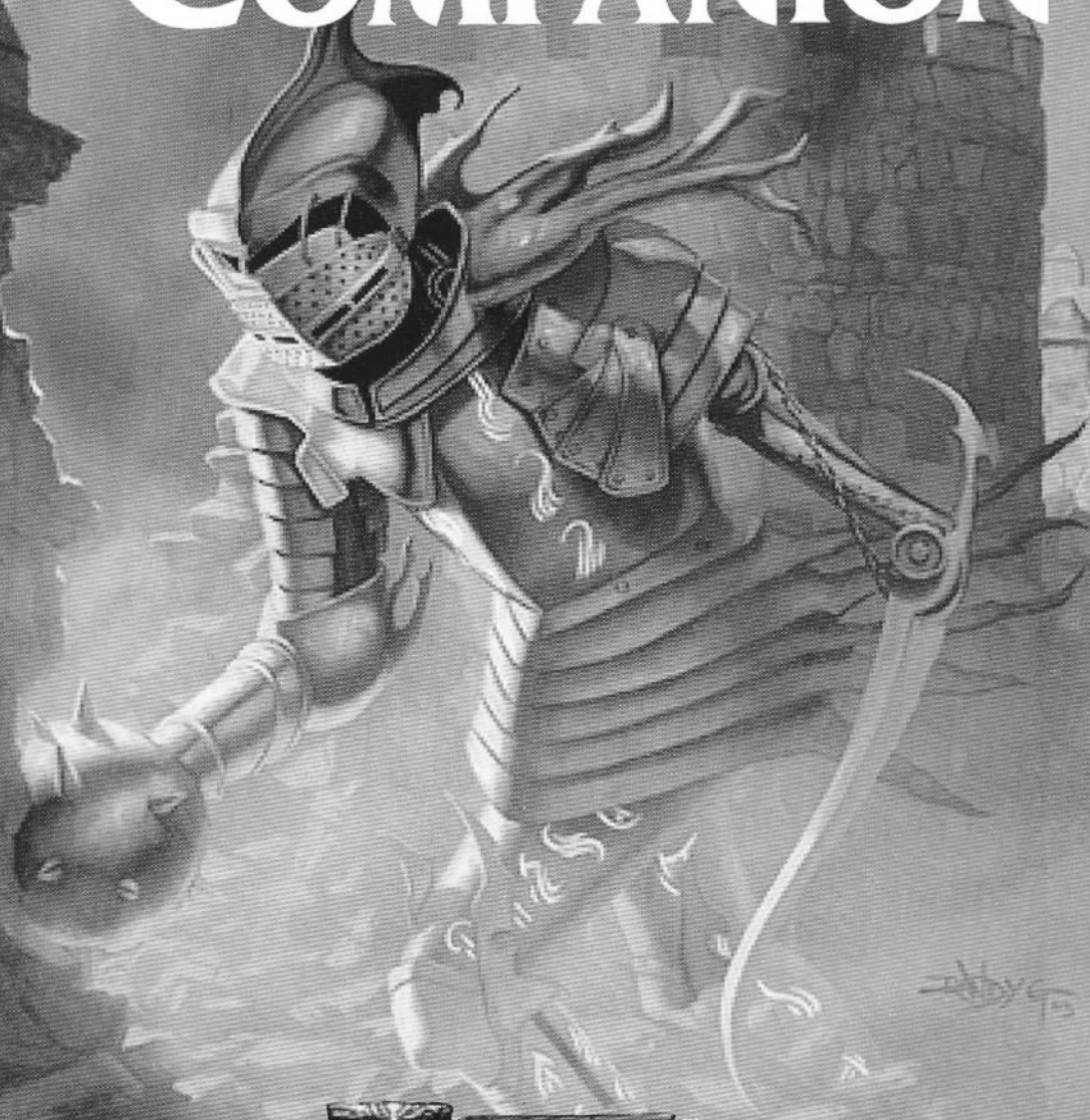


ROLEMASTER™

CONSTRUCT COMPANION™



ICE™

AN ARTIFICIAL CREATION SOURCEBOOK

CONSTRUCTTM COMPANION



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Introduction

“Artificial beings are unnatural creatures constructed by enchantments. Composed of virtually any element or substance, they have no inherent soul. Instead, their spirit is a gift or a temporary lodger. Their bodies would not ‘live’ but for the incantations that unite them with a wandering soul or part of the maker’s own spirit.”

From arcane workshops issue forth hulking golems, roughly sculpted from stone, deady humanoid constructs, formed from myriad metal scales, and animated machines. In sorcerous laboratories, misshapen parodies and soulless simulacra of living beasts and men are shaped and molded. And in the secret places of the world, the mightiest alchemists tamper with life itself to create terrifying new monsters and savage races – abominations of the natural order, which will endanger the free peoples for future millennia.

Your world may never be the same again.

1.1 WHAT’S IN CONSTRUCT COMPANION?

Construct Companion is a fantasy role-playing sourcebook on artificial entities and magical machines of every kind. It expands on the material available in *Creatures & Monsters* and *Treasure Companion*, and represents a total revision and unification of the fragmented resources found in previous editions of *Rolemaster*.

The myths and fiction of our own Earth are populated with uncanny creatures, created by forgotten alchemy and lost magic. History is replete with instances of intriguing machines and toys devised by ingenious artificers or cunning tricksters to entertain the elite throughout the centuries. *Construct Companion* will delve into this treasure trove to reveal the most interesting beasts and artifacts.

In addition to the perennial favorites of constructs and golems, *Construct Companion* will introduce four new categories of artificial entities and unnatural life-forms, namely the automaton, the amalgam, the simulacrum, and the changeling, and provide ready-made examples of each. *Construct Companion* will detail the spells, rituals and processes needed to create artificial beings and automata of each type, and show how the standard creations can be enhanced with mechanical contraptions and magical abilities. With these rules, the boldest alchemists will be able to persuade or compel eldritch beings to place shards of their souls within newly animated entities, granting them intelligence. Others will mimic or mock the divine by fashioning whole new hybrid species.

Construct Companion will reveal how members of the existing *Rolemaster* professions can become masters of creative magics, and explore their motivations and methods. From a handful of individual entities crafted by isolated sages to vast artificial armies produced by mage guilds, creators and created alike will have a proportionate impact on the setting – *Construct Companion* will help gamemasters (GMs) to meld them into their stories, as player-characters, as non-player-characters, and as sources for adventure.

1.2 USING CONSTRUCT COMPANION

Construct Companion is wholly compatible with *Rolemaster Fantasy Role-Playing*. Much of the material in this book can also be used without modification with earlier editions of *Rolemaster*.

Construct Companion is also a modular sourcebook. Gamemasters may choose to use some or all of the material without fear of upsetting delicate game balances. In some campaigns, only certain types of artificial beings may be created – each is an individual masterwork of the art and the result of a lifetime (or more) of dedicated magical research. In other worlds, creation magic is black magic and the province of evil spell users; heroes battle golems, constructs and abominations and seek to rid the world of their blasphemous makers. In yet other settings, automata and artificial entities may be commonplace as non-human slaves, ever-vigilant guardians, and utterly loyal warriors – with a magical “Industrial Revolution” imminent in the most advanced societies. Whether artificial beings are peripheral or central to the setting, *Construct Companion* has all the answers.

1.3 AUTHOR’S NOTE

The author would like to thank Alison Mitchell for undertaking much of the early research into historical automata and literary monsters. Her efforts assisted greatly in the writing of this book. Any errors introduced into the text are my fault.

Construct Companion has also benefited from the suggestions and critiques of an elite and international cadre of playtesters – David Bate, Andrew Ferguson, Patrick Farley, Peter Mork, Marian Münch, and Dave Prince. Many kudos to these heroes.

As always, thanks for keeping me sane in the face of the word count go to my veteran group of gamers – David “Demetrios” Bate, Quinton “Etain” Carroll, Andy “Sabas” Davies, Matt “Uther” Fitzgerald, Keith “Markus” Grainge, Sean “Bertran” Miller, Dave “Anna” Prince, and Stephen “Leon” Watts.

Artificial Entities and Automata in Myth, History and Fiction

Legend, literature and history are replete with examples of created and artificial entities. This chapter will look at a sample of the most famous and interesting as a prelude to implementing similar creations in *Rolemaster*.

2.1 AUTOMATA


2.1.1 ANCIENT AUTOMATA

As early as 2000 B.C., the ancient Egyptians possessed figurines with movable limbs while puppets dangling on strings or operated by sticks from beneath were made by the Greeks in the first millennium B.C. "Talking statues" (where a human priest hidden nearby spoke on the god's behalf) and "moving" idols (where the motion was achieved by mechanical contrivances) have appeared in many religions from antiquity onwards.

True automata, in the sense of mechanical objects which are relatively self-operating once set in motion, appeared in profusion in the third and second centuries B.C. Sand, mercury, and especially water were used by the later Egyptians and the classical Greeks as the motive forces for their devices. Hero of Alexandria, living in the second century B.C., described the construction of apparatus employing water, falling weights, and steam. As one of the leading mechanics of the era, his discoveries in hydraulic, pneumatic, and mechanical action helped him to construct a series of automata from singing birds and moving tableaux to a fully automatic miniature theatre. Philo of Byzantium staged a full five-act play – "The Tale of Nauplius" – including ships being launched, "sailed", and shipwrecked using one of these theatres.

Even in Greco-Roman legend, automata are present. Homer mentions Vulcan's mobile tripods and the smith god was assisted in his endeavors by a score of golden





handmaidens. Daedalus, before his aerial escape on waxed wings, was supposed to have fashioned moving statues, animating them with mercury.

2.1.2 ARAB AND MEDIEVAL AUTOMATA

The King of Persia gave an elaborate water clock, or clepsydra, to Charlemagne in 807 AD as a gift. On the stroke of each hour, one of twelve doors on its dial would open and little balls (in number equal to the hour) would fall out onto a brass drum. At twelve o'clock, a troop of miniature cavalymen would ride out and moving round the dial shut all the doors!

From the ninth century onwards, beautiful automata graced the courts of Islamic rulers – one caliph had a golden tree with silver leaves and mechanical singing birds resting in its branches. In the early 13th century, Ibn Al-Razzazz Al-Jazari compiled his own (and others') designs for graceful constructs in the "Book of Knowledge of Ingenious Mechanical Devices". His own specialty was water-operated devices, such as moving and ornate peacocks, some for ritual washing, others as royal cupbearers.

In Christian Europe, elementary decorative automata appeared in medieval churches. Hand-operated crucifixes oozed blood, Madonnas shed tears, and even up to 1647, the celebration of the Assumption in Dieppe in France included artificial angels, which flapped their wings and blew trumpets.

While such artifice to instruct and awe the ordinary folk was not discouraged by the Church, more conservative churchmen could construe revolutionary ideas from its own scholars as diabolical heresies. In the 13th century, Albertus Magnus (Saint Albert the Great or "Doctor Universalis"), Dominican theologian and proto-scientist, was considered by some contemporaries and later fabulists to be a master of magic. Albertus is credited variously with creating an iron man or a mechanical brass man able to move and speak. Supposedly his disciple, St Thomas Aquinas, destroyed the brass man believing it to be a work of the Devil.

Around the same time, Roger Bacon ("Doctor Mirabilis"), the English Franciscan philosopher, studied and conducted experiments in mathematics, astronomy, optics, and alchemy. He described spectacles, optical phenomena such as reflection, refraction, and aberration, and detailed the process for making gunpowder. He envisioned machines such that ships without rowers might be both propelled and steered by a single individual, carriages needing no horses or other draught animals, and flying machines where a man seated in the middle need only turn a device to make the wings flap and ascend into the air. His fame led to him being associated with prodigies and wonders – legends assert that he constructed a talking head of bronze. It was supposedly made so that he might discern the necessary magic to create a wall of brass to surround and protect England. Sadly for Roger Bacon, his fellow friars suspected

his teachings of containing dangerous "novelties" and he spent his last decade imprisoned for heresy.


Less fanciful and more useful constructs were the *Jaquemarts* or "clock jacks" which appeared on clock towers and churches from the fourteenth century. Mechanical figures would move on turntables, entering and exiting doors, and striking bells with the strokes of the hour. The mechanisms used extremely heavy leaden weights, laboriously raised each day by hand. Fashions in such clock constructs became more ornate and complex over the next three centuries.

2.1.3 RENAISSANCE AND ENLIGHTENMENT AUTOMATA

With the advent of the Renaissance, automata began to enjoy a new reputation as ingenious products of artifice rather than the creation of magic. Some inventors amused their overlords with flying birds, miniature horsemen, and musicians. In the early 16th century, Leonardo da Vinci fashioned an automatic lion, capable of moving some paces forward on its *wheels* and then opening its chest to reveal heraldic symbols. Contemporary biographers reported that he made animals from a wax paste – when inflated, these constructs flew through the air.

The cities of Augsburg and Nuremburg in southern Germany became the world centers for advances in clockwork. Formerly clocks used heavy weights revolving around a barrel wound around with chain or rope to drive the wheels. Now coiled tempered-steel springs could be employed, making smaller and more portable clocks and watches practical. For noble banquets, clockwork *nefs* (coasters on wheels carrying wines and condiments) traversed long tables servicing and entertaining diners in equal measure. Other "drinking clocks" would race along the table with every guest required to down his glass before they halted – one in the shape of a centaur fired small arrows at unlucky drinkers who were then forced to pay a forfeit. Some constructs were capable of producing music by simulating keyboard and wind instruments with plucked strings and bellows respectively.

During the 18th century, academicians in the French Academy of Sciences considered the whole spectrum of mechanical invention from practical pumps, mills, and bridges to novel calculating machines, weapons, and automata. Designs for the latter included chariots (moved by handles connected to cogs driving the back wheels rather than horse-drawn), artificial swans and seahorses (using paddle feet for motion), a life-size paddle-operated gondola, and even a cart and its mechanical horse. In 1779, their colleagues in St. Petersburg even organized a competition for the best "speaking head" – the winning entry was able to utter a few words. Industrious inventors made mechanical and electric paddleboats, automatic carriages and walking animals as well as curiosities such as self-locking boxes, self-extinguishing lamps, and self-firing guns.



Wealthy merchants and minor princes bankrolled gad-gets to fill their sheltered gardens and specially constructed grottos with intricate automata arranged in artistic poses or capturing rustic scenes. In one grotto at Hellbrunn near Salzburg, a mechanical theatre consisting of over 200 miniature figures was built in 1752. The 113 automata, operated by a water turbine, and their static counterparts, simulate the life of an 18th-century town. Toscani, a Polish stage magician exhibited a more mobile *theatrum mundi* (an automaton with many figures) from 1744 to 1748. His figures were animated either by primitive electrics or magnetism rather than wires. Flockton's theatre, displayed in 1800, had as many as 500 figures.

Among the masters of the art of automata during the Enlightenment were Jacques de Vaucanson, the Knauss brothers (Ludwig and Friedrich), the Jaquet-Droz family (father (Pierre) and son (Henri-Louis)), and Wolfgang von Kempelen.

Vaucanson was expelled from a Jesuit training college for making automata in the form of flying angels. During the 1730s and 1740s, he fashioned a series of celebrated models variously exhibited in France (and by others elsewhere in Europe.) His creations included a grocer's stall with a mechanical shopkeeper able to rise, open and shut the stall's doors, and hand over items to the audience, life-size flute-players (with repertoires of ten or more tunes), and a life-size brass duck with realistic looking plumage, mobile head and wings, and the ability to "eat" from the contents of a bowl, "digest", and "excrete" the "food". In his later life, Vaucanson used his ingenuity to design and manufacture machines to weave brocade.

The Knauss brothers are most famous for their splendid automata clocks of the 1740s and 1750s, such as the *Ritterspieluhr* (Knight's Clock), which depicts a tourney with two armies of knights on horseback who joust as the clock strikes the hour, and the *Maria-Theresian Uhr*, depicting a symbolic procession to celebrate the coronation of Empress Maria Theresa. Friedrich Knauss also attempted to make "writing hands" and "speaking heads" – his experiments with the former led to a device capable of tracing cursive script on paper in response to signals from a keyboard operator.

The Swiss Jaquet-Droz inventors fashioned three truly exquisite automata among a series of lesser creations. The first is a Writer (completed in 1760), in form and size a curly-headed four-year-old seated at a small desk, holding a goose quill in his right hand and able to write any preset phrase of up to 40 letters. Interchangeable pegs placed on a disc form the phrase while an intricate series of clockwork mechanisms and internal cams transmit and translate the phrase into writing movements. The second was a Draughtsman (1773), which was similar to the Writer in form but able to draw one of four pictures. The final automaton, a Musician, took the form of a young woman playing a piano. Jean Leschot, a mechanic who assisted Pierre Jaquet-Droz, became famous for making articulated prosthetics for amputees.

The chess-playing Turk first exhibited by Wolfgang von Kempelen in 1770 is perhaps the most famous automaton of all. In shape, it was a cabinet on wheels behind which a life-size figure dressed in Turkish clothing and turban was seated. Atop the cabinet was a chessboard and chess pieces, which could be moved by the "Turk". The cabinet doors could be opened to reveal drawers and a complex arrangement of mechanical parts with unknown purposes. In 1809, Napoleon played a game with the "Turk" and lost! Unknown at the time, the "Turk" was not a real automaton – a skilled human player was actually concealed within the equipment.

Interest in automata slowly declined in the 19th century as rich patrons and skilled craftsmen dwindled.

2.1.4 ORIENTAL AUTOMATA

In China, the earliest mentions of automata are from the 3rd century BC when a mechanical orchestra was constructed for the then-Emperor. Automata were widespread by the 6th century AD, and remained popular with the ruling classes of the empire for a further five hundred years. Histories record flying birds, animals and humanoid automata. The tradition of construct building declined in the mid-fourteenth century. When the Jesuits led their missions to China in the early 1600s, they discovered and exploited the Chinese fascination with clockwork – later missionaries brought machinery and automata with them as gifts to placate and entertain the rulers. Some of the priests were skilled inventors in their own right, designing walking men and richly decorated clocks for the Emperors. Europeans, however, were required to maintain the machines.

Tipu Sultan, the fiercely independent 18th-century ruler of Mysore and enemy of the British in India, gave form to his hatred of European invaders with a clockwork tiger mauling a prostrate foreigner. Equipped with an organ, suitable bellows, and an air reservoir, the device is operated by a mechanical keyboard and handle. When wound up, the man's left arm flails ineffectually, the man screams, and the tiger roars.

The Japanese developed a tradition of automata, known as "karakuri", from the mid-17th century. Takeda Omi, originally a maker of "sand clocks" (elaborate hourglasses), diverged into the design and manufacture of clockwork and mechanical toys based loosely on European techniques. Granted permission to establish a public theatre to exhibit his inventions, Takeda Omi and his descendants (by blood and adoption) were at the forefront of automata creation for more than a hundred years. *Karakuri* became respectable additions to plays with human actors and *karakuri*-only performances were very popular. While *karakuri* entertained audiences, labor-saving devices were also created based on this technology – one rich and secretive miller had his mill equipped with three treadmills, each connected to three millstones. Each millstone normally required six workers or fifty-four in total. The treadmills' design only

required one man per treadmill. The *karakuri* industry declined in the mid-18th century, perhaps because workmanship had deteriorated or automata had become unfashionable, and the last *karakuri* theatre closed in 1772.

2.2 THE GOLEM

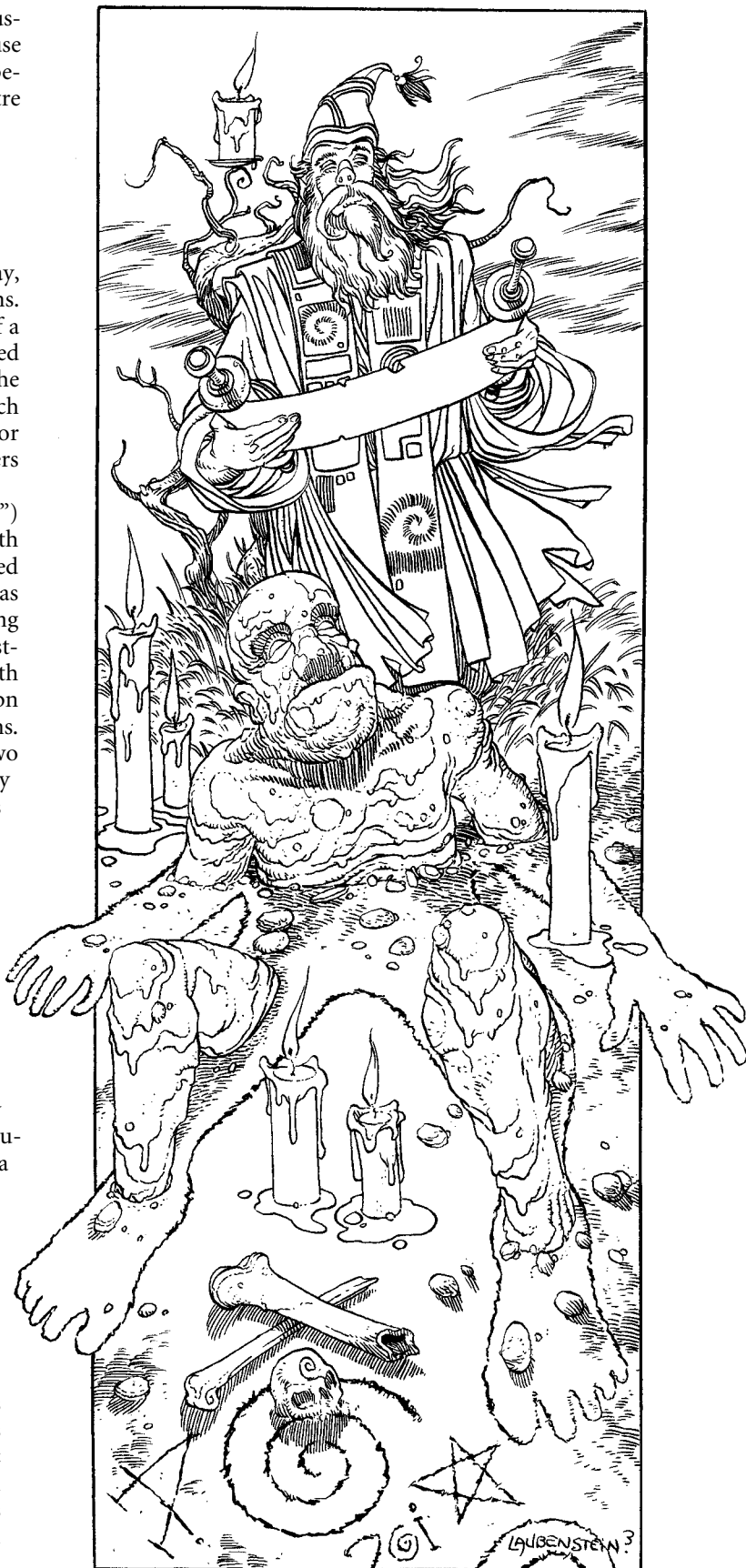
The golem is an artificial creature, made from clay, described in Jewish folklore and mystical traditions. Wise rabbis brought the golem to life by means of a combination of letters forming one of the sacred names of God. According to most golem stories, the letters were written onto a piece of parchment, which was then placed either in the creature's mouth or affixed to its head. Altering or removing the letters deactivated the golem.


