists. Killing someone just might be the "right" thing to do sometimes. However, a Christian would be very likely to spare a foe, just to give them a second chance, and to give them the opportunity to repay the incurred life-debt by changing their "evil" ways.

Gaean: Gaeans stress a kind of harmony with nature and others. Like Christians, they do not have to be pacifists. Death is seen as necessary for the continuance of life. However, wanton destruction or slaughter is not their nature. Gaeans would have one or more levels of personality in something akin to "community". They want to be near friends, family or other Gaeans, and will not travel alone if they can help it. A Gaean will not kill someone if they are afraid that person's escaping soul will somehow pollute their own. It is more of a selfish gesture than the altruistic one of a Christian. Machinist: A Machine Cultist probably has a Secret, but also has an inquisitive nature. They do not accept the world as it is, and will undergo risk in order to change it. Machinists have one or more levels of "curiosity". If there were any toasters left, Machinists would be sticking forks in them to see what happens, or disassembling them and trying to improve on the concept.

Other personality traits an adventurer might consider would be those that might cause friction or suspicion in the normal clan social structure, like "loner", "lecher", "disrespect of authority", "greed" or "envious".

Secret - Among the various Secrets someone might have is membership in the Machine Cult, a member of which is known as a "Machinist". This is worth 10S, but requires the adventurer also have a +0d skill in Science (which costs 10S). Machine cultists are treated at best like child molesters. If this Secret is revealed, the individual immediately loses a level of Status to make up the difference.

Status - In Age of Ruin, Status is also distanceand culture-dependent. An elder of one tribe may be given respect by other tribes, but has no actual authority to order anyone around. A clan elder is in a similar situation when visiting another clan.

Someone with no Status is just an average person. One level of limited Status (5A or 5S) is a "hero" or someone who has a good level of skill, an has been around long enough to have a reputation that can be used to good effect. It could be used to modify reactions, from intimidating foes to gaining hospitality. Your fame is probably known throughout the tribe, but is reduced by a level outside it. This type of Status requires a skill roll of at least 4d+0 in whatever it is you are famous for, +1d per level of limited Status after the first. This is the maximum level of Status starting adventurers should have.

One level of full Status would be a clan elder or shaman. You may not be able to force someone to obey you, but your commands and wishes are reinforced by a social structure that is based on respecting the wisdom of those who have been chosen to lead.

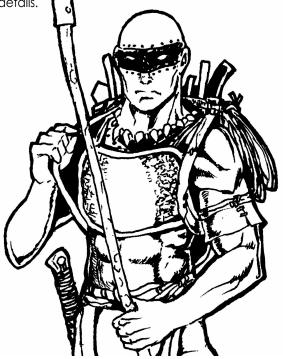
Two levels of full Status would be a tribal elder, chosen by election or some other method by the individual clans. Each tribe will have several elders and a supreme shaman, who act as council and make decisions that are informally binding on the clans of that tribe. A negative level of partial Status would be a clan outcast, someone who has done something that caused harm to the clan or which requires atoning for, like negligence that resulted in the death or serious injury of someone else. A negative level of full Status would be a tribal outcast, a person who has had judgement passed on them by the tribal council. Outcasts are still members of the clan and tribe, but their words are less heeded, their accomplishments less recognized and fewer resources are spent to help them in time of need.

An adventurer whose background is from an un-aligned clan is either a wanderer getting by on odd-jobs and guest hospitality, or someone who was recently adopted into a clan by marriage or some other circumstance. Such an adventurer is also likely to have a negative level of partial Status, but this can be remedied with time and experience.

• **Toughness** - It would be easy enough to have this Trait, assuming it is akin to a Gifted ability, the adventurers protective nano also making them less vulnerable to shock or the other effects of tissue damage.

• Unusual background - There are not many unusual backgrounds in Age of Ruin. Being a member of a clan or tribe is usually by birth or marriage. It would be unusual to have the social benefits of one tribe and the blood traits of another tribe, without having the familial obligations that come with marriage.

• Weakness - The normal range of Weaknesses is allowed, and there is also the mandatory Weakness on Fate for members of certain tribes. See **Fortes** for details.



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■ Wealth - An adventurer can have altered levels of wealth that are not linked to status, but this is unusual. Cash and starting goods are significantly altered in Age of Ruin. All cash and income numbers are divided by 64. In addition, only goods whose value does not exceed the adventurer's starting cash on hand are really theirs. The rest is semi-communal to the clan, like limited Wealth.

EXAMPLE: An adventurer whose notable skill is at Scrounging, with a 4d+2 roll would in a normal campaign have an average of 5,600 Credits in cash, 28,000 Credits in goods, and an income of 560 Credits per week. In Age of Ruin, the adventurer would only have 88 Credits in cash, 438 Credits in goods, and have an income of 9 Credits per week (or about a quarter of a Credit per hour of work). Of the 438 Credits in starting goods, the adventurer only has uncontested possession of 88 Credits worth, and this must include at least basic clothing and commonly carried or worn items. The rest is mostly theirs, but its removal from clan lands or being put at risk of loss may require some minor politicking. Status within the clan would obviously be helpful in such cases. Also, being able to use your own time to create the goods you need (food, weapons, etc.) is quite useful.

Individuals with higher status often have limited levels of extra Wealth, to indicate that the clan or tribe will provide some support to that individual above and beyond of their actual contribution to the tribe. If a leader is busy leading, he or she can't be out foraging or hunting, but still needs to be fed, housed, clothed and equipped in a manner appropriate to their status.

FINAL NOTES - The next chapter is about 30 pages that go into the nuts and bolts of the world of Age of Ruin. Before you put those adventurer stats down in ink, you might want to read over that chapter first. Alterations to adventurer design for a "1st generation" campaign are at the end of the Campaigning chapter. If, after reading the next chapter, you decide you want a game world with a little more conflict and techno-goodies and desperate heroism in the face of creeping calamity, then design up adventurers for that campaign instead of the "5th generation" default campaign.



"Unlike almost any other natural material, biomass can serve both as a source of carbon and as a source of power for nanomachine replication. Ecophagic nanorobots would regard living things as environmental carbon accumulators, and biomass as a valuable ore to be mined for carbon and energy. Of course, biosystems from which all carbon has been extracted can no longer be alive but would instead become lifeless chemical sludge."

> - from Some Limits to Global Ecophagy by Biovorous Nanoreplicators, by Robert A. Freitas Jr.

BIRTH, DEATH AND IN BETWEEN - Age of Ruin is not just a new way of playing in the Stone Age. While there is no one alive who remembers the Age of Machines, everyone knows that it was a time of wonders and filled with both promise and hubris. The last men from the Age of Machines died within living memory, and your adventurer's grandfather may have heard the tales of wonder and terror firsthand on his father's knee. There is an undercurrent of desire to return to that grandeur, but also a fear to do so.

Life afterwards has its moments too, and pride is taken in one's life and how it is lived, but with the passing of the last Ancient men, there is a feeling that something great has passed from the world, never to return. The shards of glass used as knives are far finer than any glass that can be made today. The stumps of the towers that once touched the sky are still far grander than the greatest tribal buildings, and one cannot look into the dark night sky without seeing the faint and fast moving "satellites", which are said to be machines placed in the very heavens by the hand of man. People speak of their accomplishments with pride, but carry silent within them their thoughts about the things that men can no longer do.

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THE CLAN - No man (or woman) is an island. In Age of Ruin, life revolves around the extended family known as a clan, the super-extended family known as a tribe, and to a lesser extent, individual obligations a person might have due to agreements or interactions between tribes. No individual is stronger than the people who back them up. Some individuals are more powerful than others, of course, but the concentration of force in the Age of Ruin is much less than in the Age of Machines. There is no one person with their "finger on the button", no equivalent of a bomber loaded with cruise missiles or a battleship gun. One person may be the equivalent of ten warriors, but that will do them no good if they are confronted by a hundred foes.

This is not a *particular* aspect of daily life, but working with others to accomplish a goal is an ethic that is necessary for anyone to accomplish great things. Being a rugged individualist would be considered a *negative* trait in **Age of Ruin**. Not that being able to take care of yourself is a bad thing by any means, but *preferring* to rely on your efforts alone is seen as strange and disturbing.

A clan is usually one extended family, three or even four generations of people who are related by blood or marriage, usually with no more than two levels of separation.

EXAMPLE: Your mother might have come from another clan and married into this one (one level of separation), and you would thus be related to someone else's children whose mother or father came from a different clan (another level of separation).

A clan has a territory about the size of a small county or large town, some distance that a person on foot can cover in day or less. Areas with greater natural resources usually have smaller clan territories, while less productive regions will require larger territories, and may require horses to cross in a day or less. The clan may have several homes within this territory, allowing them to not place too great a strain on the resources in any one spot, which is more likely in larger territories than in smaller ones. Clanhomes are usually going to be near a concentration of resources, water, fish, fruit, game, grazing lands, etc., and some may be seasonal in nature.

A clan can be up to several dozen individuals, perhaps a third of them children or young adults, half adults, and a sixth elderly. For a clan of sixty this would mean about ten young children, ten more who are able to do light work in support of the clan, about thirty adults of varying ages and ten elderly individuals who are only capable of light work.

Within the structure of a clan there is a formal hierarchy of status and often a separation of labor according to ability. Those who are most fit roam afield as hunters, gatherers and scouts. Some will also be herders, moving the clan's animals from one grazing area to another. Those charged with taking care of children remain closer to home base, and tend the many small agricultural plots most clans have. Those who are disabled or unable to do heavy labor because of age are often the clan's teachers and craftpeople, teaching youngsters the basics of Shaping, making and repairing stone tools, carving ornamental items or doing light work such as finding cooking herbs or medicinal plants as needed.

A clan is usually led by an Elder of some kind, a position chosen based on the nature of the clan. A clan more concerned with crafts might choose based on that aspect, while a more warlike clan might choose a seasoned warrior to lead them. Of equal status to the Elder is the clan's Shaman, though not all clans have one. The shaman does not actually govern the clan, but traditionally has a sort of veto power over the clan's Elder, which means the elder usually confers with the shaman on all important decisions just to maintain unity within the clan.

Not all clans are run from the top down. Some maintain a sort of democratic decision-making, others vote, but only those who meet certain qualifications get to. These qualifications might be based on accomplishments, gender, religious belief, age, etc. For instance, a clan might be run as a matriarchal oligarchy, with only women who have had children but who are now past childbearing age allowed as elders. Or a clan might only allow leaders who are Gaeans, or who are totem Shapers, or whatever. There are thousands of clans, so there is room for just about any form and structure to the leadership. The only common trait is that an elder of one clan is accorded that level of respect by other clans, even the other clans do not like the way that leadership was acquired.

Below these elders and shaman would be those whose accomplishments or genetics grant them some importance. A son or daughter of an elder, the shaman's apprentice, a celebrated hunter, skilled crafter or teacher, and so on. No more than a tenth or so of a clan would have this level of status. This grants these individuals a little leeway in terms of acceptable behavior, priority in allocation of resources and such.

Most of the clan is simply zero levels of status, with no benefits or penalties. A few people will have lower than normal status, often a sort of probationary clan membership. Someone who is newly married into a clan still has to win the informal approval of the clan, and they may be given a hard time just to see if they are tough enough to fit in. Or someone who has disgraced the clan may be somewhat shunned until they manage to redeem themselves somehow.

A clan probably has long borders with three others, and short borders or points of contact with several more. Of these clans, your clan is probably on good terms with one or two, on passable terms with most of the rest, and will have some sort of feud or dispute going with one. Of the clans removed from yours by other territory, the same numbers probably apply. However, feuds are more likely to be harsher, and friendships less certain. That is, the young troublemakers in your clan have enough sense not to pick a fight with the clan next door. If they're going to steal cattle or whatever, they'll sneak through neutral territory (annoying that clan) and steal from someone farther away (*really* annoying *that* clan).

Who likes who can and will change over the course of a campaign. So, adventurers can start off being from different clans without any problem, though all the clans involved should be on good terms with each other.

EXAMPLE: Your adventurer is on good terms with two neighboring clans, but those two clans are neutral to each other. So, adventurers can be from any of these clans, but your clan is a good spot to base adventures from, since everyone on is on good terms with your clan and passage rights and guest rights are clearly established and even if the two outside clans were enemies, they would be hospitable to each other while under your roof. **DAILY LIFE** - Within the clan structure that most people live in, life goes on according to a routine mandated by the nature of life in **Age of Ruin**.

Population - Without modern agricultural methods and a moderate decrease in yields and soil fertility, crop performance has been turned back to a medieval level. Without getting into the technical details, it means that most areas that engage in agriculture are only slightly more than self-sufficient, and perhaps 1 year out of 4 they have to rely on hunting or gathering to make up for a crop shortfall.

The world as a whole is now only capable of supporting about two billion people, but that is with *all* the arable land put to use with advanced agricultural methods, something that is not likely to happen for quite some time. The world population is still far less than one billion, but significantly increased from the post-Ruin low of a few hundred million or less (a >95% casualty rate), which means there is still plenty of room. People are largely concentrated in the more habitable zones, and within these zones, clustered much as ancient civilizations, on trade routes, rivers and along coastlines.

Population groupings are generally by clan, which is several extended families with some common blood ties, and then by tribe, which would be a grouping of scores of clans that may share some bloodlines, but more often simply share many beliefs and occupy a piece of land bounded by clear geographical limits (rivers, coasts, mountain ranges, etc.).

In areas where the climate and land support it, there are small towns, usually on rivers and coastlines where there is good fishing close to shore, or where seasonal flooding makes the soil better than the generally less fertile ground elsewhere. Towns are as close to cosmopolitan as Age of Ruin gets. Towns may have elements from several clans, and maybe two tribes if the town is on a border, like two towns on opposite sides of a river that may be technically separate, but in practice act in a unified way. Towns can be up to several hundred people if their resources allow, but the "family" style of most clan governance tends to be very fragile at this size, and there is usually a bit of tension and a lot of political jockeying involved in keeping everyone happy enough to maintain the status quo. The usual result is several factions, each with a leader or lead instigator, each with their own agenda for the town/clan and personal ambitions and foibles, all dealing with other in a not-quitepublic but not-really-secret small town kind of way.

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People who are used to the regular way in which a normal clan operates may be out of their depth when dealing with a super-clan or town level of politics.

Like for the earliest civilizations, these prototowns allow for more specialization of labor than is practical for hunter-gatherers. Virtually all of the "tech" industries like glass-making, ceramics, distilleries, machining and such are centered in these small towns. This concentration of skill, wealth and sometimes military power is slowly but surely altering the regional politics of the game region, and while the changes may in the end be best for humanity, there will be a lot of strife on the way there. This is where the earlier mention of European colonization of North America comes in. As towns develop their own culture and identity outside that of clan and tribe structure, their loyalties may shift inward. And while townsfolk are far smaller in numbers, their ability to produce outstrips individual clan efforts, and the two cultures will eventually come to blows over some issue or the other.

Agriculture - The notes about crop yields are misleading. Agriculture as we commonly think about it is not as practical as it could be. Carboneater nano makes it more difficult (but not impossible) to store large quantities of food for periods of several months. In areas with large amounts of useful farmland, towns or clans that act like small towns are common. That is, they do not need to move around because of depleting local resources, they have more non-portable goods and more specialists in terms of skills. While horses or oxen are readily available, a good plow is another matter. It can't be made out of metal or wood, and glass, ceramic and stone do not last very long under the stresses of tilling any but the finest soil. Harnesses can be made from glass fiber or other eater-proof materials, but plows are somewhere between an efficient moldboard plow and an inefficient scratch plow.

In practical terms, it means that plowing involves a lot replacing of broken bits or using parts that are quickly consumed by eaters, and that unless the soil has been completely cleared of rocks, crop yields are closer to Primitive Era levels than Industrial Era levels. This is offset somewhat by a practical if unscientific knowledge of modern agricultural practices, handed down by the survivors of the post-Ruin agriforts. Preparation of fertilizers, crop rotation, use of mutually supportive plant species to minimize insect losses, proper field drainage and efficient irrigation help, but traditional farming is still very labor intensive.

However, areas that can successfully do this can support small towns, with the specializations of labor that you can get when not everyone is out trying to get enough food to eat. The communal nature of the clan assists in this, especially when the specialized skill can be used for the benefit of the clan as a whole. The largest towns are typically in river valleys, where both fishing, herding and agriculture are possible, and the river itself is likely a border between clans or tribes, making it a natural center for the limited commerce in the post-Ruin world.

For those clans not in prime farming areas, most will live as a combination of hunter-gatherers, agricultural opportunists and herders. They plant and tend crops, but only in small quantities, and with a wide variety of crops that mature and fruit at different times during the year. This way, from early in the growing season until its end, there is a small but steady supply of fresh produce, with surpluses stored for lean times.

These clans are closer to the edge survival-wise than the towns, but generally have better wilderness skills. There is a small bit of elitism between the two groups, the town-dwellers taking pride in their civilization and accomplishments, and the smaller clans taking pride in their wilderness abilities. Diplomatic relations between neighboring towns and clans sometimes get strained, especially if there is a hard time and the towns have resources that a clan feels it needs to survive. Remember that clan is family, and when things get tough, blood is thicker than water. Clan elders in general are smart enough to minimize potential problems by making sure there are enough marriages between nearby clans that any neighboring clan has its share of close blood relatives. It doesn't prevent problems, but it can reduce their scope.

Conflict between clans and tribes has very seldom escalated to the point where communities or clans need walls. Simply having defendable dwellings and living within mutual support range of your neighbors has been enough. Prized possessions are of course, guarded appropriately, and where raiding is common, animals are brought into fenced and guarded enclosures at night, and watched during the day.

Food - Anything that is alive is protected by its inherent nano, which uses the same energy reserves as the lifeform that is its host. This has advantages and drawbacks. Living things need to consume more resources than before. A person's caloric intake is probably twenty-five percent higher than normal, and water requirements are probably fifty percent higher, since the nanotech makes people run "hotter" and need to sweat more to keep cool. This is a real problem in warmer climates, but it also helps people survive with less clothing in colder latitudes. It is something that people have adapted to, and no one gives it a second thought.

If a living thing loses its ability to acquire or transport energy reserves, the protective nano quickly goes dormant or dies, leaving the organism vulnerable to the ubiquitous "eater" nano. In general, anything that is "dead" has a half-life of a few hours to a few days. If you pluck an apple from a tree in the evening, you better eat it by breakfast the next day, because it won't be there at dinner.

Hunting and gathering is thus a required way of life for many people in **Age of Ruin**. There is no easy storage of readily perishable goods. In general, when a foraging or hunting party returns from the field is when mealtime is. The eater nanotech can be temporarily killed by cooking food, but this just delays the process until the food is removed from the fire.

The only easy way that food can be stored is alive. That is, animal husbandry. Chickens, sheep, goats, cattle, fish ponds, etc. This allows people to survive in climates where there would normally be no resources for months at a time, though this is still a lean time. Remember that any animal slain for food has to be eaten in its entirely within a few days. People have gotten used to this sort of feast/famine kind of meal structure and are not adversely affected if they only have one huge meal per day, or go a few days on sub-standard fare.

Cooking: Without oil, coal or even dried wood, cooking is not a simple matter. Dead wood, dried grass and other common organic materials burned through the ages for cooking purposes are simply not available without some preparation. Some areas have enough resinous woods with a low moisture content that freshly stripped branches can be used, but this is more useful for travellers than for clans, who would have used up this source in the area of their homes. Since the carbon-eater nano that competes with the forest microscavengers requires oxygen in order to replicate, clans that want to have wood for burning need to collect it and store it in conditions without oxygen. Typically, this is large clay containers that look a lot like ovens. Long experience has given clans an idea of the right amount of wood and air space needed for the carbon-eater nano to partially consume the wood before they run out of oxygen. The result is a form of eater-created charcoal, which makes an excellent fuel for anything that requires a heat source, provided you use the fuel fairly quickly after cracking the storage area open (otherwise it starts to crumble to powder). Typically, fuel is stored for several months in preparation for a later need, like autumn canning, or heating or cooking purposes during the winter or possibly during a rainy season, depending on location. If charcoal is needed for daily cooking needs, a clan will have a set of pottery jars that are cycled through, each one containing the day's fuel, and each emptied jar moved to the back of the line and refilled with fresh twigs or branches. As a side note, those industries that require extreme heat will used forced air furnaces running on carbon bricks. Like medieval Europe, finding and preparing enough material to fire up furnaces for an extended period is a problem. One creative solution is the "fish furnace". Tidal area netting techniques collect fish, which are then deboned and put in "charcoal makers", where carbon-eaters turn them into fish briquettes. A good-sized fishing area can collect a few hundred kilograms of fuel per day this way, using the wide ocean as a replacement source for the biomass pulled from the system.

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The most common cooking method is a solar oven, with a chamber made of stone or glass and a large number of glass reflectors (or sometimes fiberoptic bundles) to concentrate solar energy. In the few areas where geothermal heat is available, that is used instead. The best solar setups are called Manhattans, after the tribe that makes and exports them. A large solar cooker is barely portable, but because of its value and utility, usually moves when the clan does. Travellers might have a small solar oven (if they have riding animals to carry it), but otherwise will usually eat their food raw, perhaps seasoned with fresh herbs. Small camp stoves using sealed jars of charcoal are also available, but are not as common.

Food storage: Civilization at anything past a hunter-gatherer level requires the ability to store food for extended periods. The presence of eater nano makes this a bit more difficult than it would have been for a primitive ancestors. The inherent protective nano in living things draws its energy from the same source the living thing does. So, a plucked apple is protected as long as its sugars can supply the protective nano with energy. Ditto for things like eggs or vegetables. However, this causes the breakdown of the material faster than it would from normal decay. Things "rot" several times faster than they would normally. An apple that might sit on our counter for a week before getting soft and mushy might only last a day or so in Age of Ruin. An egg that has lost the protection of a brooding hen might only last a week.

Things that would be food for the normal scavengers of the ecosystem disappear very quickly. Fallen limbs do not sit on the forest floor long enough to dry out. Leaves that fall from trees are gone in a matter of days. Corpses are reduced to bones in a matter of days, and the bones are gone within weeks. The scavengers that have survived are the ones that jump on a potential meal as soon as it stops moving.

However, the carbon-eater nano has the limitation that it fuels itself by catalytic combustion of carbon and oxygen. Food can be stored in airtight containers of glass, or for large quantities of grain, in fired pottery. Airtight seals are maintained with eater-proof plastic, or a cement seal that is cracked open when the food is needed. Once the carbon-eater nano consumes the available oxygen, it can no longer replicate and goes dormant. If properly packed, dry food can be stored with no more than five to ten percent loss for as long a period as it could be stored without the presence of eaters. This is not just dry grains or flour. With proper preparation, dried fruits and jerky-like meats can be stored for later, but this is a bit more involved than simply packing a container full and sealing it up.

Heating something up to the ignition point will deactivate any eater nano in or on it. This has its obvious limitations. Acids can also deactivate some types of eater nano. Neither of these is particularly useful for trying to preserve food, since one leaves you with a charred lump, and the other with an acidic mush. High temperature steam can be used on food items to deactivate eater nano, like a slightly more complicated form of home canning. This is energy intensive, but still viable where there is sufficient solar power or sufficient fuel has been stockpiled. Those involved in the process use long tongs and wear full body armor during the process (imagine a steam explosion of a glass pressure vessel).

Fermented or distilled beverages are a bit more difficult to store. While they can easily be kept in an oxygen-free state, they are also vulnerable to hydrocarbon-eater nano, which does not require gaseous oxygen for its energy source. Beverages that can be consumed quickly, like beers and ales, can be made, as long as they are used up in a few days after they are ready. Since the fermentation process involves living yeasts, eaters generally cannot get at the product until the yeasts die off at the end of the fermentation process. Distilled beverages require a fairly thorough sterilization process for the glasswork involved to get rid of all the eaters, particularly the hydrocarbon-eaters. If this is done successfully, the distilled beverage can be bottled and stored normally. Only a minority of clans have the talent to do this reliably, and most of them are Kentuck clans.

Food can also be "sterilized" by Shaping techniques, but the amount that can be saved is fairly small for the energy required to do it. It is useful for individual travellers or small groups, but not for the scale in which a clan would need to store food.

A clan's ability to produce food and store seasonal surpluses is extremely important. It allows clans to live in areas that would otherwise be uninhabitable in the winter. It covers for the occasional drought or lean time, and when there are significant local surpluses, it can be a traded commodity. Between two clans whose territories are equal in size, the one that is more efficient food-wise can support more people, and thus has an edge in just about any dealing with other clans.

Note - Because of the means of transport (food-consuming animals), the distance that food can be economically transported is seldom more than a hundred kilometers. Concentrated or processed food products with a higher sale value (like distilled spirits) have a much further transport radius from their source.

Religion - Those who live in the Age of Ruin have spiritual beliefs that reflect their world. They know that nothing is permanent. Even the stones weather away in time, and nothing made by men endures, especially not men themselves. In some, beliefs akin to Christianity endure. Perhaps a guarter of the text of the Bible survives in some recognizable (if not entirely accurate) form, mostly from the New Testament and codes like the Ten Commandments. This is usually in oral form, passed from generation to generation, but the especially important parts are often carved in stone, copied word for word and stroke for stroke from ancient church and courthouse walls. There are areas where the devout have completely memorized their faith's religious texts, and thus have preserved almost intact the teachings if not the expression of the Christian, Muslim or Jewish faiths. People who are such "living testaments" generally have the same status as a shaman within a community, and very few are found outside of towns.

For everyone else, fragments of or the most symbolically important aspects of a faith's text may be available in some form. A Christian clan will treasure its hand-carved Ten Commandments much as a medieval church might treasure its one Bible, even if like the Bible, most of the clan cannot actually read the words in it.

For most of the campaign region, the most common pre-Ruin religion is Christianity, with pockets of other faiths in isolated clans here and there. The post-Ruin form of Christianity believes in a non-tangible soul that is immune to the eaters, and which endures until the end of time. Some believe that souls are reborn (reincarnation), and so it is not what you know that is important, but instead what you are, for only your essence is reborn. When the soul has become sufficiently pure, the soul and the personality ascend to paradise. Souls which are corrupted beyond redemption descend into the bowels of the Earth to face eternal torment of darkness and eaters that consume you forever. Of course, achieving purity of soul requires adhering to certain beliefs and codes of behavior, which differ from sect to sect, differences which sometimes lead to conflict.

Christians are a minority of the population overall, but have local majorities here and there. Towns may have christian scholars or preachers, but seldom does any one belief have an ethical chokehold on the larger population in a town. The majority of the religious population in the campaign region would be best described as Gaeans. They too believe in an intangible soul, but one which is spread among all similar life forms upon the death of the individual. To be with family or friends on your passing is to give all that remains of who you are to those whom you care about. And through them, part of you lives forever, as the part of you that lives in them will be passed on in turn. The worst fear of a Gaean is that of dying alone, for then their soul will dissipate without suitable vessels to receive its energy. Since Gaeans feel that some of the nature of the dead person passes on to those nearby, Gaeans do not like to kill other people, and in the event that a civil or criminal judgement requires the death penalty, executions are carried out by methods that result in a death far from those who caused it (like being tossed off a very high cliff).

Gaeans and Christians generally get along, but sects can have beliefs incompatible enough to prevent peaceful co-existence.

Last are the machine cultists. They may be Gaeans, Christians, agnostics or atheists, but they share a belief that mankind must eventually return to the Machine Age, for men's destiny and immortality lie in the heavens, not in redemption on Earth. Since the overall belief is that the Age of Machines was populated by soft men who tampered with forces beyond their ken and brought about the Age of Ruin with their folly, those who would seek to return to this age are not wellreceived.

Age of Ruin

Machinists, as they are known, try to find, spread and if possible, experiment with knowledge from the Machine Age. From revered but unattainable "e=mc²" to the mundane but occasionally useful "d=1/2at²", they seek to quantify and understand the world around them, rather than counting coup or telling tales. They are somewhere between alchemists and followers of a cargo cult. Much of what they know they do not understand, but they preserve the knowledge just for its own sake.

Machinists are often would-be chemists, using glassware and toxic chemicals in their experiments, which usually revolve around destroying eaters, producing an alloy that resists them, or a coating that protects against them. Since a person's inherent nano provides protection, Machinists are often the most extreme of Shapers, turning parts of their bodies into experimental eater-free labs, sometimes with horrific results.

Other results achieved through Shaping are less horrific, but make Machinists feared in combat. Among their more closely guarded secrets are the ability to absorb metals into the body, and how to synthesize explosive compounds from their own biology. Machinists can turn parts of their body into genuine guns, strengthen their bones with steel, or as a last resort, become human bombs. These metals and chemicals are protected by their body's own nano, so as long as it is not exposed to the environment, it endures. While Machinists can do these things to make themselves fearsome warriors, they generally only do these things if they feel threatened. They would rather just do their research unimpeded.

The problem is that like the other religions, Machinists have different sects. And some sects place a different value on life than the others. If the eventual goal of humanity's salvation requires the sacrifice of a few experimental subjects, that may be considered a worthwhile tradeoff. Similarly, there are some Machinists who think that with the proper Shaping techniques and the right "raw materials", they may be able to cheat death entirely, which will give them an unlimited amount of time for their other research. Machinists such as these are a minority of an already small religion, but they are largely the ones responsible for the public fear and hatred of Machinists in general. Machinists are more likely than most to be shamans, who are already keepers of much of a clan's knowledge. A shaman's facility with farspeaking also helps them spread information and operate clandestinely.

Technology - Aside from anything done by Shaping, **Age of Ruin** is largely a Stone Age culture with a very limited ability to make a few high-tech objects. Most durable objects are made from solid rock, which limits their size. Stone knives and hand axes are common, as are blades made of Machine Age glass shards. Pottery is well-developed. Glassmaking and ceramics are known, but is extremely difficult because of the difficulty of melting it. A charcoal-fired blast furnace can barely generate enough heat, and it takes a ton of charcoal to make a hundred kilograms of glass or a smaller amount of high-strength ceramic (depending on its composition).

Most worked glass comes from the megatons of shards left over from the Age of Machines. Finding usable bits and sometimes even intact panes is just a matter of going into the ruins of an old city and digging into the nearest mound. Even sets of residential or laboratory glassware are not especially rare, and virtually every clan has a decent set of glass cookware so they don't have to lug stone pots around.

Machine Age ceramics in useful forms are significantly rarer. A ceramic knife blade or pair of ceramic scissors is worth the same as a a herd animal, and a ceramic firearm is worth several, but ceramic leftovers like spark plug insulators are common bits of ornamentation and only particular rare colors or shapes are valuable (there are people who will collect anything).

The next most common material left from the Age of Machines is fluorocarbon-based plastics. A few formulations are vulnerable to the carbonloving eater species, but many are unaffected, particularly the highly inert ones used for storing reactive chemicals or pure water storage. Among the surviving fluorocarbon plastics are several varieties. Some can be remelted and molded into new shapes, others cannot. The ones that cannot be reworked are valued mainly as lightweight water storage containers, either for personal use as canteens, or for a clan to carry water from a spring or well to somewhere else. Otherwise unusable small fragments can be cut up and used as a form of scale armor. There is fluorocarbon plastic cloth, and while it is guite scarce, there are even fluorocarbon resins that can be used with the cloth or glass fiber cloth to make armor, tool handles or quite powerful bows and crossbows.

One of the more useful materials that remains is running out, because it is not as permanent as the others. This is fiberglass. Most of the more advanced composites contain a large enough fraction of carbon that eaters have weakened them to the point of unusability, and some of what we call fiberglass is actually a resin that can be attacked by eaters. However, pure glass fibers are immune to eater depredations. Many of the resins used to bind them into solid forms were not immune, so the fiberglass that remains is in fabric form. It is stripped from old building insulation and woven into cloth, existing cloth is used, it is made into rope or otherwise used in place of cotton, nylon or other fabrics. Often, bundles of unwoven fibers will be soaked in a material vulnerable to hydrocarbon eaters, and then rolled or pressed into a thick waterproof fabric as the hydrocarbon eaters consume most of the "fuel" and leave behind a binding waxy residue. The slight protection that a person's nano gives them is enough to keep any loose fiber ends from causing skin irritation. In Age of Ruin, fiberglass is not a renewable resource. It is now scarce enough that it is hoarded or rationed, and would have about the same value to a person as high quality silk would today. The current glassmaking industry is capable of making new fiberglass, but it still costs significantly more than the labor required to scavenge Machine Age material. So, fiberglass will never run out, but it will eventually stabilize in price once it become scarce enough for people to profit by making it again.

The last of the materials commonly used is asbestos, which is also called rock wool. Asbestos is a naturally occurring fibrous mineral, and while long term exposure to its fibers will cause lung damage, this seldom happens in **Age of Ruin**, if for no other reason than the shorter life spans from other causes tend to make it irrelevant. Also, the generally outdoor nature of life in **Age of Ruin** tends towards better ventilation of areas used by those working with it. Asbestos does not have the tensile strength of fiberglass or other Machine Age synthetics, but asbestos is readily available as either a local resource or something traded between tribes. The nature of the various types of eaters also has some unusual ramifications for weapons, and the timetable of the Ruin itself has some side effects that relate to Machine Age technology.

Guns & such: Primitive black powder is a carbon-based mixture. Carbon-eaters would tend to mess up the composition in various ways by slowly decomposing potassium nitrate (stealing its oxygen), but you can still store a fresh batch of corned black powder in a sealed container for weeks to months, depending on how well it was made and the temperature it is stored at (colder is better).

Other explosive compounds can be synthesized with varying amounts of difficulty. In particular, explosive nitrogen compounds without carbon or oxygen molecules, or which use eater-proof mercury are possible. Most of these involve toxic materials like chlorine, or persistent health hazards like mercury, and many of the compounds thus produced will explode if even touched by contaminants or subjected to sharp shocks, but they are stable in the long term if stored properly.