The creation of golems (more properly "golemim") was not an uncommon process in Jewish legends, with the earliest references being to the golems fashioned by Enosh and Ben Sira in Biblical eras. Ben Sira was commanded to destroy his golem lest its seeming vitality delude the gullible into believing in the existence of false gods. Other sages, such as Rava (in the 4th century AD), Ibn Gabirol (11th century), and Ibn Ezra (12th century), were credited with making golems. They were not only created in human form – two rabbis regularly fashioned and animated a calf every Friday according to one account. The most famous golem of all was the masterwork of the 16th-century rabbi Judah Löw ben Bezulel, whose creation protected the Jews of the Prague ghettos from the persecutions of anti-Semitic Christians.

2.2.1 MAKING A GOLEM

The Kabbalah were and are the mystical and magical traditions of Judaism. According to its doctrines, divine power is inherent in the very letters of the sacred names of God. Texts such as the "Sefer Yetzirah" ("Book of Formation") specify diverse formulations of letters, with different permutations for different supernatural activities. Thus a scholar who has mastered this knowledge could potentially use the Kabbalah to obtain a dream vision or even create a golem. Knowledge is, however, insufficient. A true kabbalistic master will only invoke these magical energies after seeking the permission of God through prayer. To perform magic without divine sanction is black sorcery, which taps into the diabolical powers.

The tale of Rabbi Löw's golem creation is perhaps the most complete. In 1580, anxious to protect his people from persecution, Löw used his kabbalistic wisdom to seek divine guidance through a dream quest, placing a blank piece of paper under his pillow. On waking, the paper was inscribed with ten Hebrew words, the first letter of each word corresponding to the first ten letters of the Hebrew





alphabet. (Loosely translated, the answer was “Ah, By Clay Destroy Evil Forces, Golem, Help Israel, justice”). The rabbi interpreted this as the necessary authority to make a golem and instructed two of his confidants to prepare themselves by a weeklong program of ritual purification.

After this period of preparation, Löw and his two disciples went at night to a nearby forest. Here Löw drew a human figure in the mud with his cane. His first disciple then walked around the figure seven times, starting at the feet and walking rightwards to its head and thence round the left side to its feet, chanting the proper formulation of the Divine Names. The figure now glowed with an inner fire, having been imbued by the disciple with the elemental essence of fire to add to its earth essence derived from its clay material. The second disciple followed the same procedure, but intoning a different incantation to imbue the figure with the essence of water, enabling it to separate itself from the ground. Löw then repeated the procedure, again with a different sequence of sacred words, drawing the essence of air into the golem and calling the demonic spirit of Yossef Sheida into its body. The three then recited a verse from the Biblical Book of Genesis, and the golem opened its eyes.

Löw ordered the golem to rise, had his colleagues dress it in normal clothing, and then explained to the golem, now called Yossef, its duties as the protector of the Jewish people. He also firmly demanded total obedience from Yossef in all matters. Then the four returned to Prague, where Löw claimed to his family and others that Yossef was a mute who had offered to become his servant.

2.2.2 CONTROLLING THE GOLEM

Other golem tales stress the importance of the sacred words in both making and controlling the entities. Traditionally the word “shem” meaning “name” was written on the parchment placed in the golem’s mouth to give it life. On the forehead, the word “emeth” (meaning “truth”) was inscribed to activate the golem. By removing the first letter, this inscription could be altered to “meth” (meaning “death”), temporarily deactivating the creature. In some accounts, the rabbis regularly deanimated their golems prior to the Sabbath lest they run amok on the holy day, restoring them on the next weekday.

According to Löw’s explanations to his followers, two demonic spirits had appeared when he sought to draw a spirit into the golem. The spirits were named Yossef Sheida and Yonnassan Sheida. (The word “sheida” means demon.) The latter was unknown to Löw, whereas Yossef had a history of assisting Jewish scholars and so was chosen to inhabit the golem. Fear of being returned to incorporeality, to non-existence, rather than any good or evil inclination, was the principal motivation for the golem’s total obedience. For Judaic demons, incarnation into such forms to assist the Jewish people offered them a hope of eventual purification and rebirth after the advent of the Messiah.

2.2.3 STRENGTHS AND WEAKNESSES

Size and strength were the obvious powers of the humanoid golem. They were fashioned as tall, large men, and had superhuman strength by virtue of their elemental essence. The Prague golem was claimed to be unstoppable and able to perform any task within fifteen feet above and below the ground. It was also invulnerable to injury or death from any weapon (magical or mundane), from fire and from drowning. Immune to disease, golems were also totally incapable of reproduction and lacked any sexual urges.

Through its inhabiting spirit and its created nature, golems possessed unerring time sense. It could also perceive other spiritual entities such as demons, spirits, and ghosts – in one story, the Prague golem even shepherded one erring ghost to its master. Golems could also be channels for divine communication, being able to reorder Kabbalistic letters to reveal the answers to a rabbi’s questions, or even give voice to messages from angelic powers.

Unless possessed by a divine messenger, golems were unable to speak. Their creators were limited to imparting vitality and movement to these entities. They could not create an actual soul as this was forever beyond human ability, and so golems were always mute. All humanoid golems could communicate by gestures and some were able to respond to their masters occasionally by writing down their answers.

The intelligence of a golem in terms of its understanding was in direct proportion to the power of the imbedded spirit. More powerful spirits were better able to comprehend orders and missions. Even they could be dangerously literal in their interpretation of commands as golems were unable to reason independently from their instructions. A casually given command such as to fill barrels from a well could easily result in the golem filling the barrels to overflowing and continuing to do so while the whole area flooded. The wise creator gave exact instructions and supervised his golem.

2.2.4 THE GOLEM’S ROLE

The golem’s role in Jewish legends changed down the centuries. In the earliest tales, the golem was employed as a perfect servant to cut wood and haul water, with its only fault being an overly literal or mechanical fulfillment of its master’s orders.

In the medieval period, golems were made by sages to demonstrate their knowledge of the Kabbalah. As such, golems were considered as little higher than dumb animals, and returned to their natural elements at their creator’s or another’s whim. They could be fashioned or destroyed with impunity because they were not human, merely an intermediate stage of matter. Such casual displays of power hinted at arrogance and scholarly conceits that mortals could compete with God in creation.

In the 16th century, the golem took on a new character, that of defender of the Jews from religious

persecution. They were not to be used as slaves. Instead they were to be reserved for sacred purposes. The golem Yossef was created specifically to protect the Jews of Prague from the “blood libels.” These monstrous accusations alleged that the Jews kidnapped and slaughtered Christian children, draining them of blood, and then used this blood in Passover rituals. Enemies of prominent Jews would plant a corpse near a Jewish residence, arrange for its “discovery”, and then watch the mob execute their revenge. Löw sent Yossef on nightly patrols to prevent attacks on Jews and the desecration of graves as well as on missions to rescue kidnap victims and missing persons. The implacable Yossef was able to foil all the persecutors.

As belligerent protector, the golem could also be quite frightening. By the 17th century in German retellings of the legends, the golem was seen as a terror threatening society, which had to be destroyed for the common good.

2.2.5 UNMAKING THE GOLEM

As made creations, golems are not killed, rather they are unmade with their body returning to lifeless clay. Sometimes golems are unmade because they have gone berserk. Eliyahu of Chelm reputedly created a golem in the 16th century, which grew larger every day. Fearful that it might become uncontrollable, Eliyahu ripped the parchment from the golem’s forehead. The mass of now inanimate clay collapsed upon the hapless scholar killing him.

The Prague golem was destroyed because it had fulfilled its task. To unmake their golem, Löw and his disciples reversed the rituals of creation and buried the body in an attic, banning anyone from ever entering the room.

2.3

THE HOMUNCULUS

In medieval and Renaissance Europe, the proper study of alchemists was to undertake a life-long quest to create or rediscover the Philosopher’s Stone. With the Philosopher’s Stone in its solid form (tincture), an alchemist could transmute base metals such as lead and iron into gold. In its elixir (liquid) form, an alchemist could brew a universal panacea, capable of curing any disease, or an elixir vitae, bestowing great longevity, even immortality, on the imbibor of the potion. Similarly these wonder-workers claimed to be able to create life itself, usually in the form of a homunculus – a “little man”.

In the early sixteenth century, the physician, diviner and alleged black magician Philipus Aureolus Theophrastus Bombastus Paracelsus von Hohenheim published a formula to create an omnculus. A quantity of human sperm is first placed in a hermetically sealed glass container, and the jar buried in horse manure for some forty days. During this period, the area is appropriately “magnetized”. The being takes shape as a tiny transparent and insubstantial human being. The creature must be fed with “arcanum sanguinis hominis” (magically enchanted human blood – possibly the mage’s own blood?) for forty weeks – remaining within the container and buried in the dung, which must be maintained at an even temperature.

At the end of this maturation period, the entity will be a fully formed but tiny child, who may be raised and educated like any normal child. Paracelsus claimed that the creature would know secrets hidden from ordinary men and triumph over its enemies.

Several decades later, David Christianus published his method for creating a homunculus which involved replacing a tiny portion of the white of an egg from a black chicken with human sperm. The opening in the egg was then to be sealed with a piece of moist clean parchment and the egg placed in dung on the first day of the new moon in March. After thirty days, a tiny entity (in human shape) would leave the egg. This homunculus could then be fed on a diet of earthworms and lavender while it grew to a larger size. According to Christianus, its creator would enjoy happiness in all matters while it remained alive.

Even as late as the early nineteenth century, the mandragora (or mandrake) plant was considered an essential ingredient in creating artificial humans, as the mandrake’s root resembled humanoid form in miniature. Magical practitioners believed that mandrake grew from the sperm of innocent men who had died by hanging. Once grown, the root had to be harvested by a black dog before dawn on a Friday. The root was then washed and nourished with milk, honey and (according to some authorities) blood. This process slowly transformed and matured the homunculus. Thereafter it could protect its master from harm.

Some practitioners were not satisfied with a single creature, but instead fashioned a series of entities in their “test tubes” – reputedly some of these entities were female, and some were designed to excel in certain crafts, trades, or professions from mining to architecture.

Such “histories” and legends played their part in the artificial creations of literature.





2.4 THE MONSTERS OF DOCTORS FRANKENSTEIN AND MOREAU

Written in 1818, Mary Shelley's novel, *Frankenstein*, draws upon the magical traditions of the alchemists and the scientific theories of the eighteenth and early nineteenth centuries. Benjamin Franklin had shown with his kite experiments that lightning was electricity. Luigi Galvani had revealed the ability of electricity to stimulate muscles, provoking convulsive movements, and theorized the existence of an innate force, dubbed "animal electricity". He conjectured that the brain secreted the "electric fluid" which flowed via the nerves and stimulated the muscles. Others experimented with electricity to stimulate paralyzed muscles.

There was a belief in the eighteenth-century in some medical and scientific circles that death was reversible and that the body was an essentially inert substance animated by a spirit which could depart, transferring itself and the life impulse to another – electricity was postulated as this spark of life and as a possible means of revivifying corpses.

In the eighteenth century, theories concerning the spontaneous generation of life from inanimate matter and the regeneration of animate matter were popular. John Needham believed that rotting matter, particularly if infused with animal or vegetable material, would generate microorganisms ("animalcules"), and conducted experiments to prove his theories. René Antoine Réaumur studied the ability of crustaceans such as crayfish to regenerate lost body parts. Abraham Trembley experimented with freshwater hydra, showing that a divided hydra could regenerate complete individuals from each part, and conversely that two individual polyps grafted together would form a single individual.

In *Frankenstein*, Doctor Victor Frankenstein creates his monster using a combination of esoteric knowledge and zealous experimentation. His monster is built from the body parts of corpses, reassembled into a patchwork whole by surgery, and somehow, animated. (Film versions of the novel have assumed electricity as the life-giving principle, taking their cue from Shelley's speculations in her prefaces to the book.) The resulting creature is eight feet tall and able to move faster than any normal human. Its face has watery dull yellow eyes, wrinkled yellow skin barely concealing the blood vessels, black lips, white teeth and long black hair. Although the monster seeks affection and understanding from its creator and others, its horrifying appearance engenders only loathing and it is abandoned by its master to fend for itself. It is driven through bitterness to violence against everyone it meets, especially Frankenstein and his family.



In HG Wells' 1896 novel, *The Island of Dr Moreau*, the scientist Moreau goes beyond Frankenstein's presumption by attempting to create new races rather than a single individual. Moreau's experiments aim to fashion new humanoids (or humanized animals) from animal species through vivisection and terrifying surgery. Despite Moreau's surgical procedures and his hypnotic methods of instilling a moral sense into the hybrids, the innate animal natures of the creatures slowly and gradually reassert themselves. Eventually they degenerate into mere animals in twisted bodies. "The Master" of Brian Aldiss' thematic sequel, *Moreau's Other Island*, builds upon the original experiments using drugs during pregnancy to alter the bodies and minds of animals and humans.

2.5 A MEDLEY OF MAGIC AND MONSTERS FROM FANTASY LITERATURE

In JRR Tolkien's *Middle-Earth*, the evil races and monstrous creatures are the results of the "breeding pits". Morgoth tortures and perverts captured Elves to form the cruel Orcs, mocks Ents with his brutish Trolls, and challenges the Giant Eagles with his fell beasts and Dragons. Sauron continues the experiments in turn producing Orcs and Trolls unharmed by sunlight, while the renegade wizard Saruman breeds Orcs with Men to create his own armies. On a smaller scale, the Woses (Druedain) have a magical tradition of shamans creating fierce-looking carvings of wood and stone, which animate at need to defend the hidden homesteads from Orcs and other invaders. If one of these statues suffers harm in protecting a Wose settlement, its creator suffers a similar but much less severe injury.

In Jack Vance's *Dying Earth* novels, magicians strive to create humans and other entities, growing their bodies from a single cell. The beings mature in vats of clear nutrient fluid bathed in an eldritch green light. When the magician judges the process complete, the liquid is drained off and the being roused to consciousness with an injection of a suitable drug. Failures are many – Turjan's unsuccessful experiments included an entity composed solely of eyes, a boneless being, and inside-out creatures. Mazirian's creatures are fully human in form but without intelligence, and even Pandelume's beautiful woman T'sais sees beauty as ugliness owing to a warp in her brain.

In Jack Vance's *Lyonese* trilogy, the magicians create "alter egos" of themselves (often widely different in temperament and appearance) so that they may more discreetly interact with the mortal and faerie folk of the Elder Isles. These "scions" in time develop their own

personalities and goals in addition to supporting their masters. The witch Desmëi sundered herself into three bodies – converting herself into a fluid "plasm", she distilled herself by deft tricks of time and magic into three forms – a beautiful woman (Melanthe), a man (Faude Carfilhiot), and a "demented squeaking creature" (which encapsulated all her undesirable attributes). The last, she slew, burning it in a furnace, although both of her scions inhaled some of its vapor.

In the Elder Isles, magic also allows the creation of hybrid entities. Murgan creates an agent to rescue a girl from the hostile plane of Tanjeterly. The process is complex – Murgan acquires the "constructive principles" (magical matrices embodying the form, personality, and mind of creatures) of a syaspic feroce and a near-human known as Kul the Killer. The two matrices reside in separate magical cabinets. To create the hybrid, Murgan joins the two cabinets together and lays a sheet of paper (cut into patterns) onto another similar sheet. After various magical workings, Murgan then opens the cabinet to reveal a new creature, which is a blend of the original beings. The fusion is then brought to full life by a transfusion of blood from the hero Aillas. This also instills loyalty and Aillas' human virtues into the creature, now named Kul. Although successful in its mission, Kul dies from the blood loss of accumulated wounds – once Aillas' blood is all spent, its life departs.

In the long-running *Xanth* series by Piers Anthony, love springs are responsible for the vast variety of humanoid and hybrid species in that kingdom. Any creature that drinks from such a spring immediately "falls in love" with the next creature of the opposite sex it sees, with the progeny of such matings taking on characteristics from both parents. The *Xanth* novels also feature the tiny loudmouthed golem, Grundy, enchanted such that he can communicate with any living plant or animal.

More traditional golems appear in Terry Pratchett's *Feet of Clay*. The Discworld golems are fired-clay red-eyed statues with a holy text written on a parchment "chem" and placed inside their heads (which have hinged tops). The golems are obedient but unable to harm or kill a living being. Mute, they communicate by writing, so carry some chalk and slates with them. Highly resistant to damage, they are tireless and need neither air nor nourishment. While the head is intact, a Discworld golem can be repaired, even by other golems. In *Feet of Clay*, the golems of Ankh-Morpork create a new golem from their own clay, but the golem becomes insane, as multiple "chems" have been given to him. Only one golem, Dorfl, has achieved free will and independence from the chem so far – by virtue of receiving a chem, that stated that Dorfl was his own master.

In Terry Pratchett's more recent Discworld novels such as *Carpe Jugulum*, the "Ivors" of Überwald are the Discworld twist on Frankenstein's monster. Henchmen to the mad rulers of that gothic kingdom, the "Ivors" are highly proficient surgeons and medical practitioners, expert in weird transplant surgery. "Ivors" themselves are "patchworks" with organs and limbs reused from their relatives.

In Guy Gavriel Kay's historical fantasy duology, *The Sarantine Mosaic*, based loosely on Earth's Byzantine Empire, the alchemist Zoticus has learned how to make inanimate objects think, speak, and retain souls. He fashioned nine birds from metal and leather, ranging from sparrows to falcons in form. Performing a "defining ceremony" by the grave of a magistrate, Zoticus imbued the birds with the ability to speak – in the cultured tones of the dead patrician. Into the birds, Zoticus then imbedded the souls of nine maidens, who had been sacrificed in a pagan ritual to Ludan, an ancient forest god. His opinionated birds can speak, see, and hear – and can communicate telepathically with some people. Fearing persecution by the orthodox clergy and exploitation by secular rulers, Zoticus keeps his creations secret, giving one (Danis) to his daughter and another (Linon) to the mosaicist Crispin. En route to Sarantium, Linon is reclaimed by an avatar of Ludan, and Zoticus senses that he too must return the seven birds in his possession. In a forest grove, Ludan slays Zoticus and the girls' souls are freed.

In *The Heritage of Shannara* quartet by Terry Brooks, the faerie lord Uhl Belk and the Federation have access to the fearsome Creepers, fusions of metal and organic material, created to hunt and kill. Magical practitioners have harnessed earth magic and developed the ability to extract the essence from natural creatures and grow these essences with magic to create superior animal breeds and to combine them to form magical hybrids such as the Splinterscat (a porcupine / cat amalgam). Many of these beasts can think and speak as well as humans. The most daring used human blood and flesh in their creations, incorporating even emotions and memories, to create new people to serve as guardians. Flaws in the rituals and the tendency of magic to evolve transform the erstwhile guardians into "demons", living off earth magic and seeking to destroy their makers. In *The Voyage of the Jerle Shannara* trilogy, the malevolent entity Antrax creates "wronks" by melding captured humans with artificial mechanisms. The "wronks" can remember their former lives and experience unending anguish as they are compelled to use their skills at Antrax's bidding against former comrades.



Definitions

3.1

ANIMATED OBJECTS

By using relatively minor spells, a wizard can temporarily animate an object, such as a weapon, and whilst concentrating cause the object to move. Adept magicians can even wield a sword simply by the power of the mind. Once the wizard ceases to concentrate, however, the object loses its motive force and becomes wholly inanimate again, usually dropping to the floor.

Compared to the creations of the masters, such *animated objects* are mere fripperies appropriate only to an apprentice or a street conjuror. *Animated objects* are simply pre-existing items temporarily ensorcelled – genuine artificial beings are created according to exacting and esoteric formulae specifically to receive lasting enchantments of autonomy and awareness.

3.2

AUTOMATA

An Automaton (plural: automata or automatons) is the most basic of all autonomous permanent creations. In essence, an Automaton is a magical machine designed to accomplish one or more specific tasks. Like the machines fashioned by mundane engineers and craftsmen, an Automaton usually consists of dozens or even hundreds of small metal and wooden parts assembled into an intricate whole. Automata can be of any size or shape conceivable. Unlike ordinary machines, which rely on clockwork, water, or perhaps even steam to power their motion, Automata are powered by magic. Thus, unless the Automaton is commanded by its maker to stop or its enchantments are dispelled or malfunction, it can potentially function forever.

In addition to this permanency, automata have a further advantage over animated objects in that they do not require their maker (or their operator) to concentrate (in the *Rolemaster* sense of requiring 50% activity) to direct them in the execution of their tasks.

Automata, as a class, have three significant disadvantages. Firstly, they can only perform the specific tasks for which they were designed. Secondly, it is not possible to deliberately imbue an Automaton with any measure of sentience – these magical machines can never be intelligent. Thirdly, Automata can malfunction, requiring repair, or exhaust their fuel or other consumables, requiring replenishment.

3.3

GOLEMS

A Golem is composed of a single piece of a particular substance, which can be wood, clay, stone, crystal or metal. This piece is shaped, carved, or sculpted as necessary into a humanoid or beast form. The degree of resemblance varies according to the skill of the creator – although beast Golems are better imitations of their originals than their humanoid counterparts. Golems can be created in any size but materials cost discourages the use of precious substances for the larger entities.

Through potent magic (more powerful than that employed with animated objects or automata), Golems may be imbued with animation and purpose. Varying degrees of intelligence can be instilled from diverse sources. These enchantments may require regular renewal or involve the permanent imbedding of an (un)willing spirit or a shard of some extra-planar entity such as an elemental or a demon.

Due to the strength of their forms and their potential for self-awareness, Golems can perform simple tasks requiring brute force with ease. They may find tasks involving manual dexterity or agility problematic, as most beast Golems lack hands. Their substance usually endows them with high natural armor and resistance to damage, making them robust warriors. As they need no sleep, they can also be ever-vigilant sentries.

The major disadvantage of Golems is the difficulty in controlling them. If the bonds of obedience between a Golem and its maker (or a later controller) are broken, the Golem will frequently turn upon its oppressor and attempt to kill him and everyone else nearby. Intelligent

Golems who go rogue may maintain a fiction of obedience while they wait for a better opportunity to destroy their hated master.

It is not possible to enhance Golems with mechanical contrivances (such as built-in dart throwers) as the being must be fashioned from a single piece of material. By dint of potent spells, Golems can be endowed with magical abilities.

Gargoyles represent a specific type of stone Golem. “Flesh Golems” are not in fact Golems as they are not composed of a single piece of material. Instead “flesh golems” are Amalgams (see below).



3.4

CONSTRUCTS

Constructs are artificial creatures, whose bodies consist of numerous separate, interlocking parts and sliding pieces, giving them an exterior appearance reminiscent of a suit of plate armor. Constructs are almost wholly made of metal, with the exception of their eyes, which are usually enchanted gems. A Construct has a metal framework covered with metal plates – their insides are mostly hollow cavities. Constructs can be of any size or shape with humanoid and magical beast forms predominating. Beast Constructs mimic their living models in appearance closely, but are almost always stronger, faster, and more dangerous than their organic models. Humanoid Constructs look like walking suits of plate mail, bristling with weapons. To support their frequent task as warriors and guardians, Constructs are designed with weapons built into their bodies – automatic loading crossbows mounted in chest cavities, wrist-mounted dart-throwers, blade-tipped fingers, spiked elbows and toes, arms terminating in weapons rather than hands, and so forth. Ammunition is stored in the body cavities.

Like Golems, Constructs may be magically enchanted to have animation, purpose, and intelligence. The process for instilling intelligence may require regular spell castings or involve the permanent imbedding of an (un)willing spirit or a shard of some extra-planar entity such as an elemental or a demon.

Their high armor type (from their metallic construction), their inherent weaponry, and their potential self-awareness makes them as fearsome as Golems in combat. Magical abilities can also be more easily incorporated into Constructs than Golems. However, the piecemeal nature and hollow nature of constructs makes them much less resilient to damage.

As with Golems, the key problem with Constructs is controlling them. Once the bonds of obedience are shattered, Constructs will turn on their masters sooner or later.