This and advanced ceramics make firearms possible, but uncommon and expensive. These have lower damages and larger bores than Machine Age firearms, but they are still quite deadly. Unless of course you are protected by some Gift, shaping ability or ceramic armor. Most firearms will be cartridge-based, to keep the contents safe from eaters and contamination, and because working ceramics is so devilishly hard, the actions are fairly simple. Usually, breech loading single shot weapons, or in the case of pistols, 1-, 2or 4-barrel weapons. Anyway, to put it into some perspective, the manufacture of a small batch of six or so firearms and ammunition involves:

Weapon

A high-temperature blast furnace A ton of fuel A supply of prepared raw material High temperature molds A primitive ceramic lathe or milling machine

Ammunition

At least two chemistry labs Plastic cartridges and ceramic bullets A supply of prepared raw material

In addition to the capital cost of the facilities, it also requires three skills (glassworker, science and toolmaker) at +2d or better, plus a source for the various raw materials and the labor to collect them (fuel, mercury, chlorine, etc.).

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Given the nature of the world, this combination of resources and skills is only likely in a town on a coast (or major river) near a major ruined city. This limits firearms manufacture to a handful of places in the known world, and prices are in sync with the scarcity and labor involved in making them.

Very primitive gunpowder weapons and bombs are well within the tech and means of individual clans. The black powder might only be good for a few weeks, but a pottery bomb with a fuze is easy enough, and a cannon can be made of a hollow log, and since it will probably blow up before the carbon-eaters get to it, it doesn't matter that it will be gone in a week.

Sealed tech: Contrary to the implication in most oral legends, the Ruin did not happen extremely fast. The major industrial countries were able to make preparations for the worst-case scenario that was survivable. Among these preparations were the sealing of important documents under glass, protection of priceless cultural artworks, and the manufacture of items like radios, radiation counters, medical diagnostic tools and other useful gadgets, completely sealed in glass, plastic or ceramic casings, often with solar power cells under glass or plastic protection. With no moving parts and completely sealed from the outside, these are immune to eaters and have nothing to wear out.

These were never common to begin with, and have only gotten rarer. Accidental damage or loss, malfunction due to nearby lightning strikes, hidden by someone who died before revealing its location, and all the other perils of a hostile century have thinned their numbers considerably. Very few individuals can lay claim to sole ownership of one of these devices, and price would be whatever the market would bear. One out of a dozen clans might have some useful item, and most towns will have a Machine Age gadget of some kind.

In the first generation after the Ruin, weapon caches were available, Machine Age rifles and ammunition hoarded away for emergency use, especially by the agrifort garrisons. The known caches were used up in the hard times after the Ruin, but it is certain that some were lost without being opened. These would be an extremely valuable find for anyone, and any number of groups interested in violence or Machine Age technology would give their eyeteeth to get a hold of such a cache.

The problem is that in the current eater-rich environment, even these plastic-treated Machine Age weapons would not last more than a week or two past their first use before being chewed into inoperability, and thence to metallic powder that would scatter away on the wind.

Similarly, there are certainly sealed containers out there with books, family heirlooms and false teeth just waiting to be found and opened. Whether the contents survive more than a day or two past the opening is another matter.

Sealed information: There is more sealed information available from the Age of Machines than there are people who can understand it. Without the ability to apply it, much of the surviving scientific knowledge is next to useless, at least for now. Other information, like the United States Constitution, may be a priceless cultural heritage, but is of little practical use. Items that are copied, either onto stone, scratched onto plastic sheets or clay tablets or even memorized, are works of a practical nature. Medical information, farming techniques, old road maps, things like that.

The more esoteric and to the average person, useless, recorded information usually falls into the hands of Machinists, who hoard it like treasure even if they cannot understand it. The greatest shrine and repository of sealed information from the Age of Machines was the Vault of the Ages, inside the crumbling faces of Mount Rushmore. The porcelain copies of hundreds of important books and documents were scattered to the four winds over a generation ago because of a well-meaning but misguided group of anti-Machinist crusaders. Machinists, warned by persons still unknown, took what they could and hid the rest, leaving the crusaders just enough to think they had succeeded in wiping out an archive of evil knowledge.

Not everyone feels this way about information preserved from the Age of Machines, certainly not anyone whose life has been saved because of basic medical texts. However, the evil actions of some Machinists have given an permanent taint to any information from the past whose nature is not readily understood or applied to the post-Ruin world.

Medicine - There is no real medical technology more sophisticated than obsidian scalpels, stone needles and fiberoptic sutures. This does not make shamans ignorant of sound medicine, it just severely limits their ability to practice it. Medical implements are routinely sterilized by heat or with mild acids, penicillin-like mold cultures are used to help fight infections, and medicinal herb gardens are common. There is no penalty or bonus to Health based on the "tech" of medical care in Age of Ruin. A few towns here and there are known for having better than average doctors, and may even have rare Machine Age diagnostic tools like blood oxygen sensors, infrared thermometers and the like, which can give them a slight but significant bonus in treating critically ill or injured patients.

In addition to the rudimentary but sound conventional care a shaman can provide, some types of Shaping can help regenerate damaged tissue. Details on this are in a later chapter.

Homes - Caves are back in fashion, though there are never enough good ones to go around, and not all areas have them. With the inability to use wood as a structural material, permanent structures fall into two types: Stone and living. Stone structures are just that, barrel vaults of tediously chiseled blocks (often limestone). To make the more vertical joints in the arch watertight, most structures use scavenged glass as shingles, which is held in place by an insulating layer of earth. This provides a dwelling that is cool in the summer and provides protection from the elements if the winter climate is survivable without fire.

If at all possible, homes have exposed southern facings to let in light, and if a clan's resources allow, they may even have solar concentrators or other passive heating methods to increase the inside temperature in the winter. In good weather, doors and windows are left open. In winter, glass panels, translucent stone, or fiberglass or asbestos curtains are used to keep out the cold air.

Note - Very, very few areas have sufficient fuel resources that they can afford to heat a structure through a long, cold winter. A small cooking fire may be kept going, but in general, people bundle up and rely on lots of body heat to keep a structure warm. This limits the northward expansion of clans to south of the Great Lakes and areas outside the lake effect snow belt. However, there may be unaligned clans surviving in this region. For instance, British Columbia has a number of hot springs that allow year-round living in otherwise inhospitable areas. Remember that these areas are *not* too cold to survive in, but that it just too much work to maintain even **Age of Ruin** civilization there. Typically, an entire clan will live in several such structures, with another vault or two used for herd animals. There may be a few stone walls as interior partitions for the higher status members of a family or clan, but most areas would be divided only by curtains. Most vaults have a floor slightly below ground level, and will have a small stone watchtower that extends to several meters above the top of the vault. If possible, a house will be built so that one end is near a downhill slope, and that end of the home has any sanitary facilities or areas that need water drainage. Effluent typically goes into a homemade gravel septic field, but may be piped directly into a stream or river, downstream of the clan's water supply.

There are plenty or ruined urban areas and their leftover building materials available. Cement slabs, cinderblocks, bricks and such. The problem for most new buildings is the roof. There are no commonly available materials to make long roof beams with. While it is easy enough to make vertical walls to enclose an area, protecting the enclosure from the rain without the ability to make roof trusses or large open spans is quite difficult. Where vertical walls can be used, such as the ends of a vault, Machine Age raw materials save a lot of time. If sufficient manpower is available, multi-ton cement slabs can be made into A-frame structures, or with sufficient planning, used as walls and roof slabs for earth-bermed dwellings. This would normally require the effort of more than one clan to move and position the massive slabs, which incurs a debt of reciprocity to help out the other clan in a similar endeavor.

In tropical or subtropical climes, some clans have become arboreal, creating homes of living wood and leaves and vines. There are obvious limits to this type of architecture, but it works for some. Others stay on the ground, but fashion trees into arched canopies that provide useful shelter. People will find the best means of shelter available for their climate and geography. Areas outside the main campaign region may have their own unique solutions, and even within the campaign area, there may be isolated places where a clan has found a niche by coming up with a unique solution to living in a difficult place.

Age of Ruin

Environment - Changes to the world in **Age of Ruin** are not all due to the direct effects of the eaters. Some of the most important changes are indirect effects.

Climate: The world has changed a little bit since the early 21st century. In particular, the addition of billions of tons of nanotech to the environment has generated more than enough waste heat to make up for the destruction of Earth's industrial infrastructure. Global warming is a fact of life. Sea levels have risen enough to flood the low-lying areas of what used to be coastal cities, in some cases turning them into moundshaped islands within swimming distance of the new coastline. The combination of reduced heat tolerance and increased temperature makes most equatorial regions uninhabitable. However, exceptions exist for coastal areas, where off-shore breezes and a ready supply of cool water make things bearable. Also, some clans have Shaped themselves physical modifications to deal with the increased heat. This may reduce their ability to do other Shapings, but living in an otherwise deserted region makes it less likely they will have to engage in violence to defend their territory. Also remember that it is possible for people to Shape themselves modifications that allow an aquatic existence, and such clans really only need the shore as a place to rear their young until they learn enough of Shaping to take their place in the sea.

The increase in temperatures has made the northern areas more habitable than before, but this is offset by the reduced productivity of the land and the increased difficulty of making warm clothing (you can't just use animal hides anymore). As a result, areas that were even in primitive times survivable year-round, are now only seasonally accessible. With a few exceptions, the southern side of the Great Lakes is the limit to civilization's northern expansion. For using the **Age of Ruin** background elsewhere, you need to decide if the Gulf Stream and the Global Conveyor current have been disrupted. Both of these will have major climate effects.

Ecosystems: If there had been anything left to bury, future geologists would see the Ruin as a major extinction event. Some ecological niches were savaged to the point it will take millions of years of evolution to fill the gaps, but life as a whole continues, just as it did after Earth's other major extinctions. Despite the fact that humans and countless other species did survive, the nature of protective nano was not sufficient for many others. For instance, birds are largely gone. While protector nano keeps the bird alive in the presence of carbon-eaters, it cannot protect more than the stubble of feathers, rendering birds flightless and without most of their insulation against the cold. The only birds that remain are scruffy, plucked-looking domestic fowl, and they survive only because humans give them protection from predators and climate extremes. Bats and bugs rule the skies, though reptiles will eventually adapt themselves to fit this open niche. Chickens and other fowl serve as food, sometimes as watch animals (many species sound an alarm call when they spot strangers), and pest control for gardens (they love bugs).

Most insects survived the Ruin, though some did not, mainly due to vagaries in the nature of their chitinous shells. Most mammals survived as well, though many are endangered for one reason or the other.

In the oceans, carbon-eaters work more slowly, but even so, many species that relied on thick calcium carbonate shells did not make it, or are now endangered and thin-shelled versions of their former selves. Corals and mollusks suffered serious species losses, aggravated by rising sea levels, water temperature changes and other long-term side effects of the Ruin. However, some corals adopted protective algae. Combined with warmer ocean temperatures, these adapted corals have managed to colonize shallow waters as far north as Manhattan. Algae, plankton and diatoms were unaffected, and most ocean-dwelling mammals survived quite well. Maybe even better, since after the initial population drop, they no longer had to fear losses at the hand of man.

Many reptile species went extinct in the Ruin (again). The minority of live-birth species managed without any problem. Those that laid nests of unattended eggs disappeared within a generation. Without a mother to shed protector nano over the eggs, they were fairly quickly consumed or used up their own energy reserves long before hatching. A few species like alligators simply lucked out. By using natural compost to keep their eggs warm, they surrounded their eggs with something living that shed protector nano, and to some extent competed for the oxygen in the immediate area. Most of the other egg-laying reptiles were not so lucky. Unfortunately for adventurers, most of the poisonous snakes in the campaign region are the live-birth types.

Plants, the source of oxygen for life on Earth, suffered to varying degrees. Protector nano is an energy load on an already slow-growing lifeform. All forms of plant life now grow slower than they used to. Those that used to survive in marginal habitats can no longer do so, rendering these areas completely barren. Crop yields are lower, fruit is smaller and in lesser quantity and so on. Plant reproduction is also a problem. Seeds that take a long time to germinate will not do so. They will run out of energy feeding their protector nano, and then get consumed by carbon-eaters. In the last days before the Ruin, some key species were genetically engineered with larger food reserves, and in a few cases, plants were engineered with symbiotic bacteria that form a protective living covering over seed pods. But this was only for a handful of plants that were expected to be of significant use in a post-Ruin environment.

Apples, oranges and a few other fruits were deemed important enough as food sources to warrant this last-ditch effort. Oak, walnut, maple and pine were also given some sort of protection, on the incorrect assumption that people would find a way to keep wood intact in the presence of carbon-eaters, and each of these trees has both food and construction uses. While the use as anything but charcoal did not pan out, these trees are a source for acorns, walnuts, maple syrup and to a very small extent, piñion nuts. Some of the other hardwood species reproduce very slowly, if at all, and if useful to a clan, are kept alive mainly through transplanting live cuttings.

On the other hand, plants that can reproduce through shoots or runners gladly occupied the niches left vacant by the plants that couldn't handle the stress. The first few years after the Ruin left many once-fertile areas looking like wastelands, with only isolated pockets of surviving plants and animals. Those species that did survive quickly spread back into these open regions, often assisted by people who had enough foresight to see their children's need for these useful species.

The biosphere as you imagine it is still there, it is just less complex than before. Just as a sub-Arctic biome has less diversity than a temperate one, and a temperate one less than a tropical one, so the post-Ruin world has less than the pre-Ruin world.

What about the people? People obviously managed, albeit with some difficulty. Protector nano near the skin tends to raise body temperature, which the body naturally compensates for through increased sweating and so on. However, it does making living in hot climates more of a problem. For various biological reasons, it also means that more children are conceived in cooler months than warmer ones. On the other hand, the difficulty in procuring useful clothing in the first few years meant that having an increased heat output a useful feature when winter came. People can manage without insulating clothing at temperatures several degrees less than they could before the Ruin.

Savakha

Strength: 2d+1 Awareness: 2d+2 Agility: 2d+2 Will: 2d+1 Health: 2d+1 Fate: 1d+2

Crossbow: +1d Lore: +0d Literacy: +0d Shaman: +0d Scrounging: +1d Toolmaking: +2d



Savahka is a widow. Scarred from the beast attack that killed her husband, her convalescence was long and changed her outlook on life. She spent several years exploring the path her life should take, and finally settled on being a maker of things. She specializes in the making of crossbows, but her talents have caught the attention of artisans in a distant town, who have offered her a position in their small gun-making operation. She *likes* weapons that can kill beasts at range, and is considering the offer seriously enough to make the trip and visit the operation first-hand. Her clan is understandably concerned about the possible loss of her talents, and is trying to find an incentive for her to stay.

Age of Ruin

Culture - The ethos of the **Age of Ruin** is about honor and legacy. What any given tribe or clan considers honorable will vary, but they share the common trait of doing things and living in such a way to promote the survival of your family, tribe and clan, to leave a legacy of deeds and family that perpetuate your line, your name and your memory. Just a variation of the "duty, honor, country", or "mom, America and apple pie" that people have been doing as long as there have been people.

Remember that aside from stone carvings, there are few permanent records in the **Age of Ruin**. If you are dishonorable, your stories are not told, children are not named after you, and in one or two generations you are completely lost to the records of your people.

A child is expected to know the names and deeds of everyone in their extended family, an oral tradition for their family. In addition, one knows the deeds and names of the most famous tribe or clan members, living and dead. By the time one is an adult, one will know the various tribal signs, and most of the clan signs for the region you grew up in, and if you are literate, it probably something you learned on the way to adulthood.

Most adults, including adventurers, will be married, pair-bonded or will have been so in their past but are now widowed or widowers. Players who are used to their adventurers being free from this entanglement will have to take into account that they may have a wife, husband or children at home. But, the Age of Ruin is not that safe a place. It is quite possible that your loved ones have perished, due to disease, accident or violence. Your current marital status and the reasons how and why you are in your current state are important parts of an adventurer's background.

Anyone, male or female, who is unattached and considered a decent catch will find they get more than their share of attention from eligible members of the (usually) opposite sex. Social mores regarding sexual relations between individuals of bonded or unbonded status will vary with clan, tribe and religion. Casual dalliances may be expected, tolerated or considered blood-debt/ shotgun wedding offenses. Get a feel for the local situation before you get too frisky with a stranger...

Most clan groups in **Age of Ruin** live in a way comparable to Amerindian or Irish Celtic societies. For instance, a clan may have a home territory, but within that territory, may have several "homes", based on their proximity to food sources at different times of the year. Food animals are both a source of wealth and sustenance, and prized animals or possessions of real or symbolic importance often change hands under dubious circumstances, aka cattle rustling. What one clan steals, another has to steal back, usually with interest.

Between clans, there is usually not a lot of outright warfare. It is seen as better to humiliate an enemy or put him in your debt than to kill him. This is "counting coup", which is another way of saying "you've been served!".

Life is a little more structured and boundaries more defined in towns. The larger number of people means that rules have to be a little more clear-cut, and offenses dealt with a little more severely in order to maintain social cohesion. Clansfolk find town life and rules a little confining, while townsfolk find clan rules distressingly vague. Both are right, and wrong. Each type of life is both strict and empowering, just in different ways.

Regardless of where you live, news travels fast, often faster than people do. Because there are farspeakers, it is very hard for someone to outrun their reputation. In the news, people see threats and opportunities, which often means travel. Travel is also a way for clan elders to temporarily get rid of mischief-makers (i.e. adventurers) who are causing friction between clans with their antics. Another travel possibility is that some clans send their young adults out on "quests", which are generic tests of resourcefulness. The quester is sent to do a specific task, recover a specific resource, deliver a message or is otherwise given an excuse to travel far from home and get some real-world experience.

Note - An interesting starting group of adventurers would be a group of young adults, possibly troublemaking friends from neighboring clans, sent on their adulthood quest together. All the adventurers would start at the top end of the "young adult" age range (15 years old), and would get the extra points for "adult" age to spend on their adventurers when they complete their quest, in addition to any experience gained along the way. Adventure possibilities take many forms, which as always are determined by the style of the gamemaster and the desires of the players. But, it is a wide, dangerous and to most people, unknown world out there, and there is possibility for adventure in even the most mundane-seeming of encounters.

Taboos - Most tribes or clans will have taboos of various kinds. Some are simply prohibitions learned from long and painful experience, while others may have resulted from one particular event, or are simply common sense made into law ("don't eat yellow snow"). One thing that is certainly not taboo in Age of Ruin is nudity. For many tribes, clothing of any type is a luxury item, not a necessity. While covering parts of your body with cloth for protection or ornamentation is common (most people have at least a few loincloths or gourdholsters to their name), going without any clothing at all is not even worth commenting on. One of the passages on the road to adulthood is getting your first loincloth (others include knapping your first knife, making your first kill on a hunt, and losing your virginity). Simple exposure of flesh is not seen as sexually tittilating. Similarly, while most people prefer privacy for intimacy, this is usually only visual privacy, since many homes are partitioned only by curtains. Children learn the facts of life at an early age, and only especially loud performances are worth commenting on. Now to taboos.

Body integrity: Most tribes consider any form of body piercing or scarification to be an utterly unacceptable risk (opening the body to eaters), and prohibit it. Tattoos are on the edge, but it is a form of enduring personal ornamentation and often a statement of tribal affiliation, and is usually allowed, though not encouraged. Those who get piercings anyway are seen as "rebels", and while it may give you extra social credit with other rebels, the chance of a fantastically tattooed person ever being a clan elder or shaman is about the same as someone with skull spikes becoming president of the United States.

Inbreeding: All clans "marry out". Brides or grooms are always taken from the bloodlines outside your own extended family. Sometimes brides (or grooms!) are kidnapped in raids, but it is still the decision of the kidnappee as to whether they choose to accept this form of "marriage proposal". That is, overcoming large amounts of security to kidnap someone, and then escaping with a struggling captive back to friendly territory is an indication that the kidnapper is capable of taking care of themselves and those they care about. They might make a pretty good lifemate... So-called "abduction" is also used with distressing frequency to get around parental prohibitions on who can marry whom ("But Father, he kidnapped and seduced me. I've got to marry him now...").

Much of the time, women choose men. Being a good provider is important, but personality, looks and all the other intangibles of falling in love are important. A woman can choose not to conceive as a use of Shaping (or increase the chance of conception if she so chooses). Casual sex between unmated individuals varies in prevalence with region, with the usual potential for friction, jealousy and disapproval of parents.

In towns, traditional rules about marrying within the same family will apply, and the normal limit is something like second or third cousins. While a town may be cosmopolitan in **Age of Ruin** terms, the individual families are still very much members of a clan or tribe. Individual family lineage and current tribal or clan relations are still important. Everyone knows their family line and who is related to whom and to what extent. This does not prevent the occasional and tragic "Romeo & Juliet" romances, but normally, family and peer pressure nips these in the bud before they become a problem.

Sexual permission: Unwanted sexual advances are a great social faux pas. There is a large and mostly unspoken language of attraction, certain words, ways of speaking or moving that do not expressly say anything, but which are universally known as suggesting what someone is interested in. We would call it flirting. In Age of Ruin, it is an unspoken but public statement of intent, something that any observer has no doubt about or error in interpreting. Doing this mating dance in public means there is very seldom a "he-said-she-said" situation, since everyone who sees the exchange knows exactly what is being "said". To go farther with someone than is mutually desired and publically displayed is a grave insult to the person and their entire family. This does not refer just to sexual assault. "Stealing a kiss" could be considered an insult to a clan if it was clear that this kiss was not desired.

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Debts - Honoring ones debts is essential to greasing the gears in **Age of Ruin**. So is accepting payment for debts owed. Wars have been fought because of those who through pride, ignorance or stupidity failed to do this. Of course, wars have also been fought because of those who *did* acknowledge and pay their debts. After all, what is a treaty but a mutual obligation? And when we speak of debts, we generally are not referring to money or its equivalent in barter. While goods can be used to pay some debts, most debts are a reciprocal social obligation.

In **Age of Ruin**, the most important debts a person will owe or be owed to are of a personal nature. If someone who is your enemy offers you the hospitality of being under his roof, and you accept, then you have taken on a debt. You are now obligated to accept that enemy under your roof, should they ask for such. If you spare a foe's life in battle, they owe you their life, or something of equal value.

EXAMPLE: Adventurers might go on a quest to get possession of something simply because it can be used to pay off a life-debt that someone else owes and would rather not. That is, Arton would like to kill Bayyt, but cannot do so (or order it to be done) because of an old life-debt. So, Arton has to find something that is of equal value to their own life, which Bayyt and their clan would accept. If Bayyt refuses the gift, then Arton can claim a grievous insult and repudiate the obligation. If Bayyt accepts payment of the life-debt, then Arton is freed from his obligation, and can legitimately pursue a course of action against Bayyt. Bayyt of course, is no fool. He sees what Arton is up to (but cannot prove it, since Arton is no fool either). Bayyt can, however, send his own people to interfere with the adventurers so that the item worthy of the lifedebt is never acquired in the first place...

As this example shows, debts do not require friendship, just civility. Someone can owe you their life, but still hate your guts.

There are debts that you can owe, and debts that you can impose. The most common debts are life-debt, blood-debt, gift-debt and shame-debt.

Life-debt we have already mentioned. A lifedebt can be paid in full by a year and a day of indentured servitude. If the person owed the debt asks it, it must be given. If the person who owes the debt offers it, and it is refused, then the debt is considered paid. There are several social limits on indentured servitude. The "owner" must feed, clothe and house the servant, poorly perhaps, but not so poorly that the servant falls into ill health. All things made and services done during the servitude belong to the owner; the servant leaves servitude with nothing more than they entered it with. An owner cannot command an indentured servant to do something that would violate a previous debt, the social mores of the servant's clan, or be against the servant's clan or tribe. Commands which are to do a deed sufficiently dangerous give the servant the right to ask for assistance from someone else in that clan. That is, you can't ask an indentured servant to do something that you could not ask of a member of your own clan.

EXAMPLE: If your owner commands you to bring back the Mad Bull of Cleveland (who killed the last three people sent to fetch him), then the servant has the rights to ask anyone in the clan (including their owner) to come along and assist them.

Indentured servitude may involve consensual sexual relations, but these cannot be *demanded* as part of the servitude.

Blood-debt is a nice way of saying revenge. If someone committed a serious offense on you or your clan without good reason (very important), then you pretty much get a "free hit". That is, you can do dirt back to them without any form of social stigma or retribution. The nature of the revenge cannot be more severe than the offense that warranted it. Blood-debt is not quite a "get out of jail free" card, but it is close.

EXAMPLE: If a guest got drunk and urinated on your stone religious carvings during the night, and wisely left before anyone else woke up, you have a blood-debt to claim with their clan. If you got caught red-handed slitting the throat of one of their prize animals, you could claim the blood-debt and they would be forced by social custom to let you go unpunished, the blood-debt having been paid and both sides now being "even". Many of the ongoing minor feuds between clans and tribes are because of cycles of blooddebt and disagreements on whether or not a debt has been paid, underpaid or overpaid.

A blood-debt can be *claimed* by anyone, but it can only be *validated* by an elder of the clan the offended person belongs to. If you do something in the way of revenge, claim it was blood-debt, and your clan elder or elders don't back you up, you're in trouble, both with those you acted against, and your own clan for getting them in hot water with their neighbors.

Gift-debt is basic reciprocity. If you offer hospitality to a guest, then they owe you something in return. This could be hospitality should you visit them, it could be gifts of goods, or even offering to spend a day or so with the host helping them out, earning your keep. Only clans who are nit-picky keep track of hospitality debts. Gifts of significant goods or services are usually kept track of. If a neighboring clan has their homes destroyed by a flood or tornado, and your clan gives medical aid and spends a lot of time helping them rebuild, then that clan owes yours a large gift-debt.

Shame-debt is unique in that it is imposed on someone and cannot be paid back to the one who imposed it. This is because it requires the death of the person imposing it. If you were drowning, and your worst enemy offered you their hand, if you accepted it, then you would owe them a life-debt. If you refused it (in front of witnesess), and drowned as a result, then you have shamed your enemy. That person may have been a bastard, but by publically shaming them at the cost of your life, then it gives anyone and everyone the right to speak ill of that person without them being able to claim offense or blood-debt. Speaking ill of the person is always done in the context of the way the shaming took place, like "I wouldn't take his hand if I were drowning", or "I wouldn't let him piss on me if I were on fire".

A shame-debt can only be nullified by the closest kin of the deceased agreeing that the debt has been paid. A shame-debt can be paid with a life-debt. If the next of kin owes you a life-debt, then you can demand nullification of the shame as payment instead of indentured servitude. Most social debts are of a personal nature, and cannot be traded to someone else like currency. You owe a debt to them (or vice versa), and third parties are not involved. Sometimes debts can be agreed to between clans or even tribes, like treaties, safe passage agreements, mutual hospitality and so on, and such debts have higher social priority than personal debts. So, even if your worst enemy knocks at your door, if he is from a clan that you have a mutual hospitality agreement with, then you have to suck it up, let your enemy in and hope he gets drunk and feels up your sister so you have a legitimate excuse to run him through.

Recreation - Life isn't all work and no play. There is song, dance, storytelling, horse races, bragging contests, tests of skill, tests of strength and a handful of board games. Chess exists in nearly unaltered form from the Age of Machines, as does Go, or just about any game that can be played with simply differentiated carved stone markers. Some of these games are actually tactical exercises, using symbolic maps of nearby territory and various unit types and special dice. Regular sixsided dice are also used in various games of chance, with bets riding on the outcome (of course).

Altered states: Beer and ale are actually possible to make, but not to age. Since the fermentation process involves living things, as long as it is going on, the end product is somewhat protected. As soon as it is is "ale", you better drink it, because eaters will have at the alcohol and carbohydrates in short order if you don't. The Kentuck have managed to distill and store somewhat more potent beverages, but these are considered luxury items due to the difficulty and expense, not something imbibed casually.

The preferred method of chemical recreation is from psychoactive plant compounds. There are not a lot of chemical abusers in **Age of Ruin**, but getting a mild buzz on is socially accepted once the day's work is done.

Some types of Shaping seem to be made easier if the psyche is loosened with the aid of chemicals. This is often the case in extreme changes of physical form, where mood-altering chemicals both help the Shaper access a different level of consciousness, and help them imagine themselves as something else. Dosages are extremely important in such cases, and are usually supervised by a shaman, who takes on the role of both physician and spirit guide for the person attempting such a Shaping.

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Currency - There is no standard of currency in **Age of Ruin**. Transactions are mostly done in terms of barter, what I have that you need in exchange for what you have that I need. The gear list has prices in Credits as a matter of convenience, but all exchanges are subject to haggling. Some players and gamemasters can use this as a means of socializing or gaining information, while others do not want to role-play it out and would rather just treat it like a fixed price money transaction. Do whatever works best for you.

When material goods fail, social obligations are also usable as a form of exchange. You could trade a week's hospitality for members of a given tribe (if you had the authority to offer it), or you could offer your own labor or skills. For instance, if someone offers you hospitality and you do not wish to be indebted to them for it, you might offer to go out on the next day's hunt and repay the hospitality by helping to provide food for your hosts.

There are some items, mostly of a utility or vanity nature, which are small enough and useful enough to be a sort of coinage. Stone needles, ornamental ceramic beads, magnifying lenses, spools of fiberglass thread, small glass jars of sea salt and such are the equivalent of small denomination bills, something useful enough for minor purchases, but not enough to cover any significant debt. You could buy a meal at a restaurant or pay for a hotel with five dollar bills, but it would take a lot of fives to buy a nice gun or a car.

Remember that while incomes are greatly depressed (a professional level of skill is worth about 2 Credits for a day's work), prices for some easily acquired things like food are also very low (since everyone has a +0d Scavenging skill roll). What would be considered "manufactured goods" are what will be costly, and generally cost about double the labor and materials involved. This doubles again for a week of travel time between a limited source and the destination, and each time this travel is doubled.

EXAMPLE: If Kentuck liquor costs the equivalent of 2 Credits at the source, it costs 4 Credits a week's journey from the distillery, and 8 Credits two week's journey from the distillery.

Merchants, many times wandering Cheyenne clans, pay for the hospitality given them with goods acquired elsewhere.

Traditions - Among the traditions common to most clans is a yearly, or in some areas, seasonal moot, or meeting. This is sort of a cross between a legislative session and a county or state fair. Clans will pretty much take a week off from normal life, pack enough food to last a few days, bring along a few animals to eat, and hike a day or two to a clanhome or town somewhere central to several clans, preferably one with abundant natural resources like fish or fruit in season. Problems are discussed among elders, goods are traded, debts are paid, people meet and sometimes leave with a different clan than they came with, there are games of skill, contests of craft and bragging rights to be claimed. Common events where significant prizes to be had are:

Wrestling: A "pin the other person so they can't escape" deal, usually done as a single-elimination ladder match, though the top four contenders often wrestle one another, and the one with the most wins gets the title. With this comes some degree of recognition, a very limited level of Status that lasts as long as you hold the title, though holding it three years in a row may be enough to get you a permanent level of limited Status. Other prizes will add up to a hundred credits or so of manufactured goods (base price, not adjusted for import distance).

Craft: There are contests for the finest examples of clothing, armor, weapons, and anything that is a craft specialty in a region, like moonshine for the Kentuck, glassware for the Manhattan, or preserved foods for the Ohio. The same item is generally not allowed to win more than once. Similar awards of Status apply here, and prizes are generally goods, raw materials or tools appropriate to that craft.

Lore: Tales are told and retold, embellished and deconstructed. Loreweavers are judged on their memory, quality of voice and a number of other aspects. This is by popular acclaim, with different colored pebbles used to vote on the quality of each performer. The winner gains a limited award of Status, and the prize is generally an award of guest-right to the loreweaver and one guest with any clan in that region, anytime during that year.

Performance: Any sort of non-lore form of entertainment, typically dance or singing, but it could also be ventriloquism or sheep-juggling. It is voted on as for lore. Victory has similar rewards, but the performer is expected to teach their craft if they stay somewhere for an extended period.

NANOTECH - From the Greek "nanos" (dwarf) and "technologia" (systematic treatment of an art). The term was coined in 1986 by K. Eric Drexler in the book Engines of Creation, but the concept was first explored by Richard Feynman in 1959. The first experiments that directly manipulated individual atoms took place in 1990 (spelling "IBM" by using individual atoms like a dot-matrix display). The idea of nanotech has recently gotten a fair amount of publicity and research dollars. However, most current nanotech efforts are more accurately described as micro-manufacturing techniques. These might be precursors to what most people think of as nanotech, but are a long way from nanotech as a self-replicating "life form" (which is may be a good thing). What we call nanotech in Age of Ruin is probably somewhere between the two in terms of its size and effects, but it probably relied on the ability to directly manipulate atoms and molecules to construct the prototypes from which the Age of Ruin nanotech derived.

Disclaimer: Nanotech, its nature and its effects are at the heart of **Age of Ruin**. Some games might just wave their hands at the concept and use it to make fantastical conjectures and generate very implausible results. While **Age of Ruin** may be no less fantastical and implausible, we are least going to look at it in detail and try to make it as consistent and realistic as possible within the limits imposed by the concept.

While we can make many suppositions about nanotech, work out the thermodynamics and such, until we actually make (or find we cannot make) a microsize self-powered self-replicating machine, we really won't know how well they'll work, whether they can mutate, how hard they would be to stop, and all the variables that are already assumed from the beginning of this book.

So, please don't sweat the small stuff (no pun intended). Nano is the backdrop, the cause and maybe even the solution, but the real-world mechanics are not needed for the game. Just assume that what we say works, actually does. It's like warp drive in a starship. We have no idea how it actually works, but we can make up rules for it that will drive the nature of interstellar conflict and commerce, and you can still have an adventurer who is a "warp systems engineer". Warp drives are a "black box" that the gamemaster can use to help create adventures. Nano is just a bunch of *really* tiny black boxes. *End of disclaimer*. There are two classes of nano in **Age of Ruin**, eaters and protectors. Eaters are specific to a class of materials, and simply act to replicate themselves, using that class of material for the raw materials of the next generation. Protectors are larger and much more sophisticated. They exist in a handful of classes, specific to a particular type of biology. While eaters can exist anywhere in the environment, protectors can only survive and thrive inside the specific environment provided by a living host.

Eaters: For all practical purposes, eaters are electromechanical bacteria, both in the way they act and their size. Eater nano is several sub-species that co-exist and do not usually interact with each other, though they can overlap in terms of that they "eat". Eater nano can subsist on metals, fuels or any organic material, living or dead. Eater nano does not usually affect stone, ceramics, glass, anything made entirely of these materials, or things that would normally be "eater food", but which are too tightly chemically bound for eaters to pry loose the materials they need. So, window glass, pottery, ceramic knives or electrical insulators, glass-based fiberoptic cables, asbestos cloth, cement and similar items were not and are not consumed by eater nano.

Eater nano also requires an energy source. Normally, this is sunlight or warmth, but chemical energy in the environment can also suffice. Extreme heat will kill eater nano, as will corrosives. Cold and/or dark will slow it down, but not stop it.

Eater nano does not seek out food sources, it just takes advantage of what it finds. Think of it like mushroom spores. If they land in a suitable area, you get mushrooms, which generate more spores. If they do not land in a suitable area, they lay dormant until conditions become suitable or they are eventually degraded to nothing by the environment. No matter how many times you clean the mildew out of your shower, it keeps coming back. Eater nano is much the same. If you present something that a form of eaters can use, eaters will eventually find it. And by "eventually", we usually mean within hours to days, depending on the type of eater and the local environment.

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Carbon-eaters: Eater nano is usually one of three types. The one that people and other life forms have to worry about is the carbon-philic type. These eaters use carbon to make molecular structures for their bodies, and draw energy from reacting carbon with atmospheric oxygen or to a lesser extent the oxygen in water or that loosely bonded in chemical compounds, and are hindered in anaerobic conditions. They are quite adept at disassembling loosely bonded carbon compounds, which includes most forms of life and a few of the lighter hydrocarbons. They cannot attack the structure of bone, but they can consume any organic material in or around it. These eaters clean the environment of organic debris to the extent that the normal biological processes have to fight over the scraps with the eaters, with a smaller number of the microscavengers than before. These eaters have also pretty much consumed the world's coal reserves (though note that carbon-eaters are themselves excellent fuel, and still sit in the former coal seams). Graphite, despite being "soft" is a fairly strong atomic structure, and diamonds are also rigidly bound. Both survive unaffected in Age of Ruin.

Important things to note about carbon-eaters are that they require oxygen in the atmosphere to power them. Anaerobic conditions do not kill them, but they do shut them down. An item in a sealed container will eventually stop being consumed, just like a candle in a sealed jar will eventually go out for lack of oxygen. Unlike the flame, the eaters will go back to work when you open the container. Water, especially stagnant water, will also slow or stop carbon-eaters. This means that the age-old method of pickling things in brine is still a viable means of preserving certain foods.

Carbon-eaters in quantity are something like the finest soot. They can be stirred up by the faintest breeze and can take hours to settle. While underground coal seams may have been consumed by carbon-eaters, the powdery carboneaters remain. Those whose protective nano is strong enough can easily mine these veins of almost pure carbon, wet it, mix it with a small amount of clay, press it into bricks and use it for fuel. It is not profitable enough to export, and mining it is dangerous work due to an often oxygendepleted atmosphere, the chance that inhaling large amounts of carbon-eaters could overwhelm a person's protector nano, and the usual hazards of working underground. As mentioned elsewhere, most people who need fuel simply use carboneaters in controlled circumstances to turn wood or other organic waste into charcoal. Using carboneaters to make high-quality charcoal is an example of how people in Age of Ruin have learned to make the most of a bad situation and use nano to their advantage.

Carbon-eaters and conventional microbes have a love/hate relationship. The microbes themselves are protected by their own nano, but when they die they are a food source for carboneaters. Deactivated carbon-eaters are ingested and consumed by microbes. At the same time, both the microbes and the carbon-eaters are competing for organic debris like leaves, fallen limbs, dead insects or animals and everything else. The constant turnover of organic and inorganic matter in the soil leaves a limited window for plants to absorb nutrients from the soil before they are consumed or converted by one source or another. Soils are generally poorer than in the Age of Machines, which people compensate for by using compost and mineral supplements, or farming in areas subject to seasonal floods that renew the soil. Many of the surviving plant species have adapted (or were engineered) to have colonies of symbiotic bacteria living on or in their roots. These uptake nutrients faster than the plant could, and the bacterial waste products become food for the plant.

Everywhere else, the overall decrease in plant species means more room for the survivors, who by natural selection have become the most efficient at getting nutrients from the soil and energy from the sun. While the original surviving plant species barely survived against carbon-eaters, current species manage handily, though with a slower growth rate and lower yields. Metal-eaters: Second are the metal-philic eaters. These generally use building blocks of unbound metals, though they can very slowly pry metal loose from some metal compounds. These eaters are typically powered by light or heat differentials, and operate very slowly in conditions of extreme dark and cold. A century after the Ruin, there are still rusting hulks of ships on the cold and dark abyssal plains. Unlike carbon-eaters, metal eaters are never completely deactivated, they just slow down to a nearly imperceptible level.

Most of the unbound metal in the environment has been consumed by these eaters, and as they decay, it spreads the metal evenly throughout the environment. These eaters now replicate very slowly, as they must almost scavenge new metal almost an atom at a time, unless they run into a source of pure metal. Even one eater of the right kind landing on a source of metal can quickly go to town, and the metal will usually start to show signs of eaters within hours.

Metal-eaters are capable of pulling metal atoms loose from many oxide and sulfide structures, releasing the oxygen or sulfur and a small amount of heat in the process. So, metal-eaters can turn rust into iron, or get through the protective coatings that copper or aluminum alloys typically develop. It is more difficult than working with the pure metal, however. This ability is of little concern to most people in Age of Ruin, but Machinists have learned that if you set up the right conditions, you can get metal-eaters to turn a pile of rust into a pile of ironbased eaters. There are numerous pockets of fairly pure metal in the form of dormant metal-eaters, if you know where to look and how to get them out. For instance, the holes in reinforced cement where the steel reinforcement bars used to be, or cavities in cement slabs where I-beams once were. Metaleaters in these places ran out of food, and were not spread around the environment, much like carbon-eaters who fed on coal seams. They are sometimes extracted and used as a slow but easy means of drilling holes in limestone blocks (similar to blood-carving).

Eaters made of harder or less reactive metals are more capable of extracting softer or more reactive metals from various compounds. For instance, an iron-based eater would be less able to extract further iron from the environment, and use this to make a iron and calcium-based copy of itself. This copy would be less able to extract iron from the environment, but it would be more able to aet at calcium, and its iron content would gradually decrease to where it could only go after calcium. The calcium-rich copies would find calcium and calcium compounds a tough meal, and would either have to find something softer or more reactive, or go dormant. Any metal-eaters, in sufficient quantity, can consume any other metal, even if harder or less reactive. However, if the difficulty is great enough, the replication ratio is less than 1:1, and so an outside source of metal-eaters would be required as the process would not be selfsustaining.

Human bones are vulnerable to this type of eater, most especially so if carbon-philic eaters have left a lot of iron behind in terms of blood cell components. Stripped bones in the environment will weaken and decay several times faster than normal, but a skeleton can last up to several weeks in some conditions.

The hierarchical nature of metal-philic eaters has resulted in a carving technique known as blood-engraving. Limestone or another calciumbased mineral is used as the medium, and blood is used to paint a design. As iron-based eaters replicate using iron-based hemoglobin, they attack the calcium in the mineral, but the calcium-based eaters cannot further the process. When the ironbased eaters wear out, you are left with a carved design in the stone wherever the blood had been painted.

Metal-eaters are not a hazard to most living things, they just make it next to impossible to keep metal tools around. There is no barrier to melting down concentrated metal-eaters to make metal implements, but there is no practical way to protect that metal from getting eaten away once it cools. The process can be slowed, but usually not to the extent that it is worth the effort of making the tool to begin with. Some agricultural towns will make iron plow points each year for the spring tilling, and use them quickly before they are consumed. In the 1st generation campaign, metal tools and weapons were protected by being stored in irradiated chambers each night, gamma radiation deactivating any metal-eaters that may have accumulated during a few hours of outside exposure.

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Plastic-eaters: The last major eater type are the plastic-philic ones. They are not so much plasticeating as they are hydrocarbon-eating. They strip hydrocarbon chains from any viable source, and use these to make bodies of plastic and they combine hydrocarbon chains or fragments with oxygen or sulfur for power, usually oxygen and sulfur released into the environment by the disruption of the hydrocarbon bonds. Their molecular bonds are fairly weak, and they are vulnerable to heat and ultraviolet radiation. Their lifespans and ability are greatly reduced in sunlight, and their preferred environment is in the dark and underground. These eaters have consumed the world's reserves of petroleum products and most synthetic polymers. They survive mainly on biological oils left behind by the other eaters, and fight over natural sugars with the carbon-philic eaters.

Plastic-eaters prefer more volatile hydrocarbon compounds, but in a pinch can do some work with nitrogen-carbon compounds. In particular, they eat and deactivate most Machine Age explosives, and among Machinists there is some speculation based on preserved Machine Age knowledge that plasticeaters were originally meant to be a weapon to destroy an enemy army's ability to fight by destroying fuel and munitions. Presumably, there was supposed to be a protective mechanism for one's own troops, but apparently this defense had not yet been developed.

Plastic-eaters use carbon-and. The "and" is preferably hydrogen, sometimes nitrogen. Most fluorine-carbon compounds have molecular bonds too strong for plastic-eater nano to disrupt, so fluorocarbon plastics are largely immune to eaters, as well as their immunity to most chemicals and other environmental conditions. Even a century after the Ruin, these plastics are still available in significant quantity, and are a very useful resource.

For people, plastic-eaters are more of a nuisance than a threat. Anyplace there are natural oils, carbon-eaters and plastic-eaters fight over the spoils, leaving a sooty, waxy film that has to be scrubbed off. Like the other eaters, people have found ways to take advantage of them. The waxy film that is an accumulation of plastic-eaters and their leftovers is waterproof. Oil or sugar solutions can be painted onto cloth, and if the proper conditions are cultivated, the result is a waterproof fabric. It is not really possible to make rigid or strong castings from the plastic-eaters or their leftovers, but it is a useful surface treatment.

Eater notes - The initial assault of eaters on Earth's resources and ecosystem is somewhat different than recounted in oral tradition. There were so many government lies, accusations, recriminations, and rumors that the fragmentary records that were preserved present a completely jumbled and contradictory picture of events. It is fairly certain that the first eaters were stolen from a high-security research lab, but it is unknown if they were accidentally released in the process, or further experimented on later. Those who are uncharitable towards the people in the Age of Machines think the eaters were designed by power-mad central governments as a new form of weapon. Others say they were a tool meant to clean up the evils of toxic waste and pollution that were choking the Age of Machines and are still a problem today, and others think they were simply a knowledge studied for the sake of knowledge, neither good nor evil. There may be people who knew the true story, but they apparently didn't tell anyone.

The earliest eaters that got loose were barely viable, and extremely inefficient. There was no "I'm being consumed!" or watching oil or metal or plastic getting eroded at a scale where you could almost see it happen. They survived in the wild only because they had nothing that could resist them. It was less of a "grey goo" scenario and was more like introducing a pest species into an environment that had no predators, like the northern snakehead, the zebra mussel or the water hyacinth. But in this case, everything was affected. It was a slow but ever-increasing parasitic load on just about everything, that would have taken over a year to run its course in any given area had it been unchecked. In the worst spots, it was bad, and once you had caught a case of "eaters" the only cure, and a temporary one at that, was radiation therapy, which simply traded one evil for another.

During this time, there was certainly hysteria, irrational actions on the part of some governments, and assorted breakdowns in the social fabric. But in many areas, including the campaign region, there was enough time and resources to try and make the most of a really bad situation. The major governments were all working on a "protector" nano, apparently at the same time as they were doing research on the eaters, but there was no telling in advance how successful it would be, or how bad things would have gotten by the time it was ready. So, plans were made for the worst case scenario in which people could still survive.

Massive swine, chicken and beef operations were forcibly broken up into smaller units and distributed about, with their own military units, so that there would be food for everyone within a minimal distance. Rules for self-government were set up in the assumption that communications would be disrupted and central control impossible. New strains of staple crops were genetically engineered and spread, designed for quick germination time or other qualities to help the seeds survive. Similar efforts were made at genesplicing to help certain vital animal species, especially those that been selectively bred to the point where they could no longer survive in the wild.

Ceramic tools were produced and distributed at their manufacturing plants' full capacity, Glass and plastic were used instead of metal in a lastditch effort to provide food storage to tide people over through the period when they would have to learn the skills needed to survive. Drums and drums of radiation-sterilized food went to thousands of distribution points, along with glass-sealed isotope canisters to provide radiation sources for sterilizing any surpluses an area might generate. These isotope generators also provided safe storage areas for irreplaceable weapons. Until the generators ran through their half-life and could no longer provide protection against eaters, these central depots (known at the time as agriforts) had the monopoly on Machine Age weaponry. Priceless documents and other artifacts were also sterilized with high-intensity radiation and sealed in glass or plastic, in hopes that someday they could be reopened (the Declaration of Independence, a Gutenberg Bible, etc.). These were in turn sealed in vaults with their own radiation sources to create a sterile environment that could last for centuries in the presence of eaters.

Civilization did not screech to a halt. Rather, it rusted away at a greatly accelerated rate. The arrival of protector nano was just in time. By the time it had worked its way through the ecosystem, the Ruin of mankind's works was almost complete, and the ecosystem was taking it pretty hard. The eaters, formerly coasting along without any real hardship, now had to fight for their dinners, and the protector nano, untested, had to fight for its survival, since it was made of things that eaters would consume. Both species evolved, both becoming far better at what they did, until the current level of effect and protection was reached. This took many years. In the early days of the Ruin, it might have taken weeks for a steel knife to dissolve into nothingness, and it would be a fairly reliable process, while a century later, the knife might sit intact for several days, and then dissolve away in a matter of hours.

The last of the Machine Age agriforts lost its tech edge within a generation or so of the Ruin. By this time, society was very close to where it is at the start of a campaign. The agriforts, as a loose alliance in a given region, were the origin of the tribes and the first towns, and the individual family clusters that were within the protected radius of an agrifort's troops were the clans. As the forts lost their edge, they split into several clans or became other towns. The remaining resources were often fought over or split up, with most of it distributed thin over a region, and some unknown fraction spirited off by the ancestors of the Machinists. Encased and intact, but useless, some of these bits are valued like religious icons. People tried to preserve the strangest things in the final days, and some odd things were invulnerable to eaters, so somewhere there may be Machinists marveling over the glassencased eternal beauty of Miss April 2051, or engaging in petty squabbles over who has the best snow globe or glass paperweight collection.

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Protectors: According to tradition, protector nano was developed by the people who became the Cheyenne, and is the only reason life still exists on Earth. It is probable that the information was spread to other locations around the world, and manufactured and spread from these locations as well, but that is not part of the oral tradition in the campaign region. Protector nano is a second generation of nano, larger and more complex than its eater cousins. Protector nano is built from several components found in most life forms, including metals and several carbon compounds. It is powered by sugars and oxygen. Protector nano tends to cluster on or near the surface of an organism, because that's where its food source (other nano) is. This includes the skin, the lining of the digestive tract, inside the lungs and anywhere else the outside world can contact the protected individual.

Protector nano is programmed to eat other nano, to disassemble it for the parts to replicate itself. It does not draw anything from the host body except fuel. This however, is a significant load on a person, who probably has to consume 25% more calories than a human from the Age of Machines. This extra energy is in the end released as heat, and people have adapted somewhat to a slightly increased body temperature and have an increased resistance to cold. Still, people have a decreased heat tolerance, and parts of the globe that were once barely habitable because of the heat are now uninhabitable by un-Shaped humans.

Protector nano comes in several varieties, each tailored for a specific type of life form (plants, animals, insects, etc.). These types cannot thrive in the wrong environment, but they can survive for a limited amount of time in some cases. So, you might get a rash from rubbing up against a snake, or have an allergic reaction to eating fish.

Protector nano is the foundation of Shaping. Eater nano is not sophisticated enough, but the protector nano was designed to integrate with the living host and is an order of magnitude more sophisticated. The Cheyenne never imagined Shaping was possible, and by the time it actually happened, the tools they could use to study it had all been consumed by Eaters.

The particles of protector nano shed off the skin and are sweated out and even exhaled, and provide a limited protection on what they touch for hours or days, until their onboard energy runs out. Hair that is very close to the body, thin carapaces, fingernails, bits of feather root, some bits of hoof and beak and claw remain, but not enough to keep many species alive, while others exist in a precarious state. People are not entirely hairless, but no one has anything longer than a light fuzz, so they might as well be. How many other species were affected is listed under the ecosystem notes, but a few important ones for human purposes are worth another mention.

Chickens and geese and a few other fowl survive in scruffy-looking half-plucked, snub-beaked varieties, and only as farm animals. They cannot survive without human help. The skies are ruled by bugs and bats. Hoofstock is fragile. Horses nearly became extinct in the interval between the Ruin and when the first Shapers learned the Preserver talent. In time, the genetically engineered versions of horses and cattle with soft hooves backed by thick, fleshy pads interbred with the original hoofstock to get the intermediate hybrids common today. The same happened to goats, pigs and a few other species, but many of the wild varieties of hooved animals are gone, replaced by their escaped domesticated cousins (wild pigs, etc.).

In the oceans, many shellfish are extinct, and corals have a difficult time of it, though the tiniest shelled creatures like diatoms are still doing well. The calcium-based shells of these animals are food for metal-eaters, but the process is very slow going in salt water. The shellfish that survived renew their shells from the inside more rapidly, enough to match the erosion of the outer layers. Fish, marine mammals and plankton all survive, unless they had a diet exclusively of shellfish.

On the smallest scale, the bacteria, the funguses and protozoans all survive, and fight over the scraps with the eaters. Eater-based decay is faster than biological decay, but biological decay still occurs.

Plants manage, some readily, some with difficulty, and some did not survive. Bark is much like hair, not alive, and only somewhat protected by the tree's nano. If a tree needs thick bark to ward off insects, then it becomes vulnerable as eaters chew down to the protected level. If a seed requires a long time to germinate, eaters may get to it before it has the chance. Like animals, some plant species were engineered in the time before the Ruin became complete, mostly by adding a symbiotic bacteria that lives on the outside of the seed and provides a limited protection. Increased insect resistance, the ability to spread via runners instead of seeds, faster germination time or increased energy reserves in the seed itself may also be involved. When possible, grain species were de-engineered back to their pre-civilized states, shedding their seeds readily rather than having them cling to the stalks, waiting for a harvest that may never come.

Protector nano can be temporarily weakened by a number of things. Severe exposure to acids, whole-body burns, being struck by lightning or extreme privation can reduce protection levels by 0d+1 to 1d+0. Depending on conditions and the individual, this could be enough to let eater nano overwhelm the reduced defenses. This is rare, but has happened. Shamans have remedies that may or may not work, usually involving immersing the person in something that has its own protector nano. Unfortunately, in the case of many injuries, this treatment can result in conventional infections that still result in the death of the affected person.

Is it really possible?: Now, these effects may seem far too complex for any mechanical device to be on such a small scale. But remember, all life is in effect based on mechanical devices and electrical impulses, self-assembling proteins based on a DNA template. A bacteria is one cell, yet it does everything we have ascribed to an eater. It can move, consume resources in the environment and transform them into more of itself. Eaters are really just several species of really aggressive artificial bacteria that have no natural predators. **Eater nano effects** - Eater nano is everywhere. Think of it like mold spores or pollen. It acts as a 0d+2 non-lethal attack each hour on living systems, and 0d+2 lethal attack on inanimate objects that are "edible". For living creatures, the damage is not recovered. It is like hunger effects, and does not start reversing until the eater nano goes away. Fortunately, everyone in **Age of Ruin** has protective nano living in them that provides an "armor" against this damage of their adjusted Fate roll. This protection can be diminished to perilously low levels by overuse of Shaping abilities, but otherwise most people are perfectly safe.

While carbon sources are everywhere, and natural hydrocarbons like sugar and fat are also common, metal sources are less so, and metaleaters are more sparsely distributed. Metal-eater nano has a 2d+0 chance to make an Average(7) roll each day to land on an exposed or usable source of metal. If it does, the metal is attacked in the same way as other materials, and the chance of other metal anywhere within a kilometer or two downwind is increased to an Easy(5) chance for several weeks, and nearby metal is automatically affected.

If eaters are in an unfriendly environment, their effect is reduced to 0d+1 per hour, or 0d+1 in some longer interval, up to days or even weeks. If the environment is completely intolerable, the eater nano is broken down into its component molecules and "killed". However, if the environment changes, new eaters will eventually recolonize that area. This means that with a great degree of effort, individuals can do interesting things, but these are seldom profitable or practical for large groups.

EXAMPLE: You could find some concentrated metal-eaters, melt them down and make a sword, and while that sword was still hot, dip it in some fluorocarbon plastic, and it would stay intact until the first time you hit something with it and exposed the edge. After that, all bets are off regarding its safety, though you might try to wash the exposed edge with acid and then seal it again to reduce the chance that something hungry landed on it and survived. An individual could do this, but an army probably could not. And one sword getting chewed up would spread metal-eaters across the entire army and make it next to impossible to protect any other sword that had bare metal exposed to the environment.

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Remember that eaters are small enough that you can't see them, and small enough to float on the air like the finest dust. You can find them in the ice of Antarctic glaciers, in the tops of cirrus clouds and in the ooze at the bottom of Marianas trench.

For inanimate objects, the 0d+2 lethal effect is cumulative each hour until a level is reached that equals or exceeds the armor (or thinnest armor) of an item. The item then takes 1 Hit and the process repeats. If you want, you can decrease the armor of the item by 0d+1 every time it loses a Hit to represent that the surface of the item is getting thinner as eaters gnaw on it. If an object has a Damage Limit (like vehicles), add +1d to its armor for purposes of these calculations for each point of Damage Limit below 10.

EXAMPLE: In the basic **EABA** rules, a large knife has an Armor of 1d+2 and 2 hits. In three hours, a 0d+2 attack would become 2d+0, and the knife would lose 1 Hit. In three more hours, the knife would take its last Hit and be completely consumed. A small book would be eaten in two hours, while a car with 1d+0 armor and 10 Hits would last for twenty hours before becoming a pile of dust. A armored personnel carrier with an Armor of 9d+0, 18 Hits and a Damage Limit of 4 would take over 17 days to be eaten away.

In the early days of the Ruin, the effects were far less and far slower. Ironically, it is the need to overcome protective nano that helped eaters to evolve to the dangerous level they are today. On the other hand, protector nano evolving to meet this threat led to the changes that allow Shaping. Of the many think tanks trying to solve the problem in the early days of the Ruin, none predicted the final result and the world that followed.

Death pockets - Eater nano is described as evenly distributed in the environment. *This isn't* exactly true. Some areas of the environment have far less than others. The salty oceans corrode away most metal-eating nano, limiting its presence to the nearly gone skeletons of ships on the cold and dark abyssal plains. The great ice packs of the north and Antarctica are also sparsely populated with eaters. Neither of these does much good to adventurers.

On the other hand, there are spots where wind currents have deposited drifts of dormant but still viable eaters, and spots where a new or continuous supply of raw material means the eater nano is present in higher amounts than normal. For instance, a gas plume bubbling up from deep underground or around an iron-rich meteor that has recently plummeted to earth. Coal seams, voids in steel-reinforced cement, what used to be underground oil tanks and any other place where eaters could consume a limited food source and be unable to spread can have concentrations of dormant but still-dangerous eaters, just waiting for new food, new fuel or both.

The normal 0d+2 effect of eater nano in such cases can be increased to the 1d+0 to 2d+0 range in such events, and the higher density of eater nano can quickly consume to dust anything that cannot escape the area. Without the constant replenishment of new eater nano, most living things can fight off the effects, so fleeing is always a good option if you can. Such areas of concentrated eaters are known as "death pockets". The extra effects of eater nano in these areas will drop by 0d+1 per hour once you leave the area, until they return to normal levels.

Aside from the nano itself, death pockets have other side effects. Pockets of carbon-eaters are usually depleted of oxygen, making suffocation a definite hazard. Metal-eaters may be a layer on top of an acidic sludge of byproducts, or simply be mixed in with whatever nasty stuff a metal tank might have contained. Plastic-eaters can also deplete the oxygen in an area, and may leave poisonous sulfur dioxide as well.

NODES - Nodes are an unusual (and optional) side effect of the pervasive eater nano in the environment. No one knows where the term originally came from (Machinists coined it), and the first mention of in oral tradition dates back to the end of the first generation after the Ruin. Let's digress to slime molds. These are single-celled organisms, which when conditions become right, cluster into multi-cellular super-organisms with subsections each having a distinct form and function. After the superorganism has fulfiled its function (producing more slime mold spores), it dissolves back into its single-celled components. None of these individual components is any different from the rest, nor do they have any awareness of the form of the superorganism, but they can still act as part of a larger whole.

Eater nano can do the same. If there is an abundance of raw materials, and a sufficiently complex template to work from, eater nano can become a temporary colony-mind that has many of the characteristics of the template it drew from. The only time this is ever really noticed by people is if that original template was an animal...or a person. The template of biology and the more subtle one of neural linkages makes what is called a Node. Shamans and Machinists may argue privately whether Nodes are truly thinking beings, or whether they are merely imperfect recordings, playing themselves out before dissolving back into the environment, but for now there is no way to tell the difference.

Nodes can end up as one of several forms, or morph through the forms as a sort of "life cycle". The first is simply a *Presence*. The eater nano in an area tends to operate as a whole rather than individual nanites. It is not a blanket or cloud of nano, but rather just a theme. If it was formed from a person who hated a particular tribe, then members of that enemy tribe who pass through the area would find that eater nano effects were much greater against them than for anyone else. Presences do not seem to have a recognizable consciousness. Such a presence is often the first and last stages of a Node. Second is a Shape. The eater nano clusters together to form a recognizable shape, often with similarities to the template it drew from. A Nodal Shape often seems to have an intent or purpose, but little or nothing that seems to be coherent thought. A Shape is an agglomeration of dustsized eater nano that is held together by simple mechanical forces. It can move and act like something made of coherent sand, flowing or sliding across surfaces, oozing through cracks or holes and reforming on the other side. A Shape may arise from a Presence, and a Shape may in time degenerate into a Presence.

Last is an Avatar. An Avatar is a Shape that is coherent enough to have thought, or something that appears as thought to an outside observer. This includes an ability to reason and form conclusions, and access to the most numerous or powerful memories or emotions of whatever the template for the Node was. As an intelligence, it is very simplistic, like a puzzle picture of a person with most of the pieces missing. It is easily recognizable as what it was, but is still far from being a whole. Unlike a Shape, an Avatar can fill in its own missing pieces and can actually learn and change its behavior based on past experience. Shapes can become Avatars, and Avatars can devolve into Shapes.

Nodes do not have to go through all the stages. Some may become Presences and then dissolve into nothingness, while others go through the whole cycle. Nodes are not really aware of what they are or why they are, but they do have a sense of purpose, which relates to the nature of their template. In many respects, they mirror ghosts of those who left life with some task incomplete. Nodes might deliver a message, seek revenge, or try to accomplish some goal denied their template in life. This last case can make for some especially enduring (and dangerous) Nodes, especially if the template for the Node was something like a dangerous pyschopath with delusions of godhood. There have existed (and probably still do) cults that worship enduring Avatars as embodied gods. These Avatars can visit terrible punishment on their foes, and use their ability to slow or even halt eater effects for the "faithful". Imagine a cult whose controlling Avatar could concentrate metal and protect it from other eaters. They would have a significant advantage in combat, and would tend to attract that portion of the population that is always drawn towards powerful leaders.

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Nodes are seldom encountered, but are a pervasive part of oral tradition in **Age of Ruin**. They may excellent ghost stories and ways to frighten small children, much like a 20th century bogeyman. *Nodes, however, are undeniably real.*

Attitudes: Gaeans tend to see Nodes as a confirmation of their beliefs. They see that even the eaters can take on the aspect and form of the living, and so feel that the aspect of the intangible soul can also be transferred from one individual to another. Gaeans do not believe that Nodes possess the soul of their template, but they do believe that those who now share that soul have a better chance of influencing a Node to or from a course of action.

Christians see Nodes as an abomination, a false idol or impersonation of a souled being. Eaters are a form of corruption that brought about the fall of man, and Nodes are a personification of that corruption. Christians would view a node with some combination of hatred, fear and suspicion, and would never deal willingly with one except as a duplicitous means to bring about its destruction or dissolution. Judaism and Islam view nodes much the same, especially Avatars, which Islam views as a graven image of the worst sort, a self-formed being with the abilities of creation and destruction, a tangible challenge to the might of Allah.

Machinists view nodes with some combination of fear and enthusiasm. Fear, for a Node represents a potential evolution of nano that could tip the scales against humanity, and enthusiasm, for if harnessed, the power of Nodes can counter the effects of other eater nano over a usefully large area, or can be used to protect machines, or make certain experiments with machines possible. So, despite misgivings, many Machinists would willingly ally themselves with an enduring Node, just for the opportunity it presents, even if that Node's apparent intent is not apparently for the best.

Powers: A Node has a number of abilities, depending on its form. A Presence can alter the effect of eater nano in an area by 0d+2, and the area is perhaps a hundred meters across. This effect can be general, or it can be targeted in any way that would be immediately obvious to the naked eye, like clan tattoos, men, women, children, animals, plants, etc. Think of it as having a 0d+2 Awareness roll. A Presence can also exert force at a 0d+2 level, usually sufficient to be a 2 point penalty in in the difficulty certain types of Attribute rolls. For instance, mud might cling to your feet in an especially sticky way, to slow your movement. Or, it might be slick, to be a penalty on Agility rolls. A dust cloud might hinder sight, or make it hard to breathe. None of these effects are fatal, but they can be impeding if the Presence chooses to act in that way. A Presence can ooze around at a few meters per turn, so it is easily evaded if you desire to get away from one. A Presence is not readily detected except for its effects. The edge of the Presence can be distinguished from the normal environment when the Presence is moving, but even this is subtle and requires that you actively look for it.

A Presence is not clever or subtle, and has nothing that could be considered tactics. It simply responds to changes in its environment according to its nature.

A Shape is a bit more sophisticated, but also more concentrated. A Shape can alter the effect of eater nano by 1d+1, which is enough to make it quite dangerous to most living things. The eater nano is not any more powerful on an individual nanite level, but the concentration of them can overwhelm the protective nano all living things carry within them. The area of effect a Shape has is no more than a score of meters across, and is centered on the Shape. This area is not covered in a visible way by the Shape, which is seen only as a constantly morphing mass that conveys a strong suggestion of whatever was used as the template. A Shape can move at up to four meters per turn, so evading one that doesn't like you will take a bit of work, especially since it doesn't have to stop for rest (but it does require a "food" source). A Shape can do most of the things a Presence can, but at a 1d+1 or 4 point level. It can manipulate things with a 1d+1 Strength roll, make decisions like it had a 1d+1 Awareness roll, cause a 4 point movement penalty, and so on. It can communicate and even reason, though in a child-like, simplistic, easily confused way.

A Shape does not feel (or mimic) emotions, but responds to its inherent drives in a more robotic way. It might not be swayed from its intent, but it can be distracted, made to hesitate or even fooled. It can learn from its mistakes, but only at the most basic of levels. It won't be fooled the same way twice.

An Avatar is the most powerful and most concentrated type of Node. It can alter the effect of eater nano by 2d+2, which is sufficient to overcome virtually all types of natural defenses. However, the Avatar is limited to affecting things it can touch, and the effect diminishes with distance or if the item affected is significantly larger than the Avatar. The maximum range of its effects is about the same as the size of a Presence. An Avatar is a rippling but fairly stable and recognizable representation of its template, and acts at a 2d+2 or 8 point level in terms of Attributes or modifiers to rolls. It could easily pin a person in their tracks, and then slowly consume them while they were helpless to move. An Avatar can move on its own at up to 8 meters per turn, but is also clever enough to take advantage of other forms of transport if they are available. Avatars can also act as though they had any skill the template had, but at no more than a +1d level.

Abilities: Nodes of all kinds are especially resistant to being damaged, since they have no vital locations. Presences are almost impossible to damage because of their great size and thin distribution in any given spot. Massive amounts of salt water, fire or removing all food sources are about the only way to get rid of one. A Presence is considered to have a large Blessing against normal damage (-4d to damage effects), and can take 20 Hits before being disrupted. Due to their singlemindedness, Presences can often be lured to their own destruction. Shapes and Avatars are a little easier to deal with in some ways, but harder in others. A Shape has a medium Blessing against normal damage (-2d to damage effects), and an Avatar has a small Blessing (-1d to damage effects). Both Shapes and Avatars also have 20 Hits. However, Shapes and Avatars are clever enough to avoid traps and situations that a Presence has no choice but to fall into.

All Nodes can recover lost Hits if there is a source of replenishment in their environment, and recover as many Hits per hour as their ability to affect eater nano. So, a Presence can get back 2 Hits, a Shape 4 Hits and an Avatar 8 Hits per hour.

If an Avatar is disrupted (takes 20 Hits of damage), it becomes a Shape that has taken 10 Hits of damage. If a Shape is disrupted, it becomes a Presence that has taken 10 Hits of damage, and if a Presence is disrupted, it is gone.

Limits: All Nodes require sustenance from the environment, unlike regular eater nano which can go dormant if there is nothing around. Nodes consume more energy and matter than most biological systems can provide on a long term basis. If they have to rely on local sources, they will turn a small area into a dust bowl in a matter of weeks, and be forced to move on or die. Nodes do not really have a sense of self-preservation, so many will simply cease to exist.

EXAMPLE: If the nature of the template was a person who swore to defend an area, then the node would have something of this mission, and would not leave the area to get the material needed to sustain it. It would simply consume all it could in that one area, and eventually wither away.