3.5

AMALGAMS

An Amalgam is created by assembling body parts from multiple corpses into a whole body. Electrical charges are used to revivify the nerves and grant the Amalgam a semblance of life. These Amalgams are sometimes erroneously called Flesh Golems.

More terrifying than Flesh Golems are the “Living Amalgams.” These unfortunate individuals have had portions of their body removed and replaced with organic or metal transplants. The surgeon-mage can then control the Living Amalgam via their transplants.

Amalgams are much cheaper and faster to fashion than either Golems or Constructs, but lack the durability of the former, the mechanical contrivances of the latter,

and the spell-casting abilities of both. Worse, the animating intelligence of an Amalgam is essentially random, as it may be a wandering spirit, a Ghost, or even a soul fragment from one of the body donors. Compulsion spells are the only way of ensuring an Amalgam’s obedience.

3.6

SIMULACRA

A Simulacrum (plural: simulacra) is an artificial being, fashioned and/or grown from a combination of inorganic and organic substances. As the entity takes shape, the creator gives it life by infusing its matter with generous libations of blood. If the creator uses his own flesh and blood, the final entity will possess some characteristics of its maker’s personality, and will be eternally obedient. If instead the creator uses blood from others, their personalities will seep into the entity and compulsion spells may be required to command the Simulacrum. The greatest limitation is that the creator must have previously magically stored the Simulacrum’s intended form or be prepared to spend many additional weeks in the creation process “warping a matrix” into the desired shape.

Simulacra may be created as mocking parodies of beasts and humanoids or as perfect duplicates of the living. Others are the nightmarish spawn of twisted evil imaginations, thankfully unique to a single creator. Among the better-known types of Simulacra are homunculi, eye entities, shards, solars, and viles.

Homunculi are a special type of Simulacra, grown from the flesh and blood of a living being. A homunculus is an exact physical duplicate of the original being. Initially it will have a personality identical to that of its blood donor. Over time, this personality will become an individual through its life experiences. It is also possible to copy the mind and transfer the soul of the original being into the homunculus. Some mages have used this method to achieve a kind of immortality.

While Simulacra may emulate the living, they are essentially soul-less creations and are incapable of reproduction. They are made, not born.





3.7 CHANGELINGS

Changelings were once normal living creatures, who have received permanent physical and mental modifications through magic. These changes include skin and fur being replaced with scales, claws replacing hands (or vice versa), additional organs such as gills, new or enhanced sensory capabilities, and so on. In some cases, these mutations may be inherited by the Changeling's offspring.

More rarely, creators will use magic to facilitate unnatural couplings between members of different species, leading in due course to the birth of hybrid creatures.

The resulting composite monster inherits physical and mental attributes from both its parents. Such abominations are normally capable of reproduction without magical assistance. Breeding new monsters is a very long-term process – each new generation of changelings must gestate, be born, and grow to adulthood, so years may pass between conception and maturity.

Changelings, whether altered in later life or bred, possess free will – the alteration does not grant their creator any special ability to command them. Conventional methods of persuasion and coercion must be used.

It is speculated that many composite monsters and bestial races are the descendants of Changelings.



The Creators

4.1

TYPES OF CREATORS AND CREATION MAGIC

Treasure Companion defines four categories of fantasy alchemy, namely Greater Alchemy, Experimental Alchemy, Royal Alchemy, and Guild Alchemy, and explores how GMs should use one or more in their settings. This volume adds Religious Alchemy to the set of options.

Greater Alchemy is that employed by the gods and supernatural entities as well as lore known to mortal mages in previous ages, but no longer available in the current time of the campaign. In a world where only Greater Alchemy exists, there will be no spell users capable of creating any of the entities in this volume. Constructs and Golems will be unique wonders, perhaps encountered as eternal guardians of the ruined structures of the Ancients, while Automata are all that remain of forgotten civilizations. Amalgams, Simulacra, and Changelings may be completely unknown or be the shock troops of some evil demigod imprisoned in the mortal plane.

Experimental Alchemy involves perilous studies undertaken by mortal mages who seek to control and understand the world around them. It is a worldview, which insists that knowledge is power and nothing must be allowed to prevent progress towards ever-greater knowledge. Experimental Creators make all varieties of artificial entities and machines to prove they can. When the experiment is complete, the creation is likely to be discarded as its creator's attention focuses on the next problem. Experimental Creators court disaster every time they fashion entities, which they can barely (if at all) control. Their relentless scholarly pursuits lead them to flout local customs and taboos, requiring them to work in secrecy and isolation.

Royal Alchemy is that practiced by mages in the employ of noble (or at least) wealthy patrons. Royal Creators will be employed to supply their overlords with machines and obedient entities for specific purposes. As the safety of their employers and families is paramount, Royal Creators are among the most conservative practitioners preferring ease of control to additional power—their creations will be unswervingly obedient. As Golems and Constructs can be directed to obey others with the same loyalty as they demonstrate to their creators (see chapters 6 and 7), these will be the standard artificial entities fashioned by Royal Creators. Automata, particularly weapons and vehicles, are likely to be in high demand by patrons.

Guild Alchemy describes the association of like-minded wizards into economic organizations, who have a monopoly on the creation and sale of magic items in a particular area. Guild-based Creators may manufacture Automata on contract for the local government or private individuals. Constructs and Golems may be fashioned and sold as elite bodyguards and servitors to merchant princes. Magic involving Amalgams and Changelings may be banned in some guilds as too offensive to local sensibilities, while Simulacra may be reserved to defend the Guild headquarters from external attack.

Religious Alchemy is the creation of magical items for spiritual purposes by alchemists with a true belief in a deity or other higher power. Religious Alchemists may be chief priests of urban communities, respected tribal shamans, cloistered or itinerant monastic orders, devout hermits, or crazed cultists practicing black magic and demon worship. For Religious Creators, the act of creation may be for the greater glory of the deity, a step towards spiritual enlightenment, a necessary defense for the community, or a means to fulfill the tenets of their faith. When an artificial entity has fulfilled its task, Religious Creators are the most likely to release bound spirits (see Chapter 7) and destroy the entity's body. They are the least likely to sell entities, and will rarely be involved with fashioning Automata or Amalgams.

4.2

AVAILABILITY OF CREATION MAGIC

Determining which flavor of creation magic is present in a campaign is only part of the GM's task. The GM must also decide which types of artificial life may be fashioned (see section 9.1.1), and which spell users (PCs and NPCs alike) are capable of creating these entities. The latter decision depends on how difficult and/or how rare the GM desires creation magic to be. Three suggested levels of rarity (and how to implement them) are presented.

4.2.1 RESTRICTED (ALCHEMISTS ONLY)

This is the most restrictive option. Creation magic is only available to the three Alchemist professions (Channeling Alchemist, Essence Alchemist, and Mentalism Alchemist) introduced in *Treasure Companion*. The spell lists for creating entities then become additional base lists to add to their pool of spell lists. Members of the Alchemist professions may choose one or more entity creation spell lists rather than standard item creation



lists, but remain limited to six base lists in total with all others being reclassified as Own Realm Other Base.

A suggested assignment of creation lists to the three Alchemist professions is as follows.

Channeling: Changeling Mastery, Construct Magic, Construct Mastery, Golem Magic, Golem Mastery, Life Empowerment, Simulacra, and Spirit Empowerment.

Essence: Automata, Construct Magic, Construct Mastery, Demonic Empowerment, Elemental Empowerment, Golem Magic, Golem Mastery, and Simulacra.

Mentalism: Amalgam Law, Construct Magic, Construct Mastery, Golem Magic, Golem Mastery, Life Empowerment, Simulacra, and Sentience.

The other spell lists (Abomination Lore and Entity Control) should remain tied to the Entity Hunter training package.

Although Alchemists are much more playable now than in previous *Rolemaster* editions, many players will deem them unsuitable for hardcore “adventuring” PCs. This option is therefore best suited to campaigns where creation magic exists but is almost always NPC-only.

4.2.2 CONTROLLED (TRAINING PACKAGES)

This is the default option. The various aspects of creation magic are associated with specific lifestyle training packages (see section 4.3). Members of any profession can potentially create artificial entities, but the Development Point costs will favor pure spell users. The multiplicity of training packages will force specialization upon would-be creators and their lifestyle designation will require them to sacrifice other potential career paths (as only one lifestyle TP may be purchased per level).

This option is best suited to campaigns where the GM wishes to allow creation magic but without giving it preeminence in the setting. The compartmentalization will also suit GMs who only wish to permit certain entity types.

4.2.3 UNRESTRICTED (ADDITIONAL BASE LISTS)

This option is the least restrictive. According to normal *Rolemaster* rules, pure spell users may designate any four Open or Closed spell lists of their own realm as Own Realm Own Base lists for cost purposes. With this option, pure spell users may designate up to four creation spell lists as **additional** base lists. These lists should be assigned to the realms of power as follows.

Arcane: Amalgam Law, Automata, Changeling Mastery, Construct Magic, Construct Mastery, Demonic Empowerment, Elemental Empowerment, Golem Magic, Golem Mastery, Life Empowerment, Sentience, Simulacra, and Spirit Empowerment.

Channeling: Changeling Mastery, Construct Magic, Construct Mastery, Golem Magic, Golem Mastery, Life Empowerment, Simulacra, and Spirit Empowerment.

Essence: Automata, Construct Magic, Construct Mastery, Demonic Empowerment, Elemental Empowerment, Golem Magic, Golem Mastery, and Simulacra.

Mentalism: Amalgam Law, Construct Magic, Construct Mastery, Golem Magic, Golem Mastery, Life Empowerment, Sentience, and Simulacra.

This is in addition to allowing hybrid, semi, and non-spell users to select the creation-oriented training packages.

This option is only recommended for high-powered campaigns where creation magic is commonplace and the GM wishes to encourage the PCs to practice it.

4.3

NEW TRAINING PACKAGES

The standard rules for Training Packages apply to all Training Packages presented here.

4.3.1 ADEPT (L)

The foremost creators of organic artificial life, Adepts are rarely found without a retinue of utterly loyal Simulacra of diverse forms. Some Adepts even create “living art” to enhance their own renown or add to the prestige of a noble patron. Others experiment with more exotic creations or fashion new immortal bodies for themselves and their chosen favorites.

On the stone slab lay two men, one extremely old, the other in the prime of his youth with curiously vacant eyes. Though separated by decades, they were so alike in features that an onlooker might mistake them for grandfather and grandson. The ancient clasped the young man’s hand and chanted syllables in a forgotten language. Their bodies spasmed simultaneously, then the elder went limp, his eyes staring into the void. The young man freed his hand, and smiling slowly rose to his feet. A successful transition, a new lifetime beckoned. As Aprenos exulted, the husk of his old body expired unnoticed.

Time to Acquire: 84 months

Starting Money: Normal

Special:

Stored matrix (of a riding animal, e.g. a horse, camel, etc.): 50
Stored matrix (of a landbound hunting animal, e.g. a wolf, lion, tiger, etc.): 40
Stored matrix (of a bird, e.g. a hawk, an eagle, etc.): . 30
Stored matrix (of an aquatic animal, e.g. dolphin, shark, etc.): 30

Stored matrix (of a humanoid):	50
Knowledge of how to make a Mockery:	20
Knowledge of how to make a Homunculus	
Familiar:	20
Knowledge of how to make a Homunculus	
Soul-clone:	20
Enemies with an Entity Hunter:	30
Medical kit (+10 non-magic to First Aid):	100

Category or Skill:	# of ranks
Body Development	1
Crafts	n/a
Any one Crafts skill suitable for vat construction (e.g. Glass-blowing, Metal Crafts, Stone Crafts, etc.)	2
Lore * General	3
Fauna Lore	3
Flora Lore	2
Choice of one other skill	2
Lore * Magical	2
Artifact Lore (specifically Simulacra)	2
Lore * Obscure	2
Up to two skills	2 (total)
Science/Analytic * Basic	3
Research	3
Science/Analytic * Advanced	n/a
Anatomy	2
Spells * Own Realm TP	n/a
Simulacra	3
Technical/Trade * General	2
First Aid	2
Technical/Trade * Professional	n/a
Second Aid	2

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Memory

4.3.2 ARTIFICER (L)

The consummate inventors, Artificers blend magic and technology to create fantastic machines and vehicles. Undaunted by failures and the frequent malfunctioning of their gadgetry, Artificers are always sketching out their next Automaton design and planning future inventions. If heeded, their research might change the world forever.

Uther grinned as he drove the new steam-powered carriage out of the construction shed. His detractors among the courtiers would finally be silenced by this invention. Its potential was limited only by the imagination, and Uther could imagine a lot. He felt, rather than saw, the sharp stone that cracked the front wheel. He heard the crack of valves breaking under the shock of impact and the whistling hiss of escaping steam. Uther, however, was already leaping off the vehicle.

Time to Acquire: 90 months

Starting Money: Normal

Special:

Book (+10 non-magic to Engineering):	50
Blueprint for a Device Automaton (GM choice):	50
Blueprint for a Machine Automaton (GM choice): ..	40
Blueprint for a Vehicle Automaton (GM choice): ...	30
Friends with a skilled craftsman:	40
Friends with a local noble:	20
Rivalry with another artificer:	20
Working Device Automaton of own construction (GM choice): 50	
Assorted spare parts (value 3d10 gp):	50
Set of tools (+20 non-magic to Mechanition):	100

Category or Skill:	# of ranks
Crafts	n/a
Drafting	3
Any other Crafts skill	2
Lore * Magical	2
Artifact Lore (specifically Automata)	2
Science/Analytic * Basic	4
Basic Math	4





Science/Analytic * Advanced	n/a
Advanced Math	3
Spells * Own Realm TP	n/a
Automata	3
Technical/Trade * General	2
Operating Equipment	2
Technical/Trade * Professional	n/a
Engineering	3
Mechanition	3
Technical/Trade * Vocational	n/a
Gimmickry	3

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: None

4.3.3 CREATOR (L)

Creators are the quintessential makers of Golems and Constructs. Some choose to specialize in the fashioning of either Golems or Constructs, perfecting their art with magically empowered and sentient entities, whilst others prefer a greater breadth of knowledge.

The falcon sighted the intruders just after dawn. It circled them once, recording their numbers and position, then soared upwards on a rising air current, flying homeward to its mistress. Sunlight flashed along its metallic wings, revealing the falcon's presence to the riders below. Forsaking stealth, the riders spurred their horses to a gallop, racing the artificial bird towards their mutual destination.

Time to Acquire: 108 months

Starting Money: Normal

Special:

Book (+10 non-magic to Artifact Lore (entities)): .. 50

Book (+10 non-magic to Engineering, Metal Lore or Stone Lore): 50

Set of tools (+10 non-magic to Sculpting): 50

Set of drawing instruments (+10 non-magic to Drafting): 50

Friends with a skilled craftsman: 50

Friends with a local noble: 20

Blueprint for a Small Humanoid Golem or Construct: 30

Blueprint for a Small Nonhumanoid Golem or Construct: 30

Set of tools (+20 non-magic to Mechanition or one Craft skill): 100

Category or Skill:	# of ranks
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Artistic * Passive	3
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Sculpting	3
-----------------	---

Crafts	n/a
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Drafting	3
----------------	---

Choice of Metal Crafts, Stone Crafts, and Wood Crafts	6 (total)
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Lore * Magical	2
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Artifact Lore (entities)	2
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Lore * Technical	1
Choice of Metal Lore or Stone Lore	1
Science/Analytic * Basic	3
Basic Math	3
Science/Analytic * Advanced	n/a
Advanced Math	2
Spells * Own Realm TP	n/a
1st creation list*	3
2nd creation list*	3
3rd creation list*	3
Technical/Trade * Professional	n/a
Engineering	3
Mechanition	3

Note: Creators may choose from the following spell lists: Construct Mastery, Construct Magic, Entity Control, Golem Mastery, Golem Magic, Life Empowerment and Sentience.

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Reasoning or Memory

4.3.4 DARK CREATOR (L)

Dark Creators have specialized in using Demons to provide Golems and Constructs with intelligence and magical abilities. Their spells permit them to summon and compel Demons for purposes other than imbedding into artificial entities. Dark Creators are always vigilant against the disobedience of their creations and demon-hunting paladins and clerics.

Inside the pentacle, the Hothrog raged futilely, unable to breach the warding barriers. The four-armed



iron golem stepped over to the pentacle, scuffing the chalk marks. The demon charged at the alchemist Zedoz, howling its defiance. Zedoz gestured and the Hothrog was lifted from its feet, hurled backwards towards the unmoving golem. The Hothrog's body sublimed into a dark humanoid mist, which was sucked suddenly into the golem's mouth. The golem, its control glyph blazing with crimson fire and its eyes glowing, turned to face Zedoz. "What is your command, Master?"

Time to Acquire: 108 months

Starting Money: Normal

Special:

Book (+10 non-magic to Artifact Lore (entities)):	.. 50
Book (+10 non-magic to Demon/Devil Lore): 50
Book (+10 non-magic to Engineering, Metal Lore or Stone Lore): 30
Set of tools (+10 non-magic to Sculpting): 30
Set of drawing instruments (+10 non-magic to Drafting): 30
Stolen blueprint for a Small Nonhumanoid Golem or Construct (GM choice): 20
Stolen blueprint for a Small Humanoid Golem or Construct (GM choice): 20
Stolen blueprint for a Medium-sized Golem or Construct (GM choice): 20
Set of tools (+20 non-magic to Mechanition or one Craft skill): 20
Enemies with an Entity Hunter, Paladin or similar (GM choice): 100

Category or Skill:	# of ranks
Artistic * Passive	3
Sculpting	3
Crafts	n/a
Drafting	3
Choice of Metal Crafts, Stone Crafts, and Wood Crafts	4 (total)
Influence	2
Duping	2
Lore * Magical	2
Artifact Lore (entities)	2
Lore * Obscure	3
Demon/Devil Lore	3
Science/Analytic * Basic	2
Basic Math	2
Science/Analytic * Advanced	n/a
Advanced Math	1
Spells * Own Realm TP	n/a
1st creation list*	3
2nd creation list*	3
Demonic Empowerment	3
Technical/Trade * Professional	n/a
Engineering	3
Mechanition	3

Note: Dark Creators may choose from the following spell lists: Construct Mastery, Construct Magic, Entity Control, Golem Mastery, Golem Magic, and Sentience.

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Reasoning or Memory

4.3.5 ELEMENTAL CREATOR (L)

Elemental Creators have specialized in using Elementals to provide Golems and Constructs with intelligence and magical abilities. Their spells permit them to summon and compel Elementals for purposes other than imbedding into artificial entities.

The massive oaken door cracked and splintered under the force of the Stone Golem's mighty fists. Cursing his apprentice for a thrice-damned fool, Aquila sprinted through the room to the balcony beyond. He quickly cast his fly spell and whirled round as the berserk Golem shattered the door into a hail of splinters and charged towards him. Heedless of everything but the desire for vengeance on its creator, the Golem ran at Aquila, its giant hands reaching for the mage. At the last moment, Aquila pivoted backwards and somersaulted over the balcony rail. Unable to halt, the Golem went through the railing and immediately began its fatal descent.

Time to Acquire: 108 months

Starting Money: Normal

Special:

Book (+10 non-magic to Artifact Lore (entities)):.. 50

Book (+10 non-magic to Planar Lore (elemental creatures)):..... 40

Book (+10 non-magic to Engineering, Metal Lore or Stone Lore): 40

Set of tools (+10 non-magic to Sculpting): 40

Set of drawing instruments (+10 non-magic to Drafting): 40

Friends with an Elementalist, Magician, or similar (GM choice): 50

Blueprint for a Tiny Golem or Construct: 40

Blueprint for a Small Humanoid Golem or Construct: 30

Blueprint for a Small Nonhumanoid Golem or Construct: 30

Set of tools (+20 non-magic to Mechanition or one Craft skill): 100

Category or Skill: # of ranks

Artistic * Passive 3

Sculpting 3

Crafts n/a

Drafting 3

Choice of Metal Crafts, Stone Crafts, and Wood Crafts 5 (total)

Lore * Magical 2

Artifact Lore (entities) 2

Planar Lore 3

Science/Analytic * Basic 3

Basic Math 3

Science/Analytic * Advanced n/a

Advanced Math 2

Spells * Own Realm TP n/a

1st creation list* 3

2nd creation list* 3

Elemental Empowerment 3

Technical/Trade * Professional n/a

Engineering 3

Mechanition 3

Note: Elemental Creators may choose from the following spell lists: Construct Mastery, Construct Magic, Golem Mastery, Golem Magic, and Sentience.

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Memory or Reasoning

4.3.6 ENTITY HUNTER (L)

Entity Hunters have concentrated upon magic to control and attack artificial entities. Some are dedicated to preserving the natural order of life – these Hunters seek out Amalgams, Simulacra, and Changelings. They can wrest control of such abominations from their makers and even restore Living Amalgams and Changelings to their normal forms. They consider the creators to be their true enemies and will pursue them relentlessly. Others focus on combating Golems and Constructs, using their powers to free imbedded spirits and nullify their magical abilities. Some of these Hunters work to rid the world of artificial entities and their creators; others slay the original creators and subvert their entities to the Hunter's will.

Anna crept into the workroom, unseen and unheard by the cultist tending the six vats. As he adjusted the nutrient feed, she slipped behind him, stifling any outcry with a gloved hand while she plunged her poisoned dagger into his heart. As Anna lowered the corpse to the floor, she saw the creature in the nearest vat stir at the scent of blood. She paled, recognizing it as a nearly full-grown Shard. She was barely in time.



Time to Acquire: 84 months

Starting Money: Normal

Special:

Weapon (+10 non-magical): 50

Weapon (+5 non-magical): 40

Shield (+5 non-magical): 40

Armor (+5 non-magical): 40

Contacts with a religious organization opposed to
entity creation: 30

Friends with a local noble opposed to
entity creation: 30

Knowledge of the identities of d5 creators in the
region: 30

Book (+10 to Artifact Lore (entities): 100

Category or Skill: # of ranks

Awareness * Perceptions n/a

Choice of one skill 2

Awareness * Searching 2

Choice of one skill 2

Body Development 1

Influence 2

Duping 2

Choice of one other skill 2

Lore * General 3

Up to two skills 3 (total)

Lore * Magical 2

Artifact Lore (artificial entities) 2

Spells * Own Realm TP n/a

Choice of Abomination Lore or Entity Control ... 3

Subterfuge * Stealth 1

Hiding 1

Stalking 1

Weapon/Attack skill category A 2

Choice of one skill 2

Weapon/Attack skill category B 1

Choice of one skill 1

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: none

4.3.7 REANIMATOR (L)

Casual observers might mistake a Reanimator's workroom for a surgery equipped with operating table, surgical instruments, and all the paraphernalia of the doctor. Indeed many Reanimators are physicians

who have strayed far from traditional medicine into the more dangerous studies of corpse dissection, reassembly, and revivification. Their body snatching activities make Reanimators unwelcome and abhorred in most communities, forcing them to practice their art in utmost secrecy lest they be accused of necromancy (or worse) and lynched by the local populace.

Cassaria crouched behind the gravestone as the fog closed in. The plan had seemed so simple. Wait until nightfall, dodge the guard patrol, enter the graveyard, dig up the paupers' bodies, and get out again. It would have been simple, were it not for the mistwraiths haunting the cemetery. She could hear their wailing cries of anguish even now, calling from the heart of the mist, and feeding on her companions' life force. If only she could make it back to the wagon, if only she could escape the fog ...