Not getting enough material to replenish themselves means they lose 1 Hit per hour, which can cause a Node to eventually devolve into a lesser form. On the other hand, getting far more than it needs, or having a concentrated source of replenishment can cause a Node to evolve to a higher stage. This would require a Node to have no damaged Hits, and would take about a day of inactivity as it spontaneously becomes more complex. However, a Node will usually not evolve to a higher stage than it could have supported in the immediate area of the template that generated it. Plus, a Node's own internal code of behavior might prevent it from evolving. If it feels compelled to do something when a certain condition arises, then this activity will reset the evolution process whenever the condition is triggered.

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More - Nodes are composed of all kinds of eater nano in the environment. Most of these are carbon-philic, the ones that break down living creatures for their raw materials. A minority are the ones that eat plastics and metals, but it is possible for these types to be the majority in a Node, in which case the Node's sustenance must be of that type.

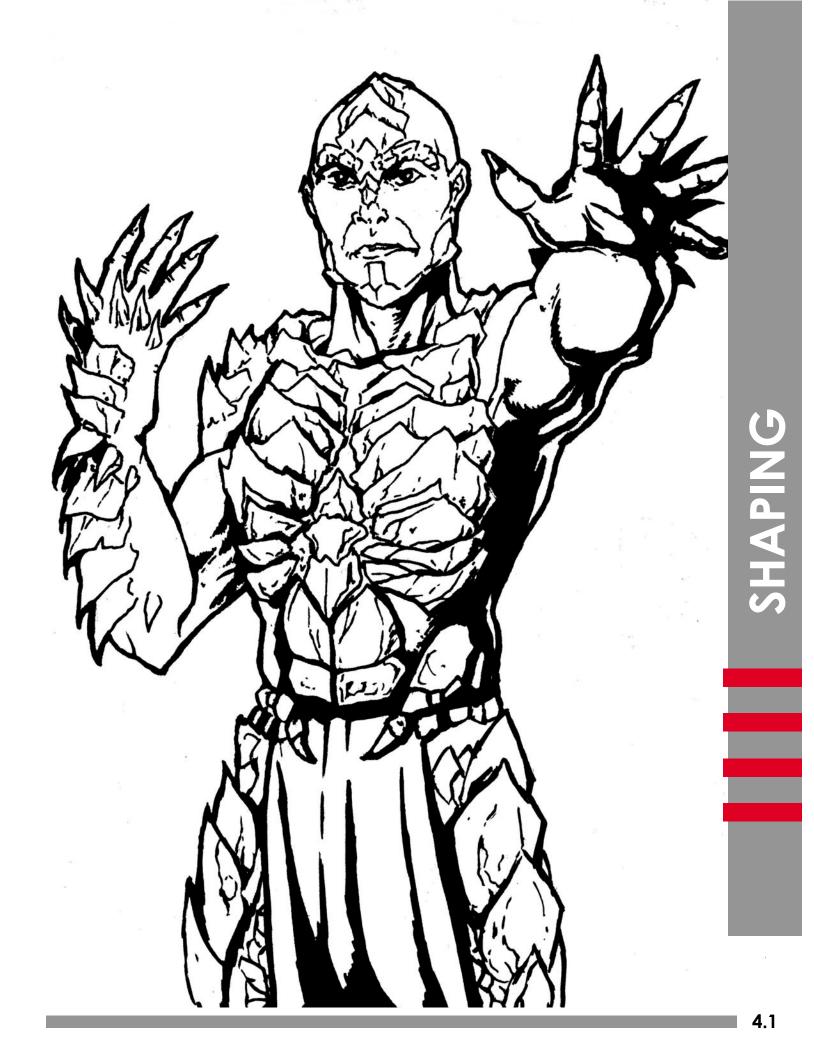
EXAMPLE: A Node that formed around a crashed nickel-iron meteor might require metal in order to survive, so when the meteor was finally consumed, the Node would wither.

The material a Node is made of will not affect its motivations, but might affect its actions. A metaleater Shape would probably not cross a body of salt water to reach someone or something, a plastic-eater Shape would prefer to operate away from the ultra-violet rays of the sun, and carboneater Shape would avoid enclosed places where the oxygen would be quickly used up.

As a result, there are durable but self-limited Nodes. These are some of **Age of Ruin's** mythical monsters, creatures told of in tales and known to (and avoided by) travellers, or sought out by the heroic or foolish. The tales of legendary nodes often unknowingly mimic the Greek myths, with foes like the Cyclops, Scylla and Charybdis, the Sirens and so on. But these monsters are real.

There is the great swamp where a plastic-eater Node lives, subsisting on swamp gas, powerful, but trapped by its constrained food supply. There is the tale of the drowned maiden, who washed up upon the rocks of an offshore island. The Node that formed around her could easily make it to shore, but she is afraid of the water, dipping her/its tendrils into the ocean only to sustain itself. She seeks to be rescued, but always ends up consuming those who come to save her. And there are rumors of the Sudbury Pit monster, living in the far north, alive but dormant in the great crater of one of the Machine Age nickel mines.

There are also rumors of many other monsters, often with tragic tales and just as often guarding priceless treasures, like the Lost Machinist, doomed to eternally protect a Machine Age treasure he can no longer understand, or the Slumbering Reactor, who must be avoided lest he awake and coalesce into a glowing poison that even those of the Machine Age feared.



"Nanotechnology will make it possible to push closer to the real limits set by natural law, but it will not change those laws or the limits they set. It will not affect the law of gravity, the gravitational constant, speed of light, charge of the electron, radius of the hydrogen atom, value of Planck's constant, effects of the uncertainty principle, principle of least action, mass of the proton, laws of thermodynamics, or the boiling point of water. Nanotechnology won't make energy or matter from nothing."

- from Unbounding the Future: the Nanotechnology Revolution

INTRODUCTION - Shaping is literally mind over matter, using will, mental techniques, intuition and trial and error to alter your own body by means of the protector nano within you. It is not magic, nor is it viewed as such in **Age of Ruin**. It is a tool to help you survive and accomplish your goals and maybe even your dreams.

FRAMEWORKS - Shaping has the following mandatory framework, and details on each facet of it are below:

Туре	Requirements	Cost
-	Starting cost	+60
	Requires total concentration	-10
	Takes fifteen minutes	-20
	Hierarchic power structure	-5
•	Requires minimum Fate of 5	-5
	Damages non-lethal hits x 2	-20
	or Requires consumed focus	-20
	Lasts as caster wills	+15
	Delayed deactivation	-5
٠	Cumulative penalty	-10
Frame	ework base	-20

The framework is part of all Shaping, and relates only to the modification of the body. The actual effects once the Shaping is done may require time, materials or dice rolls when they are activated, but these take place when the Shaping is used, not when the Shaping transformation is taking place. These "use modifiers" will affect the difficulty of the initial transformation, however.

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EXAMPLE: A "farspeaking trance" takes three minutes to achieve. This does not make Shaping oneself into a farspeaker take three extra minutes, but it does affect the difficulty of Shaping oneself into a farspeaker.

Starting cost - The general utility of continuous effects available at will means that Shaping in the Age of Ruin gameworld has a base cost of +60.

• **Requires total concentration**(-10 cost): Reshaping one's self with nano requires a total inward turning of the consciousness and a fine attention paid to exactly what you are trying to do. It cannot be done on the spur of the moment or if you are being distracted.

• Takes 15 minutes (-20 cost): The reshaping process takes 15 minutes, and the user must remain in their trance-like state of concentration the whole time or the results will be incomplete and useless. Once the Shaping is done, some will have an extra time that is required to activate the ability, but this only takes time, and does not usually require a roll.

EXAMPLE: The "firestarter" Shaping lets a person spit acid, but it has a six second "warmup" time. Once the person is Shaped, they can spit acid at will, but it takes them a few seconds to gather enough for the attempt.

A power can take longer than this to undergo the initial transformation, if it is bought that way, but the time modifier the Shaping has in its framework is the absolute minimum. Tribes that do not have a Forte in a particular type of Shaping might have their version of the ability with a longer default time.

EXAMPLE: The Manhattan have a Forte in the Way of the hearth. Their hearth Shapings might be as listed. The Georgia on the other hand, have a Weakness in the Way of the hearth (-1d to the level of effects). They might need to have the "weaving" Shaping at normal effect, instead of the "-1d effect" listed for that Shaping. This would increase the cost (and therefore difficulty) of that Shaping by +10. The Georgia could offset this by having *their* version of that Shaping take 8 hours instead of 15 minutes, which would be an extra -10 to the cost, cancelling out their Weakness. Someone who learned Weaving from the Georgia would be stuck with the version that took much longer for the initial transformation.

Hierarchic (-5 cost): All forms of Shaping are hierarchic. You cannot learn an ability with a ■ modifier until you learn one that has at least two ■ modifiers, nor can you learn an ability with a ◆ modifier until you learn one that has at least two ■ modifiers. Similarly, you cannot learn an ability that has multiples of ■ or ◆ modifiers until you learn one that has at least two ■ that has at least one of that type or two of a lesser type (like four ● for two ■). The modifiers in the framework base do not count towards this, nor do the pre-requisite abilities have to be the same Way or type. It just reflects that there is an increasing degree of subtlety and skill required to do more advanced Shaping techniques, and that lower levels must be mastered first.

• **Requires minimum Fate of 5**(-5 cost): All forms of Shaping have a minimum Fate threshold. Some may have an even higher Fate requirement, but none lower. If a Shaping has a higher Fate requirement, only the difference in cost applies.

Damages hits/requires focus(-20 cost): Shaping takes a lot of energy. Any form of Shaping, even a trivial one, will result in taking 2d hits in non-lethal damage from fatigue. This damage is not recovered other than through rest, which can take several hours. However, the energy required for a Shaping transformation can come from an outside source. A person doing a Shaping can absorb the energy of any sort of food directly through their hands (or the body part being Shaped). This could be fruit pulp, fresh meat or fish, tuber paste, nut mash or some other energy rich food source. Normally, you want something that has the elements or molecules you need for the nature of the Shaping. This preparation obviously cannot be saved, and must be used immediately after preparation, which can also take several hours. Each tribe and clan has their own preferences and feelings as which works best for a particular Shaping.

Lasts as user wills(+15 cost): Once a Shaping is complete, it stays in place until the user wants to revert back to normal form. • **Delayed deactivation**(-5 cost): However, turning back is not automatic. It requires a Will roll against a Difficulty of 3 for every die of effect in the Shaping. Turning off the Shaping takes about half a minute of concentration, and the unshaping process takes about 15 minutes to complete. If the roll is failed, it can be attempted again with a longer period of concentration (at least +1 Time), as many times as needed until the deactivation begins.

EXAMPLE: If you had Stoneskin at a level of 3d+1 and your Will roll was 2d+2, you would have to make a Difficulty 10 Will roll (3 for each die in Stoneskin, and the +1). If you succeed, the effect disappears over the next 15 minutes. If you fail, just try again.

• **Cumulative penalty**(-10 cost): Each person only has so much nano to go around. Any time a Shaping is active, the user's Fate is reduced by 1d for each new Shaping's effect (this does not affect Gifts). In addition, the user's Fate is also reduced for purposes of inherently resisting eater or other environmental nano. Naturally occurring eater nano has an effect of 0d+2, so you should never let your Fate for resisting it drop to below this level. Since all Shaping has a minimum Fate requirement of 5 (roll of 1d+2), everyone can safely do one Shaping under normal conditions).

Additional modifiers - The gamemaster can also add other modifiers to the framework, either for all forms of Shaping, or as required modifiers for particular types. In particular, "side effect" is a good one. If you botch an attempt to shape yourself, you could be stuck in some intermediate, worse than useless form. Or, the nano could drain you of far more energy than you thought it would.

• **Requires shaman's assistance** (-5 cost): The Shaping is greatly assisted by the presence and guidance of someone with at least +1d in Shaman skill. The shaman acts as a combination of physician and spirit guide, monitoring the Shaping process, and providing subtle guidance to the person doing the Shaping. The Shaping can be attempted without a shaman, but at +2 difficulty.

• **Requires psychoactives** (-5 cost): The Shaping is assisted by the controlled administration of something to free the mind from its preconceived notions of self-image and form, which may be useful for some manipulations of the body. The Shaping can be attempted without these chemicals, but at +2 difficulty. Of course doing anything other than that type of Shaping while under the influence is usually at +2 difficulty as well, so you're going to be buzzed until it wears off. • Side effect (-20 cost): The Shaping is inherently dangerous. Failing the Shaping roll results in taking 1d+0 in lethal hits, and the adventurer is Shaped into a form between normal and what is desired, having the liabilities of both and the advantages of neither.

Power costs +3A (-20 cost): This modifier is only for Makers. Instead of paying A for a power during creation of the adventurer, the Maker loses 3A each time they use Making with this modifier. The Attribute the points are lost from must have something to do with the nature of the Making. The Maker gets these points back when the Made item is returned to them and they resorb it back into their body. If the item is lost or dies, these Attribute points are gone forever. This potential to permanently lose points is why the modifier is worth twice as much as normal.

Particular groupings of abilities have their own inherent side effects. Those who modify their minds to become Farspeakers or Demons might end up with permanent behavior changes, or certain attitudes might be required in order to go down this path to begin with.

For this gameworld, if a power does multiple things, the total effect is split between them, usually evenly, putting leftover points where desired. So, if you have a power with an effect of 3d+1 and it did three different things, it would do two at 1d+0 and one at 1d+1. Remember that half-lethal damage effects based on Strength are reduced by 1d, and lethal effects based on Strength are reduced by 2d. However, these results then add to punch damage, and cannot give a final result of more than double normal *punch* damage.

When a power description says "only on self" for some sort of transformation, it means that the particular Shaping effect is only applicable to the Shaper. For instance, armor. A melee weapon on the other hand, can be used *against* someone else, even if the Shaping only applies to the person doing it. If a Shaping says it "only works on small targets", this usually means that the nature of the Shaping does not affect the whole body. If you turn your hands into claws, your hands are a "small target", not that you can only use the claws on "small targets". Most Shaping descriptions will be complete enough to avoid any confusion on these issues.

Most Shaping abilities are obvious. There are changes in form, skin color or texture, or other clear indications that a Shaping has been done. Those that are not immediately obvious will be mentioned as such, and will probably have a +10 cost for a "special effect". **THE WAYS** - Each of the Fortes available for Fate (see page 2.11) is a "Way". Adventurers may learn aspects of Shaping outside their Way, but aspects within the Way will be easier or more powerful. Each Way has a number of abilities.

Way of the hearth - The Shaper can do things of domestic utility. Some of these Shapings will have a generic +10 to cost because of their multiple-use utility. The Shaping may be named one thing, and used mostly for that purpose, but it is a set of effects that have other uses as well. People, particularly adventurers, will tend to find all sorts of ways to use a hearth Shaping.

Firestarter: The Shaper can sweat sugar and spit acid. Combined, they burst into flame. In addition, the sweat can be used as a sweetener in drinks or on foods (people have eaten stranger things than this!), and the spit can be mixed with a mouthful of water and used like a pepper spray to the face of a foe (or without water by a well-placed spit to the eyes). The acid can also be used to etch limestone, but not to a degree useful for stonecutting.

Firestarter:

Framework base	-20
 Half-lethal damage 	+30
 Six seconds to activate 	-5
 Acts as natural phenomenon 	+5
 General utility 	+10
Total	10
Difficulty to activate	7

Preserver: The Shaper's hands can give off a guick-hardening slime rich in protector nano and a soup of fuel for it, which if rubbed over a piece of food, will enhance its natural protection against carbon-eaters, allowing it to be stored safely for a period of days. Examples might be to rub a piece of fruit before plucking it, or an egg before removing it from the nest. The protective shell can be readily cracked open to use the item inside, and does not cling or affect a food's taste. This ability would also protect inanimate objects for a few days, but only if they had already been sterilized of eaters. Each use only protects a small item, but multiple applications can be done over time to protect a larger object. The final effect needs to be at least 0d+2 in order to be useful against eaters.

Preserver:	
Framework base	-20
 Prevents an effect 	+30
Lethal damage	+40
 Only against eaters 	-15
Reduced 1d effect	-10
 Affects only very small targets 	-10
 Thirty seconds to activate 	-10
Requires gestures	-5
Power lasts 1.5 days	+34
Total	+34
Difficulty to activate	

Weaver: The Shaper's fingers elongate, their second and third fingertips harden and narrow, while the fourth fingers become flat, bony and sharp. The hands become knitting tools and scissors, for an Agility bonus for any sort of weaving or sewing tasks, but a 1d Agility penalty to just about any other tool use. These hands can be used as weapons, doing lethal damage, but the Shaper runs the risk of breaking fingers when they do this (0d+1 lethal damage). The effect of the power is evenly split between the lethal damage and the bonus to Agility, remembering that the lethal damage is reduced by 1d and becomes punch+ damage.

Weaver:

Framework base	
Lethal damage	+40
Reduced 1d effect	-10
Adds to Attribute	+30
 Requires mundane skill to use 	-5
 General utility 	+10
 Agility penalty 	-5
 0d+1 lethal hit if used to attack 	-5
Total	+35
Difficulty to activate	

Blower: The Shaper develops special tissues for storing oxygen, and generates ketones that flow through the blood and are then exhaled. With some skill and something akin to a bagpipe, they can for several minutes act like a small blowtorch. This is not enough to melt large batches of glass, but small quantities can be melted, worked and blown in this interval, after which the Shaper will need to rest and restore their energy reserves.

The effect of the Shaping is to split the effect between an addition to Health (for endurance purposes) and lethal damage, which can be used for anything a blowtorch could. The Shaper has to hyperventilate for a while before using the ability, and is fatigued afterwards (1d+0 non-lethal hits).

Blower:

Framework base -	-20
Lethal damage +	-40
Adds to Attribute(Health) +	-30
 Takes 15 minutes to activate 	-20
Power lasts 15 minutes +	·25
 Requires mundane skill to use 	-5
 Requires focus 	-10
 General utility + 	-10
 Damages user's Hits after use 	-5
Total +	-45
Difficulty to activate	15

Way of the warrior - The Shaper is adept at forming their body into weapons or protection. While the hearth Way has aspects that can be used to do damage, the warrior Way specializes in it. Many of these Shapings are seen as unattractive, and may have adverse social reactions with strangers unless the situation clearly warrants that sort of Shaping (do you show up at a friend's house for dinner with a rifle slung over your shoulder?). Many also remove the usefulness of one of the Shaper's hands, giving them a 1d Agility penalty for any task which normally requires both hands.

Shapings which turn a body part into a melee weapon cannot do more than double normal punch damage, half-lethal effects are reduced by 1d, and lethal effects are reduced by 2d. So, a person with a punch of 1d+1 can never do more melee damage with a Shaped weapon than 2d+2.

EXAMPLE: An adventurer with a Fate roll of 2d+2 and the "Bladehand" ability (lethal damage) would end up with a blade that did punch+2 in lethal damage. A person with a Fate roll of only 1d+2 would end up with a blade that did punch-1 in lethal damage. So, if this adventurer had a Strength of 2d+2 (punch damage of 1d+2), they would do 2d+1 lethal damage in the first case (1d+2+2), and 1d+1 in the second case (1d+2-1). **Beastskin:** The Shaper's skin becomes tough, thick, and very rough. It doesn't do much for your looks, but it does act as armor against half-lethal or non-lethal attacks, and stops lethal damage appropriate to that part of the protection.

Beastskin:	
Framework base	-20
 Half-lethal damage 	+30
Prevents an effect	+30
Works on self only	-5
 Detracts from appearance 	-5
Total	+30
Difficulty to activate	

EXAMPLE: A half-lethal attack doing 2d+1 would be 1d+1 non-lethal Hits and 1d+0 lethal Hits. Beastskin with a protection of 2d+1 would act as 2d+1 armor against half-lethal or non-lethal attacks, but only 1d+0 against lethal ones.

Stoneskin: The Shaper's skin becomes hard and bony everywhere but the joints, giving them good protection from most forms of attack.

Stoneskin: Framework ba

Framework base		-20
	Lethal damage	+40
	Prevents an effect	+30
	Reduced 1d effect	-10
	Works on self only	-5
	Detracts from appearance	-5
Total		+30
Difficulty to activate		12

EXAMPLE: A Shaper with an adjusted Fate of 2d+1 would have an overall armor against lethal attacks of 1d+1 when using Sto<u>ne</u>skin.



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Turtleback: The Shaper's head an torso take on a bony or chitinous appearance, tougher than stoneskin, but covering a smaller area.

Turtleback:

Framework base	-20
Lethal damage	+40
 Prevents an effect 	+30
 Only on small targets 	-5
 Works on self only 	-5
 Detracts from appearance 	-5
Total	+35
Difficulty to activate	13

Bladehand: One of the Shaper's hands and wrist fuse into a flat, diamond-shaped bony blade that can be used for cutting or piercing. A variant version of the ability generates a more axe-like hand more suitable for chopping, but at the same amount of damage. This Shaping renders the one hand useless for holding or carrying anything. This Shaping can be done on both hands, but the second one will be less capable than the first (because subsequent shapings take a 1d penalty on effect). The damage that can be inflicted cannot be more than double the normal punch damage.

Bladehand:

Framework base		-20
	Lethal damage	+40
	Adds to Attribute (Strength)	+30
	Only on very small targets	-10
	Requires a mundane skill to use	-5
	Agility penalty	-5
	Detracts from appearance	-5
Total		+25
Difficulty to activate		11

EXAMPLE: A Shaper with a Fate of 2d+2 would have an effect of 0d+2 (because of the penalty on lethal Strength-based damage), but would end up with a serious blade that did up to punch+2 lethal damage, which is the same damage a longsword would do.

As these Shaped blades are only reinforced bone, they are not nearly as strong as metal blades would be. However, if one is broken in combat (which is uncomfortable but not injurious), the remainder can always be resorbed and a new one grown to replace it.

Clubhand: This is similar to Bladehand, but the fist becomes a knobby lump that does half-lethal damage instead of lethal damage. It is much simpler to learn than the other hand manipulations because of the low complexity of the change that is made.

Clubhand:

Framework base	
 Half-lethal damage 	+30
Adds to Attribute (Strength)	+30
 Only on very small targets 	-10
 Requires a mundane skill to use 	-5
 Agility penalty 	-5
 Detracts from appearance 	-5
Total	+15
Difficulty to activate	

EXAMPLE: A Shaper with a Fate of 2d+0 would end up with clubhand that did punch+1d in half-lethal damage.

Clawhands: This is much like Bladehand, except it reinforces the fingers and fingertips of each hand, turning them into raking claws. These do not do as much damage as a bladehand does, but can make several attacks.

Clawhands:

-20
+40
+30
+10
-10
-5
-5
-5
+35
13

The total effect is split between the hands like a shotgun blast (**EABA**, page 5.6). That is, add +1d to the effect, then split the total between the damage in each attack and the number of attacks. On a successful hit, you get multiple hits at the listed level of damage.

EXAMPLE: A Shaper with a Fate of 2d+2 would have a 0d+2 bonus to lethal punch damage. The "shotgun" effect makes it 1d+2, and this is split so the total number of hits, plus the dice in each hit comes out to 1d+2. This means that on a successful strike with clawhands, you get 2 hits at punch-1 *lethal* damage (2 hits, plus -1 per hit, is 1d+2).

Stonearm: The Shaper turns their forearms and the outside edge of their hands rough and bony, with irregular spikes and ridges. These can be used as weapons and as armor to block melee attacks.

Stonearm:

Framework base	-20
Lethal damage	+40
Prevents an effect	+30
Adds to Attribute (Strength)	+30
 Requires minimum Fate of 8 	-5
 Only on very small targets 	-10
Requires a mundane skill to use	-5
Requires psychoactives	-5
 Detracts from appearance 	-5
Total	+50
Difficulty to activate	

The effect is to split adjusted Fate between an armor (for a melee block), and a lethal melee attack whose damage adds to Strength (after being reduced by 2d). A variant that is difficulty 16 (Sharpshin) does the same thing for the legs, which would do kick damage instead of punch damage.

EXAMPLE: A Shaper with a Fate of 2d+2 (the minimum) might take get a 1d+0 armor to block with and, and forearms and hands that act as a lethal melee attack for punch-1 damage.

Stoneshooter: The shaper fashions pellets of bone as projectiles, and turns their forearm and hand bones into a sort of self-loading firearm, powered by concentrated hydrogen peroxide pustules. Once the supply of "bullets" is expended, the Shaper must reform their arm back to normal and then back to a stoneshooter in order to "reload". This weapon can be fired once per turn, and has a damage of the Shaper's adjusted Fate. Since this is not a melee weapon, upper limits on damage do not apply.

Stoneshooter:

Framework base	-20
Lethal damage	+40
 Technological range 	+25
Accuracy of +2	+5
 Consumed focus (8 uses) 	-5
 Requires minimum Fate of 8 	-5
 Requires a mundane skill to use 	-5
Requires shaman's guidance	-5
 Agility penalty 	-5
 Detracts from appearance 	-5
Total	+20
Difficulty to activate	10

EXAMPLE: A Shaper with a Fate of 2d+2 would have a ranged attack with a damage of 2d+2.

Way of the shaman - The shaman deals with the subtleties of healing and the arcane way of speaking across great distances without making a sound.

Truesight: The Shaper adjusts their body to be receptive to and capable of differentiating lowenergy microwave radiation, though of course the shaman does not think of it in those terms. They can see differences in density and water content, in addition to their normal sight. This allows them to work in darkness, to sense internal injuries to a person, see things hidden under clothing and so on. They cannot see through walls, but they might be able to tell if someone was leaning against the other side of one.

Truesiaht:

n o congrin.	
Framework base	-20
Acts like an Attribute	+30
Reduced 1d effect	-10
 Extraordinary range 	+20
Total	+20
Difficulty to activate	10

The Shaping acts as an Awareness that can operate outside the normal range of human senses, as described above. The Awareness given is the Shaper's adjusted Fate minus 1d.

Farspeaker: The shaman's internal nano becomes thousands of tiny transmitters and receivers, each operating off a tiny quartz crystal in a range of line-of-sight frequencies. The Shaper's "shouted thoughts" become a jumble of emissions across this band, which can be picked up by any other Shaper with this ability who quiets their own thoughts to listen for it.

Farspeaker:

-20
+30
+25
-10
-15
-10
-10
+25
11

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The effect is to give the Shaper an "Awareness" roll to receive the signals of other farspeakers, with a "best three" roll of the best of the two farspeakers plus 1d, offsetting the range with the Accuracy of the Shaping and the "Accuracy" you normally get for spending time listening (normally a bonus of your Awareness level). It takes a few minutes to get into the proper frame of mind, but once a "farspeaking trance" is reached, communication attempts can continue until the trance ends. The "line of sight" modifier is not truly literal, but is more to indicate the nature of the communication, which is a lot like the effect of a cellular phone or GPS unit. You don't have to see the person you are talking to, but the signal can be blocked by hills, dense overhead foliage, being underground or bad weather in between you and them. So, farspeakers prefer to do their trances from places with good visibility.

EXAMPLE: A farspeaker with a Fate roll of 3d+0 is trying to speak with another farspeaker (who has a Fate roll of 2d+1) fifty kilometers away. The difficulty for range is 34. The farspeaker has an Accuracy of 9 because their "Awareness" is 9, and +10 Accuracy for the power. This offsets 19 points of range difficulty, making it a difficulty 15 task. The farspeaker gets a 4d+0 roll (their Awareness roll plus 1d) to get a 15 or better, while the other farspeaker has a 4d+0 roll to try and get a 17. Why? The lesser farspeaker only has a total "Accuracy" of 17 because of their lower Fate roll, but they still get a 4d+0 roll because you use the best of the two farspeakers plus 1d. That is, a good receiver can pick up a smaller transmitter, and a bad receiver might still pick up a larger transmitter.

To recap: Get in the right frame of mind (psychoactives), spend 3 minutes (go into trance), get your Fate roll plus 1d against a difficulty of (the range, minus your Fate, minus 10). And remember that shamans may have a Forte for this kind of Shaping, giving them significantly better range than someone without such a Forte.

Note - The "requires psychoactives" modifier is taken twice. It is required for the initial Shaping, and it is required for any "farspeaking trance" that is attempted once the Shaper has modified themselves to allow this ability. Similarly, the "takes three minutes" is not part of the initial Shaping, but is part of each "farspeaking trance". Farspeaking is *not* a casual "cell-phone" type of communication, but it is the best available to Shapers to date. Most of the shamans who have tried to improve on the ability have ended up with permanent brain damage.

Healing: The Shaper can restore the body or stamina of an injured person, and act as the raw materials for the lost tissue. The Shaper provides protective nano, clotting factors, antibodies and even living skin grafts to help seal wounds, boost immune systems or replace lost blood. The healer can restore 1d+0 lethal or non-lethal hits at the cost of taking the same amount themselves, and can do this as many times as they can stay conscious. Damage a healer takes is never more than needed to restore the injured person to full health, so if the patient had only lost 2 Hits, the healer would not lose more than this in restoring the damage. Healers can replace amputated or critically injured body parts, but at a four to one ratio. That is, restoring each Hit related to an amputation or critical injury requires that the healer take 4 Hits. Using the Healer ability successfully requires a Shaman skill roll against a difficulty of the Hits that have been lost.

Healing:

0		
Framework base		-20
Lethal damage		+40
Reverses an effective and e	ect	+30
Maximum 1d ef	fect	-20
 Requires minimu 	um Fate of 8	-5
Damages user's	s Hits	-30
Requires mundo	ane skill roll	-5
Takes three min	utes	-15
State-based du	ration	+15
Can regenerate	e lost parts	+10
Total		+0
Difficulty to activate		0

Shaping oneself into a Healer is not at all difficult, once you master all the other aspects of Shaping. One must learn many Shapings before one can learn to heal, but once you reach that level of experience, it is simple to master.

EXAMPLE: No matter how high the Shaper's Fate is, they can only heal 1d+0 Hits per "healing trance", and if they heal someone for 4 Hits, the healer takes 4 Hits. This damage is generalized, and represents the loss of blood, bone and muscle required to do the healing.

A clan or tribal healer is generally well-rewarded for their services, and may have no other duties except being available as needed, and would be second only to Makers in this regard. Most clans do not have a healer, and most tribes only have a handful. They are considered a great catch if you can get one to marry into your clan. **Strengthening:** This is akin to healing, but the Shaper only provides the raw materials needed to fight off disease, infection or other problems that are reducing someone's ability to heal naturally.

Strengthening:

Framework base	-20
Adds to an Attribute (Health)	+30
Lasts two days	+35
 Damages user's Hits 	-30
 Takes three minutes 	-15
Total	+0
Difficulty to activate	0

The result is that the overall Health of the recipient is increased by the Shaper's adjusted Fate roll, but not to more than half again their normal Health. They have more stamina, can run faster, swim better, heal quicker and generally feel much better than before. The Shaper however, takes 1d+0 in lethal hits from the transfer of energy, and isn't feeling very well at all. The effects of the boosted Health wear off over the course of a few days.

Empathy: The Shaper gains an Awareness that is really an enhanced sense of smell, but at a subconsicous level. The Shaper can sense fear, pain, desire and other emotions that cause a reaction in a person's blood chemistry, even if there are no visible signs of this emotion. This gives the empath a bonus to their Will or Awareness in any sort of social interaction, because they can "read the crowd", or sense that someone is lying to them or holding someone back. In particular, it gives a bonus to Will and Awareness in regards to Shaman or Leadership skill rolls.

Empathy:

Framework base	-20
Adds to an Attribute	+30
Special effect	+10
Total	+20
Difficulty to activate	

EXAMPLE: A shaman with a Fate roll of 2d+2 could boost their Will and Awareness by 1d+1 each, which would boost their Leadership and Shaman skill rolls by the same amount. The ability to sense what the other person is feeling makes a great difference for each of these skills.

Way of the demon - Demon Shapers are those who can alter themselves in such a way as to subtly and invisibly affect the behavior of others. These abilities are considered "dirty pool", and though no one knows exactly what that phrase once meant, it is still used. Most demon Shapings are not readily detectable, and the effects often mimic natural conditions, behaviors and desires, making it nearly impossible to prove a demon Shaper is at work.

Itch: A simple adjustment to the sweat glands. The Shaper's sweat naturally provokes an allergic, poison ivy-like response in anyone it touches. The effect takes several seconds to kick in. The effect quickly dissipates, and does not linger for long on cloth or other surfaces.

ltch:	
Framework base	-20
 Non-lethal damage 	+20
 Reduced 1d effect 	-10
Invisible effect	+10
 Melee range 	+0
 Acts as a natural phenomenon 	+5
 Takes six seconds to activate 	-5
 Lasts thirty seconds 	+15
Total	+15
Difficulty to activate	8

Seducer: A seducer has gained the ability to manipulate and amplify natural pheremonal signals, especially in regard to sexual desirability. The Shaper's Health for this purpose can be up to double its normal level. This is not detectable by anyone except an empath, and the empath has to make a Shaman skill roll against the Shaping skill roll of the seducer in order to differentiate natural signals from enhanced ones. Even if the shaman *can* tell, it is really just one person's word against another's.

Seducer:

Framework base		-20
	Adds to an Attribute (Health)	+30
	Invisible effect	+10
	Acts as a natural phenomenon	+5
Total		+25
Difficulty to activate		

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Sleeper: The Shaper can sweat soporific vapors that can dull the senses of those around them. The effect each time it is activated is for non-lethal damage of the Shaper's adjusted Fate roll. To those affected, it feels like normal, natural sleepiness, but any given "attack" can also be nullified by breezes, natural recovery of lost stamina, or by heavy clothing covering the Shaper.

Sleeper:

Frame	ework base	-20
	Non-lethal damage	+20
	Invisible effect	+10
	Fills a 3 meter radius	+30
	Acts as a natural phenomenon	+5
	Takes three minutes	-15
Total		+30
Difficulty to activate		12

Willbender: The Shaper can sweat or salivate mildly narcotic chemicals which can be absorbed through the skin, making a victim extremely vulnerable to the Shaper's suggestions. While the victim might seem slightly distracted, they are otherwise in full control of their faculties and will feel that the suggestions are their own idea. The narcotic treatment needs to be renewed each few days, and the victim will gradually build a tolerance to it, eventually making them immune, at least for a while.

Willbender:

Framework base		-20
	Subtracts from Attribute	+30
	Invisible effect	+10
	Acts as a natural phenomenon	+5
	Takes ninety minutes	-25
	Lasts two days	+40
Total		+40
Difficulty to activate		14

The willbender's effect subtracts from the target's Will, and if the willbender's Shaman skill roll or Will roll beats that of the victim, the willbender can plant an idea or suggestion that the victim will tend to act on when the opportunity arises. If the victim is being asked to do something that they normally would not (violating customs, ignoring debts, going against personality traits), they will get a bonus to their roll as appropriate. If the victim's behavior is altered too much, family, friends and acquaintances may get suspicious of any "new friends" the victim has been hanging around with.

Chameleon: The shaper can slightly alter their overall physical characteristics, but far more importantly, they exude an aura of "belonging", some combination of subconscious scents and cues that make the person fit in as "one of the guys". The chameleon's presence is seen as less suspicious than it otherwise would be. Anyone who is in the same room as the chameleon or slightly downwind of them is subject to the effect.

Chameleon:

Frame	ework base	-20
	Adds to an Attribute (Will)	+30
	Invisible effect	+10
	Sensory targeting	+20
	Acts as a natural phenomenon	+5
	Takes three minutes	-15
Total		+30
Difficulty to activate		

The chameleon's Will roll for all types of friendly social interaction is increased by their adjusted Fate roll, up to double its normal amount. This is not sufficient to say, have a guard release a prisoner "just because", but it would be enough to make the guard feel comfortable around a prisoner, perhaps comfortable enough to be a little less alert or a little more trusting.

Demon: The demon ability is what this class of Shapers is known for, though few master it. It is some unspeakable subversion of healing and farspeaking. The victim's mind is literally invaded by part of the demon Shaper, who can then influence the victim by means akin to farspeaking.

Demon:	
Framework base	-20
Subverts Attribute	+40
+3d effect	+30
 Requires minimum Fate of 8 	-5
Invisible effect	+10
 Range of up to 250 meters 	+30
 Takes ninety minutes 	-25
State-based duration	+15
 Damages lethal Hits 	-30
 Requires mundane skill roll 	-5
Total	+40
Difficulty to activate	14

The demon Shaper takes 1d+0 in lethal damage from the use of their own neural tissue for the act of possession, which is done while the victim is asleep or rendered unconscious by means not readily traceable. The procedure requires a Shaman skill roll against a difficulty of 11 to avoid botching the "operation".

Once done, the demon gets to subtract their adjusted Fate roll plus 2d from the Will of the victim. If this drops their Will to zero or less, the demon can completely control the victim, and in particular can simply plant impulses to be obeyed or force body movements as required. The demon sees/senses what the victim does through a farspeaker-like link, but this does not require a farspeaker trance state to accomplish. However, the effect of a possession is reduced by 1d for each 3 points of range difficulty (count fractional amounts), and if the victim's adjusted Will rises to above zero, they can roll their Will against the demon's range adjusted effect to break free from the influence, if only for a moment. The victim does not realize they are possessed while the demon Shaper holds sway, and does not consciously remember the possession if they break free and then fall under that sway again.

EXAMPLE: A demon Shaper with a Fate roll of 3d+2 would have a 6d+2 "possession" ability (their Fate roll plus the 3d bonus in the power). At a range of 70 meters (range difficulty of 15), the possession ability would only be 1d+2 (reduced by 1d for each 3 points of range difficulty). If the victim's Will was more than 1d+2, they could attempt a Will roll against the demon's 1d+2 roll to temporarily break free.

So, unless the demon Shaper is extremely powerful or has a willbender confederate to keep the victim more pliable, they have to stay fairly close. Demon possession is almost always an "inside job" and takes a great deal of planning in order to have any long-term success. However, a long-term plan might only require a short-term possession.

EXAMPLE: Getting a tribal elder drunk to the point of insensibility before an important diplomatic negotiation, just to sabotage that negotiation.

The demon possession lasts until a similar operation is done by the Shaper to remove the "demon", or the victim can spend a full day (long enough to recover 1 Hit of damage) free from demonic control. If this happens, the link between the Shaper and the demon is broken, and the victim will slowly absorb or dismantle the foreign tissue. SHAPING

Way of the totem - Totem Shapers engage in whole-body modifications, usually with an animal theme, and often using raw materials from these animals. Among the Delmarva, there is no social stigma to such Shapings, but among other tribes these Shapings may cause some discrimination.

Unshakeable: The Shaper deadens their sensitivity to pain, and to some extent, moves fatty tissue to areas where it can best be used as padding to stop blows. The Shaper gets their modified Fate roll as an armor against non-lethal damage.

Unshakeable:

Fram	nework base	-20
	Non-lethal damage	+20
	Prevents an effect	+30
	Reduced 1d effect	-10
Total		20
Difficulty to activate		10

This armor will stop the non-lethal part of halflethal attacks. Among some Delmarva clans, a ritual pummelling by the clan is part of the initiation rites of becoming a full status adult. Taking the blows without flinching or showing pain demonstrates one's mastery of this basic totem Shaping.

Aspect of bear: The Shaper has an increased will, develops extremely thick nails and builds muscles, especially in the hands, feet and jaw. They may have thick and coarse body hair for a short while after the transformation, but this is quickly gnawed away by eaters. Body appearance becomes more apelike rather than bear-like, but apes are uncommon in the normal campaign region, so bears are the closest animal with the same characteristics.

Aspect of bear:

-20
+20
+30
+10
-5
35
13

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EXAMPLE: A Shaper with a Fate of 2d+1 would get to split a 3d+1 effect between increased Strength (bonus of 1d+0), increased Will (bonus of 1d+0), and a half-lethal "claw swipe" of punch+1 damage. Note two things; the bonus to overall Strength or Will cannot exceed half the Shaper's normal Strength or Will, and the half-lethal blunt claw damage does get the Strength bonus in addition to its own bonus. So, if this Shaper had a normal Strength and Will of 2d+0, they would end up with a Strength of 3d+0, a Will of 3d+0 and a half-lethal "claw swipe" of 2d+1 damage (2d+0 because of Strength, +1 for the claws). In addition, the increase to overall Strength increases the default or skilled climbing ability of the Shaper.

There is also a "superior aspect of bear", which would be:

Superior aspect of bear:

Framework base	-20
Half-lethal damage	+20
Prevents an effect	+30
Adds to an Attribute	+30
Increased 2d effect	+20
Requires psychoactives	-5
Requires shaman's guidance	-5
 Requires minimum Fate of 8 	-5
 Side effect 	-20
 Detracts from appearance 	-5
Total	40
Difficulty to activate	14

The superior aspect splits its effect between Strength, half-lethal claw damage, and armor that stops half-lethal and non-lethal damage. If the Shaper fails the roll for the transformation, they overtransform, with severe alterations to skeletal structure and appearance. This gives the Shaping effect with a -2d penalty, and the Shaper also suffers a -1d penalty to Awareness (rationality) and Will (focus and attention span). The effects and penalties last until the Shaper returns to normal human form.

EXAMPLE: A Shaper with a Fate of 2d+2 (the minimum for this ability) would get to split a 4d+2 effect between an armor of 1d+2, an increased Strength (bonus of 1d+1) and a half-lethal "claw swipe" of punch+2 damage. If this Shaper had a normal Strength of 2d+2, the Shaping would give them a new overall Strength of 4d+0, and a half-lethal "claw swipe" of 3d+2 damage. If the Shaper had botched the transformation roll, they would end up with an armor of 0d+2, a 0d+1 Strength bonus and a "claw swipe" for punch-1 damage (which would end up being a 1d+2 attack).

Aspect of hare: The Shaper becomes leaner and more wiry, faster on their feet and keen of hearing. Their ears become larger and directional, and have a slight ability to pivot.

Aspect of hare:

Framework base	-20
Adds to an Attribute	+30
Increased 1d effect	+10
 Detracts from appearance 	-5
Total	15
Difficulty to activate	8

EXAMPLE: A Shaper with a Fate of 2d+1 would get a 3d+1 effect to split between increased Agility (bonus of 1d+0), increased Health (1d+1) and increased Awareness for hearing (1d+0). Increased Agility will improve the Shaper's ability to dodge, and increased Health will upgrade their walk, run and sprinting speed.

There is also a superior aspect of hare, which is:

-	or aspect of hare: work base	-20
	Adds to an Attribute	+30
	Increased 3d effect	+30
-		-5
	Requires psychoactives	· ·
	Requires shaman's guidance	-5
	Requires minimum Fate of 8	-5
	Detracts from appearance	-5
Total		20
Difficulty to activate		10

The superior aspect splits its effect between the same Attributes. Failing the transformation simply results in wasted time and energy, and does not have the side effects of the superior aspect of bear. Note that both hare aspects can provide no more than a fifty percent bonus to Agility, a doubling of Awareness for hearing, and a doubling of Health for movement purposes. Aspect of skunk: It is exactly what you imagine. The Shaper is capable of the most noxious effluvia possible, capable of making grown men retch, claw at their eyes and pass out. Worse, it fills an area and can actually be aimed. This transformation is not immediately visible or detectable, though its use certainly is.

Aspect of skunk:

Framework base	-20
Non-lethal damage	+20
Specialized damage	+20
Line effect 3 meters long	+20
Increased 1d effect	+10
Requires gestures	-5
• Usable once each 30 seconds	-5
Total	40
Difficulty to activate	

The damage done by this attack bypasses normal armor and affects anything that has to breathe or has eyes (it burns). Once the "charge" has been expended, the skunk requires at least 30 seconds to build up another. The effect will fill small rooms or spread sideways if there is not sufficient open space downrange.

EXAMPLE: A Shaper with a Fate roll of 2d+0 would do a 3d+0 non-lethal attack that fills a line of three hexagons, automatically striking all targets in that area at full effect.

Aside from the sheer chutzpah needed to engage in this sort of behavior, it takes a certain personality to be willing to spend the time it would take to learn this ability. Unfortunately, such a personality would usually belong to a person who would use the ability far too often...

Aspect of fish: Commonly called merfolk, these Shapers have adapted themselves to be able to breathe water as well as air, have webbed their fingers and toes for improved swimming speed and made other subtle modifications needed for a nearly total aquatic existence. For instance, there are different adaptations for the colder, murky waters of the north than for the warmer, clearer oceans to the south. Merfolk must still come ashore for giving birth and raising their un-Shaped young until they develop the Shaping skills that will let them return to the sea.

Aspect of fish:

Framework base	-20
Adds to an Attribute	+30
Acts as an Attribute	+30
Increased 1d effect	+10
Requires shaman's guidance	-5
 Detracts from appearance 	-5
 Limits of new form 	-10
Total	30
Difficulty to activate	12

The Shaper trades their legs for a very mermaidlike tail, and the hands become a single webbed mass with an opposable thumb, and the ability to breathe air is almost completely lost (making the change back to human a hazardous affair best done with assistance).

EXAMPLE: A Shaper with an adjusted Fate roll of 2d+0 would have 3d+0 in effect, for a 1d+2 Health roll that supplants their normal roll for underwater exertion purposes and a boost to normal Health of 1d+1 to increase their swimming speed.

This Shaping splits its effect between a Health that can be used underwater (use it for endurance, healing, etc.), and a bonus to normal Health (to increase swimming speed).

The superior aspect of fish makes the body modifications more flexible:

Superior aspect of fish:

Framework base	-20
Adds to an Attribute	+30
Acts as an Attribute	+30
Increased 2d effect	+20
 Requires psychoactives 	-5
Requires shaman's guidance	-5
 Requires minimum Fate of 8 	-5
 Detracts from appearance 	-5
Total	40
Difficulty to activate	14

The Shaper gets the benefit of an underwater Health for exertion purposes, and a boosted normal Health for movement. It is more difficult, since the Shaper can act normally on land, with no penalty for the subtle nature of the limb modifications.

EXAMPLE: A Shaper with an adjusted Fate roll of 2d+2 (the minimum for this Shaping) would have 4d+2 in effect, for a 2d+1 Health roll for all purposes underwater, and a bonus of 2d+1 to their Health for swimming speed (making it 5d+0).

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Note - In Age of Ruin, a person can swim one meter per turn per full 2d in their Health roll. Odd dice can add one meter every other turn if desired. Real-world maximum human swimming speed would be about that for a 4d+0 Health roll.

Aspect of horse: It is more appropriately an aspect of mule, but the Shapers are somewhat vain about it. The Shaper simply becomes stronger for carrying loads (not for combat damage) and has more endurance. They can carry more and carry it longer. This ability can up to double natural levels for the listed purposes.

Aspect of horse:

Framework base	-20
Adds to an Attribute	+30
Increased 1d effect	+10
 Detracts from appearance 	-5
Total	15
Difficulty to activate	8

The superior aspect of horse has these effects, but in addition alters the leg structure and musculature of the Shaper, giving them a x2 multiple on the effect of their Running skill (having Running skill adds 2 meters to walk, 4 meters to run and 6 meters to sprint speed instead of 1, 2 and 3 meters).

Superior aspect of horse:

Framework base		-20
Adds to an	Attribute	+30
Increased 2	d effect	+20
Requires sho	aman's guidance	-5
 Detracts fro 	m appearance	-5
Requires mu	undane skill (Running)	-5
Skill multiple		+20
Total		35
Difficulty to activa	te	13

Aspect of cat: The Shaper gains a keen sense of night vision as well as normal sight during the day. Their sense of smell is slightly improved, forearms and hands are reinforced, and the tips of the finger bones sharpen and protrude with serrated edges through the fingertips.

Aspect of cat:	
Framework base	-20
Acts as an Attribute	+30
Lethal damage	+40
Shotgun damage	+10
Increased 1d effect	+10
Requires shaman's guidance	-5
 Side effect 	-20
 Requires a mundane skill 	-5
 Detracts from appearance 	-5
Total	35
Difficulty to activate	13

If the Shaper fails the roll for the transformation, they overtransform, with severe alterations to their optical nerves and other neural tissue. This gives the Shaping effect with a -1d penalty, and the Shaper also suffers a -1d penalty to Awareness (rationality) and Will (focus and attention span), plus an extreme sensitivity to normal light levels (enough to cause permanent nerve damage). The effects and penalties last until the Shaper returns to normal human form.

EXAMPLE: A Shaper with a 2d+1 adjusted Fate

roll would get a 3d+1 effect, which would be a 1d+2 Awareness to see at night (without any darkness penalties) or identify things by scent, and a melee attack which does a pair of punch-4 lethal attacks on any successful hit. Normally, this would be nothing except superficial scratches unless the Shaper had a Strength of 8 or better (a pair of 0d+1 hits at Strength 8). This damage may not penetrate much armor, but it is a guaranteed quantity of lethal Hits per successful swipe on an unarmored target. Even if they are not good weapons, the serrated edges are also useful tools for skinning game, a bonus to climbing trees, and you can impress people by juggling apples and ending up with a plate of peeled slices... The superior aspect of cat adds increased Strength and Agility to the mix.

Superior aspect of cat:	
Framework base	-20
Acts as an Attribute	+30
Adds to an Attribute	+30
Lethal damage	+40
Shotgun damage	+10
Increased 1d effect	+10
 Requires psychoactives 	-5
Requires shaman's guidance	-5
 Requires minimum Fate of 11 	-10
 Side effect 	-20
 Requires a mundane skill 	-5
 Detracts from appearance 	-5
Total	55
Difficulty to activate	17

EXAMPLE: A Shaper with a 3d+2 adjusted Fate roll (the minimum) would get a 4d+2 effect, which would be a 1d+1 Awareness to see at night (without any darkness penalties) or identify things by scent, a 1d+0 boost to overall Agility, a 1d+0 boost to overall Strength, and a lethal punch-5 "claw swipe", whose effectiveness depends on the Strength of the Shaper. For instance, someone who started with a Strength of 7 (base punch damage of 1d+1) would end up with claws that did 0d+2 each (a guaranteed 4 points on a hit to an unarmored target).

Aspect of termite: This Shaping is a matter of practicality and survival in some harsh climates. The Shaper has altered their digestive tract to be able to extract nutrients from wood, and has an altered jaw structure and extra bony ridges in their mouth to help chew this tougher material. Totem Shapers who know this aspect do not have to waste time while travelling to forage for food, since they can simply strip branches from trees. Termite Shapers can still eat and digest normal food, as most of their gut modifications simply involve their protective nano breaking down cellulose and protecting the stomach from splinters.

Aspect of termite:

Framework base	-20
Acts as an Attribute	+30
Total	10
Difficulty to activate	7

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-20

Note - A few Machinists, knowing that this effect is known of by non-Machinists, have capitalized on it. They have a Shaping that makes them look like they are about ready to explode (bulging skin, discoloration, etc.), but which "fizzles", leaving nothing but a "charred corpse". This "corpse" is quite alive, though in a state of near-death torpor from which the Machinist will awake in a few hours, quite the worse for wear, but still alive to tell the tale.

Steelshooter: A steelshooter is similar to the other types, but the Machinist needs a supply of iron with which to assemble a genuine metal gun within their arm, powered by much higher energy chemicals.

Steelshooter:

Framework base

	20	
Lethal damage	+40	
Technological rang	ge +25	
Accuracy of +2	+5	
Increased 1d effect	t +10	
Special effect(arm)	or-piercing) +10	
Requires minimum	Fate of 8 -5	
Consumed focus (1)	16 uses) +0	
Requires mundane	skill to use -5	
Requires mundane	skill to use -5	
Requires metals	-20	
 Detracts from appe 	earance -5	
Total	40	
Difficulty to activate	14	

The steel projectiles used penetrate all plastic or Shaped armor protection, reducing such armor's effect by 1d. Ceramic armors apply normally. There are variants of this Shaping that act like a shotgun, and the (perhaps exaggerated) tales told about the evil Machinists even ascribe to this cult the power to make themselves into the "machinegun".

Stasis chamber: The Machinist creates a fluidfilled pocket in their own flesh, usually in the thigh muscle. This can be used to store items, which are bathed in a protector-rich fluid and thus protected from eaters. The opening looks like a scar on the side of the leg (or elsewhere), and is readily detectable by those who know what to look for.

Stasis chamber:

Frame	ework base	-20
	Lethal damage	+40
	Prevents an effect	+30
	Very small targets only	-10
	Requires mundane skill to use	-5
	Only against eaters	-10
Total		15
Difficu	ulty to activate	8

Note that since Shaping was not developed until several years after the Ruin, it is unlikely that Machinists have been able to preserve any useful items from the Age of Machines in this way.

Immolation: The last resort of the desperate Machinist. The transformation is similar to that in making a shooter, but the entire Machinist's body is turned into an explosive weapon, which of course, kills the Machinist should they choose to activate it (in addition to the explosion, the Shaper takes 3d+0 lethal Hits from the inside).

Immolation:	
Framework base	-20
 Half-lethal damage 	+40
Fills 7 meter radius	+55
 Power acts like an explosion 	-10
Increased 7d effect	+70
Requires mundane skill to use	-5
 Damages lethal hits (3d) 	-90
Hits lost after power is activated	+5
Total	45
Difficulty to activate	15

EXAMPLE: A Machinist Shaper, captured and facing torture or worse, decides to take out as many foes as they can. If this Shaper had an adjusted Fate roll of 2d+1, they could generate a 9d+1 half-lethal explosion (which could affect targets up to 15 meters away).

SHAPING

Steelblade: This is similar to the bladehand Shaping, but far more powerful. In addition to a metal blade (covered with a skin that oozes protector nano to coat the vulnerable metal), the arm and shoulder of the Shaper are reinforced with fibrous metal cables that bulge under the skin. A steelblade will likely shatter a bladehand used to block it in one or two hits.

Steelblade:

Framework base	-20
Lethal damage	+40
 Adds to Attribute (Strength) 	+30
 Only on Small targets 	-5
Increased 2d effect	+20
Special effect(armor-piercin	g) +10
 Requires a mundane skill to u 	Jse -5
Requires a mundane skill to u	use -5
Requires metals	-20
 Agility penalty 	-5
 Detracts from appearance 	-5
Total	+25
Difficulty to activate	11

EXAMPLE: A Shaper with an adjusted Fate roll of 2d+0 would have 4d+0 effect. This would be a +2d to their Strength in that arm, and a punch+0 lethal armor-piercing attack.

Laboratory: The Shaper refines their organs and glands to let them synthesize and collect a particular, reasonably complex chemical compound. This is stored in a fleshy sac somewhere near the surface of the abdomen, and the contents can be drained by piercing it with a needle. Each laboratory is a specific Shaping, so someone who can synthesize ethanol has a different Shaping than someone who can concentrate hydrochloric acid, natural opiates or concentrated phosphorous solutions.

Laboratory:

Framework base	-20
Lethal damage	+40
Adds to Attribute (Strength)	+30
 Only on Small targets 	-5
Increased 2d effect	+20
Special effect(armor-piercing)	+10
 Requires a mundane skill to use 	-5
 Requires a mundane skill to use 	-5
 Requires metals 	-20
 Agility penalty 	-5
 Detracts from appearance 	-5
Total	+25
Difficulty to activate	11

A laboratory is often used a reaction vessel to create things too complex for the laboratory alone, however, side effects of any chemical reactions could be extremely hazardous.

Imprint: The Shaper, who must be literate, alters their sweat glands to produce mild acid, typically on their upper legs (though short messages can be passed via the palms). The pattern of the sweat is actual writing in Machine Age English (in reverse). A limestone tablet or anything that can be etched with mild acid can be rolled over the sweaty leg, and it will lightly etch the text into the stone. It is a cumbersome, but fairly quick way to transcribe information into a fairly permanent form. A variant Shaping exudes "invisible ink" which is only revealed by a revealing chemical created by the same Shaping. These messages evaporate in a day or so. Machinists are known to have hidden, illicit libraries of "arcane knowledge", which have occasionally been found and usually destroyed, depending on their contents and the local attitudes towards the cult. Conceptually, the Shaping is guite easy. The hard part is being able to do it precisely enough to convey the writing.

Imprint:

Framework base		-20
Half-lethal damage	ge	+30
Only on Small targ	gets	-5
 Conveys informat 	ion	+10
Requires a mundo	ane skill to use	-5
Requires a mundo	ane skill to use	-5
Total		+5
Difficulty to activate		4

Insight: Science is a difficult skill, and Machinist Shapers often attempt to improve their abilities. Machinists with no concern for human life often master this ability. It boosts cognitive Awareness to up to double its normal amount, with appropriate increase in applicable Awareness-based skill rolls. However, the base limits of this Shaping include specialized raw materials, in this case, fresh human brains! This could be from someone who had just died from natural causes, but some Machinists are not that patient... This Shaping literally swells the Machinist's head, but this can be concealed under some sort of head covering. This Shaping is seen as a mark of devotion to the cause among Machinists. However, it is considered extremely rude to ask how the raw materials for the Shaping were acquired.

Insight:

Framework base	-20
Adds to Attribute (Awareness)	+30
 Requires a mundane skill to use 	-5
Total	+5
Difficulty to activate	

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Zap: A Shaper with sufficient knowledge of science can alter their muscles to be more like that of the electric catfish (which now inhabits the lower Mississippi, and is now unnaturally aggressive and territorial...swimmers beware!). One hand becomes the positive terminal, and the other the negative terminal, and the Shaper can cause several hundred volts to flow between them for short periods. This may disrupt both protector and eater nano for a short period, but it mainly does a whole heap of pain to whoever was on the receiving end.

Zap:

Lap.	
Framework base	-20
Half-lethal damage	+30
Requires a mundane skill to use	-5
Increased 1d effect	+10
Damages non-lethal hits	-10
Total	+5
Difficulty to activate	4

This ability requires that the Shaper touch the target with a bare hand. Armor will stop or slow the effect, since the voltage is not high enough to pass through these materials unimpeded. Using the ability does cause an immediate fatiguing effect, so it cannot be used continually.

Note - Remember that while many Machinist disciplines are simple *and* powerful, you need to spend at least 10S to get a +0d in Science skill in order to use them. This, plus the possible social stigma if discovered can offset any advantages for adventurers to go this route.

Way of the Maker - Makers are the equivalent of enchanters or gadget makers in the normal EABA rules, using Making as the skill rather than Shaping, and each item being a separate skill. The difference is that a maker constructs objects that are alive, powered by stored biological energy, and made from the stuff of the maker themselves. So, if a maker constructs an item and it is not returned and reabsorbed before its energy supply runs out, the maker has *permanently* lost some portion of their bone and muscle and nerve tissue. Since this inevitably happens, no matter how careful a maker or their clan is, old makers are often literally half the person they used to be.

But, makers can do things for a clan that no other Shaper can, and because of this, Makers are generally revered and respected. They are largely outside interclan feuds, and do not have to hunt or do other physically demanding tasks, as others in a clan must. Made items have a separate framework from Shaping:

Туре	Requirements	Cost
-	Starting cost	+40
	Requires total concentration	-10
	Takes fifteen minutes	-20
	Hierarchic power structure	-5
•	Requires minimum Fate of 5	-5
•	Creates living item	+10
	Power costs +3A	-20
	Consumed focus	-20
Frame	ework base	-30

Starting cost

Unlike normal "gadgets", things created with Making are based on the Fate of the Maker, since their internal protector nano is an integral part of the process, not simply the raw materials of a purely technological gadget.

• **Requires total concentration**(-10 cost): Making an item from one's self with nano requires a total inward turning of the consciousness and a fine attention paid to exactly what you are trying to do. It cannot be done on the spur of the moment.

• Takes 15 minutes (-20 cost): The Making process takes 15 minutes, and the user must remain in their trance-like state of concentration the whole time or the results will be incomplete and useless. Once the Making is done, some items will have an extra time that is required to activate the ability, but this only takes time, and does not usually require a roll.

EXAMPLE: The "firestarter" Shaping lets a person spit acid, but it has a six second "warmup" time. Once the person is Shaped, they can spit acid at will, but it takes them a few seconds to gather enough for the attempt.

A power can take longer than this to undergo the initial Making, if it is bought that way, but the time modifier the Making has in its framework is the absolute minimum. Individuals that do not have a Forte in Making might have their version of the ability with a longer default time (those who do have a Forte in Making can take the "reduced 1d effect" modifier for -10 to power cost without taking a penalty on the final effect, since the two cancel each other out. So, those with a Forte in Making can learn variants that are easier than for other people.

Hierarchic (-5 cost): All forms of Making are hierarchic. You cannot learn an ability with a ■ modifier until you learn one that has at least two ■ modifiers, nor can you learn an ability with a ◆ modifier until you learn one that has at least two ■ modifiers. Similarly, you cannot learn an ability that has multiples of ■ or ◆ modifiers until you learn one that has at least one of that type or two of a lesser type (like four ● for two ■). The modifiers in the framework base do not count towards this, but the hierarchy is only within Making. Shaping abilities do no count towards Making, nor do Making abilities count towards Shaping.

▶ Note - Since all the listed Makings have a ■ modifier, the hierarchic modifier starts at the ■ level, not the ● level.

• **Requires minimum Fate of 5**(-5 cost): All forms of Shaping have a minimum Fate threshold. Some may have an even higher Fate requirement, but none lower. If a Shaping has a higher Fate requirement, only the difference in cost applies.

• **Creates living item**(+10 cost): A Made item is a living thing, but the only Attribute it needs is Health. This gives it Hits for purposes of taking damage or suffering environmental effects. If the item takes damage equal to the numerical value of its Health, it"dies". As for Shaping, the "living item" effect is split evenly with all the other things the Made item does.

EXAMPLE: An Made item with an effect of 3d+1 and one ability (like damage), would split this 3d+1 between the ability and its Health, which would make both of them 1d+2, or a numerical rating of 5. This item has 5 Hits.

Made items are assumed to have an Armor of 1d+2 for resisting normal attacks, and ignore most non-lethal attacks. Made items that are melee weapons have the same Armor, but have +1d for resisting other melee attacks in combat (blocking, parrying, etc.). Made items take 1 Hit per day from thirst and hunger, as the protective nano in the item slowly consumes its stored reserves. A Made item can regain 1 Hit lost to hunger by being bathed in fresh human blood, at least 1 Hit of *human* blood for each full 1d+0 of Health the item had when created (round Health up). More than one person can contribute to the blood needed, but just for the sake of game mechanics, each Hit of blood loss has to be assigned to a particular person.

EXAMPLE: A Made item which had a Health of 2d+1 would require being bathed in 3 Hits of blood to regain a lost point of Health. One person could donate all 3 Hits, or three people could donate 1 Hit each, or a dozen people could donate a small amount, but three people would still take 1 lethal Hit in damage.

The only exception to a Made item needing this blood infusion is if the item is made with the modifier:

Rechargeable by Maker +5

This is a variation of the "easily replaceable charges" note on page 6.25 of **EABA**. The item has a little bloodsucker on it, and the Maker of the item can attach it to themselves like a leech, which will restore 1 Hit of "hunger" damage each fifteen minutes and will reset any duration of use back to full. This does not cost the Maker any lethal Hits, though they do take 1 non-lethal Hit from fatigue for each Hit of hunger damage restored to the item and 1 non-lethal Hit for resetting the duration. Many Makings will have this limit, but it is not required. Makings which do damage cannot have their uses, duration or charges replaced in this way.

Made items have the same environmental limits as the person who made them. Made items can be burned, drown, freeze and so on, though they are less vulnernable than people are.

Note - If a Made item's Health (not Hits) is reduced to less than 0d+2, it will become vulnerable to eaters, and it can also be attacked by more powerful eaters, just as an adventurer can. ■ Power costs +3A(-20 cost): Instead of paying A during creation of the adventurer, the Maker loses 3A each time they use Making with this modifier. (and one use of the modifier is mandatory). The Attribute the points are lost from must have something to do with the nature of the Making, and if nothing is immediately obvious, the points come from Health. The Maker gets these points back when the Made item is returned to them and they resorb it back into their body. If the item is lost or dies, these Attribute points are gone forever. This potential to permanently lose points is why the modifier is worth twice as much as normal. Items can only be returned to *their* Maker, not any Maker.

Consumed focus(-20 cost): A Made item is by its nature a consumed focus. It can have individual charges, which cannot be replenished, or it can have a total duration, which can be turned on and off as desired. As long as the item has Hits remaining, it is still returnable to its Maker, even if its charges are gone or its duration expired. Abilities that actively do damage (like a gun) must have charges. Abilities that passively do damage (like a sword) simply have the "adds to an Attribute (Strength)" modifier as described in several of the Shapings. Something like a Made "flashlight" would have a total duration it could be used for.

You cannot make an item with "one use per day", or "three uses between sunrise and sunset" or anything resembling a mystical kind of mumbojumbo. Making creates a living analogue of a technological device, whether it is a radio or a magnum pistol. It may not look anything like its technological equivalent, but the effects are what matters.

If a Made item has a number of charges, the difference between the -20 cost and the cost for the number of charges will be part of the Making description.

EXAMPLE: Eight uses would normally be a consumed focus with a +0 modifier. So, since we already applied a -20 for the "consumed focus", eight uses will be listed as a +20 modifier, which adds up to +0.

Shooter: This is similar in concept to the "guns" from the Age of Machines, though they are known only through description, a few stone friezes and drawings that were made by the survivors of the Ruin. There are several different Shooters, each of which is a separate Making. Shooters use the same means of operation as the Shaping of similar effect, but are completely self-contained.

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Shoulder shooter:

Framework base	-30
Lethal damage	+40
Technological range	+25
Accuracy of +2	+5
Increased 2d effect	+20
 Sixteen shots 	+20
Requires mundane skill	-5
Total	75
Difficulty to activate	12

EXAMPLE: A Maker with a 2d+0 Fate roll creates a shoulder shooter. It has 4d+0 in effect, which becomes a 2d+0 ranged attack with an Accuracy of 2, and which has a Health of 2d+0 (6 Hits).

Hand shooter:

Framework base	-30
Lethal damage	+40
Technological range	+25
Increased 1d effect	+10
 Eight shots 	+15
Requires mundane skill	-5
Total	55
Difficulty to activate	12

EXAMPLE: A Maker with a 2d+0 Fate roll creates a hand shooter. It has 3d+0 in effect, which becomes a 1d+2 ranged attack with an Accuracy of 0, and which has a Health of 1d+1 (4 Hits).

Shot shooter:

Framework base	-30
Lethal damage	+40
Shotgun damage	+10
Technological range	+25
Increased 3d effect	+30
 Four shots 	+10
Requires mundane skill	-5
Total	80
Difficulty to activate	12

EXAMPLE: A Maker with a 2d+0 Fate roll creates a shot shooter. It has 5d+0 in effect, which becomes a 1d+2 ranged attack with an Accuracy of 0 that gets two hits on a successful attack, and which has a Health of 2d+1 (7 Hits).

Glowlight: This is a simple bioluminescent globe that is used to light clanhomes or for use while going outside at night. It comes in two varieties, the first is an circular area effect good for lighting rooms, and the other is more directional, more useful for lighting a path.

Glowlight:

	•	
Frame	work base	-30
	Acts as an Attribute	+30
	Fills 3 meter radius	+20
	Power lasts 10 hours	+30
	Increased 1d effect	+10
	Six seconds to activate	-5
	Requires gestures	-5
	Rechargeable by Maker	+5
Total		55
Difficu	Ity to activate	12

EXAMPLE: A Maker with a 2d+0 Fate roll creates a glowlight. It has 3d+0 in effect, which becomes an ability to offset darkness enough to see with 1d+2 Awareness, and which has a Health of 1d+1 (4 Hits). The glowlight lasts for up to ten hours of use, you have to hold it to turn it on or off, and it takes several seconds to warm up to full brightness. The Maker can recharge it and offset any hunger losses the glowlight has taken by letting it suck on a vein for 15 minutes and taking 2 non-lethal Hits from fatigue.