Time to Acquire: 96 months

Starting Money: Normal

Special:

Superior medical kit (+20 non-magic to

First Aid or Second Aid): 50

Book (+10 non-magic to Anatomy): 50

Book (+10 non-magic to Surgery): 50

Leyden jar: 50

Medical supplies (including unguents and
preservatives, value 2d10 gp): 30

Contacts with a local body snatcher, undertaker,
or cemetery keeper: 30

Suspected/wanted as a Reanimator by local
authorities in neighboring region (GM choice): ... 30

Pursued by an Entity Hunter, Paladin or
similar foe (GM choice): 20

Collection of animal body parts (GM choice): 40





Superior surgical instruments (+10 non-magic to Surgery): 100

Category or Skill:	# of ranks
Awareness * Perceptions	n/a
Alertness	2
Awareness * Searching	2
Choice of one skill	2
Influence	2
Choice of one skill	2
Lore * Obscure	1
Choice of Herb Lore or Poison Lore	1
Science/Analytic * Advanced	n/a
Anatomy	3
Spells * Own Realm TP	n/a
Amalgam Law	3
Subterfuge * Stealth	2
Hiding	2
Stalking 2	
Technical/Trade * General	3
First Aid	3
Technical/Trade * Professional	n/a
Diagnostics	2
Second Aid	3
Surgery	4

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: None

4.3.8 RELIGIOUS CREATOR (L)

Imbued with the strength of their belief, Religious Creators range from respected gentle scholars through tribal shamans to mad cultists. They specialize in the fashioning of either Golems or Constructs to further the aims of their faith and protect their communities. Their creations are dedicated to holy (or unholy) purposes; few Religious Creators will demean them with mundane or menial tasks – to do so is to blaspheme against the Deity or Higher Powers whose power they have invoked in their act of creation.

“Leave this holy place lest the God of Justice smite you down” shouted the priest from the altar. The mercenary laughed and fired his crossbow, the bolt imbedding itself into Demetrios’ right eye. He pointed at the golden statue behind the altar – “There’s our plunder, men”. There was an audible click. A panel in the statue’s torso flipped upwards revealing a stubby dart thrower. There was a second click and the mercenary toppled backwards, a long thin needle projecting from his throat. Then the statue stepped off its pedestal ...

Time to Acquire: 126 months

Starting Money: Normal

Special:

Holy symbol (+10 to Spell Casting Static Maneuvers):	50
Book (+10 non-magic to Engineering, Metal Lore or Stone Lore):	30
Set of tools (+10 non-magic to Sculpting):	30
Set of drawing instruments (+10 non-magic to Drafting):	30
Set of tools (+10 non-magic to Mechanition or one Craft skill):	30
Favor owed by a high-ranking member of own faith: ...	30
Friends with an Entity Hunter, Paladin, or similar:	20
Book (+20 non-magic to Artifact Lore (entities) and +10 to Religion, religious content may be deemed apocryphal or heretical):	100

Category or Skill:	# of ranks
Artistic * Passive	2
Sculpting	2
Crafts	n/a
Drafting	2
Choice of Metal Crafts, Stone Crafts, and Wood Crafts	4 (total)
Influence	1
Duping	1
Public Speaking	1
Leadership	1
Lore * General	4
Religion	4
Choice of up to 3 Culture, Fauna, Region or History lores	6 (total)
Lore * Magical	2
Artifact Lore (entities)	2
Lore * Obscure	2
Choice of Demon/Devil Lore or Xeno-lores (Spirits)	2
Science/Analytic * Basic	2
Basic Math	2
Science/Analytic * Advanced	n/a
Advanced Math	1
Spells * Own Realm TP	n/a
Golem Mastery or Construct Mastery	2
Up to two creation lists*	4 (total)
Technical/Trade * Professional	n/a
Engineering	2
Mechanition	2

Note: Religious Creators may choose their additional lists from the following: Construct Magic (only if Construct Mastery is taken), Golem Magic (only if Golem Mastery is taken), Life Empowerment, Sentience, and Spirit Empowerment.

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Memory or Reasoning

4.3.9 TRANSFORMER (L)

Transformers study animals and beasts, and use their magic to mutate the bodies of themselves and others into new configurations, merging elements of humanoid, animal, and monstrous forms into bizarre composites. The mightiest Transformers spend years, even decades, or centuries, breeding new hybrid species to serve their purposes.

Etain landed in an orchard outside the city. She paused for a few minutes, alert for anyone abroad in the darkness. Then she began to unweave her enchantment. Etain's wings started to shrink, at first slowly, then quickening as they folded into her back, finally disappearing entirely. She removed a tightly rolled up bundle hanging from her belt, and unrolled it into a light tunic, which she donned. Best to seem fully human - the cosmopolitan citizens of the capital would find a winged woman far too strange.

Time to Acquire: 108 months

Starting Money: Normal

Special:

Stored matrix (of a riding animal, e.g. a horse, camel, etc.): 50
 Stored matrix (of a landbound hunting animal, e.g. a wolf, lion, tiger, etc.): 40
 Stored matrix (of a bird, e.g. a hawk, an eagle, etc.): 30
 Stored matrix (of an aquatic animal, e.g. dolphin, shark, etc.): 30
 Stored matrix (of a humanoid): 50
 Stored matrix (of a monster, unnatural creature, or sentient plant): 30
 Book (+10 non-magic to one Science/Analytic skill): 40
 Book (+10 non-magic to one Lore General skill): ... 40
 Book (+10 non-magic to one Lore Obscure skill): .. 20
 Enemies with an Entity Hunter: 30
 Medical kit (+10 non-magic to First Aid): 100

Category or Skill:	# of ranks
Lore * General	3
Fauna Lore	3
Flora Lore	2
Region Lore	2
Lore * Obscure	3
Up to two skills	3 (total)
Outdoor * Animal	4

Up to two skills	4 (total)
Science/Analytic * Basic	2
Research	2
Science/Analytic * Advanced	n/a
Anatomy	2
Biochemistry	2
Biology	3
Spells * Own Realm TP	n/a
Changelings	3
Technical/Trade * General	2
First Aid	2
Technical/Trade * Professional	n/a
Any one of Midwifery, Second Aid, Surgery	2

Professional Qualifier: None

Lifestyle Skills: None

Stat Gains: Memory



Creating Automata

5.1

THE TIME OF THE MACHINE

Human history is the outcome of conscious decisions and chance accidents, of action and inaction in equal measure, of countless intertwined causes and effects. Perhaps the outcome is always inevitable, perhaps not. Historians and gamesmasters can imagine alternate Earths, which might have been – answering the “What If...” questions can lead to excellent role-playing settings and original campaigns.

In the field of technological development, there have been many opportunities for inventions to appear and flourish in an earlier era than actually happened. For instance, Hero of Alexandria experimented with steam in the 1st century A.D., creating the “aeolipile.” This was a hollow sphere mounted such that it could rotate on a pair of hollow tubes. Steam flowed up the tubes into the sphere from a cauldron of boiling water. The steam then exited the sphere from multiple bent tubes positioned on its equator, and in doing so caused the sphere to revolve. In the slave economy of Imperial Rome, such devices were destined to remain mere curiosities rather than act as the genesis of a classical Steam Age.

In the fifteenth century, Leonardo da Vinci won renown as an artist and engineer in the service of the city-states of Renaissance Italy. Justly famous for his enigmatic portrait, the *Mona Lisa*, Leonardo was interested in nearly every field of science, including anatomy, botany, geology, hydraulics and mechanics. Convinced that observation and experience were key to gaining an understanding of science, and likewise that pictorial representation was the best way of reproducing that knowledge, he embarked on a lifelong quest to study and record the world. His surviving “notebooks” represent thousands of pages of sketches, diagrams, and notes. Among these volumes are hundreds of drawings of machines and inventions, including horseless carriages, gliders, helicopters, telescopes, giant crossbows, multi-barreled guns, steam-powered cannon, tanks, double-hulled ships, submarines, diving suits and life preservers. None of these were manufactured in his lifetime. Some of his ideas, such as man-powered flying machines, are impossible. Others require access to a “prime mover,” an effective power source such as electricity or the internal combustion engine, to make them practical. Recent trials have shown that a number of his inventions, such as his gliders, his battle tank, and his underwater diving suit with its breathing apparatus, were and are feasible, even using only the materials available in his period. Had these designs been implemented in his lifetime, our history might have been very different.

The scientist and science fiction writer, Arthur C. Clarke, once wrote, “Any sufficiently advanced technology is indistinguishable from magic.” The experiments

of an Archimedes and the inventions of a Leonardo appear to us as engineering marvels ahead of their time; to their uneducated contemporaries, they would have been magical wonders. In many fantasy settings and games, magic is supreme with science totally eclipsed and technology stagnant. It need not be so. Incorporating exotic and unusual machines can add a whole new flavor to the campaign. Moreover, while the capabilities of purely mundane devices can be remarkable, blending magic, alchemy, and technology together can create astonishing machines and vehicles, which would be otherwise impossible.

Animated objects – pre-existing implements and machinery temporarily ensorcelled to move or operate by magic – will not be considered in this chapter. Instead, the focus is on the design and creation of machines that would be marginal failures or even impossible without the addition of magic. Automata incorporate magic by design to *achieve or enhance effects*, which can be *attempted by non-magical means*.

As an example, consider the “ornithopter” designs of Leonardo. In these flying machines, the pilot is strapped into a harness connected to two or even four wings. The pilot then moves his legs and his arms to flap the wings, using various combinations of levers, gears, springs, and windlasses to amplify the muscle-power. Sadly, none of these designs will work, even if the pilot assists “take-off” by leaping off a high cliff. However misguided the inventiveness, ornithopters are *attempting* to achieve flight through non-magical means. An Automaton version of the ornithopter would utilize magic to sufficiently amplify the muscle-power making flight possible.

A traditional Essence magician will scoff at the ornithopter – after all, *Fly* is a 5th-level spell and readily available. Creating a Daily *Fly* item, on the other hand, requires 14th-level spells, while an “At Will” ring of flying demands a 30th-level caster. Mundane machines, even magical Automata, will frequently be less expensive, take less time to design and build (even from scratch), and require more modest enchantments – the ornithopter needs only an 8th-level *Enchant Aerial Vehicle* spell to get it airborne.

It is up to the GM to decide whether Automata are the masterpieces of individual geniuses, salvaging parts from scrapheaps and constructing them in junkyards or just one aspect of a fantastic Industrial Revolution (see Chapter 9). The same rules are applicable to both types of setting.

Three subclasses of magical Automata will be considered: portable devices, usually capable of being worn or carried by a normal human, non-portable machines, and vehicles for land, sea, and air.

5.2

THE FORMS OF POWER

It is not necessary for players or GMs to be able to actually design any device in order to use this portion of *Construct Companion*. However some knowledge of the different types of available motive forces to power proposed inventions will be helpful in deciding what is plausible at different technology levels. (... *And a 10-Foot Pole* has a broader coverage of technology throughout history, while the three volumes of *Tech Law* consider all aspects of science-fictional technology.)

5.2.1 WATER POWER

Waterwheels have been used for at least twenty-one centuries. Initially for grinding grain, they later drove pumps, sawmills, tilt hammers (for forging iron), and bellows for furnaces and forges. In early water mills, the rotating wheel with its paddles could be lowered into the stream. This was connected via a vertical shaft to the actual grindstone. More efficient designs guided the incoming water to a point below the waterwheel's center. The first cast-iron wheels came into use only in 1776, and various improvements continued to be made in the 18th and 19th centuries.

The greatest drawback of waterpower is the need for a substantial source of water, such as a stream or tidal waters channeled through millponds. Water-powered Automata must be limited to large fixed-position machines.

5.2.2 WIND POWER

Wind power has been used to grind grain, pump water and drain farmland. Hero of Alexandria described a wind-powered device, which drove a piston pump forcing air through a wind organ to create sound. Windmills were built as early as 644 AD by Persian millwrights. Later designs used large sails with wooden frames that rotated in response to the wind driving a grindstone via a set of gears. The mills were supported on a fixed post such that the whole apparatus could be turned into the wind. A brake wheel could be used to stop the mill. By the 14th century, windmills had attained their familiar tower shape with the millstone and gears inside and the sails on a rotating upper cap. The size of the sails grew to over 60 feet in diameter by the 16th century. Eventually steam engines overtook wind-power in popularity by the late 18th century.

Wind-power is limited by the need for wind with large installations required to generate enough power. Wind-powered Automata must be limited to large machines and sail-powered vehicles.

5.2.3 CLOCKWORK POWER

As described in section 2.1.3, the advent of tempered steel springs allowed inventors to fashion much smaller timepieces. Springs are elastic components, which store energy by being stretched or deflected by a load (as in the

process of winding up a watch spring). This energy can be released gradually as motion, which can be transmitted via a series of gears (moving machine parts) to, say, turn the hands on a watch. Steady transmission requires accurately manufactured gears.

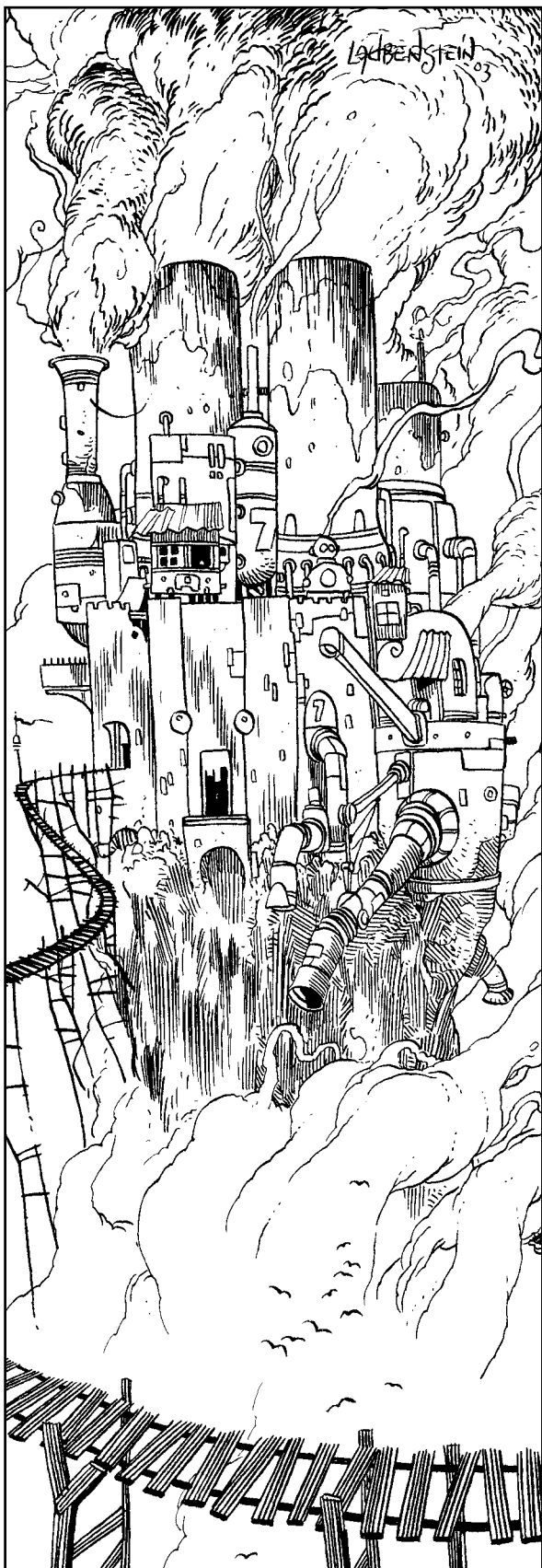
As evidenced by history, clockwork is a very practical power supply for portable devices – most recently clockwork radios! Wristwatches can normally operate for a whole day before needing to be rewound. Devices requiring more energy need larger or better springs or to be rewound more frequently. Clockwork is possibly the most versatile premodern power source for Automata of all sizes and types. Amplifying its energy with magical assistance is, however, usually essential for larger machines and vehicles. Artificers should normally substitute magic for manual propulsion of clockwork Vehicle Automata as turning propellers and the like will exhaust crews relatively quickly, limiting the maximum distance that may be traveled before rest is required.

5.2.4 STEAM POWER

Steam powered the Industrial Revolution. In a steam engine, water is converted to steam by heating in a boiler. The steam expands in volume under pressure and this expansion can be used to drive pistons, which in turn can be connected to other moving parts. The loss of some of its heat energy cools the steam such that it condenses back into water that can be recycled back into the boiler for the next cycle. Simple steam engines have the steam expand in only one cylinder; compound steam engines have multiple cylinders of increasing size with the steam driving pistons in each as it is forced through them.

Practical use of steam awaited the close of the 17th century. Thomas Savery built the first steam-powered pump with hand-operated valves to drain water from coalmines in 1698. Thomas Newcomen improved the design in 1712 with the addition of a cylinder fitted with a piston. James Watt added the condenser in 1765 reducing the fuel consumption by three-quarters, and then developed a more complex engine, which rotated a shaft rather than simply moving a pump up and down. Such engines were deployed in factories and mills to operate heavy machinery. Nicholas-Joseph Cugnot built the first steam carriage in France in 1769, while Richard Trevithick's steam locomotive made its first successful run in Wales in 1804. At sea, William Symington tested the first steam-powered tug in Scotland in 1802, with Robert Fulton constructing a passenger steamboat in America in 1807. Steam engines were used to power crushing machines and dredges, drive sawmills, roll iron, and process cotton and tobacco.

Steam engines are bulky and potentially dangerous – high-pressure jets of superheated steam can scald skin and sear the lungs if breathed in. Boilers to generate the steam require lots of fuel to keep boiling the water. Steam Automata will be noisy, hot, and dirty. To be frank, mundane steam engines are really too bulky, inefficient, and fuel-intensive for submarines and airships – they can be made to work but the range of the vehicles is very limited. For steam-powered land vehicles and surface



vessels, the problem boils down to refueling. If there are regular depots where coal or other fuel can be obtained readily, then such vehicles are very practical. In hostile, uncivilized or unknown territories, refueling uncertainties will cramp their style.

Steam-powered Automata should be limited to large machines and vehicles – replacing conventional fuel with a magical heat source is usually the first sorcerous enhancement applied.

5.2.5 ELECTRICITY

As the supposed spark of life conjectured by eighteenth-century natural philosophers, electricity is a worthy addition to the repertoire of creators of the artificial. As electromagnetism described by equations and harnessed to every need from light bulb to supercomputer, it is a science and technology that takes us beyond fantasy to the modern era and the future.

Static electricity was known in Greece as early as 800 BC. It was observed that very light objects could be attracted to amber (fossil tree resin) that had been rubbed. Otto von Guericke created a static electrical generator in 1663. This was a revolving sulfur globe mounted atop an iron shaft. The globe was simultaneously turned and rubbed, gaining an electric charge through friction. The charged globe could alternately attract and repel light objects. Early 18th-century experiments demonstrated that electricity could flow through hemp rope and metal wire over hundreds of feet. In 1745, the Leyden jar was invented. This was a glass vial containing some water and a thick conducting metal wire, one end of which was stretched past the cork sealing the vial. Placing the wire against a friction-based electricity generator could charge the jar. A later improvement removed the water and instead coated the vial's interior and exterior with metal foil, increasing its charge capacity. Leyden jars were used to demonstrate electricity, with experimenters transmitting its charge via metal wires over long distances or killing small animals and birds by electric shocks. Some physicians used shock treatment in attempts to cure paralysis and other illnesses. Leyden jars were sometimes connected into batteries of ten to a hundred jars to increase their shocking potential. Left untouched, a Leyden jar could retain its charge for hours, even days.

Having demonstrated that lightning was electrical in nature in 1752, Benjamin Franklin risked his life again conducting atmospheric charges from thunderclouds via a long length of wet twine and a key into a Leyden jar. Only a few years later, Joseph Priestley's experiments resulted in his qualitative descriptions of the relationships of electrical forces in 1767, setting the scene for decades of dedicated scientific research into electromagnetic theory and application.

As far as *Construct Companion* is concerned, the Leyden jar represents the *normal* apex of electrical "science" for Automata. While electricity can play a part in bringing Amalgams to "life," electricity is normally used as a weapon and a defense for vehicular Automata rather than as a power source. Magic can be used to magnify its killing power or to enhance its ability to attract or repel objects.

5.3 BUILDING AUTOMATA

Automaton construction is a partnership between the GM and the player(s) of artificer character(s). While magical Automata are an excellent opportunity for inventive PCs to add quirky and exotic items to the campaign, the GM has the responsibility for maintaining game balance. The GM has final say on what may be achieved with Automata – players must respect this and not deliberately seek to create technomagical marvels which render their characters invincible or which destroy the “feel” of the campaign world.

5.3.1 THE CREATIVE PROCESS

Making an Automaton involves designing a machine that can attempt its intended functions by mundane means, building the machine, and adding the necessary magic. The process described below is intended primarily for Automata (Device, Machine, or Vehicle), but it can also be used for mundane advanced inventions, which are “ahead of their time.” Eventually the scientific and technological principles underpinning a mundane advanced invention may become sufficiently well understood that a standard Mechanition maneuver is only required to construct it. If, and when this happens is at the GM’s discretion.

Step 1: Decide on the Automaton’s form and function

The purpose of the Automaton or invention must be decided. What will it do and how will it (attempt to) achieve this task? What type of power source will be required – clockwork, steam power, or something else? Is it a portable or wearable item (a Device Automaton)? Is it a large stationary machine (a Machine Automaton)? Is it a vehicle for carrying passengers and/or cargo (a Vehicle Automaton)?

The GM must decide whether the proposed contraption can attempt or achieve the desired task without magic. If not, then the contraption may not be built. Likewise if modern-day technology (21st century) cannot achieve the task (possibly using other means), then the contraption should be disallowed. The aim is to weed out proposals that duplicate truly magical effects (such as invisibility, teleportation, etc.) or which would add futuristic (as opposed to anachronistic) elements to the game.

The GM must also decide whether magic will be required to make the invention achieve its task. Examples of historical inventions can be found in this chapter and Chapter 2 of this book to help with this decision. If in doubt, the GM should err on the side of caution and require magical assistance.

Steps 2 and 3 can be omitted if the artificer is simply manufacturing an identical copy of an invention or Automaton that he has previously made. However the results of the Automaton Engineering and Gimmickry maneuvers relating to the previous cycle must be applied to the new copy.

Step 2: Understand the theory

Before proceeding to design an Automaton, the artificer must consider the scientific and engineering principles, which will underpin the machine. This may involve research into previous similar projects, building models, or conducting experiments. The artificer character makes an Engineering static maneuver – success means that the theory is well understood; failure indicates possibly dangerous misconceptions. Use the following specialized Automaton Engineering maneuver chart.

TABLE 5.1
AUTOMATON ENGINEERING MANEUVERS

-26 down Spectacular Failure	-30
You are more confused about the scientific aspects of your design now than when you started. If you attempt a Gimmickry maneuver, you will suffer a -30 penalty. If you manage to create the device, add 25 to its Malfunction Number. Stick to standard alchemy.	
-25-04 Absolute Failure	-10
You have misunderstood a number of key engineering issues, but are unaware that your deductions are flawed. If you attempt a Gimmickry maneuver, you will suffer a -10 penalty. Add 15 to the Malfunction Number of any device created as a result.	
05-75 Failure	+0
You have made a number of significant errors in your research. Add 10 to the Malfunction Number of any device created by a subsequent Gimmickry maneuver.	
UM 66 Unusual Event	+0
You are certain (rightly or wrongly) that the device cannot be built. You’ll have to think of another method to make it work.	
76-90 Partial Success	+5
Your research indicates that the device will work and you may add +5 to any Gimmickry maneuver. In your overconfidence, you’ve failed to notice several mistakes in your calculations, so add 5 to the Malfunction Number of any device created.	
91-110 Near Success	+10
Your experiments are successful and you may add +10 to your Gimmickry maneuver. You are aware that some of your calculations involve estimates rather than accurate numbers; these will add 3 to the Malfunction Number of any device created.	
UM 100 Unusual Success	+25
Eureka! You’ve made a minor discovery during your experiments. Add +25 to your Gimmickry maneuver, and you have a special +10 bonus to all future Engineering maneuvers in this area. You retain this bonus until such times as you roll a Spectacular or Absolute Failure.	
111-175 Success	+20
Your research is thorough and you have consolidated your engineering knowledge. Add +20 to your Gimmickry maneuver. At the bleeding edge of technomagic, no prototype can be perfect; and add 1 to the Malfunction Number of any device created.	