Pathlight:

Framework base	-30
Acts as an Attribute	+30
Fills 7 meter radius	+30
Power acts like a cone	-10
Power lasts 8 hours	+30
Increased 1d effect	+10
 Six seconds to activate 	-5
Requires gestures	-5
Rechargeable by Maker	r +5
Total	55
Difficulty to activate	12

EXAMPLE: A Maker with a 2d+0 Fate roll creates a pathlight. It has the same effect as the glowlight, but lights a 60° arc that is 7 meters long.

Farspeaker: This is a self-contained version of the shaman ability. It would operate similar to a walkie-talkie, and is about the same size. It can be used without a farspeaker trance, but does not have the range of a genuine farspeaker. Remember that all farspeaking is done over frequencies that can be listened to by all other farspeakers.

Farspeaker:

Framework base	-30
Acts like an Attribute (Awaren.)	+30
Accuracy of +8	+20
 Line of sight only 	-10
 Six seconds to activate 	-5
 Lasts up to 8 hours 	+30
Requires gestures	-5
Rechargeable by Maker	+5
Total	35
Difficulty to activate	13

At least 1A of the cost the maker pays for this power must come off Awareness.

EXAMPLE: If a Maker with a Fate of 2d+2 makes a farspeaker, it will have an effect of 1d+1 and a Health of 1d+1. It has a total Accuracy of 12, 4 for its Awareness and +8 for the item modifier. To communicate with someone 2 kilometers off with a similar unit would require an Awareness roll against a difficulty of 8 (range difficulty of 20, minus 12 for the Accuracy). It takes six seconds to warm up and tune the farspeaker, and the total time it can be kept operational is 8 hours.

Stinker: This is the Maker equivalent of a can of pepper spray or the aspect of skunk. It's a selfpressurizing bladder of the most noxious and acidic crap (literally) you can imagine. It only has one use, but one use is often one use too many.

Stinker:	
Framework base	-30
Non-lethal damage	+20
Specialized damage	+20
Line effect 3 meters long	+20
Increased 1d effect	+10
Requires gestures	-5
Total	35
Difficulty to activate	14

Bat ears: This is a fairly sophisticated Making that allows a semblance of night vision. It is like a helmet, that gives audible cues about the range and movement of whatever is in front of it. For instance, you would not be able to see a person in front of you in the dark, but you could tell how far away they were, the direction they were moving, and if any part of them was moving in a different direction (like swinging a a weapon). Bat ears can also be used to move normally and avoid obstacles in the dark.

Bat ears:

Framework base	-30
Acts like an Attribute (Awaren.)	+30
 Requires gestures 	-5
 Lasts up to 8 hours 	+30
Rechargeable by Maker	+5
Total	30
Difficulty to activate	12

At least 1A of the cost the maker pays for this power must come off Awareness.

Note - Makers have not yet found a way to make a light-amplification device. Shapers can alter their own sensitivity, but Makers haven't figured a way to output the information onto the equivalent of a phosphor screen.

Blood pet: This Making is an armored bladder with a row of needle-like teeth. It contains blood plasma, clotting factors and natural antibiotics. If placed over a bleeding injury, it will clamp down, sealing and cleaning the wound, as well as temporarily knitting the tissues together. It gives the recipient a bonus to their Health rolls for healing, blood loss, shock or other purposes for the next two days.

Blood pet:	
Framework base	-30
Adds to an Attribute (Health)	+30
Requires gestures	-5
Lasts up to 2 days	+35
Total	10
Difficulty to activate	12

EXAMPLE: If a Maker with a Fate of 2d+2 makes a blood pet, it will have an effect of 1d+1 and a Health of 1d+1. It will boost the recuperative Health of the recipient by 1d+1 for two days. This does not affect endurance or fatigue, but it will help other non-lethal Hit recovery. There are variants of this Making that do not affect healing, but do provide extra endurance.

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Screamer: A screamer is a chunk of nervous tissue, ears and a tiny set of strong lungs. If it hears or sees what it thinks is a person, it lets out a warbling howl that continues until the sound goes away. They are sometimes used a perimeter alarms, or with slight modification, as burglar alarms or tamper detectors.

Screamer:

Framework base	-30
Acts like an Attribute (Awaren.)	+30
 Triggered 	+10
Password	+5
Lasts up to 2 days	+35
 Six seconds to activate 	-5
Requires gestures	-5
Rechargeable by Maker	+5
Total	45
Difficulty to activate	15

At least 1A of the cost the maker pays for this power must come off Awareness. The screamer is set by placing it in a good spot, squeezing it the right way and then moving off before it activates.

A screamer can be given a password. When it hears something, it will 'cheep'. If it hears the right password in response, it will ignore all trespasses for the next several seconds, allowing friendly people to pass a guarded perimeter without waking the dead.

Memophone: Similar in construction to a screamer, a memophone can record a verbal message up to a few minutes long, and play it back for any duration up to its total time. It can be used to literally carry the word of a shaman or elder, or to record any message where the person cannot deliver it themselves.

Memophone:

Framework base	-30
Acts like an Attribute (Awaren.)	+30
 Triggered 	+10
Password	+5
Lasts up to 1.4 hours	+25
 Six seconds to activate 	-5
Requires gestures	-5
Rechargeable by Maker	+5
Total	35
Difficulty to activate	13

Making notes - Practically speaking, a Maker will probably not have more than three Made items in circulation at any one time. Three items would require about three hours of rest just to keep them "charged", and this time would be in addition to the Maker's normal sleep period. The rest of the Maker's day is usually spent in various forms of meditation, exercise and teaching, preparing for the inevitable losses when a Made item is lost or destroyed.

If a member of a clan causes a Made item to be lost, or if it is destroyed while in their custody, then the Maker is owed a gift-debt to compensate, which is worth probably about three months of accumulated wealth or goods for a normal person, or about 100 Credits worth.

SHAPING PREREQUISITES - Since Shaping is subject to a hierarchy of complexity crossing the different Ways, the easiest way to figure things out is below. Each Shaping falls into a "tier". Anyone can learn tier 1. To learn higher requires that you know a Shaping in the next lowest tier. Shapings are listed by name, with their Way in parentheses. A few are listed with a superscript. This is because they have enough elements from a lower tier to qualify as a pre-requisite for a higher tier than their base.

EXAMPLE: Firestarter (tier 1) has four \bullet modifiers, which means it is a suitable pre-requisite for something with two \blacksquare modifiers (tier 3).

Tier 1 (only • modifiers)

Beastskin(warrior)³ Firestarter (hearth)³ Unshakeable(totem) Zap(machinist)

Tier 2 (one modifier)

Aspect of bear(totem) Aspect of hare(totem) Aspect of horse(totem) Clubhand(warrior) Farspeaker(shaman) Immolation(machinist) Insight(machinist) Itch(demon) Sleeper(demon) Stasis chamber(machinist) Stoneskin(warrior) Turtleback(warrior)

Aspect of fish(totem) Aspect of skunk(totem) Bladehand(warrior) Blower(hearth) Chameleon(demon) Empathy(shaman) Preserver(hearth) Seducer(demon) Strengthening(shaman) Superior aspect of horse(totem) Weaver(hearth) Willbender(demon)

Tier 4 (three modifiers or one + modifier)

Aspect of cat(totem) Clawhands(warrior) Demon(demon) Imprint(machinist) Laboratory(machinist) Steelblade(machinist) Steelshooter(machinist) Stonearm(warrior) Stoneshooter(warrior) Superior aspect of bear(totem) Superior aspect of fish(totem) Superior aspect of hare(totem) Truesight(shaman)

Tier 5 (four ■ modifiers or two ◆ modifiers) Healing(shaman) Superior aspect of cat(totem)

So, if you wanted to be a healer, the minimum path would require 35S, 5S for Shaping skill, 15S for three Shaping pre-requisites, 5S for Healing, and 10S because Healing requires a Shaman skill roll, and since this is an Advanced skill, you cannot use your unskilled Awareness for the task. The Makings have their own progression that must be followed:

Tier 1 (one modifier) Bat ears Blood pet Farspeaker

Tier 2 (two modifiers) Hand shooter Shoulder shooter Stinker

Tier 3 (three ■ modifiers or one ◆ modifier) Glowlight Memophone Screamer Shot shooter

Tier 4 (four ■ modifiers or two ◆ modifiers) Pathlight Other uses of Shaping: Even someone who has no skill at Shaping can use their Will roll minus 1d to attempt minor Shaping tasks at a difficulty of 7. This costs 1 non-lethal hit in energy and takes about five minutes. The net effect is to give yourself a +1 to a roll in a limited set of circumstances or to almost automatically succeed at a simple task that is normally outside your control. It's really half attitude and half results. You are psyching yourself up to do something, and your body follows, just a little bit.

Examples would be vanity tasks like smoothing wrinkles or pulling in a sagging belly, altering the chance of conception, projecting a certain aura or impression or making yourself just a hair stronger or faster or smarter or keen-eyed for one very particular type of task.

The effects of this very limited Shaping automatically wear off in about an hour, but the adventurer's Fate for other Shaping tasks is reduced by 1 during this interval.

Adventurers can spend 1S to get a +0d Shaping skill for one of these specific tasks, allowing them to use their Will roll rather than their Will roll minus 1d.

SHAPING LIMITS - Shaping is serious body modification, and adjustment of and repurposing of neural tissue. This limits the nature of what can be done through Shaping. No amount of Shaping would let a person teleport. A person could fly, but it it would require turning most of their mass into a pair of fifteen meter wide wings and the muscles to flap them (imagine a pterosaur). While far from easy, flight does not violate any laws of physics. Aside from the previously mentioned teleportation, we place no limits other than common sense and the nature of Shaping on what you can accomplish with it. Shaping, however, is purely on yourself. You cannot Shape someone else or something else.

The Shapings and Makings listed are by no means optimized. As with any power creation system, Shapings and Makings could easily be optimized to be far more powerful than these. However, these fit the nature of the **Age of Ruin** gameworld, and the modifiers and the way they are applied should be your guidelines for making new ones.

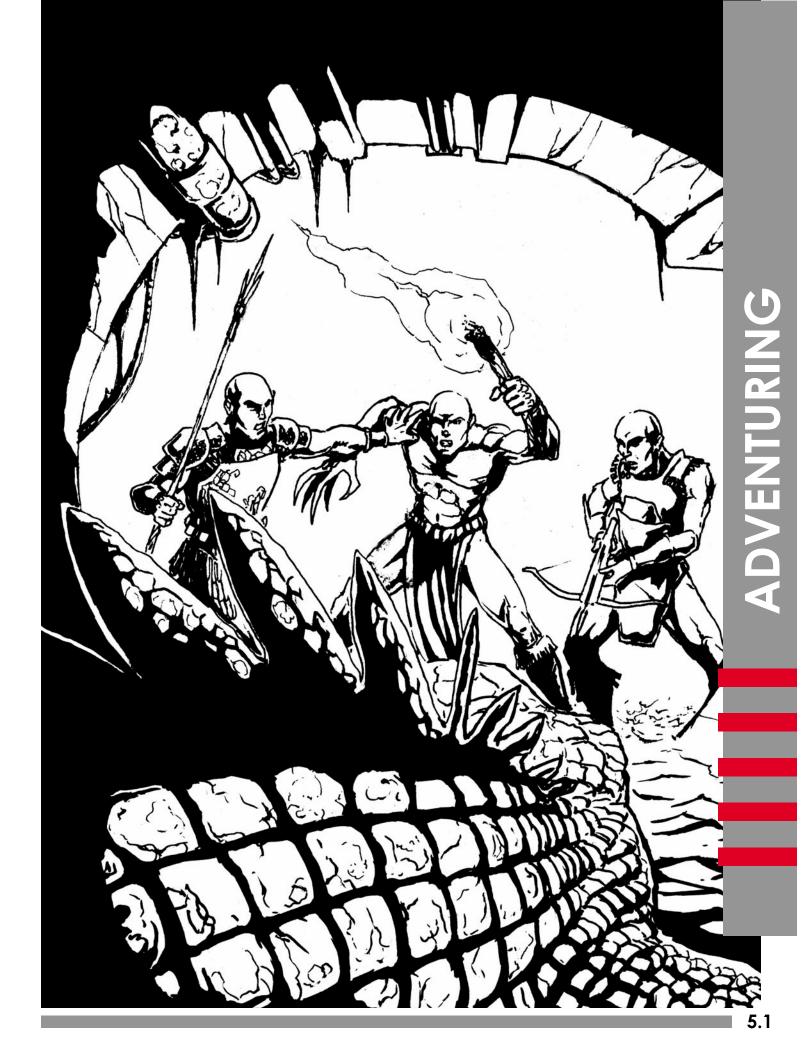
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Gamemasters and players are of course encouraged to make new abilities, but should take into account the utility of the ability compared to how long it would take to learn, any kind of support structure needed and so on. To use a rule example, someone who has a sword for one arm and a gun for the other may kick butt in combat, but would have a lot of trouble tying their shoelaces or feeding themselves.

Age of Ruin is a skill-poor world, and Shaping is a skill. Few people have the luxury of spending all their time trying to learn new skills, so trying to create a new Shaping would probably take a year or so of your spare time. And the gamemaster is quite within their rights to say the very first time you attempt a new Shaping or Making, it has a "side effect" chance, possibly with more difficulty than expected. After all, you've never done it before. You may have gone partway, or done intermediate steps, but at some point, you've got to take a chance and go all the way, and the whole may be different than the sum of its parts.

Shaped creatures - Shaping is not something that can be done to someone else, with the possible exception of the Demon ability, which is still more of a parasitation rather than Shaping someone else. Creatures cannot consciously Shape themselves, but those of sufficient Fate and with a stressful enough event can undergo changes. A mother bear who just saw her cubs killed, a wild boar tired of having its territory violated, a bull overeager to protect his "harem", a wounded dog, or such can over time Shape themselves. It may not be pretty or as subtle as human Shaping, but it will have something to do with the nature of its emotional state. A wild boar may develop claws so it can climb a tree and come after you, the bear may become fearsomely strong or tough, the bull may grow grotesque serrated horns that ooze blood, or the dog could sprout an extra head, develop acidic saliva or who knows what. These misshapen and often deranged animals often have little self-preservation instinct, and can be a rude surprise to anyone who encounters them.

They are always (to date) encountered singly. It would be a noteworthy event to encounter two in an area in the same month, let along two or more acting together.



"...it seems wise to assume that someone, somewhere, somehow, will escape the bounds of regulation and arms control and apply molecular-manufacturing capabilities to making novel weapons...There is good reason to think that distributed technologies of this sort could be adapted and extended to deal with the problem of protecting against novel nanoweaponry. Failure to do so could mean disaster."

- from Unbounding the Future: the Nanotechnology Revolution

INTRODUCTION - Now, you might be thinking that you can't run a fun campaign around the idea of stealing your neighbor's cattle and trying to win first prize in the yearly flint-knapping, tree-climbing and pig-wrestling festival. And you're probably right. But **Age of Ruin** is a bit deeper than that.

We didn't say anything directly in the chapter detailing daily life, but the seeds are there for all manner of subversive notions. Think about it. There is a large group with a tech monopoly, who will do virtually anything to maintain it. There are problems with industrial waste, a drug epidemic and tribal elders about to engage in yet another fruitless campaign against it. There are populations displaced by global warming, government secrets, a poorly understood group with fanatical beliefs who doesn't "play by the rules", survivors from the Age of Machines far closer than most people realize, and a reviled cult, which while it does contain its share of bad apples, may be the only real hope humanity has.

Age of Ruin is not meant to be a "forever" world. That is, it is not like many fantasy worlds, sometimes stagnated for thousands of years without major changes in technology or attitudes. Nor is it even on a par with the Dark Ages, where things were stagnant for centuries. Age of Ruin is a world that suffered a traumatic, nearly fatal blow. It has now recovered as much as it ever will on its own. But, it is *not* on its own, and the long-term situation is anything *but* stable. Whether adventurers are part of it or not, times, they are a changin'. Let's *dig into it*.

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TRIBAL CONFLICTS - Each tribe's notes have the seed of a larger, long term plot thread.

The Manhattan - The Manhattan keep a sharp eye out for anyone who might try to break their glass-making monopoly, and have in the past resorted to a number of underhanded tricks to thwart potential competitors. However, this is only rumor and has never been proven. Those who slander the Manhattan find that Manhattan glass will become hard to find and quite expensive for themselves, their clan and all the surrounding clans. Other people can make glass. The process is no secret. It just takes a lot of work if you don't have a free source of clean heat.

The Manhattan also have a pollution problem left over from the Age of Machines. Their problem is worse than for the Ohio, but the Manhattan can more easily identify the bad areas, because they are *really* bad. However, the areas surrounding the worst spots are slowly being poisoned, and it is resulting in lower levels of health and vitality for many clans. Clans, as they realize their land is slowly dying, are moving into lands previously unoccupied by Manhattan clans, and forcibly displacing the unaligned clans within Manhattan territory, which in turn shoves these clans into Ohio, Kentuck or Delmarva territory, which causes further problems.

Adventure idea: An adventurer of Manhattan blood, even if they are now in another tribe, might be called on to help the Manhattan do something that is not quite honorable, forcing the adventurer to choose between blood ties, and possibly old friendships or family, and their sense of honor and loyalty to where they are now.

Adventure idea: The Kentuck are trying very hard to get a large-scale glass-making works, and might even be willing to steal one, or hire someone else to do so, with payment to be in Kentuck goods or a very large gift-debt. The Kentuck, not being fools, are also looking to make sure that if the attempt fails, it cannot be directly traced back to them.

The Cheyenne - They have a great deal of pride in the accomplishment of their ancestors, but their secret lore carries with it shame, danger and promise. The tribal elders of the Cheyenne tell to their successors that the Cheyenne were also the ones responsible for creating the original nano that became the eaters, much to their shame. The tribal elders alone know that in the Cheyenne Mountain there exist great stone vaults with cement doors and impermeable plastic seals. Behind these doors exist maybe the last of the great tools of the Machine Age, even tools to make and understand nano. But the way of using those tools has been lost, and if the vaults were ever opened, the eaters would consume these last Machine Age tools as they have all others. The knowledge of where to find these vaults and how to open them is told in puzzle and rhyme, in hopes that someday someone will know what to do with the knowledge.

Some but not all of the Cheyenne elders are the secret leaders of the Machine Cult, though this position is more one of respect than authority, for these leaders must remain anonymous, and can act only by passing information to other Machinists and hoping it is acted upon in the way they desire it to be.

Adventure idea: Perhaps within the sacred vaults of the Cheyenne there also exist the last of the atombomb, hellish instruments of destruction used in a futile attempt to stop the spread of the eaters at the end of the Machine Age. Realistically, they would no longer work, but there is always a chance that if built with tech from 2050CE, they will. Keeping one intact would require the dedicated efforts of a Node, which begs the question of why a Node would want one, and how would it know where to find them.

Adventure idea: Maybe some of the Cheyenne never left their vaults. Hermetically sealed hermits, living for generations underground, passing on their knowledge and research to each new generation, knowledge of their existence the most closely guarded secret of the most senior of Machinists. **The Delmarva** - They have a problem with Shaped beasts, but their beast problem is selfinflicted. The pockets of Machine Age poison and radiation interfere with the Delmarva totem Shapers more than they do Shapers from other bloodlines. They either fail their Shaping attempts and are left in some bestial intermediate state, or they find they cannot change back to a fully human form, and regress to more and more extreme (and less human) shapes. No longer aware of who they were, they are drawn back to their old homes, where they are no longer recognized, and are seen as dangerous beasts...which they are.

Adventure idea: A ravaging beast or beasts have caused harm in an adjacent tribe's land, or possibly even that of just a nearly clan. Warriors and Shapers seek to slay them, but the beasts seem to be directed by an outside force, and act a bit too clever for beasts, maybe even too clever for men. Who is directing them or helping them avoid even the best trackers?

Adventure idea: A young totem warrior of the Delmarva is found wounded in the woods by a clan from another tribe, and brought back to health. Eventually he is adopted into the clan. Some months later, others of his tribe show up, claiming he is a murderer, who cannot control his bestial nature. While they are there as guests, one of them is murdered, his body torn as though by a wild animal. The adopted member of the clan claims innocence, but has no proof. Tensions mount, and diplomatic relations with a friendly tribe could be adversely affected unless the situation is resolved.

The Carolina - Well, they clearly have a weed problem. More and more of the young people are chewing on weed when it is in season, and this is affecting their ability to hunt, they ignore the commands of their elders and they eat far too much when the weed wears off. The elders of the Caroling do not know what to do about the problem, but they are considering drastic measures such as severe punishments or weed eradication, measures that are probably doomed to fail. The Kentuck had offered to teach the Carolina some of the secrets of liquor, in the hopes that a substance of equal utility but easier to control would help. But, these negotiations have broken down for a variety of reasons, and some elders even feel the Kentuck are somehow to blame for the problems of the Carolina.

Adventure idea: A clan elder has a suspicion that he cannot prove, that members of some other tribe have cultivated a weed far more potent than that which she consumed when she was younger, and that this new, more powerful weed is being used to weaken her people. She uses ties of friendship and loyalty to find people who will investigate this for her, without being obvious or ruffling any social feathers.

Adventure idea: While under the sway of weed, a farspeaker hears voices never heard before, not other farspeakers, but something with a clarity and purpose he can remember but not recall, except in fragments. Seeking to gain understanding of these musical voices, he both indulges in more and more weed, and tells other farspeakers of his vision. A few of them also hear the voices (or think they do), and an argument begins among the various religions as to the nature and meaning of the beautiful but cryptic "angel song".

The Ohio - The lands of the Ohio are pocketed with regions where clans are dying for unknown reason. Children are born with deformities, or grow up weak and sickly, and elders die far before their time. These dying clans are unfortunately seen as cursed by their neighbors, who offer little help and refuse to allow their sons and daughters to take mates from the affected clans. The affected clans have sought redress from tribal elders, to no avail. Those who still remain healthy among these clans, or who have close blood ties to an affected clan are on the verge of starting a civil war within the Ohio, and those who are ill or dying are willing to shape themselves into forms from which they cannot recover, just to be fearsome in battle, and Makers are willing to give all of themselves that their children and kin have a chance to fight for a better life. Things have not reached the point of no return yet, but the murmurs of discontent have become actual plots and secret treaties between the affected clans.

Adventure idea: The last survivors of a dying clan have sought to leave their lands for a more healthy home. But word of where they came from travels ahead of them, and while they find guest hospitality, they find no one who will take them in. Their numbers were too few to set up a new clan of their own, so as they wandered, they sought for outcasts of all kinds, and become a motley band of misfits, whose size makes them too numerous to be welcome guests, but also too numerous to ignore. As their number grows, they have begun to *demand* hospitality, a serious social breach, but one which few can do anything about. They have still not reached unclaimed lands, and word comes that they are heading your way...

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Adventure idea: Some of the shamans of the Ohio (and many of the Machinists), know how to concentrate the poisons of the Age of Machines. One of your clan or tribal elders who has a very contentious past with the Ohio has fallen ill, and the illness has been traced back to a water bottle left behind by some Ohio travellers. Was it an accident, or something else? The travellers left a few short days ago, and someone needs to catch up with them and investigate what is going on.

The Georgia - They are in a bind, for either ocean levels are continuing to rise or their southernmost lands are beginning to sink. In the past years, the ocean has claimed much land along their southern coast, and salt has infiltrated the water table further in, making even more land unsuitable for agriculture. While other clans might try to adapt to the new environment, many Georgians simply cannot Shape the kind of adaptations needed. The Georgia have no choice but to move north, and the tribal elders have secretly decided to use the demon talents among them to sow discord in their neighbors, and in "solving" this discord, hopefully gain territorial concessions in gratitude. Other elders simply see this discord as a distraction that will allow the Georgia to take the land they need by force, with a weakened Kentuck and Carolina individually unable to do anything about, and too mistrustful of each other to cooperate against the Georgia.

Not all Georgia think this way, and would be appaled if they knew what their leaders were plotting...

Adventure idea: A friend or relative of one of the adventurers has been murdered. The wellhidden corpse was found only by accident, and only a distinctive scar on the quickly eroding skull allowed the next of kin to identify who it was. There is much mourning, for they were a Gaean, and either died alone or only in the presence of their enemies, who would almost certainly not be Gaeans. This person had been on edge of late, speaking uncharacteristically darkly of the tribal elders, but he would not say why. Visiting one of his favorite spots to mourn, you spy some trail sign and clan markings, far from the normal travel routes. It could be interpreted many ways, all of them disturbing, but none of them obviously the one meaning the writer intended. You remember the signs, erase them, and then seek to investigate all the possible interpretations.

Adventure idea: The twice yearly tribal moot is in another moon or so, when the clans gather to mark the solstice, trade, settle tribal disputes and generally have a good time playing games, telling stories and meeting eligible members of other tribes and clans. This season, there is a tension in the air. There are an uncharacteristic number of disputes to be settled, and conflicting claims of debt and payment. Some clans are not even sending representatives, while others are sending far more than normal, most of them skilled in arts other than negotiation. An eclipse and a comet crossing Mars are merely astronomical phenomenon, but some still see them as more omen than coincidence.

The Kentuck - They have had no luck in negotiating with the Manhattan for a glass-smelting solar furnace to make new glass bottles, and are actively looking for another means of acquiring or building such a furnace. The only other option is to have the Manhattan make the glass bottles, which would then have to be transported to Kentuck territory to be used. The Manhattan have no problem with this option, which would be highly profitable to them, but the Kentuck consider it an unacceptable expense in the long run.

Adventure idea: The Kentuck have instituted a "bottle return" program, offering a reasonable giftdebt claim for each intact glass bottle returned to them, or each Machine Age plastic bottle turned in. They are fairly light, especially the plastic ones, and a horse can carry enough empties to be worth a journey of a few weeks to do it. It might also be worth a trip to the nearest Machine Age city to see if there is anything worth mining from the rubble.

Adventure idea: A clan has stumbled across a cache of empty borosilicate glass ampules. They are not nearly so large as bottles, but can be easily sterilized of eaters and sealed with a fairly small solar concentrator. There are enough ampules to serve the largest of the Kentuck stills for a full season, certainly enough to cut into the Manhattan negotiating position. And the Manhattan intend to do something about it before the slow-moving caravan of ampules makes it to the largest Kentuck distillery. **The Okie** - Despite the best efforts of the Cheyenne, the Okie have regressed to barbarism. They have lost most of their oral tradition, their shamans and much of the advanced knowledge of Shaping and almost all of Making. What they do have is numbers, and of late, a strong leader, a vision, and the support of a deranged shaman who after death, served as the template for a powerful Node. In the long term, the Okie are a threat much like the Mongols would be to 13th century Europe, a highly mobile, highly skilled enemy who doesn't play by the same rules as everyone else. They also have parallels to modern radical religions, including fanatics willing to die for the cause.

The Okie might normally be a threat to the Ohio and Georgia, but the addition of their charismatic leader and a powerful Node makes them a force that can draw new recruits from the disaffected among the other tribes, a belief system that can gain adherents and generate pockets of chaos far from any actual Okie presence.

Adventure idea: In addition to the cult of the anael sona, there is another cult of farspeakers that claims to hear voices, and they do not need weed to do it. Unlike the angel song, the voice is clear, smooth and authoritative. It speaks of things that will come to pass, and those things happen. Rewards are promised to those who join, and terrible dissolution to those who hear the message and speak against it. The farspeakers who heed the words of the "Last Shaman" gain knowledge of Shaping that none have ever done before, talents that make them and their followers formidable, even to influencing (and some say intimidating) clan elders. Then, in your travels, you see trail sign near a clan's village indicating "good hospitality", but hidden where it is not easily seen (and erased), are signs for "watch what you say" and "danger".

Adventure idea: In the middle of the continent, near the Mississippi, there is a great earthquake. Many are killed and wounded when structures collapse. The land shifts, just a fraction, and for a brief span of time, the great river runs dry for a span of kilometers. Before the unstoppable waters find a way around the slight bulge in the earth (suddenly flooding several Ohio clans still stunned by the quake), several Okie clans, as though waiting for the opportunity, cross into Ohio territory uninvited. Acting not as individual clans, but instead like units in what the Machine Age called "armies", they begin swallowing up the territory of Ohio clans, and either slaying those who oppose them, or demanding they convert to the Okie way.

LONG TERM PLOTS - The overall story arc of the Age of Ruin revolves around returning the Earth to its pre-Ruin greatness, or making it someday possible for this to take place. The actual Age of Machines might never be recreated, nor the information of that age ever recovered, but humanity might find a way to have far more than their current neo-primitive state. The seeds for this new era are already in place at the start of the campaign. By the end of the adventurer's lives (if they live long enough), the world can be a visibly different place. If everything falls into place, the old ways of life could be obsolete in their children's lifetimes, and there will be an entirely new, yet familiar gameworld to run adventures in, old trappings, but new problems, new foes and new adventures.

There are a few ways in which this might be accomplished. A new form of nanotech might be developed that could be used to protect manufactured objects, probably as some form of microthin coating. Since any eater nanotech operates from the outside in, a protective nanoskin would self-seal any cuts and consume any eater nanotech that got a foothold in the time the object was exposed. This has possibilities, but also limitations. The protective coating would need to be "fed", just as the human protective nano is, which limits its usefulness in certain cases. It would also not work very well for parts that wear against each other, like most of something like a car engine.

Another way might be to develop a tech framework that is based on materials that the eater nanotech ignores. Optical fibers, optical computer chips, non-metallic, non-organic conductors, ceramic-based structural materials and so on. Or, the Lunars might be able to recreate and improve on what Makers do, and create a self-protecting organic technology.

A third way would be a third generation of nanotech that can be made into objects like Makers do, but without the biological component, a self-repairing technology using microscopic electro-mechanical components instead of monolithic blocks of metal or plastic.

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The last might be the near- or total eradication of the eater nanotech. This could be through the introduction of some new nanotech that would outcompete the eaters and then hopefully die off, or a "natural" near-extinction. As is, the eater nanotech that was partial to metals has consumed virtually all sources of refined or unbound metal in the environment, and even most of the more easily chemically bound metals (like rust). This means the only thing that nanotech feeds upon is the bodies of lesser kinds as they wear out. Eventually, the distribution of metal in the environment will be so fine that this species of eater can no longer support itself except for isolated colonies that feed on meteors or slowly erode veins of metal deep in the Earth's crust. Of course, this also means that metals will be so finely distributed in the environment that refining them will be next to impossible. In this case, at least, if that eater nanotech can be kept in check, new metals can be imported from space.

All of these scenarios need advanced technology to make them happen, technology that no longer exists nor can exist on Earth as it is now. Even the most adept of Shapers cannot create new nanotech, nor find a way to fashion an optical logic chip or semiconductor junction.

This means that the prophesied but undefined "Age of Redemption" will have to come about with outside assistance.

Technologically based mankind *did* survive in space, though no one on Earth knows or can confirm it. Yet. The tenuous second home of mankind is on the Moon, with a handful of research stations in orbit around the Earth. From there, a nanotech-free population studies the surface, the movement and conflict of populations, and the odd radio transmissions that come from what is eventually identified as Farspeaker adepts.

Nanotech research is carried out, extremely carefully, far from lunar habitats and orbits, even being careful enough to make sure that solar winds cannot blow nanites into inhabited regions of space. Special shuttles dive into the atmosphere to collect samples, which are shot back into orbit before the shuttle corrodes and plummets into one of the oceans. From these carefully tended samples, knowledge is gleaned, anti-nanotech coatings, electrical fields and nanopredators are developed and tested.

It is a process that has just started. It has taken this long for the fragile off-world population to do anything except work on its own survival, and it will be an integral part of an **Age of Ruin** campaign, even if the adventurers do not know it at first.

Not only will it be a slow process, it will be a political one. Not all of those in space think any nanotech should be experimented on or collected. Even among those who want to help the surface population, there is disagreement about the methods and timetable. And with several research stations operating on different projects, there is the distinct possibility that individuals may pursue their own agendas, regardless of what the overall official decision is.

EXAMPLE: When the Lunars discover and discern the nature of Farspeakers, will they simply eavesdrop? Or will they speak into the minds of the Farspeakers? If they do, will it be as humans living in space, or will they portray themselves as divine or spiritual beings? Last, will the Lunars truly understand the surface culture? What kind of well-intentioned but completely disastrous results could result from a misinterpreted communication with an ambitious or insane Farspeaker?

At least for now, the Lunar researchers can only reach the minds of certain farspeakers, and cannot precisely duplicate the organic and chaotic nature of a farspeaker's nanotech based radio signal. So, the farspeakers only get fragments of the messages being sent, along with reverberations and quasimusical noises that are given the name "angel song". Similarly, the Lunars receive farspeaker signals, but they are not only garbled, they are signals generated under the heavy influence of weed.

Anything the Lunars do will eventually have a radical effect on the way the surface humans live, think and interact. Even if the communication from space is clear, those on the ground will likewise be of many opinions as to what to do. Those from the Age of Machines are universally considered weak and soft, arrogant beings who brought about their own destruction and cursed their descendants. To find that some of them have survived, and want to work changes on the world without having the courage to actually set foot on the ground first, this will not go over well with the majority of the tribes and clans. The Machinists on the other hand, will be delighted to find that the Age of Machines survives in space. They will greedily suck up every bit of knowledge they can, for good or ill. And then there are the Cheyenne, who carry knowledge of where Earth's last nanotech laboratories are hidden, machinery that could be vital to any rebuilding effort, if it could be protected from eaters after the sealed stone vaults are opened.

Not so fast! - It gets a little more complicated than this. People also have to worry about the eaters. The situation between protector and eater nano is stable, and has been for about a century, but there is no guarantee that this stability is permanent. Nodes are an example that eaters can become something more than an unthinking force of nature. Eaters, Nodes or both are capable of evolving, and people are ill-equipped to deal with an escalation of the eater threat.

Just like the original eaters were isolated outbreaks that spread around the world, perhaps there will be an evolution of Nodes that begins in the campaign region. Something that starts slowly as an undefined menace. Maybe something that even fizzles out on its own the first several times, leading people (adventurers included) to discount the potential menace. But there will be those who see the worst case scenario, and are willing to risk life and reputation to do something about it. Maybe some Machinists, maybe some Cheyenne, maybe both.