176 and up Absolute Success +30

You have grasped and applied all the relevant knowledge in your experiments and studies. Add +30 to your Gimmickry maneuver.

GENERAL MODIFIERS

Difficulty (GM determined)

Medium (wind or water power):	+0
Hard (clockwork):	-10
Very Hard (steam power):	-20
Extremely Hard (basic electricity):	-30
Sheer Folly (19th century technology):	-50
Absurd (20th century technology):	-70

Time Invested

One day or less spent in research or experimentation:	-30
One week spent in research or experimentation:	-10
One month spent in research or experimentation:	+0
Each additional month spent in research or experimentation:	+5

Resources (GM determined)

Access to excellent library resources on engineering area:	+20
Access to good library resources on engineering area:	+10
No access to library resources:	-10
Library resources contain inaccurate information:	-20
Bonus from Analyze Automaton spell: ...	+10/+25

Step 3: Design the Automaton

The artificer must now invent the desired Automaton, drawing up detailed plans for its construction and deciding where magic will assist its operation. A Gimmickry maneuver using the following chart and modifiers must be made.

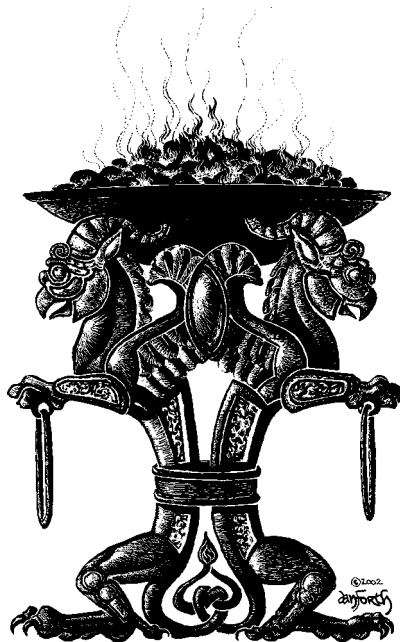


TABLE 5.2

AUTOMATON GIMMICKRY MANEUVER

-26 down Spectacular Failure -30

Your design is extraordinary in its form and function. Unfortunately it is impossible to implement but this will only be discovered if an attempt is made to build it. Any Mechanition maneuvers to construct it will automatically fail, wasting material resources and time.

-25-04 Absolute Failure -10

Your design is a miserable failure. It can be built (with a -10 penalty to Mechanition maneuvers), but will immediately suffer a catastrophic malfunction. All material resources and time spent on it will be wasted.

05-75 Failure +0

Your design is a failure. If it is a purely mundane invention, it will not work but you will not discover this unless it is built. If it is an Automaton, it can be built and will work partially. Add 50 to the Automaton's Malfunction Number - magic can only do so much.

UM 66 Unusual Event +0

Invention is 99% perspiration and 1% inspiration. Unfortunately you are totally uninspired and cannot produce any designs at all. Take a vacation and try again when you return.

76-90 Partial Success +5

If this is a mundane invention, then your design is unsuccessful, but you realize this and need not waste time or resources in attempting to build it. If this is an Automaton, add +5 to any Mechanition maneuver to build it. Unfortunately the design is badly flawed, so add 20 to its Malfunction Number. It will also be very difficult to use (-20 to all Operating Equipment maneuvers).

91-110 Near Success +10

If this is a mundane invention, you are very close to success. Try again with a +10 bonus. If this is an Automaton, you have a working, but flawed, design. Add +10 to any Mechanition maneuver to construct it. Add 10 to its Malfunction Number. It will be difficult to use (-10 to all Operating Equipment maneuvers).

UM 100 Unusual Success +25

Pure genius! A masterwork of inspiration. Are you the Leonardo of technomagic? Add +25 to any Mechanition maneuvers to construct this device or Automaton. It will be very easy to use (+20 to all Operating Equipment maneuvers).

111-175 Success +20

A solid success. If this is a mundane invention, it will work as planned - add 10 to its Malfunction Number to represent its bleeding edge nature. If this is an Automaton, add 5 to its Malfunction Number. Either way, enjoy a +20 bonus to Mechanition maneuvers to manufacture it.

176 and up Absolute Success +30

An excellent design. If this is a mundane invention, it will work as planned - but add 10 to its Malfunction Number to represent its bleeding edge nature. If this is an Automaton, it will work exactly as designed. Mundane inventions and Automata based on this design will be easy to use (+10 to Operating Equipment maneuvers). Have a +30 bonus to Mechanition construction maneuvers.



GENERAL MODIFIERS	
Difficulty (GM determined)	
Medium (wind or water power):	+0
Hard (clockwork):	-10
Very Hard (steam power):	-20
Extremely Hard (basic electricity):	-30
Sheer Folly (19th century technology):	-50
Absurd (20th century technology):	-70
Time Invested	
Each full week spent on the project:	+5
Special	
Modifier from Automaton Engineering maneuver: variable	
Modifying a successful design: +10	
Bonus from Analyze Automaton spell: ... +10/+25	

Step 4: Build the Automaton

With the design in hand, the next stage is to transform dream into reality by actually building the device, machine, or vehicle. The component parts will have to be manufactured, requiring Crafts maneuvers as determined by the GM. The actual assembly requires a Mechanition maneuver that should be made about halfway through the construction process. (See section 5.3.3 for time and monetary requirements for Automata.)

TABLE 5.3 AUTOMATON MECHANITION MANEUVER
-26 down Spectacular Failure A disastrous failure. You realize halfway through that the construction is all wrong. You must start again from scratch as all materials are ruined.
-25-04 Absolute Failure A truly dismal effort. The assembly process has gone seriously awry. 50% of all materials are ruined, and construction must start again from the beginning.
05-75 Failure Oops—it's not meant to look like that. And where are these pieces meant to go? Take it apart and try again. 20% of all materials must be replaced.
UM 66 Unusual Event You think you've got it just right, but it breaks down the moment that you try to operate it. Back to the workshop, partially dismantle it, and try again. Add another base unit of time before reattempting this maneuver.
76-90 Partial Success Almost, but not quite. Tinker with it for a week before trying another Mechanition maneuver. Add 10 to its Malfunction Number.

91-110 Near Success So close, but something's not right. Tinker with it for a day before trying another Mechanition maneuver at +10. Add 5 to its Malfunction Number.
UM 100 Unusual Success 125% 1.0x +25 Brilliant construction and assembly, which will even compensate for some design flaws. Reduce its Malfunction Number by 5. Gain a permanent +10 bonus to all future Mechanition maneuvers involving this exact type of machine.
111-175 Success At last, you've done it. The dream has become a reality. Try it out at once!
176 and up Absolute Success Success is sweet. The machine is just as you imagined it. Gain a permanent +20 bonus to all future Mechanition maneuvers involving this exact type of machine.

GENERAL MODIFIERS	
Difficulty (GM determined)	
Light (wind or waterpower):	+10
Medium (clockwork):	+0
Hard (steam power):	-10
Very Hard (steam power using a Watt-style engine):	-20
Extremely Hard (basic electricity):	-30
Sheer Folly (19th century technology):	-50
Absurd (20th century technology):	-70
Time Invested	
Each additional base unit of time spent on the project:	+10
Special	
Modifier from Automaton Gimmickry maneuver: variable	
Automaton is a portable Device or a Vehicle: -10	
Artificer has successfully made this exact type of machine before: +10	
Bonus from Analyze Automaton spell: ... +10/+25	

If the device under construction is a mundane invention, go directly to step 7.

Step 5: Enchant an Automaton

All Automata must be imbued with magic to amplify their capabilities or make them work. For Device and Machine Automata, this means that the relevant *Enchant Device #* or *Enchant Machine #* spell (according to the technological level of the Automaton) must be cast once per day for each day of the construction process. Likewise Vehicle Automata require the appropriate *Enchant Vehicle* spell. For Automata of any class, which utilize

19th or 20th century technological principles, the 50th-level *Automaton True* spell must be cast instead.

See section 5.3.2 for details on the effects of magical enchantment upon Automata.

Step 6: Empower an Automaton

In addition to the basic enchantments, magic can be used to further improve the capabilities of Automata. These “Empowerments” are classified by degree of potency into Lesser, Greater, and True Empowerments. Adding an Empowerment at construction time requires the artificer to cast the relevant *Empower Device #*, *Empower Machine #*, or *Empower Vehicle #* spell once per day for each day of the fabrication process of the Automaton. Empowerments increase the construction time and the Automaton’s Malfunction Number in direct proportion to their potency.

Empowerments can also be added to an Automaton at any time after its construction is completed. As such modifications were not planned for in the design, they take longer and increase the Malfunction Number substantially.

See section 5.3.2 for a list of available Empowerments.

Step 7: Calculate the Malfunction Number

The last step is to determine the Automaton’s or invention’s Malfunction Number. Every gadget has a chance of malfunctioning – it’s the price to be paid for using equipment that transcends the conventional. Poor science, poor design, and poor construction can increase this probability. Empowering Automata makes them more likely to break down as the magic pushes the machine to and beyond its mundane limits.

TABLE 5.4
BASE MALFUNCTION NUMBER

Mundane Invention	
Water-powered, wind-powered, or muscle-powered:	2
Clockwork:	4
Steam or basic electricity:	6
19th century technology:	8
20th century technology:	10
Automata	
Water-powered, wind-powered, or muscle-powered:	1
Clockwork:	3
Steam or basic electricity:	4
19th century technology:	4
20th century technology:	5

Add any modifications from the Engineering, Gimmickry, and Mechanition maneuvers. For Empowerments incorporated during construction.

Add +1 for each Lesser Empowerment.
Add +2 for each Greater Empowerment.
Add +3 for each True Empowerment.

For Empowerments added after construction.
Add +2 for each Lesser Empowerment.
Add +5 for each Greater Empowerment.
Add +10 for each True Empowerment.

Any invention or Automaton with a Malfunction Number of 100 or higher will not work at all.

5.3.2 ENCHANTMENTS AND EMPOWERMENTS

As defined, Automata incorporate magic by design to *achieve or enhance effects* that can be *attempted by non-magical means*. Almost all the spells on the *Automata* list can be cast in at least two modes. The first mode transforms a marginal failed design into a modest success (“achieving the effect”). The second mode improves a (marginally) successful design, either by substituting magic for mundane fuel (or other consumables) or by increasing the results obtained through mundane means (“enhancing the effect”).

AUTOMATA ENCHANTMENTS

Enchant Device I (up to clockwork) and *Enchant Device II* (steam or electricity) can be used to make any portable device function as designed. A clockwork example is the spring-powered dart “gun.” This alternative to the gunpowder musket requires extremely advanced springs to propel a dart any significant distance with deadly force. *Enchant Device I* could enable early springs to accomplish this feat.

Enchant Machine I (up to clockwork) and *Enchant Machine II* (steam or electricity) can achieve equivalent success with much larger non-portable machines.

In terms of enhancing the effect, *Enchant Machine* and *Enchant Device* spells can substitute magic for the mundane power source. A clockwork mechanism will rewind itself, a windmill could operate normally without wind, a steam-powered machine would generate steam by magically heating water (rather than burning coal), and a static electrical device would continuously recharge itself.

In terms of increasing the effectiveness of mundane technology, *Enchant Device* can make a Device Automaton work **twice** as well as a non-magical equivalent. *Enchant Machine* can make a Machine Automaton

operate three times better than a non-magical counterpart, e.g. an enchanted loom could weave three times as much fabric in the same time as an ordinary one. GMs will have to determine these sorts of improvement possibilities on a case-by-case basis. If the GM feels uncomfortable with this, then it is recommended that *Enchant Device* and *Enchant Machine* spells are limited to making flawed designs work and power substitution options.

Vehicle Automata utilize the various *Enchant Vehicle* spells, which can supply both sufficient propulsion for movement in the chosen environment and the ability to survive in its hostile conditions. Where the design will work without magical aid, the *Enchant Vehicle* spells can wholly substitute magic for the mundane power source (incredibly useful for clockwork cars or steam-driven submarines). Alternatively the maximum speed or size can be **doubled** (for clockwork or lower technology) or **tripled** (for steam-powered vehicles).

Base maximum speeds for clockwork and steam vehicles using magical power substitution and magical speed enhancement are given in the following table. These speeds may be varied according to the vehicle size and design.

Enchant Land Vehicle is only suitable for vehicles intended to travel over dry land at reasonable inclinations. *Land Vehicles* will not normally operate safely in swamps, marshes, tundra and arctic conditions, and cannot ascend steep cliffs.

Enchant Aerial Vehicle will enable a Vehicle Automaton to fly. Vehicle Automata will normally use vertical take-off and landing procedures, as no ground-level propulsion is supplied by this spell. If the pilot/passenger area is fully enclosed, anyone inside will also be protected against low pressure at high altitudes.

Enchant Marine Vehicle will propel a surface vessel on rivers, seas, and oceans. Such vessels will float and their hulls will be watertight. Marine Vehicle Automata cannot travel over land – at best they can be “beached”.

Enchant Underwater Vehicle will propel a submarine vessel, above and below the surface of the water. Underwater Vehicles will be watertight and capable of diving to depths of up to 60 feet.

Enchant Exotic Vehicle provides for more unusual vehicles, whether they combine capabilities (a vehicle able to travel on both land and sea) or are designed for harsher environments (such as tundra or tunneling underground).

For Automata requiring an *Enchant* spell to make them work, the Power Substitution Empowerment can be added to them to replace their “fuel” needs.

AUTOMATA EMPOWERMENTS

Automata Empowerments have three degrees of potency: Lesser, Greater, and True (in order of increasing power). Imbedding the Lesser and Greater Empowerments requires the artificer to use the corresponding *Empower #* spell for the Automaton’s class (Device, Machine, or Vehicle). Imbedding a True Empowerment demands the *Empower Automaton* spell. Empowerments do not “stack”, i.e. a Vehicle Automaton can’t have both Lesser Improved Propulsion and Greater Improved Propulsion. However a steam-powered chariot could have Lesser Improved Propulsion and Greater Power Substitution instead.

A list of sample Empowerments is provided below. This is not intended to be an exhaustive or exclusive list; GMs are encouraged to create Empowerments of their own devising.

Amplify: This can magnify the effect of a Device or Machine Automaton, e.g. to amplify sounds, enhance strength, increase load capacity, etc.

Lesser: Doubles the current effect.

Greater: Triples the current effect.

True: Quadruples the current effect.

TABLE 5.5 VEHICLE SPEEDS

Vehicle Type	Motive Force Substitution	Enhanced
Clockwork Land	75'/rnd (5 mph)	150'/rnd (10 mph)
Steam Land	150'/rnd (10 mph)	450'/rnd (30 mph)
Clockwork Marine	75'/rnd (5 mph)	150'/rnd (10 mph)
Steam Marine	150'/rnd (10 mph)	450'/rnd (30 mph)
Clockwork Aerial	45'/rnd (3 mph)	90'/rnd (6 mph)
Steam Aerial	90'/rnd (6 mph)	270'/rnd (18 mph)
Clockwork Underwater	60'/rnd (4 mph)	120'/rnd (8 mph)
Steam Underwater	150'/rnd (10 mph)	450'/rnd (30 mph)
Clockwork Tunneling	15'/rnd (1 mph)	30'/rnd (2 mph)
Steam Tunneling	30'/rnd (2 mph)	90'/rnd (6 mph)



Attractor / Repulsor: This increases the ability of static electricity to attract or repel light objects.

Lesser: Attract or repel up to 10 lbs. of material at a speed of 1' per round (maximum range 10'). Requires one charged Leyden Jar.

Greater: As Lesser, except affects up to 20 lbs. of material with a maximum speed of 2' per round (maximum range 20'), and requires two charged Leyden Jars.

True: As Lesser, except affects up to 30 lbs. of material with a maximum speed of 2' per round (maximum range 30'), and requires three Leyden Jars.

Electrical: This harnesses electricity for attack and defense. The chosen effect may only be used once each round.

Lesser: Electrify an Automaton such that anyone who touches it receives an "A" Electricity critical or release an electrical spark as a +0 Shock Bolt with a range of 50'. Requires a charged Leyden Jar as part of the apparatus.

Greater: Electrify an Automaton such that anyone who touches it receives a "C" Electricity critical or release an electrical spark as a +0 Lightning Bolt with a range of 50'. Requires two Leyden Jars as part of the apparatus.

True: Electrify an Automaton such that anyone who touches it receives an "E" Electricity critical or releases an electrical spark as a +0 Lightning Bolt with a range of 100'. Requires three charged Leyden Jars as part of the apparatus.

Elemental Protection: Shields an Automaton from elemental-based damage, particularly Cold, Electricity, Heat, Impact, Crush, and Unbalancing criticals.

Lesser: Reduces all critical results by one degree of severity (e.g. "B" crit becomes an "A", "A" becomes an "A" with a special -20 modifier to the roll).

Greater: Reduces all critical results by two degrees of severity (e.g. "C" becomes an "A", a "B" becomes an "A" with a special -20 modifier to the roll, an "A" has a special -50 modifier to the roll).

True: Reduces all critical results by three degrees of severity (e.g. "D" becomes an "A", "C" becomes an "A" with a special -20 modifier to the roll, a "B" becomes an "A" with a special -50 modifier to the roll, any "A" crits are ignored).

Fine Manipulation: Increases the accuracy by which a Device or Machine Automaton performs its designated task. This may equate to a bonus to the human operator's skill.

Lesser: Doubles the accuracy of the apparatus (+10 bonus if appropriate).

Greater: Triples the accuracy of the apparatus (+20 bonus if appropriate).

True: Quadruples the accuracy of the apparatus (+30 bonus if appropriate).

Flame Bolt: Converts combustible fuel into high temperature directed plumes of flame. Each use consumes 1 pint of oil (lantern oil is suitable).

Lesser: Generates a 10'-long and 2' wide plume of flame, which may be treated as a +20 Fire Bolt against all targets in its path.

Greater: As Lesser, except generates a 20'-long and 5' wide plume of flame that may be treated as a +40 Fire Bolt.

True: As Lesser, except generates a 30'-long and 5' wide cone of flame, which may be treated as a +60 Fire Bolt.

Improved Operation: This increases the speed at which a Device or Machine Automaton can perform its task, potentially increasing its output if it can be supplied with any necessary consumables sufficiently quickly.

Lesser: Doubles normal rate of operation.

Greater: Triples normal rate of operation.

True: Quadruples normal rate of operation.

Improved Propulsion: This increases the maximum speed of a Vehicle Automaton.

Lesser: Add the Motive Force Substitution speed to the current maximum.

Greater: Add twice the Motive Force Substitution speed to the current maximum.

True: Add three times the Motive Force Substitution speed to the current maximum.

(Example: A steam-powered carriage has a base maximum speed of 150'/rnd and a Motive Force Substitution speed of 150'/rnd. Lesser Improved Propulsion yields a top speed of 300'/rnd (150 + 150).

TABLE 5.6 AUTOMATA STATISTICS

Main Material	AT	DB	Device	Machine	Vehicle	Increment
Cloth, leather, or wood	3	0	25 hits	50 hits	50 hits	+25 hits
Brass or bronze	20	0	50 hits	75 hits	75 hits	+25 hits
Iron	20	0	75 hits	100 hits	100 hits	+25 hits
Steel I	20	5	75 hits	100 hits	100 hits	+25 hits
Steel II	20	10	80 hits	125 hits	125 hits	+25 hits
Steel III	20	15	90 hits	150 hits	150 hits	+50 hits
Steel IV	20	20	100 hits	200 hits	200 hits	+50 hits

Greater is faster at 450'/rnd (150 + (2 times 150)), while True Improved Propulsion is 600'/rnd (150 + (3 times 150)).

Increased Cargo: This enables a Vehicle Automaton to transport heavier loads (passengers or cargo) without loss of speed or requiring greater structural strength.
Lesser: Double the maximum load.

Greater: Triple the maximum load.

True: Quadruple the maximum load.

Light Generation: This creates an area of bright illumination. Methods include substantially amplifying the light generating properties of phosphorescent materials, life forms, by superheating limestone blocks, or conductive metals. By use of lenses and mirrors, beams of light may be created.

Lesser: Creates a 10'R area with bright light.

Greater: Creates a 20'R area of bright light.

True: Creates a 40'R area of bright light.

Magical Protection: Protects an Automaton from hostile magic.

Lesser: Adds +10 to all RRs versus magic and magical effects.

Greater: As Lesser, except bonus is +30.

True: As Lesser, except bonus is +50.

Power Substitution: This satisfies the power requirements of an Automaton using magic.

Lesser: Can replace muscle-driven, water-based, wind-driven or clockwork power supplies.

Greater: Can replace steam or electrical power supplies.

True: Can replace more advanced power sources (such as gasoline-powered internal combustion engines).

Pressure: Protects an Automaton from extremes of pressure – particularly useful for submarine vehicles.

Lesser: An Automaton can withstand any pressure change from one-tenth of an atmosphere to ten atmospheres (300 feet underwater).

Greater: As Lesser, except the range is one-hundredth of an atmosphere to one hundred atmospheres (3000 feet underwater).

True: As Lesser, except any pressure can be survived.

Purification: An Automaton incorporating this feature can be used to purify water (osmosis methods for removing salt from seawater or electrolysis for obtaining minerals) or air (e.g. using caustic potash to flush carbon dioxide from confined spaces, releasing oxygen).

Lesser: Purify 10 cubic feet of water or purify enough air to keep 4 men alive.

Greater: Purify 30 cubic feet of water or purify enough air to keep 12 men alive.

True: Purify 50 cubic feet of water or purify enough air to keep 20 men alive.

Resilience: Increases an Automaton's ability to sustain physical damage.

Lesser: Adds 50 concussion hits to the Automaton.

Greater: Adds 150 concussion hits.

True: Adds 250 concussion hits.

Sealed: Prevents substances from getting into or leaking out of Automaton components, and protects the Automaton from any toxic or corrosive properties of these substances.

Lesser: Prevents any liquid from leaking into or out of an Automaton or component part. (Excellent for waterproofing.)

Greater: Prevents any gas from leaking into or out of an Automaton or component. (Essential for hydrogen balloons and dirigibles.)

True: Prevents any dust particles, liquids, or gases from entering or exiting the Automaton or specific parts.

Steam Bolt: Converts water into high-temperature directed jets of steam. Each use consumes 8 pints of water. If *Fire & Ice: The Elemental Companion* is available, use the Steam Bolt table, otherwise use the Water Bolt table, but inflict Heat criticals.

Lesser: Generates a 10'-long and 1' wide jet of steam which may be treated as a +20 Steam Bolt against all targets in its path.

Greater: As Lesser, except generates a 20'-long and 3' wide jet of steam which may be treated as a +40 Steam Bolt against all targets in its path.

True: As Lesser, except generates a 30'-long and 5' wide jet of steam which may be treated as a +60 Steam Bolt against all targets in its path.