They might work in secret in some places, or in public in others. They might organize armies of heroes, or small missions of exploration, a open quasi-religious campaign among one tribe, and a campaign of covert assassination to remove political obstacles elsewhere. They will believe that they are fighting for the survival of humanity, and even if they are right, and are the "good guys", they are willing to break a lot of eggs to make their omelet, and the people with the most power when the dust settles might not be the ones you want in charge, but will also be the ones most difficult to dislodge.

And all of this can be going on before or at the same time as the Lunars begin their first tentative contacts with the tribes and clans on Earth.

To throw a wrench into the works, there are the Okie and the so-called "Last Shaman". This charismatic and god-like node has an agenda. It sees itself as the new Creator, and eaters as the new Creation, to be spread across the universe. It needs some pre-Ruin knowledge that is hidden somewhere near the Atlantic coast in the lands of the Delmarva. But it does not know the precise location. It does know that if it can get a hold of certain data in two different places, it will be able to figure out how to make eaters that can survive in the hostile environment of space, and how to enhance its own abilities in order to trigger, contain and direct the Yellowstone supervolcano in such a way that it becomes a launch platform to boost thousands of tons of eaters into low orbit, to be scattered throughout the solar system by the solar winds. The side effects from the blast would devastate most of the campaign region, blanketing it in ash. And the space nano would in time, erase all off-world human settlements.

The Okie are the invasion force, to eventually drive to the sea. Leading them are spies and agents, searching for information and clues, analysing oral traditions, seeking descendants of pre-Ruin researchers for scraps of knowledge they might possess. Not even the Cheyenne know exactly what is being planned, but they do know that something is up, and are quietly trying to enlist aid and find what the Okie are looking for, and find it first, so that it can be moved, hidden, analysed, and if necessary, destroyed. Regardless of how valuable that knowledge might be to mankind.

That is the long-term backdrop for an **Age of Ruin** campaign. Not the *only* one, but definitely one with possibilities. Communications with spiritual overtones, possibilities for misunderstandings, eventual gifts from on high, jealousy of the haves by the have-nots, political jockeying for position, fear of change, xenophobia, religious frenzy, and adventurers in the middle of it all trying to figure the best course of action while only seeing part of the overall puzzle. Just because most people will live ordinary lives and never be directly touched by either plot doesn't mean that adventurers are going to have easy, mundane lives. They never do.

Plenty of good stuff to go around. Run with it.

Age of Ruin

NEWS - News travels fast, and rumor faster. With farspeakers, it can travel at the speed of light. News from a variety of sources can be a reason for adventure.

Item - On the Carolina shores, a strange craft is found beached. Made of fiberglass ropes and hollow glass spheres, it is the remains of a *large* raft. Lashed to it, in plastic and glass boxes, are stone tools and clothing with a clan marking no one has ever seen before. Of those who built or manned it, no trace is found.

Backdrop: If you've read and understood the nature of eaters, you understand that the world's oceans are nearly impassable barriers, since it would be a major undertaking to build and learn to use a vessel capable of crossing thousands of kilometers of ocean. There are only a few ways this seems to be possible. The first is to construct an allplastic boat, perhaps with fiberglass sails and ropes. This would require more of these materials than any one clan is likely to own, making it a tribal project, with the inevitable political nature of such an undertaking. Another is to make a flexible raft, such as was found here. To sail the Atlantic in such a craft would be quite perilous, as the crew of this raft found out. The other option is to Shape oneself into a form that can in time, swim the ocean. Even the mermen clans tend to stick close to shore, since there are things that swim the open oceans that you simply don't want to face.

Even smaller bodies of water can be daunting. A plastic coracle or kayak skinned with teflon sheeting could manage a several kilometer water journey, as could a strong swimmer, but many large islands are further from shore than this, and it is often the case that the gamemaster will make getting to such places an integral part of an adventure, or a way to strand adventurers someplace, making a successful completion of the adventure the easiest (or only) way to get home again.

Item - On the Georgia shores, a chunk of this or a similar raft is found, with jars of glass containing chunks of the mythical but seldom seen "metal". These are highly prized as relics, but have no useful value, since opening the glass will let in eaters. Other glass jars contain what appear to be iron knives covered in a thick, waxy film, and other jars have items suggestive of weapons or tools, but thus far unidentifiable. Machinists will come out of the woodwork to try and acquire these bottles, without revealing themselves as Machinists, of course.

Backdrop: If you had a volcano handy, you could both make glass or stone bottles in any quantity you wanted. Furthermore, you could melt metal or smelt some ores. Metals in a heated state are also immune to eaters (which would also melt). Metal tools could be forged and stored "hot", being brought out for use, and then replaced back in a volcanic oven after use. Someone (probably a Machinist) has figured this out. The Caribbean is home to a handful of active volcanoes, and islandhopping on a raft is a lot more likely than a transatlantic crossing. But if the creators or crew of the raft survived, where are they now?

Item - There is a prophet in the high Kentuck mountains who goes into seizures and wakes up with visions from a higher plane. He is regarded by many as a lunatic, but he has gathered a small but devoted following.

Backdrop: He is one of the first, if not the first Terran to be contacted by the Lunars. The Lunars are using far too much power in the directional beam they are using, and it sends the "prophet" into seizures every time they do it. The Lunars do not yet understand that their signals are being directly routed into his brain tissue. He gets the messages, but in garbled, poorly remembered form. He is sane for the time being, but the Lunar transmissions are slowly causing brain damage that will drive him mad over a period of months to years, in a paranoid, Stalin-esqe, holy-man-with-a-vision kind of way. Item - The bones of a strange creature were found on the eastern ocean shore, notable because they were still there, uneaten. All those who passed by marvel at them, and many broke off pieces to use for tools before a storm washed the skeleton back into the depths.

Backdrop: The ceramic ribs of a Lunar sampling shuttle were all that was left after the eater nanotech and salt-water corrosion had their way with it. It had crash landed in the ocean right along the shore, and was eaten away to its structural ribs before anyone discovered it. It did wash into deeper water with the next storm, but it is still fairly close to shore. Pieces that were taken have probably been turned into implements unrecognizable as to their original purpose.

Item - The hills to the west of the great bay of the Delmarva have a place that is not safe for man nor beast, for eaters lurk in the dark places.

Backdrop: A nickel-iron meteor of some tons hit the ground in the hills, and the local metal eaters had a transient increase in population and density, even going so far as attacking the metals in living tissue. It has been a long time since there has been such a concentrated batch of iron-based eaters, which will eventually corrode the calcium-based limestone in the hills into bizarre shapes, wash into the water table and dissipate over the next few months.

This batch of eaters will not kill a healthy person, as their own protective nanotech will fight off the invasion, but may will weaken and sicken them for a few days. The area affected is only a few square kilometers, and the problem will go away on its own in a month or two. Rumor has simply blown the situation out of proportion, and caused a glut of glory-seekers to be attracted to the area in hopes of being able to do something heroic. Others are simply curious, while a few (especially Machinists) glean from the legends the presence of the rare stuff called metal, and simply want to see or acquire some of it before it is consumed. **Item** - It is a tale told to children that those who died before the Age of Ruin were incorruptible, and that even the eaters would not touch them. As evidence, there is the occasional cement burial vault that cracks open, and preservative-soaked bones and shreds of flesh linger for weeks if not months before being totally consumed. Those who can read the Machine Age language will sometimes dig up the graves of those who were very old, in hopes of finding pieces of incorruptible dead to make into tools (ceramic bone implants). Machinists are also grave robbers, to get at metal jewelry. Finely cut gemstones are also highly prized as trade items, since they are far more beautiful than any gems worked after the Ruin.

Rumor has it that a Baltimore clan of the Delmarva awakened the ancient dead, who now walk among the living and cannot be slain. Others say that the ancient dead are possessed by the eaters as punishment for their transgressions, and still other rumors say the Baltimore were consumed by eaters and that they are all Nodes bent on consuming all other clans.

Backdrop: Who knows? It is unlikely that eaters will form any sort of collective, for Nodes are quite rare, nor that dead from the Age of Machines, no matter how well preserved, would last more than a few weeks in the Age of Ruin. It could be that the Baltimore are up to something, and simply want to discourage people from travelling into their lands by spreading rumors and having a few people be seen wearing crumbling burial shrouds. It might be a wasting disease of some kind. Several years into a campaign, it might be Lunar volunteer guinea pigs, testing out new anti-nanotech on a one-way trip to the surface. Only partially successful, the oddlooking Lunars have their minds partially destroyed, leaving them as shambling, brain-damaged idiots, with advanced ceramic armor and perhaps some custom-built weapons. They retain just enough sensibility to be able to use these to defend themselves, and would be extremely difficult to take down with the limited tools available to ground-based adventurers.

Age of Ruin

AGE OF RUIN, PART ONE - We've mentioned a "1st generation" campaign here and there in the rules. Here is where you get the details. Take the historical background, how it happened, the desperate attempts to create protector nano, the panicked attempts at atomic sterilization of affected regions, the savaged ecosystem, the works. Then add about ten or so years.

The population is about a half to a third what it is in a normal campaign, but the land is only about a fifth as capable of supporting it. Most areas are wasteland, with oases of protector-enhanced crops and trees and herds, tended and protected by the communities utterly dependent on them for survival. Civilization is clustered in and around the communities known as "agriforts", a central repository of protected equipment that is shuttled out as needed and replaced in irradiated vaults at the end of the day. Even so, it is wearing out and getting gnawed around the edges from fractional eater exposure that is finally adding up.

The last preserved stores of Machine Age ammunition, medicines, spare parts and food are going to run out in the all-too-foreseeable future, and so far, attempts to build a tech infrastructure based on stable plastics and ceramics are not proving sustainable. It is simply taking more manhours that are available after producing enough food to stay alive.

And the man-hours required to protect what you have against marauders. While most of the agriforts have maintained some semblance of military order and civilian government in these desperate times, some have fallen into despotism or banditry. This could have happened for a number of reasons. Perhaps the delicate balance of military force and civil government broke down. There might have been a local catastrophe that temporarily destroyed the area's ability to produce enough food. There could have been a coup, or rebellion, or perhaps desperate survivors from outside the area managed to take over and gain control of the central weapon and equipment caches.

In any case, these roque agriforts are a major concern for all their neighbors. Either these rogues are putting their efforts towards a self-sufficient weapons industry and raid neighbors for food, or they are managing to produce enough food, but are using military expansion and raids as a means of supporting a waning tech base. They can manage to keep heavy equipment and weapons effective in the field by means of dangerous and only partially effective techniques like dismounting isotope cylinders and bringing them along, so they can field a well-armed, mechanized force for hitand-run raids, and a few of the more powerful rogues now actually control a mini-state of several agriforts, and are looking further afield for more goods to support or prop up their small empires.

In addition to the rogue agriforts, it has been several years since Shaping was first discovered. This gives everyone the possibility of being or becoming extremely dangerous. The talent is not as refined as it will be in the 5th generation campaign, but it is also more powerful in some ways. In addition to people sometimes Shaping themselves to excess, the 1st generation Shapers have access to the remaining Machine Age tools and materials, which they would sometimes incorporate into their bodies. An M-8 assault rifle is easy prey for metal-eaters, but not if you Shape your arm around it! In extreme cases, Shapers have (or have been coerced by threats against their loved ones) morphed themselves to extreme and sometimes irreversible levels, going as far as to wrapping themselves around motorcycles, becoming living suicide bombs or flamethrowers, or even helpless blobs whose only purposes is to be a vat of protector nano for sterilizing eater-infected equipment. From these extremes will come the mindset that leads to the Machinists who will eventually give a bad name to what is otherwise an innocuous bunch of scientific cultists.

Most of the agriforts that fell to outside forces, did so to desperate and extreme Shapers, who then used their talents in combination with the agrifort's tech base to become even more powerful.

Meanwhile, life does go on in space, though it clings by its spacesuited fingernails. At the time of the Ruin, the total human population in space was no more than a few thousand people, split between low orbit facilities, lunar colonies and one expedition on Mars. Cut off from all outside support, they had to come with alternative ways of doing things when key parts wore out or supplies ran low, becoming entirely self-sufficient in food, water, air and finally, basic structural materials, fuel and propulsion systems. A generation after the Ruin, the space population is the same as it was at the start. There have been births, but only enough to offset the accidents and natural deaths that have happened in the interim. Earth orbit has been scoured of its old, non-functioning satellites as a source of raw materials and spare parts, and the occupied facilities have been slowly boosted to high, stable orbits. A minority of the space population lives in low orbit, in near-guarantine conditions. People are deathly afraid that eater nano will make it to the upper reaches of the atmosphere and somehow get into space. So, those who live in low orbit have to spend months in an intermediate high-orbit station before they are allowed to transfer to Luna, and goods are only shuttled down to low orbit, never back up.

Life on the Moon is hard, but has stabilized. Tunnels provide living space and protection from radiation. Siting the lunar colonies near the poles gives access to the scant but vital ice reserves in the perpetually dark craters there, and solar power allows the slow but steady refining of aluminum and other useful materials from lunar rocks.

Mars has a smaller population than the Moon, but more than the skeleton crew manning the low orbit facilities. Mars is a deeper gravity well to get in and out of, and it is a long trip from the Moon using primitive spacecraft, but Mars is a far better place to live. Its atmosphere, while unbreathable and tenuous, is at least there. Compared to the Moon, water is plentiful, mineral resources are more varied, and gravity is high enough that long-term health effects do not require the special workarounds needed on the Moon. Technology in space has reverted mostly back to that of a hundred years in the past. Transistors or very simple integrated circuits replace the ultradense computer chips that eventually succumbed to stray cosmic ray hits. Simple hydrogen-oxygen engines, small NERVA engines and solar-power ion thrusters power the miniscule human space fleet, and home-grown synthetics and organics replace the high-tech fabrics used for clothing and space suits.

Humanity in space is keenly aware of what has happened on Earth, and is mainly concerned with avoiding the same fate. They do not have any protector nano, and have not accumulated the necessary surplus of time, manpower and equipment needed to even consider their own experiments, though they do have partial reports beamed up to them from the Cheyenne projects. On Shaping, they have incomplete information, details gleaned from radio reports received or intercepted from the surface. Not all the agriforts retain orbital communication capability, or computers, so much of the information received in orbit is verbal or video logs, with little or no analytical data. Both ground and orbit have more pressing matters on their hands than speculative research. In time, all ground contact will be lost, and eventually, the survivors on the ground will only remember that people once lived in space, and probably still do, with distorted legends that relate to how humans might have evolved after generations in a reduced gravity environment, the abilities of Machine Age technology and so on, turning people in orbit into spindly angels flying about the heavens with divine powers, but forever banished from life on the surface, some mix of truth and supposition that sometimes gets mixed up with pre-Ruin religious teachings.

Age of Ruin

BUILDING ADVENTURERS - Adventurers for a 1st generation **Age of Ruin** campaign are built according to different guidelines than the 5th generation campaign. How many points an adventurer is built on depends on their age. Adventurers born and trained before the Ruin will be different than those born or educated afterwards.

Adventurers who are Mature or older will be built on 60A and 60S, have the benefits of Mature age (+20S), and can have up to a total of 30 more points from other Traits.

Adventurers who are Physical Prime will be built on 70A and 50S, have the benefits of their age (+10A and +10S), and can have up to a total of 30 more points from other Traits.

Adventurers who are Young Adults or Adults will be built on 80A and 40S, have any penalties for a young age (-10A and -10S), and can have up to a total of 30 more points from other Traits.

In addition to this, certain age ranges will convey certain other benefits and limits.

Mature adventurers have no limits on the Machine Age skills they can buy. They can have the technical knowledges that are vital for keeping the remaining Machine Age artifacts working. They are the electronics techs, machine tool operators, chemists, doctors and such. At this point in time, the sciences are still separate skills (there is no general "Science" skill as in the 5th generation campaign). These older survivors are the living repositories of the accumulated scientific knowledge of humanity. The highest level of Status in most communities is held by those with the most experience, and those would be the Mature individuals.

On the other hand, their pre-Ruin bodies and minds are the least suited for Shaping. A Mature adventurer cannot start with a Fate better than 5, can never raise it to better than 7, and can have no Forte or Weakness on Fate. In addition, they cannot have any available Shaping skill at better than +0d.

When it comes to their personalities, Mature adventurers almost always have tragedy in their pasts. They have lost friends or loved ones to the eaters. They may have been wealthy or powerful before the Ruin, and reduced to less than the shirt on their back by eaters. They may have biases or preconceptions about the nature of the Ruin, giving rise to irrational hatreds or biases towards particular ethnic groups. There is also the possibility that these biases were there beforehand. The Ruin did not consume only the "bad folks". Plenty of racists, misogynists and violent criminals were spared, but any records of their past misdeeds probably did not survive. A "bad" person who has since reformed and become a respected member of the community might have a dark Secret that will eventually have to be dealt with.

Physical Prime adventurers were children or teenagers when the Ruin happened. Their basic education was *mostly* complete, but opportunities for formal, advanced education were cut short. These adventurers have Machine Age literacy, but may not start play with any academic skill at better than a +1d level.

However, their bodies went through puberty in combination with protector nano, giving them an advantage in Shaping. An Adult or Physical Prime adventurer cannot start with a Fate better than 7, and can never raise it to better than 9. They can have a Forte or Weakness on Fate (these cost or give points), but not both, and they can buy any available Shaping skill at up to +1d.

These adventurers were old enough to clearly remember the world before the Ruin, if only in the things they no longer have, like cell phones, internet and so on. Like older adventurers, they had almost certainly lost friends or family to the eaters, though they are too young to have lost a husband, wife or child to the Ruin. Any biases or extreme personality traits they might possess have been tempered by time and the fact that all of their adult life has been spent in the Ruin, an environment that requires cooperation in order to survive, and probably in a community where they were a position to take orders, but not have the status to give them. Young Adult or Adult adventurers were young children when the Ruin hit. Except for fading childhood memories, the world of the Ruin is all they have ever known. Life in or around the agriforts is how they were raised, unless they were among those hardscrabble survivors that somehow managed on their own in the nearly barren wastes outside those protector-rich enclaves. The attitudes and tales of the oldest generation reflect a world this new generation will never know, and this generation gap will cause no end of friction and problems. The young are being asked to rebuild a world they have no emotional attachment to, and they sometimes rebel against the tasks they are given towards that end.

This new generation has no guarantee of higher education, and are much closer to 5th generation adventurers than to their Machine Age parents. Young Adult or Adult adventurers must spend 5S to have Machine Age literacy, and may not have any Academic skill at better than +0d.

However, it is *this* age group that invented Shaping, and has the potential to be the most proficient with it. A Young Adult or Adult adventurer can start with a Fate of up to 9, and can eventually raise it to any level. They may gain/spend points for any matched pair of Forte and Weakness that the 5th generation adventurers can have, and they can have any available Shaping skill at any level. Young Adult adventurers do get a +10A and +10S bonus upon hitting their 16th birthday, though to put it in game terms, they should really just get +1A and +1S per month of game time until the total extra points are gained.

The personal attitudes and histories of these younger adventurers have been shaped by growing up in the Ruin. Those friends and family they grieve for are mostly those who died to accident, violence or Shaping mishaps, rather than to being lost to eaters. These adventurers might be orphans, having lost their parents to the Ruin, or were separated from them in the chaos and never found out their fate. Many such children were adopted by the agrifort garrisons and raised as military brats with a hundred fathers and mothers. These kids almost always became loyal members of that community, with attitudes to match. Those who were raised on the fringes had a harder, nearbarbaric life. Fighting for survival, learning the hard way about hierarchies and pecking orders, Shaping themselves not because they could, but because they had to simply to survive.

Because of their youth and inexperience, adventurers in this age range may not have any positive levels of Status. **More** - The different age groups have different free skills, all of which would be considered at +0d level and can be bought up from there.

Mature adventurers

Native language (including literacy): +0d History: +0d Land vehicle operation: +0d

Physical prime adventurers

Native language (including literacy): +0d

Young adult/adult adventurers

Native language(no literacy):	+0d
Scrounging(food):	+0d
Area knowledge(local area):	+0d

Since all adventurers need to start in close geographical proximity and at least casual social contact with each other, the gamemaster needs to decide on the central location this campaign will be based on, and then adventurers designed to fit within this setting.

Traits available to 1st generation adventurers are mostly the same, with a few notable deviations.

- 1) Only Young Adult and Adult adventurers can have Gifts or Larger than Life.
- 2) Fortes and Weaknesses on Fate are not required.
- 3) The religion-based personality Traits do not apply.
- 4) The Machinists have not yet been recognized as such, so there is no Secret or stigma associated with them. Yet.
- 5) Status follows much the same lines, but will be in terms of military rank, civilian administrative positions or vitally skilled (usually pre-Ruin) positions like doctors.
- 6) Wealth and income are divided by 32, not 64. However, these numbers apply only to the Machine Age part of the gear list. Each agrifort will have its own local currency, which is used for supply and demand in this mini-economy and is usually useless outside that community.

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Scarcity - In terms of goods, skills and services, the start of a 1st generation campaign will have all of these in a slow decline. The radioisotope generators used to provide eater-free storage of Machine Age goods are slowly fading, and the goods that are commonly used (tractors, rifles, etc.) are slowly wearing out and being eroded from the cumulative effect of years of partial eater exposure. Virtually every Machine Age good that is available to be bought with an adventurer's initial funds has taken 1 Hit of damage or has had parts replaced or jury-rigged on it. The most skilled individuals in a society are getting older and some have already succumbed to old age, or worse, failure of their protector nano. As Machine Age consumables are consumed, the quality of services related to these consumables also declines. Medical treatment, repair of vehicles, education, and so on.

While all the agriforts in good order are able to produce new goods to replace the old, the rate of production can barely match the rate of loss under optimum conditions, and outside pressures on the agriforts mean that material is likely to be lost faster than it is replaced. Especially once the campaign starts and the gamemaster starts to make life interesting...

Eaters - For a 1st generation campaign, eaters are assumed to be pervasive. There is enough of all the base resources still around that eaters are everywhere. However, their effect is only half as powerful as in a 5th generation campaign (0d+1 effect). On the other hand, concentrations of eaters (death zones) are far more common, and people are more likely to stumble across them by accident, and on average, have a lower Fate than 5th generation adventurers. People still have the Gifted ability of protective nano, but only need a Fate of 0d+1 to survive. This makes them more vulnerable to localized increases in eater virulence. Nodes are also less developed. Eaters cannot form avatars, but the lesser forms are around, and tend to be found wandering around the ruined cities. They cluster around resource concentrations, and unlike their 5th generation cousins, can apparently lay dormant for long periods, consuming resources at a minimal rate until something stimulates them into action.

Shaping - Shaping is both more limited and more powerful. It follows the same basic framework, but it takes half an hour to Shape (or Unshape) yourself, and the difficulty of Unshaping yourself is +3 more than normal. This effectively means that all point costs for the listed Shapings are reduced by 5, which will reduce the difficulty of most of the listed Shapings by 1. This is offset by the generally lower Fate and skill levels available to all but the youngest Shapers, who unfortunately have the least amount of points to devote to Shaping skills. They are the first generation of Shapers, and are still figuring out what can and cannot be done. Some of the listed abilities might not have been discovered yet, and adventurers might come up with Shapings that end up being lost to common knowledge by the 5th generation.

Adventurers (and gamemaster-designed extras) can develop new Shapings, so long as they follow the hierarchy system presented. There will be a few special modifiers that exist in a 1st generation campaign, but which disappear by the 5th generation:

Incorporation (+15 cost): This modifier is used when the Shaper incorporates a Machine Age mechanical device into their body to protect it from eaters and be able to use it. A pistol or rifle would be an example. Pistol-sized items can take the "very small target(-10)" modifier, while rifles can have the "small target(-5)" modifier. The adventurer's body is altered in such a way that they can use the item, though there may be Agility penalties because of a lack of arm flexibility or the requirement that hand and finger bones be repurposed to use the device. The mass of the incorporated device will also add to the encumbrance of the Shaper. Such Shapings will require the "shapedshooter" skill to use properly.

The advantage of this modifier is that the "power" is in the device, and the adventurer simply has to Shape their body to use it. This makes it a very simple and powerful Shaping as long as Machine Age weapons and ammunition hold out.

Extreme morph (+30 cost): This modifier lets the Shaper alter the form of their body to an extreme level. A person could become a living skin for a motorcycle, or a barrel-like vat filled with protector nano. This sort of Shaping makes the Shaper entirely dependent on others for staying fed, watered and protected, and while those coerced into such modifications may live a long time, it will be a very unhappy existence. CAMPAIGN STRUCTURE - The gamemaster of a 1st generation campaign has to think about the long term. This campaign might only last one generation, but its effects will linger far longer. If when the 1st generation campaign closes, a 5th generation campaign opens, the gamemaster has to decide how much 1st generation adventurers will be able to affect the 5th generation history. Will they be able to affect the future campaign backdrop in a significant manner? Or will things play out much as described for the 5th generation campaign, and the 1st generation adventurers simply get to "rearrange the pieces", altering the political structure, the nature of certain beliefs (like Machinists), or the sorts of Shaping available?

If you are only going to run a 1st generation campaign, then just run it as long as it still works for you and the players. The long term possibilities are many. Maybe things will degenerate to the 5th generation level. Maybe the rest of the world will degenerate, but a few of the agriforts maintain a civilization and tech edge, becoming a sort of Machine Age priesthood that can produce and protect small amounts of the old ways, enough to perpetuate their own existence, but not enough to change the world at large. Maybe science lasts long enough to create a machine-protector nano that can run off electricity or solar power, allowing the slow rebuilding of Machine Age culture, and maybe even the protector-enabled fusion of men and machines into cyborg hybrids. The important thing is that the lifetime of the 1st generation adventurers will be a turbulent one, and while great changes may come from their actions, they will probably not live to see all of them come to pass. Any Age of Ruin campaign will have some of the feel of any number of post-apocalyptic movies or books. A small selection is below. Not all of them have a nanotech apocalypse, but they do have elements that can apply to your campaign.

Movies

The Omega Man(1971) A Boy and His Dog(1975) Damnation Alley(1977) The Road Warrior(1982) Fist of the North Star(movie 1995/anime 1986) Tank Girl(1995) The Postman(1997) Ever Since the World Ended(2001)

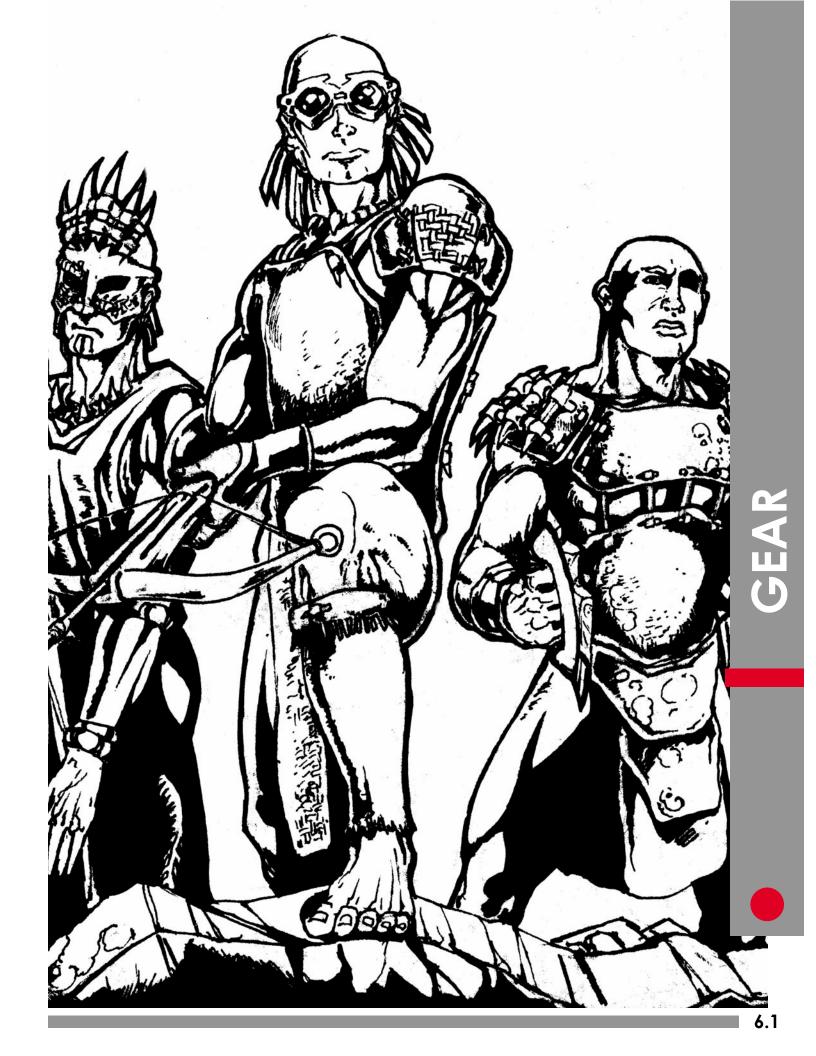
Books

Prey(Michael Crichton) Bloom(Wil McCarthy) Blood Music(Greg Bear) Aristoi(Walter Jon Williams) The Diamond Age (Neal Stephenson) Revelation Space (Alastair Reynolds) For the start of a 1st generation campaign, you need a central theme (aside from the pervasive peril from eaters). In addition, there will be other long-term problems, and various one-shot or episodic adventurers which may or may not eventually link to the larger themes. Themes and problems can usually be split into internal/external, immediate/long-term, and personal/group, with some possible overlap within each category. For instance, the possibility of starvation can affect you personally, but also affects everyone else. A few examples:

- 1) Your community is doing okay on materials, but is having food problems. Perhaps insects are making inroads onto crops, or bad weather is weakening plants so that they either cannot produce or get consumed by eaters. Maybe your area is subject to raids from outsiders, or new births or an influx of refugees is exceeding your ability to feed them. Starvation or its threat is a powerful stress on any community. Who decides who gets to eat? And how will they enforce this decision? And how will those who aren't getting enough going to respond to it? (internal/immediate/personal)
- 2) The system of government in your area has had its internal squabbles that most people do not know or care about, but until now, everything has been kept to a low roar by the strong hand of a charismatic leader who has been there since the first days of the Ruin. That leader is now dying of cancer, and the various factions are already sharpening their knives for some sort of power grab when the void in the power structure inevitably opens. (internal/longterm/group)
- 3) One of the nearby agriforts recently descended into anarchy, and is trying to prop up its failing resource base by raiding your outlying areas. Or worse, it was taken over by a more distant, expansionist mini-empire, whose so-called "ambassadors" have visited, demanding "tribute" and threatening dire consequences if you do not comply. Plus, you have gotten word through reliable channels that some of your recent refugees may be spies or saboteurs for this enemy group, collecting information to be used in the eventuality of an attack against your region. (external/long-term/group)

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- 4) With a smaller pool of people, some diseases are not as common as before, but others pose new threats. A new strain of some normally annoying disease has become a bit more serious. While not life-threatening, it causes hallucinations, which sometimes require restraint of the patient. Worse, among the younger generation, the victims often Shape themselves while hallucinating, and sometimes cannot Unshape themselves afterward. The best treatment found is to deeply sedate those infected until the hallucinations pass. You've heard of this disease, but it had not hit your area yet. Now, the first cases have shown up, and your agrifort is far short of the supply of sedatives that will be needed to treat a major outbreak. A deal has been worked out with another fort that has the ability to synthesize the needed chemicals. But you need a way to transport them quickly, across possibly difficult terrain, and there is the question of what your people will give up to pay for the medical supplies. (internal/immediate/group)
- 5) The yearly moots of a 5th generation campaign had their roots in the trade delegations that neighboring agriforts would send to each other, trading goods and services and sometimes people. There would be games, and austere festivities and no few romantic entanglements. *And the occasional serious problem*. Your area is hosting three separate delegations this year, and two of them are not on the best of terms with each other. A member of one delegation has just turned up dead, and it was clearly no accident. A fragile coalition and a vital trade deal hangs on this meeting, and it is now ready to fall apart. Who committed the murder, and why? (internal/immediate/group)
- 6) Religion and spirituality have always been important, but the peaceful co-existence of differing belief systems has never been a hallmark of humanity. Some refugees have brought a new belief into your area, one which preaches that the hubris of man brought about the Ruin, and that only by abandoning the sins of the "Machine Age" can we hope to achieve redemption in the eyes of the Creator. And now one of your precious tractors has been destroyed, overheating and catching fire. A post-mortem indicates sabotage. There are plenty of suspects, some willing to become martyrs for their cause. One of them is a friend of yours. What is to be done? (internal/longterm/group)



"...firearms are very complicated things which get out of order in many ways..."(1591)

"...systems of conveying passengers...at a velocity exceeding 10 miles an hour or thereabouts, is extremely improbable..."(1835)

"...I do not think there is the slightest chance of electricity competing, in a general way, with gas."(1879)

"...no possible combination of known substances, known forms of machinery and known forms of force, can be united in a practical machine by which man shall fly..."(1903)

"...the atomic bomb will never go off, and I speak as an expert in explosives..."(1945)

"...nanotechnology need not be taken seriously..."(1995)

- Assorted predictions by various notables

INTRODUCTION - There is not a lot of gear available in **Age of Ruin**, at least not compared to any sort of modern campaign. It is quite possible for an adventurer to eventually own one of everything that is readily available!

For a 5th generation campaign, goods fall into several categories in terms of their cost. There are things made entirely with natural materials, usually stone. These are labor intensive, but labor is fairly cheap. Anyone with the right skill can make the item from materials they can find locally. There are exceptions, of course. If you live on a river delta or marshy coastline, odds are you won't be finding any suitable flint for making a nice knife. For adventurers who can make their own, assume they can do it for half the cost, counting labor as 1 Credit per four hours. The material cost is negligible. The difficulty is usually Challenging (9), and this can be altered by spending more or less time. If you fail the roll, you usually lose the raw materials and have to start over.