AUTOMATA AND STANDARD ALCHEMY

It is possible to combine the “technomagic” of Automata with standard alchemy. This is usually done to achieve effects, which are beyond technology's capabilities. Blending the two is difficult, however. The conventional magic item must be first created as per the rules in *Treasure Companion*. Then it must be “built” into the Automata during its construction by the artificer-mage casting *Incorporate Magical Item* (an 18th-level spell) once per day for each day of construction.

5.3.3 MATERIALS, MONEY, AND TIME

Workshop

Every inventor needs a workshop and appropriate tools to design and build his creations. This can range from a rickety wooden shed sited near the local junkyard to a purpose-built facility funded by a noble (or simply wealthy) patron who directs the nature of the research. (Artificers should consider location carefully – building



a suite of workrooms and hangars in a desert is unwise if plans include constructing ships and submarines!) This is a one-off investment. The minimum cost is 250 gold pieces for a workshop for Device Automata only, and 500 gold pieces for Machine and Vehicle Automata. If the artificer wants to store larger Automata, while working on new inventions, the cost should be increased to 1,000 gold pieces.

Materials and Money

Automata are normally fashioned from mundane materials, such as cloth, wood, iron, and steel. Brass is used extensively for small clockwork components, while copper wire, lead foil, and glass are necessary for Leyden jars. Higher-quality materials such as advanced steel alloys or magical metals can be employed, making the Automata more resilient to damage, but using them will severely inflate the manufacturing costs and require access to the *Inorganic Skills* spell list (Alchemist Base).

The variety of potential Automata is too vast and diverse to be shoehorned into a set of intricate formulae. Instead, some suggestions and modifiers will be presented, with examples in section 5.5 (The GM may also wish to consult ...*And a Ten-Foot Pole*, particularly the “Age of Reason” and “The Industrial Revolution” sections for extensive price lists.)

Leyden jar	1gp (each)
Newcomen engine	60gp
Watt engine	120gp
Large Watt engine	180gp

(For the engines, the use of iron and low carbon steel (Steel I, +5) is assumed and included in these prices.)

Clockwork Device, Machine, and Vehicle Automata: cost of the closest mundane equivalent multiplied by two.

Steam-powered Device, Machine, and Vehicle Automata: cost of the closest mundane equivalent multiplied by three plus the cost of the steam engine.

(Steam-powered Automata require fuel – a sack of coal (50 lbs) costs 1gp).

Add 10% to the cost if the Automata are to operate quietly.

Add 20% to the cost if parts of the Automata are intended to be collapsible or extensible.

Multiply by 5 for High Carbon Steel (Steel II, +10).

Multiply by 10 for White Alloy (Steel III, +15).

Multiply by 50 for Black Alloy (Steel IV, +20).

Time

The base time to fabricate a non-magical invention can vary from a couple of weeks (a simple device) to several months (a large vehicle). The equipment lists in ...*And a Ten-Foot Pole* include details of typical manufacturing time-scales, as do the example Automata in section 5.5.

Typical Times for Automata are as follows.

Clockwork Device: 2 weeks

Clockwork Machine: 4 weeks

Clockwork Vehicle: 4 weeks

(assumes 4-person or smaller vehicle,
increase by 2 weeks for every extra 4 people)

Note: Times for Clockwork may be used for muscle, wind, or water-powered apparatus.

Steam-powered Device: 2 weeks plus engine time cost.

Steam-powered Machine: 4 weeks plus engine time cost.

Steam-powered Vehicle: 4 weeks (assumes 4-person or smaller vehicle, increase by 2 weeks for every extra 4 people) plus engine time cost.

Note: Times for Steam-powered inventions may also be used for any Automata involving the use of electricity.

Leyden Jar 1 week

Newcomen Engine 4 weeks

Watt Engine 6 weeks

Large Watt Engine 8 weeks

Empowerments increase the fabrication time as follows.

+1 week for each Lesser Empowerment.

+2 weeks for each Greater Empowerment.

+3 weeks for each True Empowerment.

If an Empowerment is added to an Automaton after its initial manufacture, the integration time is as follows.

+2 weeks for each Lesser Empowerment.

+4 weeks for each Greater Empowerment.

+6 weeks for each True Empowerment.

5.3.4 MALFUNCTIONS AND REPAIRS

Automata lack the solidity of Golems and the armor plating of Constructs, making them relatively fragile constructions. Suggested Armor Types and “concussion hits” are as follows – the Increment column should be used to increase the total concussion hits for very large Machine and Vehicle Automata.

Unlike standard magical items, Automata can and do malfunction regularly, with more complex inventions failing more often. For any Automaton, a Malfunction roll should be made once per day, either when it is first switched on or at some random time (GM’s choice) if it is left running continuously. For Automata, which function as weapons, a Malfunction roll is required on any fumbled attack. If an Automaton suffers any damage, a Malfunction roll must be made immediately.

To check for a Malfunction, roll d100 and add the Malfunction Number of the Automaton and any modifiers from damage. If the result is 101 or more, the

Automaton has malfunctioned.

For every 10 hits worth of damage sustained, add 1 to the roll.

For every critical sustained, add the following to the roll: +1 ("A"), +2 ("B"), +3 ("C"), +4 ("D"), and +5 ("E").

A Malfunction can be as minor as a simple jam of the gearing or a catastrophic explosion of a steam boiler. It can be localized to an "Empowerment" portion of an Automaton or affect the entire Automaton. GMs may choose a dramatically appropriate effect or roll on the tables below.

First determine the malfunction's location.

**TABLE 5.7
MALFUNCTION LOCATION (D100 ROLL)**

01-60	General Automaton Failure.
61-80	Subsystem Failure (choose one Empowerment to fail).
81-90	Dual Subsystem Failure (choose two Empowerments to fail).
91-00	Multiple Subsystem Failure (three or more Empowerments fail).

If an Automaton is not Empowered, then any Malfunction covers the entire Automaton. For Empowered Automata, an Empowerment failure does not necessarily result in the failure of any capability provided by an Enchant spell or the mundane design of the machine.

Secondly, determine the type of malfunction (GMs should adjust the description as appropriate for the Automaton).

TABLE 5.8 MALFUNCTION NATURE (D100 ROLL)

01-10	False start (try another Operating Equipment maneuver in one minute).
11-20	A mechanism has jammed somewhere (make a Light (+10) Mechanition maneuver to unjam (taking one minute) before trying to operate the Automaton).
21-30	Grinding sounds suggest a multiple mechanism jam or something getting caught in a component (make a Medium (+0) Mechanition maneuver to resolve this (taking five minutes) before trying to operate the Automaton).
31-40	Small tear or hole develops or a component comes loose. Fix with a Medium (+0) Mechanition maneuver taking ten minutes in the next half-hour; otherwise the fault worsens and serious breakdown occurs.

41-50 Large tear or hole develops or a component breaks. If operation continues, Automaton suffers complete breakdown in ten minutes. If not, a serious breakdown occurs.

51-60 Mechanism or subsystem becomes physically disconnected, causing an immediate serious breakdown.

61-70 Mechanism becomes smashed, serious boiler leak or Leyden jar discharges, resulting in a total breakdown.

71-80 Mechanism shatters (splinters do an "A" Puncture critical to all in 5'R), steam plume escapes ("A" Heat critical to all in 5'R) and boiler is damaged, or Leyden jar discharges (anyone touching Automaton receives an "A" Electricity critical). Total breakdown occurs.

81-85 Mechanism shatters (splinters do "B" Puncture critical to all in 5'R), steam plume escapes ("B" Heat critical to all in 5'R) and boiler is damaged, or Leyden jar discharges (anyone touching Automaton receives a "B" Electricity critical). Total breakdown occurs.

86-90 Mechanism shatters (splinters do "C" Puncture critical to all in 10'R), steam plume escapes ("C" Heat critical to all in 10'R) and engine is damaged, or Leyden jar discharges (anyone touching Automaton receives an "C" Electricity critical). Total breakdown occurs.

91-95 Mechanism disintegrates (splinters do "D" Puncture critical to all in 10'R), steam plume escapes ("D" Heat critical to all in 10'R) and both boiler and engine are seriously damaged, or Leyden jar discharges and shatters (anyone touching Automaton receives a "D" Electricity critical). Total breakdown occurs.

96-100 Mechanism disintegrates (splinters do "E" Puncture critical to all in 10'R), steam plume escapes ("E" Heat critical to all in 20'R) and both boiler and engine are very seriously damaged, or Leyden jar discharges and shatters (anyone touching Automaton receives an "E" Electricity critical). Total breakdown occurs.

There are three methods of fixing an Automaton - jury-rigging, proper repairs, and spells.

A jury-rig involves a temporary solution to the problem, using any available materials and tools. It is normally used when the proper spare parts are unavailable. It requires a Gimmickry maneuver with Difficulty Level and required time as per Table 5.9.

TABLE 5.9 AUTOMATA JURY-RIGGING

Trivial problem	Routine (+30)	10 minutes
Minor problem	Light (+10)	30 minutes
Normal repairs (serious breakdown)		
	Hard (-10)	2 hours
Fixing serious damage (total breakdown)		
	Extremely Hard (-30)	4 hours
Fixing near-total destruction (catastrophic total breakdown)		
	Absurd (-70)	1 day

Jury-rigging is *temporary* – Automata “fixed” in this fashion must make an additional Malfunction check each day for each jury-rigged repair.

Proper repairs take longer and require access to the right tools and replacement parts. They may involve replacing components, recharging Leyden jars, filling steam boilers, or replenishing fuel. Replacement parts cost 10% of the Automata (if the part is unspecified); otherwise use the standard costs for Leyden jars and engines. A Mechanition maneuver is necessary with Difficulty Level and time as per Table 5.10.

TABLE 5.10 AUTOMATA REPAIRS

Trivial problem	Routine (+30)	20 minutes
Minor problem	Light (+10)	1 hour
Normal repairs (serious breakdown)		
	Hard (-10)	4 hours
Fixing serious damage (total breakdown)		
	Extremely Hard (-30)	1 day
Fixing near-total destruction (catastrophic total breakdown)		
	Absurd (-70)	3 days

The final solution is to use spells, namely *Repair Automaton I* and *II*. These have the advantages of being faster than either jury-rigging or full repairs and avoid the need for Gimmickry or Mechanition maneuvers. However if any needed spare parts are unavailable, then even these spells are equivalent to magical “jury-rigging” and the number of Malfunction tests required per day increases as for mundane jury-rigging.

5.4

COMBINING AUTOMATA WITH CONSTRUCTS AND AMALGAMS

It is possible to combine Device Automata with other types of artificial entities such as Constructs and Amalgams.

In the case of Constructs, a Device Automaton can be added, normally to provide the entity with one or more specialist weapons. The Construct must first be built as per the rules in Chapter 6, but an Automaton Emplacement mechanical ability must be added to the design. Then the Automaton may be joined into the entity by the artificer-mage casting *Incorporate Magical Item* once per day for each day of construction of the Automaton.

In the case of Amalgams, the Device Automaton is created normally. It is then transplanted using the *Graft Mechanical* spell into the body of the Amalgam.

5.5 SPECIFIC AUTOMATA

The Automata in this section are a mix of magical machines and mundane inventions. Some are based on genuine historical designs and/or implementations – these are explicitly noted. (Do **not** attempt to build any of these devices in real-life – this book is **not** a construction manual.) GMs may use these Automata as inspiration for themselves and their players or as exotic “treasures.”

Steam-powered Automata and mundane inventions require fuel. Newcomen engines require **four** times as much coal as Watt engines; all steam-powered creations have their fuel consumption quoted for Watt engines.

5.5.1 DEVICES

Device Automata and similar mundane contraptions are designed to be relatively portable. Most are carried; some must be worn to be effective.

Curiosities and Toys

This category embraces eccentric inventions with limited utility, such as self-locking boxes, self-igniting items, and self-extinguishing lamps, and playthings for children such as dolls with preset movements. For serious artificer-mages, these are training examples made in their apprenticeships, and are rarely enchanted or empowered.

Cost: 1gp (more for highly decorative items).
Time: 1 week.



Dart Weapons

These are clockwork weapons relying on enhanced springs to propel long darts with ranges and deadliness equivalent to a crossbow. A typical dart weapon has a revolver-like chamber containing up to six darts. As each dart is fired, the chamber revolves and the next dart is loaded into the firing mechanism. The rate of fire is one dart per round; loading a set of darts is a 200% action (30% per dart and 20% to reset the mechanism). Less bulky than crossbows, dart pistols and dart rifles are quieter and more reliable than gunpowder pistols and muskets.

Dart Pistol (looks like a revolver with a six-inch barrel).

Use Light Crossbow Attack Table **except** it fumbles on 01-03 UM and has the following ranges (in feet, modifiers in brackets): Point-Blank (+10) 10, Short (+0) 25, Medium (-25) 50, Long (-50) 100, Extreme Range (-100) 150.

Requires *Enchant Device I*, cost 5gp. Time: 2 weeks.

Dart Rifle (looks like a rifle but has a six-dart chamber).

Use Heavy Crossbow Attack Table **except** it fumbles on 01-05 UM and has the following ranges (in feet, modifiers in brackets): Point-Blank (+10) 20, Short (+0) 50, Medium (-25) 100, Long (-50) 200, Extreme Range (-100) 300.

Requires *Enchant Device I*, cost 10gp. Time: 2 weeks.

The *Amplify* Empowerment may be used as a damage multiplier (e.g. Lesser Amplify doubling damage). The *Improved Operation* Empowerment can be used to increase rate of fire (e.g. Lesser Improved Operation would allow 2 darts to be fired and loaded each round).

Alternative designs exist which are much closer in form to standard crossbows. Some artificers have also constructed “crossbow repeaters” which have the same attack, fumble, and damage capabilities as light or heavy crossbows but fire up to five bolts simultaneously. Re-loading crossbow repeaters is a 200% action (30% per bolt and 50% to reset the mechanisms). Price and time costs are as for dart rifles.

Diving Apparatus

This is based on a now-proven design by Leonardo da Vinci. The apparatus has three major components: a waterproof suit, a mask and breathing tube, and a hollowed-out cork dome. For deep-water work, the suit is made of coiled armor plate under a sealed tunic to protect against pressure compression. The long leather breathing tube contains two (or more) hollow rods to keep it rigid and has coiled springs between the rods to prevent kinks occurring. The diver breathes through one end of the tube; the other feeds into the air stored in the cork dome (which has small holes just above its bottom to allow the air to replenish naturally). In normal use, the dome floats on the surface. The diver can pull it underwater, whereupon the dome acts as a compressed air supply.

In its mundane form, the apparatus is limited by the available air in the dome (perhaps 5 minutes) and only protects marginally against increasing pressure with increased depth (safe to 100 feet). *Enchant Device I* will increase the underwater time to 10 minutes and only require the dome to remain above water for 1 minute to replenish the air. *Pressure* and *Purification* Empowerments would be useful additions – the latter could increase underwater time indefinitely.

Cost (mundane version) 10gp plus 200gp for plate mail. Time: 2 weeks plus 4 months for plate mail.

Flame Thrower

This weapon consists of a hollow pipe connected via valves to a small tank of oil. The fuel is forced into the pipe and squirted out under pressure. As the jet leaves the pipe, it is ignited. In the mundane form, the pressure is insufficient for the flame to spread more than a few feet from the pipe, and the tank will be exhausted quickly. If enchanted, the flamethrower can generate a 5' long and 1' wide flame from a single pint of oil (treat as a +0 Fire Bolt). *Flame Bolt* is the obvious empowerment.

Cost: 25gp (plus 1bp per pint of oil). Time: 2 weeks.

Hand Tools

This is actually a whole category of clockwork handheld tools, including the hand pulverizer (a powerful drill with a steel or diamond bit), automatic lockpicks, the hull breaker (a device for puncturing ship's hulls by forcing a prong inside the planking), automatic saws, mechanical fans, smoke generators, etc. *Enchant Device I* obviates the need to wind up their clockwork mechanisms. The *Fine Manipulation* Empowerment is often used to improve their effectiveness.

Cost: up to 50gp. Time: 1 week.

Leyden Jars and Electrometers

Leyden jars have been described above. One Leyden battery actually had an adjustable dial giving four settings: detonating cannon by igniting sparks, altering a compass needle, killing animals, and melting metal wire. Electrometers may be used to measure the stored charge. *Enchant Device II* is required to use electrical gadgets in Automata.

Cost: (electrometer) 1gp. Time: 1 week.

Puzzle Boxes

Whereas a self-locking chest merely demonstrates the artificer's skill, a puzzle box is designed to be difficult to open for security or entertainment. Complicated locks, movable parts (requiring the “box” to be adjusted or rotated into distinct physical configurations before locks etc. are revealed), extraneous mechanisms (to confuse), and in some cases, booby traps (such as poisoned needles, gas, tool-breakers and so on) all contribute to keeping the contents of the puzzle box safe and secret.



Making suitable locks requires a separate Mechanition (or Crafts (locksmith)) maneuver - the difficulty level is equivalent to that required by anyone attempting to pick the lock, e.g. a lock which is Hard to manufacture will require a Hard Picking Locks maneuver. Likewise constructing suitable traps requires a distinct Trap Building maneuver - difficulty level is again equal to the corresponding Disarm Traps maneuver.

The inclusion of each feature (lock, motion, booby trap or extraneous addition) into the final puzzle box modifies the Automaton Gimmickry and Mechanition maneuvers by -5. These additions also penalize attempts to pick the locks and disarm traps by -5 for each feature.

A variation of the *Fine Manipulation* Empowerment can be used to make locks and traps harder to pick and disarm. The bonus (10, 20 or 30) becomes a penalty to these maneuvers. This Empowerment can be applied to separate facets of the puzzle box, i.e. each lock and each trap may be separately enhanced.

Cost: 10gp base cost plus 5gp per feature plus variable cost for each lock and trap.

TABLE 5.11 LOCK AND TRAPS COSTS AND TIMES		
Lock/Trap Difficulty	Cost (gp)	Time (days)
Routine	1gp	1 day
Easy	2gp	1 day
Light	5gp	2 days
Medium	10gp	3 days
Hard	20gp	5 days
Very Hard	40gp	7 days
Extremely Hard	80gp	10 days
Sheer Folly	240gp	2 weeks
Absurd	400gp	1 month

Time cost: 1 week plus 1 day per feature plus variable time cost for each lock and trap.

Pyramid Parachute

This is another da Vinci invention that has been proven to work. This is a hollowed-out pyramid of cloth or canvas stretched over a framework of pine poles. The pyramid is open at the bottom and at the top. The parachutist hangs suspended underneath by several ropes and can jump safely from any height. The only limitation is its bulk (21 feet across and deep) and rigidity. If *Enchant Device I* is used, a collapsible version of this parachute design is possible.

Cost (mundane version) 5gp. **Time:** 1 week.

Timepiece

This is a watch powered by winding up spring mechanisms once per day. These are pocket watches normally attached by a chain to the owner's clothing and carried in a pocket (not worn on the wrist). *Enchant Device I* may be used to remove the need for winding and as a foundation for other Empowerments to protect the watch.

Cost: 5gp (minimum, greater aesthetic qualities will cost much more). **Time:** 1 month.

5.5.2 MACHINES

Machine Automata and equivalent non-magical contrivances are usually too bulky or awkward to move easily. Many are built *in-situ* at the locations where they are intended to be used.

Automatic Theatre

These are the *theatrum mundi* as designed by Hero of Alexandria, Toscani, and Flockton (see Chapter 2). With potentially hundreds of miniature figures, clever designs may allow exhibitors to stage multiple plays and entertainments using the same theatre. Conversion into Automata will make these theatres easier to operate and permit more exciting special effects.

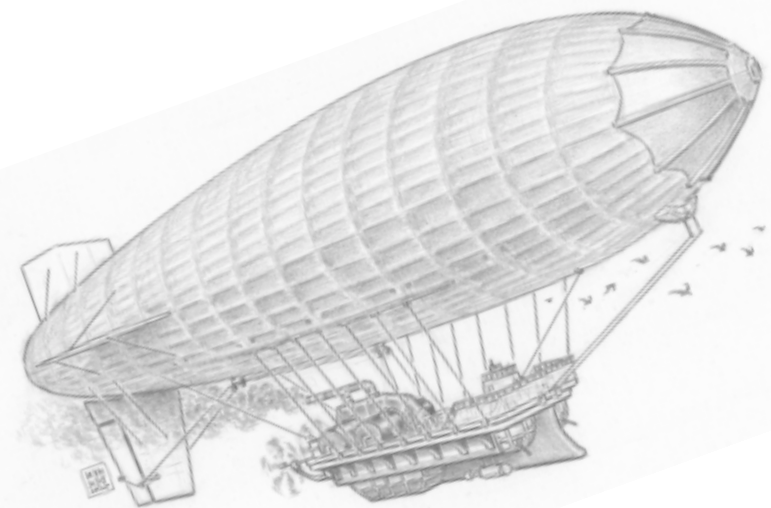
Cost: 100gp per square foot plus 10gp per figure. **Time:** 1 month per square foot plus 2 days per figure.

Calculation Engines

These are mechanical calculators, able to add, subtract, multiply, divide, and perform other mathematical functions such as taking square roots. Mathematicians such as Blaise Pascal and Gottfried Leibniz created the first such devices in 1642 and 1673 respectively. Typical calculation engines weighed 20 pounds, so are not easily portable. In the early 19th century, Charles Babbage designed his Difference and Analytical Engines, effectively mechanical computers able to perform calculations to 20 and 38 decimal places respectively and using punched cards for input. The Analytical Engine was beyond the mechanical engineering of his time – a 1991 implementation worked exactly to specification. Magical enchantment may be used to make Babbage's designs practical.

Mechanical Calculator: **Cost** 20gp. **Time:** 1 month.

Difference/Analytical Engine: **Cost:** 500gp. **Time:** 6 months.



Fabricator

This category of Automata covers all types of “industrial” machines including automatic looms, cotton gins, steam-powered forges and furnaces, lathes, printing presses, sawmills, “windmills”, and machines to make rope, draw wire, lift objects, drill holes, and so forth. Each Fabricator can only perform one specific task. Most of these will be steam-powered for maximum efficiency, requiring *Enchant Machine II* to replace their fuel needs. Steam-powered Fabricators require at least one sack of coal per hour of operation.

Cost: 25-50gp. **Time:** 2 to 4 weeks.

Giant and Advanced Weapons

This category covers improved designs for siege and support weapons. Four da Vinci designs are representative of this class: the compact catapult, the giant crossbow, the rapid firing crossbow, and the steam cannon.

The compact catapult has a ladder at the side front for reloading the cup, which is mounted on a tapered flexible arm. The arm is held under tension by a rope to a hand-operated windlass, which is used to adjust the range (by increasing or decreasing the tension).

The giant crossbow has a length of 75 feet plus and a bow of 80 feet from tip to tip, and is mounted on 3 pairs of wheels. Its hinged tailpiece can be driven into the ground to absorb the recoil. Although this design has been built, trials were unable to achieve any significant range – *Enchant Machine I* will be required to achieve the range of a standard heavy crossbow (multiplying damage by 10 for any unfortunate individual struck by a missile from the giant crossbow).

The rapid-firing crossbow is actually a treadmill with four crossbows (one per spoke) and an archer suspended inside it. The treadmill is turned by a number of men walking its outer rim (and shielded by a wooden mantlet); this motion also draws the crossbows. Up to four bolts may be fired per round. Magic can be used to replace the human power.

The steam-powered cannon is made from copper and propels an iron cannonball using steam instead of gunpowder. The cannon’s breech is built into a brazier containing burning coals, which heat the conductive copper to a high temperature. To fire the cannon, a small amount of water is released via a valve into a chamber behind the ball. The heat converts the water into steam, which drives the ball out. It is possible that Leonardo da Vinci had one of these constructed; certainly steam cannon saw action in the American Civil War. This weapon requires one sack of coal for each hour of operation.

Cost: catapult 50gp, crossbows 200gp, and steam cannon 250gp.

Time: catapult 1 week, crossbows 3 weeks, steam cannon 2 weeks.

Mechanical “Life”

This category includes all the decorative “automata” in human, animal, and landscape forms (as described in Chapter 2). Unlike genuine Constructs and Golems, these Automata are limited to a few prescribed movements or actions. Even mechanical songbirds and scribes (such as Jaquet-Droz’s Writer) are limited in what they can sing or write – changing their performances requires changing some of their mechanisms. These devices can all be made with clockwork mechanisms; magic may be employed to power them or expand their capabilities.

Cost: 100gp – 1000gp (or more) – depends on size, complexity, and ornateness.

Time: 1 month to 1 year according to quality and complexity.

Traps

Villains with a taste for fiendish death traps occasionally employ artificers to construct traps as Machine Automata. These range in size and deadliness from touch-activated spring-loaded needles through pressure-activated dart or spear throwers to “crushing” rooms where the doors automatically lock while the ceiling descends (or the walls move) to crush the occupants to a bloody pulp. Automata traps can be designed to reset under specific circumstances and can benefit from a variety of Empowerments.

In addition to the normal Engineering, Gimmickry, and Mechanition maneuvers, constructing a Trap Automaton requires a Trap Building maneuver to build the basic trap component of the Automaton. The difficulty level for this maneuver is equal to the corresponding desired difficulty level of the Disarm Traps maneuver.

Such Trap Automata can be made more difficult by adding redundant mechanisms (to obfuscate disarm attempts) and backup contraptions (to compensate for successful bypasses of the obvious sensors and machinery). Redundant mechanisms modify the Automaton Gimmickry and Mechanition maneuvers as well as Disarm Trap attempts by -5 each. Each backup system modifies the Automaton Gimmickry and Mechanition maneuvers by -10, but requires a separate Disarm Trap maneuver to neutralize. Successfully concealing the trap requires a Setting Traps maneuver (difficulty level as per the necessary Detect Traps maneuver to find it).

A variation of the *Fine Manipulation* Empowerment can be used to make Trap Automata harder to detect and disarm. The bonus (10, 20 or 30) becomes a penalty to the Detect Trap and Disarm Trap maneuvers. This Empowerment can be applied to each trap component of this Automaton type.

Cost: 20-100gp base cost (dependent on size) plus a variable cost for each trap component.

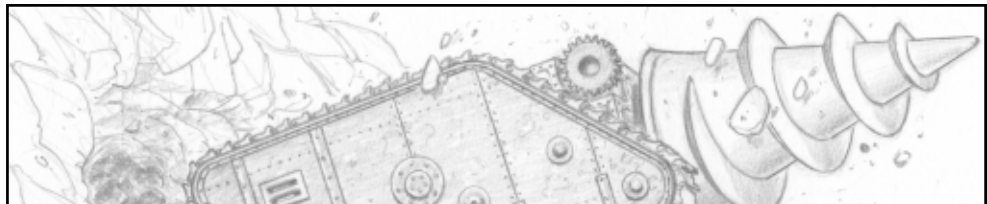


TABLE 5.12 TRAP AUTOMATA COSTS AND TIME

Trap Difficulty	Cost (gp)	Time (days)
Routine	2gp	1 day
Easy	4gp	2 days
Light	10gp	3 days
Medium	20gp	5 days
Hard	40gp	7 days
Very Hard	80gp	10 days
Extremely Hard	160gp	2 weeks
Sheer Folly	480gp	1 month
Absurd	800gp	2 months

Time cost: 1 week plus variable time cost for each trap component.

5.5.3 VEHICLES

Vehicle Automata are any mobile machines designed to transport passengers and/or cargo by land, sea, or air. They range in size from the clockwork *nefs* suitable for moving drinks and condiments down a table to enormous steam-powered Spider Walkers and Metal Leviathans towering over battlefields.

Airships and Balloons

The Montgolfier brothers, Joseph and Etienne, constructed the first hot-air balloons to carry passengers in 1783. A hydrogen-filled balloon reached an altitude of 9,000 feet with two passengers later that year. While tethered balloons were used for aerial observation during the Napoleonic Wars and aeronauts crossed the English Channel, the main problem with balloons is their inability to be steered.

Airship (or dirigible) designs attempted to correct this deficiency. Some used manually driven airscrews (8 men operated one airship with 15 total passengers); one single-person flyer used a bicycle to work an airscrew, while Henri Giffard built a one-man steam-powered dirigible in 1852. Giffard's aerial steamer had a 144'-long tapered balloon (40' diameter amidships) with the gondola holding engine, boiler, pilot, and controls suspended a safe 40' below the hydrogen-filled balloon.

All dirigible designs will have large balloons, ranging from a hundred to a thousand feet in length—the largest sizes will be capable of carrying 20 passengers (or equivalent cargo) in addition to their gondolas, engines, and fuel.

Filling the balloons with hydrogen in such quantities will involve dedicated Machine Automata to generate the gas. *Enchant Aerial Vehicle* should be required to make dirigibles airworthy. The explosive nature of hydrogen gas, if exposed to a flame, should encourage all artificers to invest in the most potent protective Empowerments. GMs might allow PC artificers to research safer gases such as helium to lift dirigibles.

Cost: 200gp (plus 25gp per 100' of balloon length).

Time: 12 weeks (plus 2 weeks per 100' of balloon length, plus any engine time cost).

Fuel costs: one sack of coal per person carried per twelve miles traveled.

Battlewagon

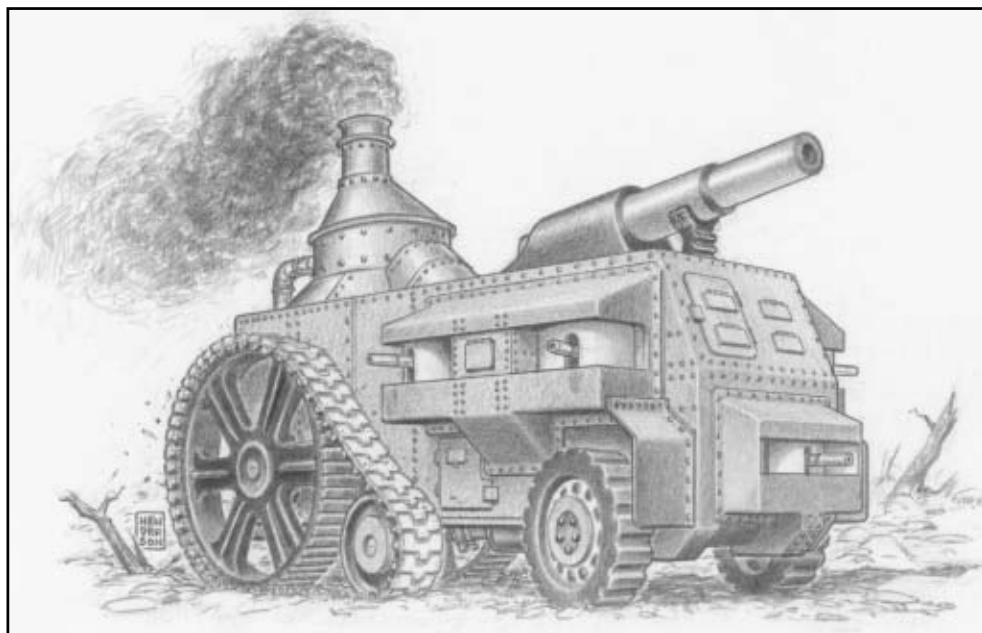
This is the medieval equivalent of a tank. Leonardo's design looked like a landbound flying saucer. Motion depended on the men inside being able to turn large cranks, attached to horizontal trundle wheels, which were geared to two pairs of driving wheels. The outer covering consisted of overlapping metal scales with a ring of holes nearer to the ground (for firing muskets or crossbows). Up to eight soldiers might fit into the cramped battlewagon with four employed propelling the vehicle. While the battlewagon will work without magic, its velocity is equivalent to a slow walk. *Enchant Land Vehicle* is essential to attain respectable speeds with only one soldier dedicated to "driving."

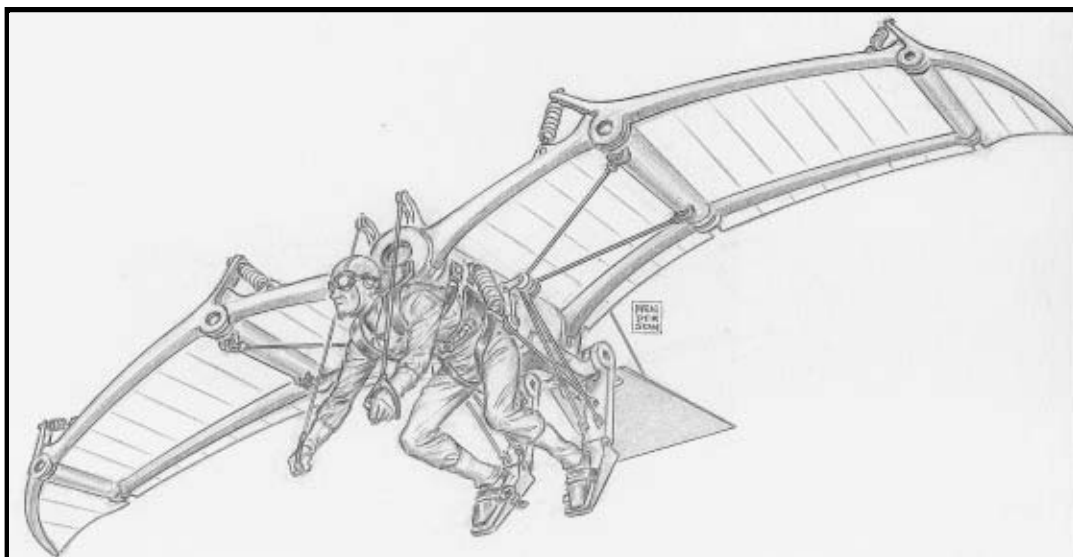
Cost: 100gp. **Time:** 4 weeks.

Clockwork Carriages

This category covers horse-less wagons, coaches, and chariots. Rather than being drawn by one or more horses, these clockwork vehicles are propelled by the energy stored in springs. They require *Enchant Land Vehicle* to be practical. The total number of passengers (including the driver) can vary from 2 to 6; likewise the maximum cargo may vary from 600 lbs. to 1200 lbs.

Cost: 20gp to 100gp. **Time:** 4 to 6 weeks.





Clockwork Galley

This category includes all types of surface clockwork marine vessels from small riverboats to large seagoing ships. Oar-driven craft require large crews who cannot maintain high speeds for long periods without becoming exhausted. Using *Enchant Marine Vehicle*, artificers can create clockwork craft, which only require a helmsman to steer them. Empowerments must be used to propel larger vessels and to attain higher speeds. Less traditional artificers may replace clockwork oars with a smaller number of crank-driven paddles.

TABLE 5.13 CLOCKWORK MARINE VESSELS

Boat (10') [4 persons/ 1000 lbs. cargo].
Cost: 20gp Time: 4 weeks.
Boat (20') [8 persons/ 4000 lbs. cargo].
Cost: 40gp Time: 8 weeks.
Longboat (30') [16 persons/ 7000 lbs. cargo].
Cost: 100gp Time: 10 weeks
Ship (small, 45') [19000 lbs. cargo].
Cost: 200gp Time: 20 weeks
Ship (medium, 60') [35000 lbs. cargo].
Cost: 450gp Time: 30 weeks.
Ship (large, 80') [55000 lbs. cargo].
Cost: 1500gp Time: 40 weeks

Clockwork Nef

As described in Chapter 2, these clockwork ornaments are toys to amuse the rich, and their cost owes more to ostentatious decoration than difficulty of construction. *Nefs* can be enchanted using *Enchant Land Vehicle* but they are fully functional without it.

Cost: 20gp – 100gp (or more) – depends on nature of decoration.

Time: 1 week to 1 month.

Juggernaut

This steam-powered vehicle resembles a steamroller with rows of 2" spikes on its roller. Smaller versions have room for three people on top: one driver and up to two people to stoke the engine and/or fight. Multiple "cabin" designs exist: some have fully enclosed cabins with only eye-slits and arrows-slits (treat as 90% cover); others have front-facing metal windshields and partial walls on the sides (50% cover). Juggernauts are designed to crush and destroy anything in their path – wood, stone, and people. Dodging an oncoming Juggernaut requires a Hard maneuver – failure will result in a +100 Huge Crush attack plus d6 "C" Puncture criticals. Requires *Enchant Land Vehicle* for magical boosting.

Cost: 200gp (add 100gp for each additional 3 passengers).

Time: 10 weeks (includes Watt engine) (add 2 weeks per additional 3 passengers carried).

Fuel costs: one sack of coal per ten miles traveled (plus one sack per additional set of 3 passengers).

Note: AT 20, 100 hits (add +25 to Crush attack and hits for each size increase).

Metal Leviathan

This steam-powered behemoth is at least 30' long, 10' wide, and 10' high, and fully enclosed in steel armor. It is armed with at least two self-loading ballista (treat as large crossbows attacking on Heavy Crossbow Table with 3x range and 3x damage) or steam cannons on rotating mounts giving at least 180 degree firing arcs. A large Watt engine drives its four pairs of wheels. Magic (*Enchant Land Vehicle*) makes this monster viable. Crewed by one driver, one stoker, and one gunner per weapon, it can also transport up to 20 soldiers. Entry and exit is via hinged hatches on the sides.

Cost: 1000gp plus 200gp per ballista.

Time: 30 weeks (including large Watt engine) plus 4 weeks per ballista.

Fuel costs: two sacks of coal per mile traveled.

Ornithopters

In contrast to the hang-glider designs of Leonardo da Vinci, which have been demonstrated to work, his ornithopters will not work without magic (i.e. *Enchant Aerial Vehicle*). (However gliders are at the mercy of prevailing wind conditions.) In the single-person clockwork vehicles, the pilot operates one or two pairs of large wings (via connections to his arms and/or legs) while he is suspended in a prone position in a harness. More “advanced” (i.e. even more impractical) designs allow the pilot to stand upright in a bowl-shaped aircraft while operating wings attached to a central tower-like structure.

Toy “helicopters” have been known since around 1320 – these featured rotors based on windmill sails and could be made to go airborne by pulling sharply on a cord wrapped around the shaft. Leonardo sketched a larger vehicle in the shape of a disc with a central shaft connected to a large helical screw. *Enchant Aerial Vehicle* is essential to make people-carrying versions of these vehicles practical.

Cost: Ornithopter (1-person) 25gp. **Time:** 2 weeks.

Cost: Ornithopter (2-person, “helicopter”) 50gp.
Time: 4 weeks.

Skyrider

These aerial vehicles are normally clockwork, but steam-powered designs have been implemented. In shape, these appear as huge metallic birds, bats, or dragons, according to the artificer’s whim, which fly through the air by beating their wings. The Skyrider cabin can hold one pilot and up to 5 passengers. They require *Enchant Aerial Vehicle* to be capable of flying. Offensive and *Improved Propulsion* Empowerments are frequently added.

Cost: 1000gp. **Time:** 12 weeks.

Spider Walker

This steam-powered vehicle might be mistaken for a huge Spider Construct. A typical Spider Walker is 30' long, 20' wide, and 25' high – including its legs. The control room is in the head and can accommodate two people. A further six passengers may fit in a chamber in its abdomen, accessible via hatches on both underside and above. The engine room is also in the abdomen. Some Spider Walkers are equipped with self-loading ballistae (large crossbows attacking on Heavy Crossbow Table with 3x range and 3x damage) – these are either Empowerments added to the basic design or independent Machine Automata bolted on afterwards. Used for battlefield command, exploration, or secure transport, these all-terrain vehicles require *Enchant Exotic Vehicle* to function. Other steam-powered vehicles have been designed with huge animal or monster forms.

Cost: 1000gp (basic version) plus 200gp per ballista.

Time: 20 weeks (including large Watt engine) plus 4 weeks per ballista

Fuel costs: one sack of coal per two miles traveled.

Note: AT 20, 200 hits; 50 hits delivered to one leg will down a Spider Walker.

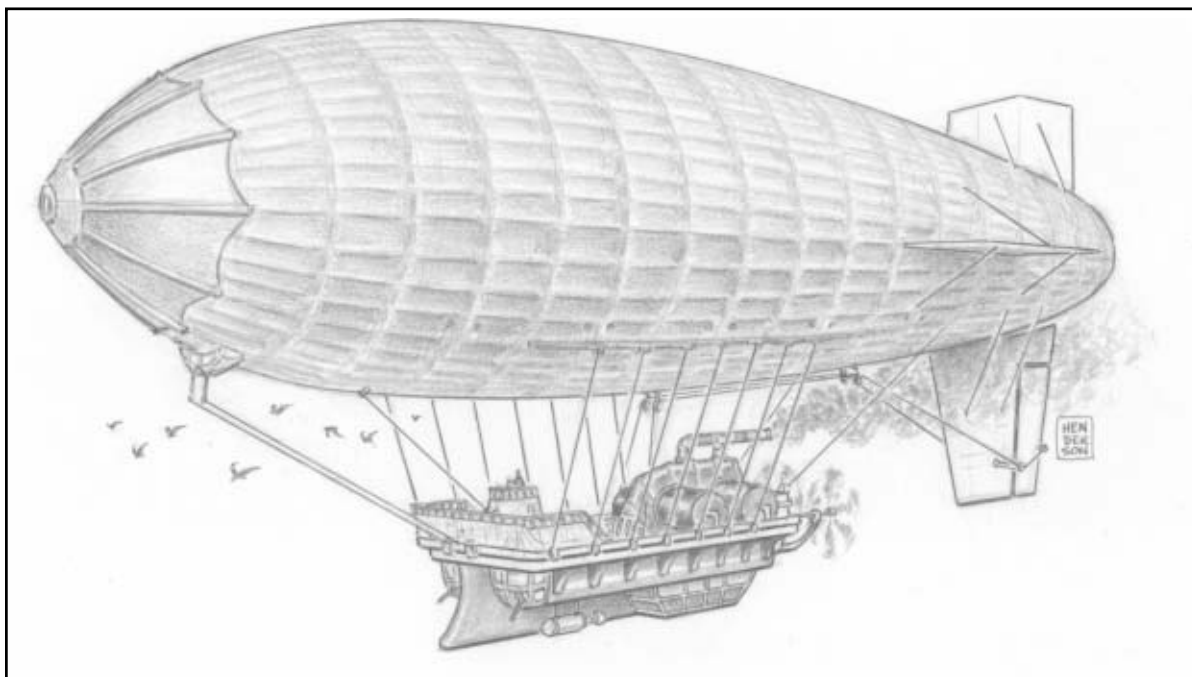
Steam Carriages

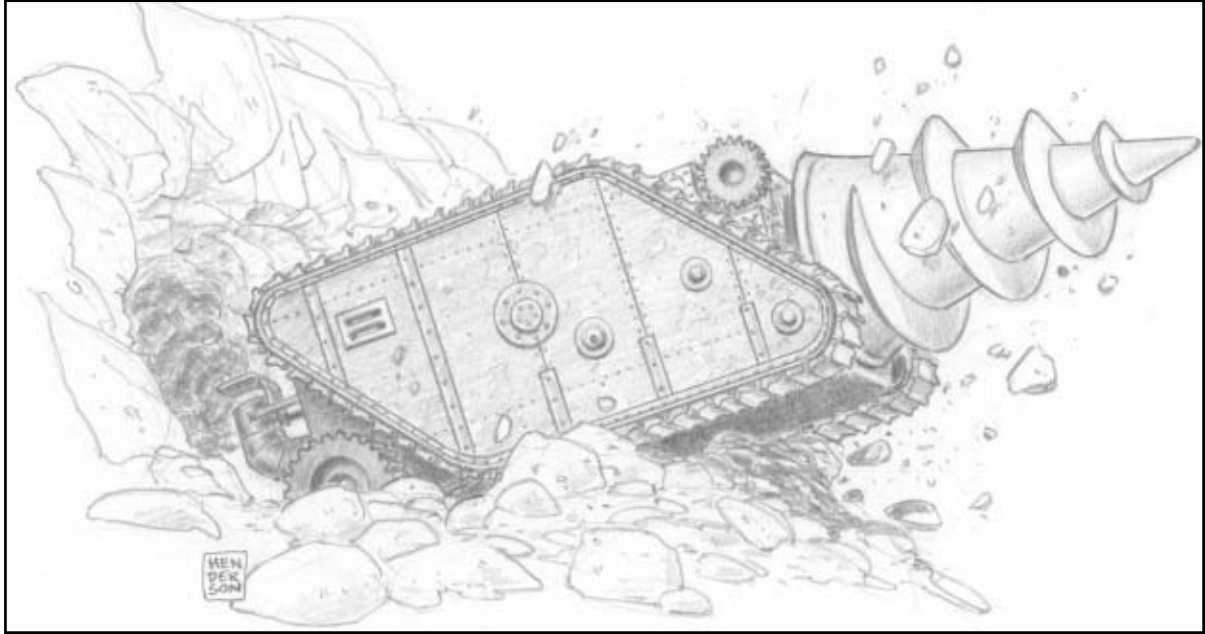
These temperamental steam-powered vehicles range from the one-person steam tricycle through 4-person steam coaches (including driver and stoker) to locomotive coaches with one driver on a separate steamcar towing a passenger coach (with a dozen people onboard). All of these vehicles actually worked — achieving speeds of between 5 and 12 mph on good roads.

Tricycle: **Cost:** 125gp. **Time:** 4 weeks. **Fuel:** 1 sack of coal per twenty miles.

Steam coach: **Cost:** 150gp. **Time:** 6 weeks. **Fuel:** 1 sack of coal per ten miles.

Locomotive coach: **Cost:** 200gp. **Time:** 8 weeks.
Fuel: 1 sack of coal per five miles.





Steam Tunneler

This fully enclosed steam-driven wheeled vehicle is designed for underground exploration. Equipped with a large powerful drill (high quality steel or diamond-tipped), the Tunneler can burrow its way even through solid rock. The Tunneler requires *Enchant Exotic Vehicle* to work and is normally enhanced with defensive Empowerments.

Cost: 500gp. **Time:** 12 weeks. **Fuel:** 1 sack of coal per 2 miles traveled.

Steamship

These may either be paddleboat steamers (where the engine drives two large paddle wheels – one on each side of the ship) or propeller-driven. Traditional sails may be retained for emergency use or to conserve fuel. Steam-powered vessels must be of ship size to accommodate the engines and fuel supplies.

TABLE 5.14: STEAMSHIP STATISTICS

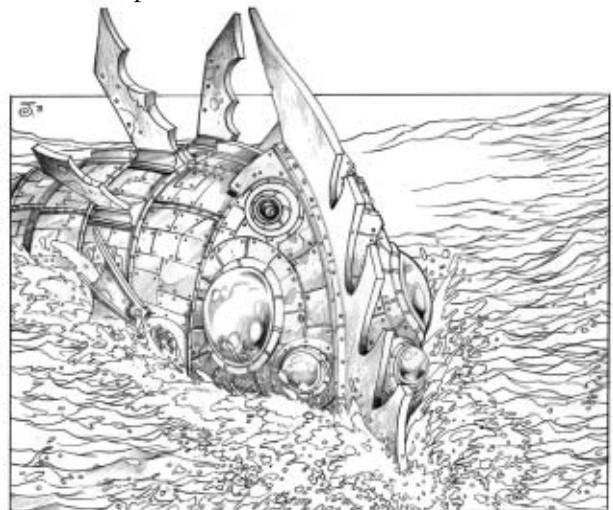
Steamship (small, 45') [19000 lbs. cargo].
Cost: 300gp.
Time: 30 weeks.
Fuel: 1 sack per mile.
Steamship (medium, 60') [35000 lbs. cargo].
Cost: 700gp.
Time: 45 weeks.
Fuel: 2 sacks per mile.
Steamship (large, 80') [55000 lbs. cargo].
Cost: 2500gp.
Time: 60 weeks.
Fuel: 3 sacks per mile.