EXAMPLE: A stone cestus (brass knuckle equivalent) costs 2 Credits. You can make your own for 1 Credit in labor cost, which is about four hours.

It is difficult to try and get rich by making stuff and selling it, simply because so many people know how, and there is only a limited market. Sometimes, it is simply easier to pay someone who already has one (and likely a spare back home), rather than spend your own time doing it. You can make things like this in your spare time, while doing something else of a passive nature (sitting on watch, listening to a lorespinner, etc.)

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The second category is goods made from common Machine Age materials. These are more expensive, because you have to go out and get the raw materials, which is time-consuming and often dangerous. On the plus side, a full load of raw materials can go a long way. Again, people can make these goods themselves, but the total cost is significantly higher. In terms of total labor or buying the raw materials from someone who has them, these goods are also about half cost when you do it yourself, but in comparison to natural materials, the raw material cost is four times higher.

EXAMPLE: A glass knife costs 8 Credits. You can make your own for 4 Credits in labor cost, which is about sixteen hours. This represents the effort at some point of going out and collecting the right kind of glass (which may have taken several days, but resulted in dozens of knife-suitable pieces), plus wheeling and dealing for plastic, fiberglass or asbestos cloth to wrap around the hilt and make a sheath from.

Clothing, fiberglass armor, rope, glass knives, plastic axe handles, plastic bows stressed with glass fiber backing and ceramic reinforcements, and so on. Some of these take quite a bit of time to make. Others not only require specialized tools to make, the finished product has to be imported to your area, often inflating the cost several-fold. If you have the skills, you can make it yourself for half the listed cost in terms of personal labor. Items made from uncommon Machine Age materials or requiring specialized skills are going to be a factor of four times more expensive. If it requires both uncommon materials and specialized skills, it would be sixteen times as expensive in terms of your time.

EXAMPLE: A bow or crossbow requires fiberglass, plastic, ceramic, and if you can get it, fluorocarbon resins. It is not a process that the average person can do, even if they have all the materials. If a bow costs 80 Credits, you could make it for 40 Credits worth of your time, which is about 160 hours of your time (a month of work), which represents both the work and the acquisition of the materials.

If you have a ready stockpile of the right raw materials, you can make items yourself for about a quarter the listed cost in terms of your time instead of half.

Third is salvaged Machine Age goods that are used more or less intact. Intact glass bottles, fluorocarbon plastic containers in usable condition, glass cookware, old snow globes, ceramic scissors, knife blades and so on. All but the fluorocarbons can be manufactured by **Age of Ruin** adventurers, just not economically. So for now, there is a limited and slowly dwindling supply. The supply is, however, spread around, so the cost simply represents scarcity, not import costs.

Fourth are infrastructure-dependent goods. These are things that you simply cannot make yourself unless you have access to non-portable and usually fairly sophisticated tools, and usually an appropriate skill of +2d or more. Making glass, or ceramics, distilling liquor, industrial chemistry or anything requiring machine tools. These items can be made at an equivalent time of 1 hour per 2 Credits of cost. Tools and talent make things go a lot faster. However, it requires that you have the right infrastructure, which might have an acquisition cost of thousands of Credits. Goods of this sort that only require one technology or skill may be within the budget and talent pool of one clan. Ones that require two technologies or skills would be very rare unless the clan was large and/or prosperous, and those requiring three technologies or skills (like guns) are almost certainly going to require a town, and the manufacture and support structure for that item will be a large part of the town's economy. The people involved in the industry will have a lot of say in how things are done...

Note - The costs for 5th generation ammunition are per bullet. Guns are effective, but you have to decide exactly how bad you want someone dead. Sometimes, foes literally aren't worth a bullet...

Fifth are the intangibles. Possessions that are necessary to keep a clan functioning, but which are more in the category of infrastructure and supplies. Chickens, goats, horses, sheep, cattle, dogs, cats and so on. These are self-replacing if tended to, but may also be consumed on a regular basis. A clan will tend to have as much as it needs, but there are losses, which sometimes occur faster than natural replacement occurs. And then you have to buy (or steal) new ones. There are also prized breeding animals, which have certain genetic traits considered exceptionally valuable. Breeding rights are sold from one clan to another, and sometimes these animals are "borrowed" if arrangements can't be worked out, usually with some acrimony afterwards.

This sort of possession is generally considered "clan" property rather than individual property, though the person who brought the property to the clan generally has more say in its disposition. The care of these animals falls to the clan as a whole. Others will care for "your" animals while you are away, and you are expected to look after the welfare of your clansmen's when they are away. Players who aren't really sure what to do with any leftover Credits after they make an adventurer should simply invest in "livestock". As a share of the clan's wealth rather than personal property, it gives them more of a vote in clan matters, and it is also a sort of "deposit" that can be used if the adventurer needs to borrow an expensive piece of clan property.

Last are the uniques. These are not listed in the gear section, but they exist. Chunks of decayed radioisotope still in their glass containers, a large piece of structural ceramic from who knows where, ceramic firearms made during the early days of the Ruin (off the 1st generation gear list), artifacts or texts preserved from the Machine Age, even if unusable now, information about a type of Shaping or Making or information that gives one person power over another. Anything that one person has that another does not, is worth some-thing to someone. It's just a question of finding the right price and the right buyer.

Other gear - Anything that is not stable in the Age of Ruin environment is not going to be on the 5th generation gear list. Virtually anything that adventurers would have the tools, material and skills to make would be Basic Era items, though they might be made with Late Atomic Era materials. You can just pull stats from some other EABA supplement or the main rules for this sort of item.

Livestock - We're not going to get into animal husbandry as part of adventuring. You might get stuck with such duties on occasion, mostly as the gamemaster requires it to set up an adventure, but unless drought or pestilence or tornadoes sweep through, your clan gets by. It may get hard at times, and raiding other clans may be a necessity on occasion, but you and yours manage. You can think of raiding as a form of food distribution. You raid from them, they raid from someone else, and so on down the line until someone raids from someone who has enough left over that they don't have to raid just to get by. They raid to get even, which tends to decrease the food needed by that next to last batch of raiders, and helps even out the fact that there was a shortage somewhere to begin with. The main livestock that people will need to be concerned with is horses. Like in the Middle Ages, horses are valuable enough that you don't want to kill them. You would pass up a bowshot at someone on horseback if you were afraid you might miss and hit the horse (someone who would take the shot anyway needs to have some sort of Personality Trait to reflect this abnormal attitude for the gameworld). Horses in **Age of Ruin** are the lighter variety, more like the wild mustangs than any of the recognized breeds of today. They can be ridden bareback, or with basic saddles, and are the preferred means (if you have the wealth) of getting goods and people from one place to another fairly rapidly.

A horse will have a variable disposition, based on its Will, which represents how solid it will be when faced with stress, from taking an arrow in the flank to having someone jump out of the bushes and say 'boo!'. A horse that fails a Will roll will apply the amount of failure as a modifier to the rider's skill for getting the animal to do anything. If the rider does not spend an action to keep control, the horse does whatever it feels is best, which is usually to turn tail and leave.

Horsing around	Difficulty
Basic manuevering	7
Manuevering in a fight	9
Jumping obstacles	9

Modifiers the horse has taken for injury or fatigue apply to its Will roll, and such conditions will make the horse less tractable.

Upkeep: If you own a horse or horses, assume that they will suck up your time and income to the tune of half an hour and a quarter of a Credit for the first horse, and half that for each additional horse, per day. You can forgo the personal time requirement by paying someone else to take care of them, at a quarter of a Credit per hour of time required.

EXAMPLE: If you own three horses, it will cost you an hour and half a Credit per day to keep them in good shape. If you pay someone to take care of them, it will cost you an extra quarter of a Credit for their time.

This upkeep can cut into time that could be spent training, recovering from injury or Shaping. It is not meant to be a bookkeeping exercise, but it is something to keep in mind.

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Injury: A horse that has taken injuries or exertion past the -1d level needs to be given rest and care if possible. Any -1d or worse impairment will greatly slow the horse, as well as making it tire out faster if it is forced to continue (remember that animals with a multiple to running speed take double or more injury penalties to their movement). If a horse takes a crippling injury, it is pretty much a write-off in **Age of Ruin**. This sort of injury represents a broken bone or organ damage, and even a shaman's skills cannot be of much use. A person can be bedridden for weeks, or go on crutches or put an arm in a sling. A horse does not have these options. If it can no longer walk, it *won't* survive. On the other hand, horse steaks for everyone!

Ability: In general, horses will range about 1 point above or below the listed Attribute levels. Rare individuals (for better or worse) may vary by 2 points, or have a Forte or Weakness of some kind. With training or just constant exposure, a horse can get an Experience.

Some animals are considered better for riding, while others seem more suited for carrying loads of goods. Some plod, some sprint. It may take you a while to get what you want. You might need a horse, but be forced to settle on one that is skittish and dumb as a box of rocks. So that's what you ride, for now.

Cost: Horses cost as listed on their record sheet. Good horses cost more, maybe double for each Attribute that is a point better than the norm, and three-quarters cost for each Attribute that is a point worse than the norm. Exceptional horses can be nearly priceless. Consider modern race horses as an example.

Guard animals - Some domestic animals make good burglar alarms. Geese, guineas, dogs and such. However, they are not very effective unless there is someone to back them up, otherwise they are like the car alarm that everyone ignores. In the "vicious dog vs. man with axe" deathmatch, always bet on the guy with the axe.

"Burglar alarm" animals can be heard for a pretty good distance (a hundred meters or more), and often have some or all of their Awareness in senses that un-Shaped humans cannot match, like superior hearing, sense of smell or night vision.

6.4

1ST GENERATION GEAR - The "1st generation" campaign has its own unique gear. This is largely based on expected weapon and armor and other tech developments expected in the next fifty years, but by and large it is simply more advanced versions of things you are already familiar with in the early 21st century. Prices for the Machine Age gear only apply to the 1st generation campaign. By the 5th generation, this gear is either eaten away, or is heirloom material that is simply not available on the open market.

The items that have survived to the start of the 1st generation campaign (a decade or more past the start of the Ruin), survive because they are stored in one of the radioactive vaults each agrifort has. Gamma radiation kills eaters as effectively as it does living things, through severing microscopic circuits or mechanical linkages, just enough to stop the functioning or replication process. However, this form of sterilization cannot be used with sophisticated electronics, which must instead be sealed in blocks of plastic and use controls that do not actually penetrate this encasement. Such radios and electronics work just fine, but are usually not as sophisticated as non-ruggedized versions. Also, replacing the rechargeable batteries requires an eater-free sterile chamber, something that has to be done once every few years of use.

Most of the surviving tech is more durable than its non-ruggedized counterparts, and maybe a little heavier. You can lift Atomic Era gear from other **EABA** gameworlds if you need to. Give the gear +1 to its Armor and add ten percent to its mass. This gear is also a little worn. You can safely assume that unless a sealed cache is broached, all Machine Age gear has 1 non-repairable Hit of damage on it, or it has all its Hits, but is now Unreliable and will fail to work on any skill roll of 7 or less. In this case it means that the item has been repaired, but original parts were not available, and the jury-rigged repair is not quite perfect. Eaters in the 1st generation campaign act as a constant 0d+1 lethal attack on gear per hour of exposure. When the cumulative exposure exceeds the Armor of the item, it takes 1 Hit and the exposure goes back to zero. For any time scale shorter than months, as long as a piece of gear is sterilized before the damage exceeds the Armor, no harm has been done.

EXAMPLE: If you have a rifle with an Armor of 2d+0, you can keep it out in the open for no more than 6 hours (cumulative effect of 2d+0) before it suffers permanent erosion from eaters.

The agriforts have kept their gear going as long as they have by trying to stay at half this safe time interval or less. Scheduling becomes very important. The agriforts also have smaller isotope systems that are portable (on trucks), and can be used to make a small area mostly eater-free. Not perfect, but a big enough area to stack gear or park a vehicle very close to it. It can prevent further damage and will kill off 0d+1 eater effect each hour. Of course, this is a dangerous amount of radiation and you can't just leave people nearby. Or for the long term, anywhere within maybe 20 meters. However, these portable generators are used so that tractors can be kept in outlying areas long enough for spring planting and autumn harvesting, and so that weapons can be brought out to guard the tractors. These portable generators are also used if vehicle convoys are required for some reason, one vehicle carrying the generator, which can protect two other vehicles. This gives agrifort vehicles an effective duty cycle of about 50% (drive for 3 hours, sterilize for 3 hours, repeat).

The portable radiation sources, and for that matter, the non-portable ones, are slowly wearing out as their radiation fades. Also, there have been losses of the portable units due to accident or hostile action. Some agriforts no longer have any portable units, which means mechanized farming is only possible within a few kilometers of the agrifort itself, close enough that equipment can be driven out and back to the central radiation vaults within a safe time limit.

Note - While we are not going to list rules for it, the agriforts will certainly have exposure guidelines and limits for the people who have to move gear and vehicles in and out of irradiated zones. Even so, the cumulative exposure will probably shorten the lifespans of the gear-wranglers by a few years.

Age of Ruin

As Machine Age tech slowly wears out, the agriforts that can will make less capable replacement technology. As pre-Ruin assault rifles wear out, they might be replaced by single shot or bolt-action plastic/ceramic rifles or shotguns. Semi-automatic pistols might be replaced by single-shot weapons or revolvers. Since some Machine Age tooling has survived, these weapons will be better than the similar weapons tooled by the 5th generation campaign. It is possible that a handful of these 1st generation replacement weapons will survive to the 5th generation. If properly cared for, and not overused, there is no reason they shouldn't last a century or more. Similarly, some Machine Age optics will have survived. Plastic binoculars with glass lenses or similarly constructed telescopic sights are quite eater-proof.

However, to the 5th generation, the most valuable 1st generation gear will be the ceramic tools and tooling made in the last attempt to keep a high-tech civilization going. Even if turned by water or wind power, a ceramic lathe or milling machine or a set of titanium diboride saw blades or drill bits would be beyond price. These are far harder than the ceramics the 5th generation can make, and given the slow rate of 5th generation manufacturing, these tools and tooling would last a very long time. They are not in the gear listing for the simple reason that anyone who has them will not part with them. And while 5th generation toolmakers could (and slowly do) use these machine tools to make copies of the tools themselves, the copies would not be as precise, and would be made from materials inferior to the originals. Acquisition, theft or damage of the originals is the sort of thing that clans, towns or even tribes can end up going to war over or hold really long grudges about.

Once the sterilization chambers lose their effectiveness, the remaining Machine Age tech will guickly erode away, leaving only the most robust and well-protected items. Plastic-encased solarpowered radios, ceramic and plastic weapons, tooling and armor, residual supplies of properly packaged Machine Age foodstuffs and medicines, and the occasional sealed crate of Machine Age weaponry. In the last case, there are oral legends of these being used to good effect (for a few hours, anyway) decades after the Ruin, perhaps even within the living memory of the elders of a 5th generation campaign. If all your enemies have is single shot weapons and you crack open a case of assault rifles with grenade launchers, it's going to be a very one-sided battle...

THE MAP - This is an annotated and enlarged version of the tribal map back on page 2.3 and is for gamemaster use only. It has far more information than any adventurer is likely to have. The symbols on the map indicate:

()

Major ruins. Places where significant Machine Age raw materials can still be found. These places may also have or be very near to the other three types of places.



Radiation. A site that once had a major nuclear facility. The cement containment structures may remain as a landmark and warning, but the radioactives have been consumed by eaters (as their radioactivity died down) and now are dispersed throughout the local ecosystem. While there may be cases where even short term exposure is bad (from concentrations of materials that eaters can't yet get at), the major problem is only for people living in or downwind/downstream of the area. Long-term illnesses and cancer rates may be significantly higher.

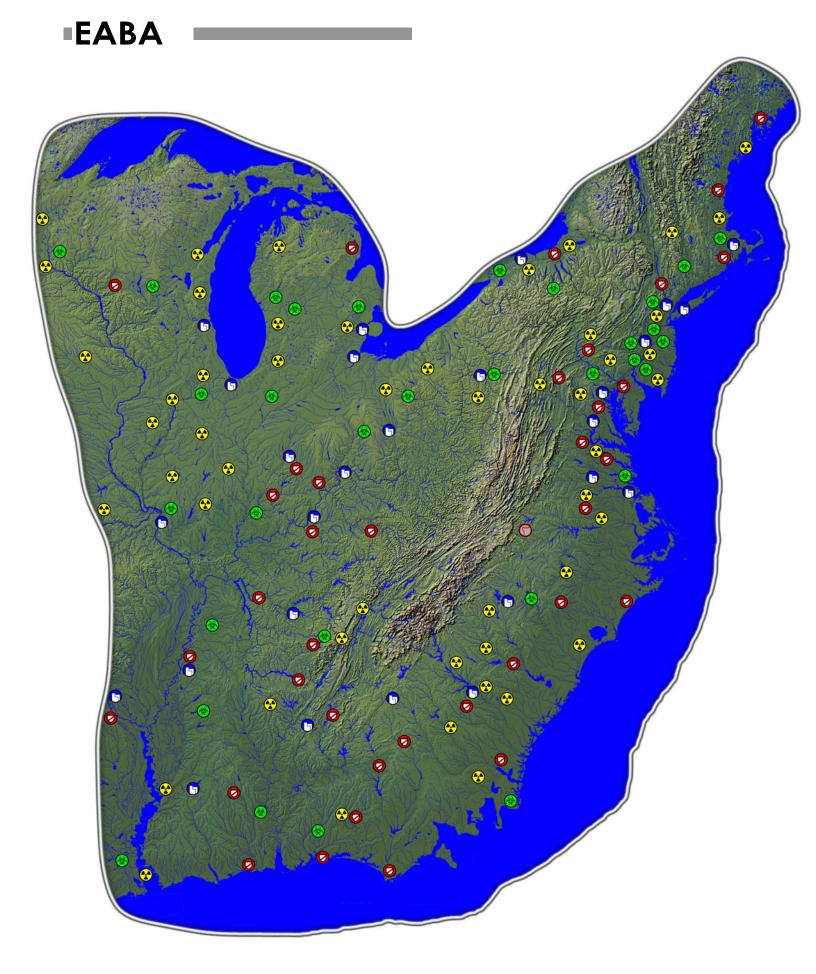
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Biohazard. A site that once had a major industrial facility that generated persistent pollutants. Eaters have consumed the containment facilities, allowing toxins to leach into the water supply. While some toxins may be broken down by eaters, others might not. There may be some especially toxic areas that are readily avoided because of the smell or the fact that nothing lives there, but most such areas are simply long-term health hazards. However, eater-proof chemical compounds, even if highly toxic, may be "mined" as preservatives or useful raw materials.

Military. Site for a former military facility thatmay still have something dangerous, interesting or both. This can include anything found in the above categories, and also material and hazards that would be peculiar to a military facility, such as chemical agents in eaten-away shells, barely contained by the remnants of their plastic liners. Some of these, like nerve gases, would be broken down by eaters shortly after exposure, but others can remain dangerous for extended periods.

Adventurers will know most of the symbols in their immediate area, but will only stumble across other hazards or opportunities through travel and interaction with local clans.

GEAR



1st Gen. Ranged Weapons

IST GEN. RANGED	N EAPONS									
NAME M8A3 assault rifle M9A2 pistol Ceramic rifle Ceramic shotgun Ceramic revolver	Uses bullet bullet bullet bullet bullet	Accuracy 4 2 2 2 1	Damage 4d+1 2d+1 4d+1 1d+1(x3) 2d+0	SHOTS HELD 50 clip 20 clip 6 internal 2 internal 6 internal	WEIG 3.6(, 1.0(, 2.8k 2.7k .8k	4) 1.51 3) 500 g 1.31 g 1.01	(Cr)Cr (Cr (Cr	ARMOR 2d+0 2d+0 1d+2 1d+2 1d+2 1d+2	Hits 4 3 3 3 2	Notes autofire, ruggedized ruggedized fairly bulky fairly bulky fairly bulky
5th Gen. Ranged	WEAPONS									
NAME Medium bow ² Heavy bow ² Light crossbow ² Heavy crossbow ² Arrows/Quarrels ² Ceramic rifle ³ Ceramic shotgun ³ Ceramic pistol ³	USES arrow quarrel quarrel - bullet bullet	Accuracy 0 1 1 1 2 1 1 2	Damage 1d+0 1d+2 2d+0 2d+2 - 4d+0 1d+2(x2) 2d+0	SHOTS HELD 1 internal 1 internal 1 internal 1 internal 1 internal 1 internal 2 internal	WEIC 1.2k 1.7k 3.4k 5.1k 4.2k 3.2k 1.2k	ig 15 ig 20 ig 25 ig 30 g 10 ig 500 ig 200	Cr Cr Cr Cr Cr)Cr)Cr	ARMOR 1d+0 1d+0 1d+1 1d+1 1d+2 1d+2 1d+2 1d+2	Hits 2 2 3 3 - 4 3 2	Notes Reliable, Str 6 Reliable, Str 8 Reliable, Str 6 Reliable, Str 8 Often reusable Unrel., armor-piercing Unrel., armor-piercing
1st Gen. Melee W	EAPONS									
NAME Ceramic knife Ceramic machete Plast/ceram spear	punch+2	Damage type lethal lethal lethal	LENGTH short medium long	Weight .1kg .4kg 1.5kg	Cost 30Cr 90Cr 60Cr	Armor 1d+2 2d+0 1d+2	Hits 1 2 3	balar balar	iced, iced,	armor-piercing armor-piercing -piercing, both hands
5th Gen. Melee W	EAPONS									
NAME Stone cestus ¹ Stone knife ¹ Glass knife ² Ceramic knife ³ Hand chopper ¹ Hand axe ² Mace ² Glass-edge sword ² Spear ² Staff ²	punch+2 punch+2	Damage type half-lethal lethal lethal lethal lethal half-lethal lethal half-lethal	LENGTH short short short short short medium long long	•	Cost 1Cr 2Cr 8Cr 30Cr 4Cr 15Cr 15Cr 15Cr 25Cr 25Cr 20Cr	Armor 1d+2 1d+1 1d+0 1d+2 1d+2 1d+2 1d+1 1d+2 1d+2 1d+1 1d+2	Hits 2 1 1 2 3 4 4 3 3	balar balar balar balar balar unba balar balar	iced iced iced, iced, iced, iced, iced, iced,	armor-piercing only cutting ed only cutting uses two hands uses two hands
1st Gen. Other W	EAPONS									
Name Frag grenade Plastic explosives	Damage 4d+0 4d+1 ho	Damage type lethal explosion alf-lethal explosi		WeiGht .2kg .5kg	Cost 30Cr 50Cr	Armor 1d+1 1d+0	Hits 1 2	Only i Only i	n agr n agr	ifort storage ifort storage, +1d per f weight
5th Gen. Other W	EAPONS									
NAME Blast grenade ¹ Frag grenade ² Black powder bom 1. You can make it your	3d+0 .b ¹ 3d+1 ha	DAMAGE TYPE alf-lethal explosion lethal explosion alf-lethal explosi	- ۱	Weight .5kg .5kg .5kg	Cost 4Cr 8Cr 4Cr	Armor 1d+1 1d+1 1d+0	Hits 1 1 2	Very (Very (unreli unreli	

3. Manufactured goods

1st Gen. Personal Armor

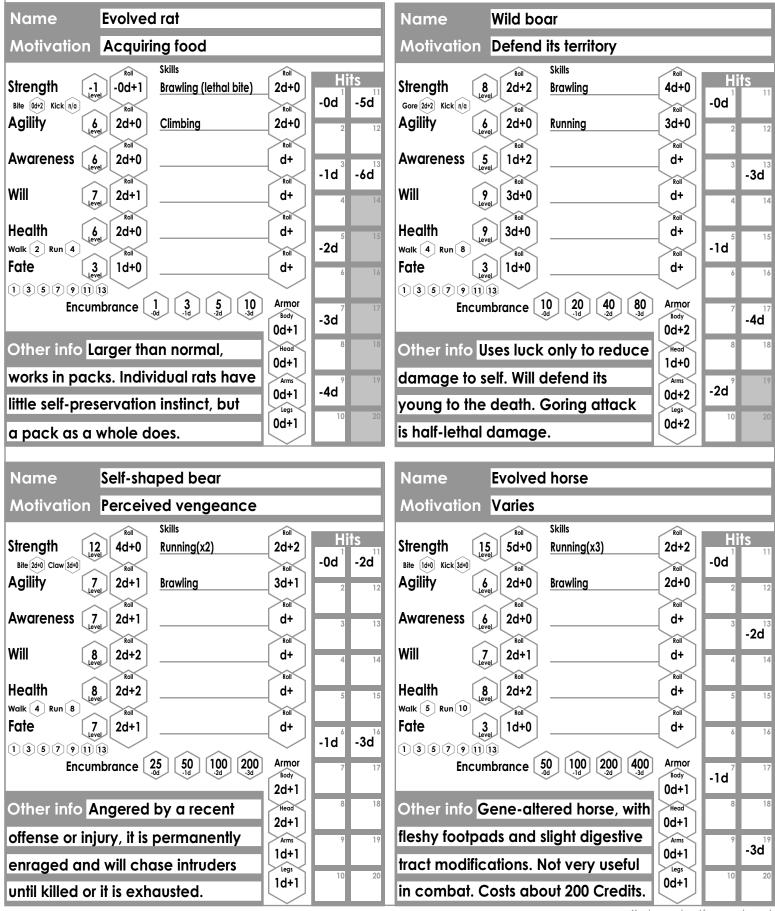
IST GEN. PERSONAL	ARMOR						
Name Flex vest Hard vest Plastic/ceramic heln		ARMOR 3d+0 4d+0 3d+0	Covers Body Body Head	2.0 4.0 1.0	kg 350Cr kg 700Cr kg 350Cr	Notes Fluoorcarbon plastic over woven glass Ceramic plates in fluorocarbon carrier Includes retractable face guard	
Plastic/ceramic shiel		2d+0	-	3.0	kg 100Cr	User is +2 difficulty to be hit in melee	
5th Gen. Personal	ARMOR						
Name Quilted fiberglass		Armor 2d+1	Covers Body Head Arms Legs	5 WEI 4.0 .8k 2.0 4.0	kg 125Cr :g 45Cr kg 90Cr	Notes Crude but functional versions are half cost No face protection Only protects outside edge of arms Only protects front of legs	
Resinous fiberglass		3d+0 3d+0	Body Head	4.01 5.01 1.01	kg 250Cr	Similar, but with rigid fluoroplastic resin With face grill	
Plastic scale Ceramic scale		1d+1 3d+1	Body Body	1.6 5.0	kg 45Cr	Plastic scrap shaped and sewn together Hardened against ceramic weapons	
5th Generation Stu	FF						
CLOTHING Basic clothing Cold weather gear Waterproof cape	Weight 1.5kg 4.0kg 1.0kg	Cost 5Cr 20Cr 5Cr	ARMOR - 0d+1 0d+1	Hits 2 2 2	Notes Shirt, shorts, sar Provides 10° te Also protects a	mperature compensation	
WEAPONS Pistol ammo Rifle/shotgun ammo	Weight - -	Cost 1Cr 2Cr	Armor 1d+0 1d+0	Hits 1 1	Notes Very limited av Very limited av		
Housing Longhouse Large longhouse	Weight - -	Cost 500Cr 1000Cr	Armor -	Hits - -		enough for a small clan enough for a large clan	
UTILITY	WEIGHT	Cost	Armor	Нітѕ	Notes		
Rope, 25 meters Hammer Dust mask Goggles Cloth tent	1.5kg .8kg .1kg .1kg	15Cr 5Cr 1Cr 2Cr	1d+1 2d+0 1d+0 1d+0	2 2 1 1	General utility, To avoid inhalir Basic eye prote	hundred kilograms also usable like stone cestus ng noxious dusts ection asbestos or fiberglass	
Saddle & tack Cart	12kg 100kg	90Cr 200Cr	1d+2 2d+0	6 7	Saddle, bridle, Made of plastic	-	
Glass bottle Plastic bottle Trinkets Charcoal stove	.2kg .1kg .1kg 1.0kg	1Cr 2Cr 5Cr 2Cr	1d+0 1d+0 1d+0 1d+0	1 2 1 2	Holds 1 liter Holds 2 liters Thread, needle	es, beads, a small currency equivalent nile travelling, fuel consumption as below	
Charcoal carrier Bottle of liquor Glass/fiberglass scra Ceramic scrap Plastic scrap	2.0kg 1.0kg	1 Cr 5Cr 4Cr 6Cr 2Cr	1d+0 1d+0 1d+1 2d+0 1d+0	2 1 2 2 2	For one day's worth of cooking, makes one load per wee Cost varies with quality and distance from source Salvage that can be sold to toolmakers for half this cost Salvage that can be sold to toolmakers for half this cost Salvage that can be sold to toolmakers for half this cost		
Animals Generic horse Generic fowl Generic livestock	Weight - - -	Cost 200Cr 2Cr 50Cr	Armor - - -	Hits - - -		tats ea fowl, also usable as sentry animals or average cattle	



Extra type Creatures

Gameworld Age of Ruin

Notes

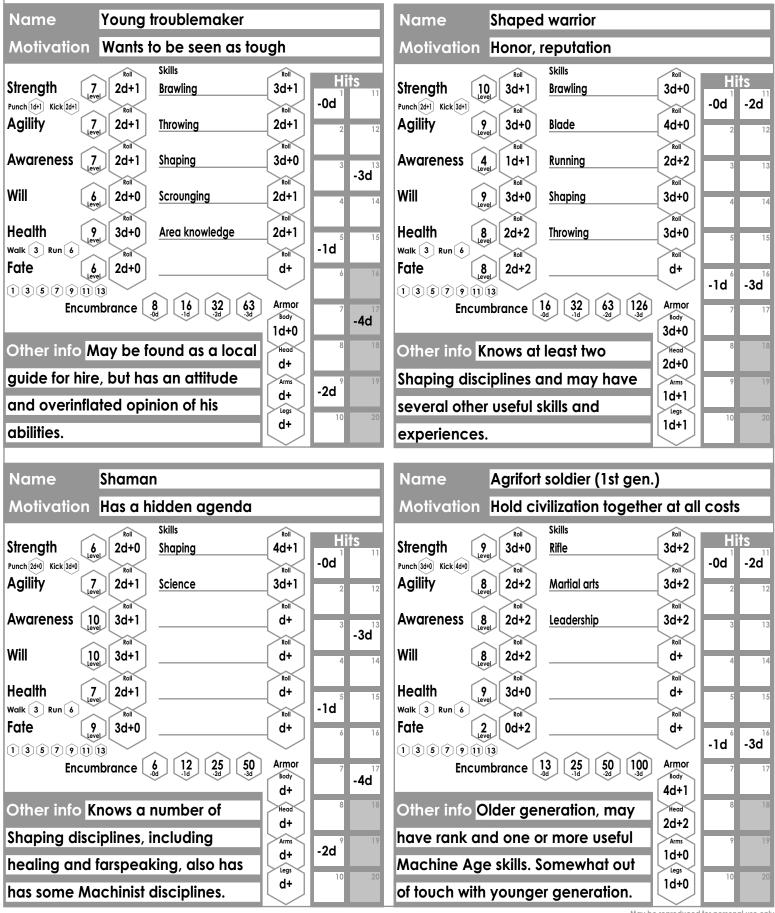


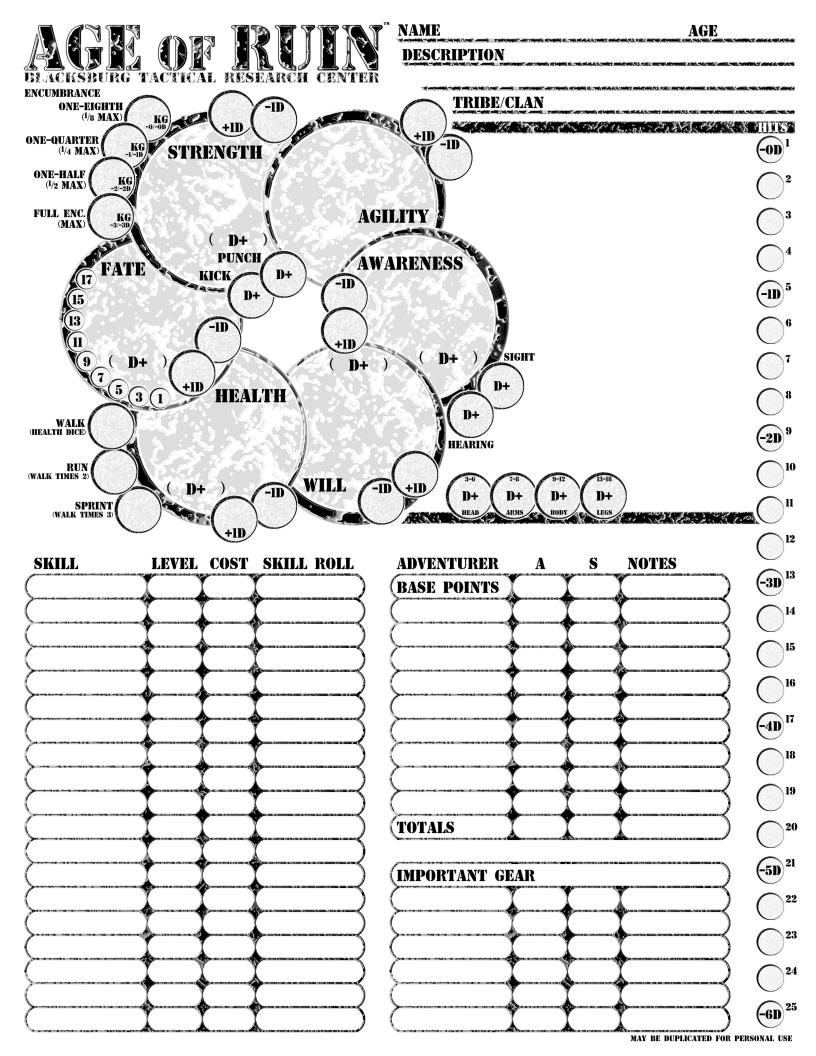


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August 1, 2004

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