Submarines

A hand-cranked single-person American submersible supposedly attacked a British warship during the American War of Independence. The inventor Robert Fulton demonstrated a marginally successful submarine design in the early 1800s. This 20'-long and 5' wide craft had a collapsible mast and sail for surface travel, a hand-cranked propeller for underwater travel, a spike for ramming charges into enemy vessels, and enough air for four men and two candles for three hours. In the 19th-century, some submarine designs used steam engines to drive their propellers. With a crew of three to six, a typical submarine of this era might be 60' long and 10' wide. *Enchant Underwater Vehicle* is essential to make any of these designs work safely – and other Empowerments such as Purification and Pressure should be considered.

Submarine (clockwork). **Cost:** 200gp. **Time:** 10 weeks.

Submarine (steam) **Cost:** 400gp. **Time:** 20 weeks.
Fuel: 1 sack per 3 miles traveled.



Creating Golems and Constructs

Golems and constructs represent different solutions to the quest for the artificial being. In many respects, however, their similarities outweigh their differences, and so this chapter will discuss the creation of both. Where the term Entity is used, this refers to both Golems and Constructs.

6.1

THE CREATIVE PROCESS

For even the most ambitious creator, rational calculation and careful planning should precede any attempt to build either a golem or a construct. Artificial entities are expensive to make and perilous to all around them if there is the slightest weakness in their construction. The wise will research scholarly treatises on anatomy and engineering as well as dusty grimoires on the more esoteric magical arts. The successes of the past will fire the imagination – whether tragic failures will be heeded is a very different matter.

With any necessary research completed, the creator can now make the key design decisions of the form, shape, size and intrinsic powers of his creation. True scholars will fill notebooks with sketches and calculations, perhaps writing in personal codes to baffle posterity. Others will scribble their jottings on scraps of parchment.

The next step is to actually build the entity. This will involve the laborious working of frequently expensive materials as the entity takes shape and form over a prolonged period. As well as the physical crafting, the creator will need to cast a selection of spells to enchant the lifeless matter – these spells must be cast on each and every day of the construction process if the entity is to come to “life”. These spells will give the caster the ability to potentially make any golem or construct. However, the entity will *not* be a work of art – a creator who wants a construct, which actually looks like the real beast that it is supposed to be imitating needs to learn the appropriate crafting skills. Alternatively the artistically challenged mage can employ professional craftsmen and sculptors to undertake the physical manufacturing. Any mechanical contraptions must be installed and any intrinsic magical abilities must be imbedded during the construction phase.

Finally the construction will be finished – once the final day’s set of creation spells have been cast, the magical matrices will be complete and the entity will lurch into sudden life, awaiting the first commands of its creator and master.

For some alchemists, this is the culmination of the process. For others, more learned in the arts, this is the point when they summon elementals, demons, or spirits, and bind fragments of these beings’ souls into the golem or construct, increasing the entity’s intelligence and imbuing it with further magical powers. (See chapter 7 for more details.)

6.1.1 DESIGNING A GOLEM OR CONSTRUCT

The procedure for designing an Entity is relatively straightforward and requires the creator to make a series of design decisions covering each aspect of the Golem or Construct. The order of these decisions differs between Golems and Constructs. In game mechanics, the procedure will determine not only which spells from the *Golem Mastery* and *Golem Magic* or *Construct Mastery* and *Construct Magic* spell lists are needed to make the Entity, but also specify its “creation level” and all its associated stats. The “creation level” of an Entity determines how long it will take to build it and is a key factor in how much it will cost to make. For a Construct, it also determines which of the *Construct N* spells is required to make the Construct.

Example: A 1st-level Construct requires the Construct I spell. A 4th-level Construct requires access to the Construct V spell.

The “creation level” of an Entity is **not** the same as the encounter level used to calculate the number of experience points earned by an opponent who defeats the Entity.

6.1.2 INITIAL DESIGN STEPS FOR GOLEMS

Step 1: Material

Which material will be used to make the Golem? This choice is crucial for Golems as the material determines the basic stats and the cost of the entity. Some materials imbue the Golem with special benefits such as immunity to certain criticals; others have intrinsic weaknesses such as making the Golem more susceptible to specific attack types. This choice also determines the base creation level of the Golem and the basic creation spell needed to make any Golem of this type. More exotic materials require higher-level spells.

Step 2: Shape

What form will the Golem take? Will it be a humanoid or a beast Golem? Will the Golem imitate a more unusual form such as a demon? Will the Golem be an accurate reflection of its real-life equivalent? Or will it instead have more or fewer limbs and other body parts? A two-headed humanoid Golem is more difficult to make than a normal humanoid, but just a head is easier than either.

Step 3: Size

How big will the Golem be? The size of the golem will determine the volume of material needed to make it (and hence the cost). Smaller golems are easier to build than

larger ones. Size will also affect the entity's Offensive Bonuses.

For later steps involved in creating Golems, please see section 6.1.4.

6.1.3 INITIAL DESIGN STEPS FOR CONSTRUCTS

Step 1: Shape

What form will the Construct take? The nature of a Construct provides it with greater flexibility in the movement of its various body parts. Conversely this demands greater skill and more potent enchantments from the creator to enable the Construct to move as gracefully as the living creature it imitates. Creators can choose to fashion humanoid, beast or weirder forms. The more esoteric the form, the more difficult it will be to make. This choice sets the base creation level of the Construct.

Step 2: Material

Which material will be used to make the Construct? All Constructs are made from metals and/or alloys with gemstones used for eyes. The choice of material will determine the cost of the Construct and modify its creation level. Superior alloys and magical metals will provide specific bonuses to the entity, such as increasing particular stats.

Step 3: Size

How big will the Construct be? The size will determine the volume of material needed to make it (and hence the cost). Smaller Constructs are easier to build than larger ones. Size in conjunction with shape will determine the Construct's initial stats.

For later steps involved in creating Golems, please see section 6.1.4.

6.1.4 REMAINING DESIGN STEPS

Step 4: Modifications

Is the Entity to be stronger or weaker than the average specimen of its material, shape, and size? Creators can choose to fashion faster, tougher, or deadlier entities than the norm, raising the Entity's effective creation level. Alternatively they may create a weaker Entity (and reduce its creation level).

Omit Step 5 for Golems.

Step 5: Mechanical Abilities.

Is the Construct to possess any inherent mechanical devices? This includes such contraptions as chest-mounted crossbows, poison reservoirs, suction cups for climbing, and so on. Golems may **not** have mechanical abilities.

Step 6: Magical Abilities

Is the Entity to possess magical abilities? If so, will these abilities use charges or will they be daily or as constant powers? Adding such powers to an Entity will increase its creation level and require the creator to have access to the *Golem Magic* or *Construct Magic* spell lists.

Step 7: Glyph of Control

Does the creator wish to inscribe or etch a *Glyph of Control* onto the Entity? The advantages of this spell are that the Entity cannot be possessed by a spirit without its creator's permission and it will be forever obedient to its master. The disadvantage is that if the physical glyph is defaced, then the Entity will either be deanimated or will malfunction.

Formula for Golem Creation Level

Golem Creation Level
= ((base level from materials **plus** shape modifier)
times Size modifier)
plus any modifiers from statistics modifiers
plus for each charged power: ((level of the imbedded spell) x 0.5)
plus for each daily power: ((level of the imbedded spell) x 0.75)
plus for each constant power: ((level of the imbedded spell) x 1).

Formula for Construct Creation Level

Construct Creation Level
= ((base level from shape **plus** materials modifier)
times Size modifier)
plus any modifiers from statistics modifiers
plus +1 for each mechanical ability
plus for each charged power: ((level of the imbedded spell) x 0.5)
plus for each daily power: ((level of the imbedded spell) x 0.75)
plus for each constant power: ((level of the imbedded spell) x 1).

Encounter Level versus Creation Level

For Tiny or Small Entities, the encounter level equals creation level divided by 5.

For Medium Entities, the encounter level equals creation level divided by 4.

For Large Entities, the encounter level equals creation level divided by 3.

For Huge Entities, the encounter level equals the creation level divided by 2.

Round up any fractional levels.



6.2 MAKING A BASIC GOLEM

Let us now examine the steps 1 to 3 in creating a Golem in greater detail.

6.2.1 MATERIAL

Which material will be used to make the Golem? Many materials are possible substances for golem creation – the list below is intended to be comprehensive but not exclusive. GMs may add their own materials to the list using the ones provided as a guide. The material chosen determines the Golem's base creation level and the spell from the *Golem Mastery* spell list required to fashion an entity from it (see Table 6.1). It will affect its eventual Armor Type, Defensive Bonus, concussion hits and other stats (see Table 6.2).

Each type of Golem (listed in alphabetical order) has particular strengths and/or weaknesses as follows.

Adamantine Golems are incredibly expensive to construct, but gain all the benefits of adamantium (a +20 material bonus metal) in terms of its lightness, resilience, and durability. Moreover, any weapon striking an Adamantine Golem has its Breakage Number raised by 4.

Bone Golems are made from a fusion of the skeletons of one or more corpses. They are immune to Puncture criticals. Undead spirits will seek to possess a Bone Golem as soon as it is created, using it as a vehicle to attack the living. Only necromancers or liches create Bone Golems.

Brass Golems are naturally fast, but lack durability. In construction terms, this equates to all Tiny and Small Brass Golems having an automatic Speed of Dash (no level cost), and all Medium or larger Brass Golems having an automatic Speed of Fast Sprint and a +50' bonus to their Base Movement Rate (no level cost).

Bronze Golems can be fashioned easily and with minimal expense. Bronze can also be readily engraved and, if cast in a mold, will faithfully reproduce any details of the mold.

Clay Golems are relatively inexpensive to make in terms of materials, requiring only a source of suitable earth or mud. They ignore all Crush criticals.

Copper Golems ignore all electricity-based attacks, harmlessly conducting the energies involved to earth.

Crystal Golems are immune to magical bolts and balls, reflecting such energy attacks back at their caster as +0 Bolt attack. Weapons striking a Crystal Golem have their Breakage Numbers increased by 2.

Diamond Golems are immune to magical bolts and balls. Their multi-faceted nature enables them to reflect such energy attacks back at their casters as +20 Bolt attacks. Weapons striking Diamond Golems have their Breakage Numbers increased by 5.

Emerald Golems are immune to magical bolts and balls, reflecting such energy attacks back at their caster as +20 Bolt attacks (if light-based) and +0 Bolt attacks if otherwise. Weapons striking an Emerald Golem have their Breakage Numbers increased by 2.

Eog Golems are exceptionally resilient to damage. Any weapon striking an Eog Golem has its Breakage Number increased by 5. Eog is a dense metal with a +30 material bonus. Eog Golems cannot fly or swim even with magical assistance – they are simply too heavy.

Gold Golems are very expensive to create. Gold Golems benefit from the malleability of gold as their creators can fashion highly stylized forms with enhanced maneuverability (+10 Moving Maneuver bonus and a Moderately Fast Attack Quickness for free). Creators may also imbue one Charged or Daily Power (see below) in a Gold Golem without raising its creation level. The disadvantages of Gold Golems stem from the malleability and relative softness of gold – it will not hold an edge rendering it impossible to equip Beast Silver Golems with natural weapon attacks. Even Humanoid Gold Golems suffer significant penalties to their Bash and Grapple attacks.

Ice Golems are usually only created in frigid climates where snow and ice is plentiful. Ice Golems are immune to Cold criticals but take double damage from all heat and fire-based attacks.

Illinar Golems are fashioned from illinar, a rare form of enchanted ice that never melts (with a +20 material bonus). Illinar Golems are immune to Cold criticals. They also deliver an extra Cold critical of equal severity to their primary critical on any successful melee attack.

Iron Golems increase the Breakage Numbers of any weapon striking them by 2. They are prone to rust if exposed to inclement weather or wet conditions for prolonged periods (losing 10 hits for each such month) without proper maintenance.

Laen Golems are incredibly expensive to construct, but gain all the benefits of laen (a magical volcanic glass with a +25 material bonus). Golems may be made from smoky or white laen, or from the rarer varieties of red, blue, green, or silver laen. Golems fashioned from red laen are immune to all heat and fire-based damage; blue Laen Golems are immune to all cold-based damage. Green Laen Golems receive a +50 bonus to all Resistance Rolls versus magic but may have magical abilities imbedded within them. A Silver Laen Golem may receive a single Charged, Daily or Constant Power during creation without raising its level. Moreover, any weapon striking a Laen Golem has its Breakage Number raised by 4.

Lead Golems are inexpensive to create and have an innate +10 bonus to all Resistance Rolls and are immune to Crush criticals. The high density of lead limits the size of Lead Golems to Tiny and Small – larger golems

collapse under their own weight during the fabrication process. Lead Golems cannot fly or swim even with magical assistance. Lead will also not hold an edge, so it is not possible to equip Lead Golems in beast form with natural weapon attacks.

Ruby Golems are immune to magical bolts and balls, reflecting such energy attacks back at their caster as +20 Bolt attacks (if fire-based) and +0 Bolt attacks (if otherwise). Weapons striking a Ruby Golem have their Breakage Numbers increased by 2.

Sapphire Golems are immune to magical bolts and balls, reflecting such energy attacks back at their caster as +20 Bolt attacks (if water or ice-based) and +0 Bolt attacks if otherwise. Weapons striking a Sapphire Golem have their Breakage Numbers increased by 2.

Silver Golems are expensive to create. Malignant or evil spirits cannot possess Silver Golems. Creators may also imbed one Charged Power (see below) in a Silver Golem without raising its creation level. The disadvantages of Silver Golems stem from the malleability and relative softness of silver – it will not hold an edge rendering it impossible to equip Beast Silver Golems with natural weapon attacks. Even Humanoid Silver Golems suffer significant penalties to their Bash and Grapple attacks.

Steel Golems increase the Breakage Numbers of any weapon striking them by 3. Steel Golems fashioned from higher-quality steels are possible, but more expensive. Golems made of “Steel II” (+10 material), “Steel III” (+15 material), or “Steel IV” (+20 material) receive +5, +10, or +15 bonuses to all OBs and DB respectively.

Stone Golems are the favored artificial creations of mountain cultures, ranging from roughly hewn granite giants to exquisitely sculpted marble statues. Any weapon striking a Stone Golem will have its Breakage Number increased by 1.

Tar Golems ignore all Crush criticals. Furthermore any weapon will adhere to its body if it fails to deliver a critical, and its erstwhile owner must make a Strength-based maneuver (roll d100 open-ended and add three times his Strength bonus) to wrest it free (on a result of 100 or more). Beast Tar Golems cannot have natural weapon attack types that require an edge.

Water Golems are extremely difficult to fashion owing to their liquid nature – the water must be contained within a sealed tank of an appropriate shape and size for the entire duration of the creative process. They are ineffectual combatants, unable to melee opponents. Their only offensive capability is their water breath which they can use once per minute and up to 50 times per day. They are useful at propelling becalmed boats and ships,

moving vessels at up to the Golem’s Base Movement Rate each round. The larger the Water Golem, the larger the vessel it can propel. As a rule of thumb, a Water Golem can propel a normally laden craft of length up to twice the Golem’s height at the Golem’s base movement rate, i.e. a 6’ tall Golem could move a 12’-long rowing boat, a 24’-long boat at half-speed, and so on. Note that owing to the Water Golem’s liquid nature, it is not possible to restrain them with a Glyph of Control.

Wood Golems are inexpensive to make as they can be carved from any suitably sized tree trunk. They take double damage from all fire-based attacks.

TABLE 6.1 MATERIAL CREATION LEVELS AND REQUIRED GOLEM CREATION SPELLS

Creation Level	Material	Creation Spell
2	Wood	Wood Golem
4	Ice	Ice Golem
5	Tar	Organic Golem
5	Water	Ice Golem
6	Clay	Organic Golem
7	Stone	Stone Golem
8	Copper	Metal Golem I
8	Lead	Metal Golem I
9	Brass	Metal Golem II
9	Bronze	Metal Golem II
10	Silver	Metal Golem I
12	Crystal	Crystal Golem
12	Gold	Metal Golem I
12	Iron	Iron Golem
13	Bone	Organic Golem
13	Steel	Steel Golem
14	Steel II	Steel Golem
15	Emerald	Gemstone Golem
15	Ruby	Gemstone Golem
15	Sapphire	Gemstone Golem
15	Steel III	Steel Golem
16	Steel IV	Steel Golem
18	Illinar	Golem True
20	Adamantium	Golem True
20	Diamond	Diamond Golem
25	Eog	Golem True
25	Laen	Golem True

Note: Golems have substantially higher Defensive Bonuses for most materials than a human would receive for wearing a full suit of armor of those materials. The explanation is simple – Golems are completely solid figures of these materials.



TABLE 6.2 MATERIALS VERSUS ARMOR TYPES, DEFENSIVE BONUS, AND OFFENSIVE BONUS

Material	AT	DB	Bash	Grapple	Crush	Other Attacks
Adamantium	20	+45	+25	+25	+25	+25
Bone	12	+20	-20	-10	-20	-20
Brass	20	+0	+0	+0	+0	+0
Bronze	20	+0	+0	+0	+0	+0
Clay	3	+10	-20	-10	-20	-20
Copper	20	+0	+0	+0	+0	+0
Crystal	20	+30	+5	+0	+5	+5
Diamond	20	+50	+20	+0	+20	+20
Emerald	20	+40	+10	+0	+10	+10
Eog	20	+50	+30	+30	+30	+30
Gold	16	+0	-20	-20	-20	N/A
Ice	12	+10	+0	+0	+0	+0
Illinar	12	+20	+20	+20	+20	+20
Iron	20	+20	+0	+0	+0	+0
Laen	20	+40	+25	+25	+25	+25
Lead	16	+0	-20	-20	-20	N/A
Ruby	20	+40	+10	+0	+10	+10
Sapphire	20	+40	+10	+0	+10	+10
Silver	16	+0	-20	-20	-20	N/A
Steel	20	+30	+5	+5	+5	+5
Steel II	20	+35	+10	+10	+10	+10
Steel III	20	+40	+15	+15	+15	+15
Steel IV	20	+45	+20	+20	+20	+20
Stone	16	+10	+0	-20	+0	-30
Tar	3	+10	+0	+10	-10	-10
Water	2	+10	N/A	N/A	N/A	N/A
Wood	3	+10	+15	+0	+0	+0



TABLE 6.3 MATERIALS AND SIZE VERSUS CONCUSSION HITS

Material	Tiny	Small	Medium	Large	Huge
Adamantium	100	200	400	800	1200
Bone	30	60	120	240	360
Brass	30	60	120	240	360
Bronze	35	75	150	300	450
Clay	30	60	120	240	360
Copper	30	60	125	250	375
Crystal	55	110	225	450	675
Diamond	125	250	500	1000	1500
Emerald	75	150	300	600	900
Egg	125	250	500	1000	1500
Gold	20	40	80	160	240
Ice	25	50	100	200	300
Illinar	40	80	160	320	480
Iron	50	100	200	400	600
Laen	125	250	500	1000	1500
Lead	60	120	N/A	N/A	N/A
Ruby	75	150	300	600	900
Sapphire	75	150	300	600	900
Silver	20	40	80	160	240
Steel	60	125	250	500	750
Steel II	60	125	250	500	750
Steel III	60	125	250	500	750
Steel IV	60	125	250	500	750
Stone	45	90	180	360	540
Tar	30	65	130	260	390
Water	25	50	100	200	300
Wood	20	40	80	160	240

Note: The listed concussion hits are relatively conservative rather than generous. The assumption is that the magic animating a Golem is unable to convert more than a fraction of the material's compositional hardness into concussion hits.

6.2.2 SHAPE

What form will the Golem take? Humanoid Golems are the commonplace creations of traditionalist creators. For the average alchemist, the humanoid form is the easiest to sculpt and animate because it is his own form. A superficial knowledge of anatomy is adequate to fashion a humanoid entity, which will be capable of motion once enchanted. In contrast, creatures with extra limbs (such as winged humanoids) or different limb arrangements (quadrupeds with their four legs, birds, fish) are less well understood. Much harder to imitate are fantastic beasts, demons, and extra-planar beings – few examples of these find their way to the dissecting table and even then, magic and the physical laws of alternate realities so influence their physiognomy that simulating them is no trivial matter.

Some creators may seek to “improve” on nature’s handiwork, by adding limbs and other appendages to a particular form. In game mechanics terms, this increases the entity’s creation level, as the mage must balance the additions to the original shape. Extra limbs may provide

new methods of locomotion, greater stability or extra attacks. A cautious enchanter might remove limbs from a form – this will reduce the entity’s creation level marginally. A humanoid Golem without arms cannot attack its opponents; likewise one without legs cannot move itself.

Shape also decides the nature of the attacks available to a Golem. Humanoid Golems are normally limited to Bash attacks with their mighty fists, or Grapple and Crush attacks with their arms. Animal and monstrous Golems imitate their organic counterparts with sculpted claws, talons, horns, and so forth.

The creation level modifiers for various categories of Golems are given below.

Shape Modifiers

Humanoids:

Normal humanoids (one head, torso, two arms, and two legs): +0

Unusual humanoids (e.g. centaurs, avians, merfolk): +1



Animals:
Insects, arachnids, and crustaceans: +2
Fish: +2
Birds: +2
Mammals: +1 (Add another +1 if aquatic or winged, +2 if both)
Reptiles: +1 (Add another +1 if aquatic or winged, +2 if both)
Amphibians: +2 (Add another +1 if winged)

Exotic creatures:

Monsters: +4
Undead: +5
Demons and extra-planar beings: +5
Add +1 if the creature has wings.
Add +1 if the creature is aquatic.
Add +1 if the creature is insectoid in form.
Add +1 if the creature has any magical abilities.

Variants:

Add +1 for each extra limb.
Add +1 for each extra tail.
Add +2 for each extra pair of limbs (extra 2 arms, 2 legs, 2 wings, etc.).
Add +1 for extra head.
Reduce entity creation level by 1 for having no legs (if the form normally has legs).
Reduce entity creation level by 1 for having no arms (if the form normally has arms).

Note: The entity creation level may not be reduced below 1 as a result of this step.

Note: An extra leg or tail provides greater stability to the entity. This translates to a chance of

negating critical results where the Golem would otherwise be knocked down. This negation chance is 20% per extra leg or tail – i.e. a golem with two extra legs would negate an unbalancing result on a roll of 01-40 on percentile dice.

Note: Dependent on position, an extra head can widen the entity's field of view, making it more difficult to achieve surprise against the Golem. Extra heads do not entail extra intelligence – that is provided by the magic rather than the non-existent brains of the entity.

Example: An alchemist wants to create a Golem capable of spying on his foes. He decides to create a Clay Golem in the shape of a winged goblin. A Clay Golem has an initial creation level of 6. Goblins are humanoid forms, so the creation level is not increased. However the alchemist wants the Golem to be winged, so this is a variant form, adding +2 to the Golem's creation level, making it 8.

Example: A magician seeks to emulate Albertus Magnus by creating a brass man. A Brass Golem has a base creation level of 9. The form is completely humanoid (+0) so the creation level remains 9.

Example: An enchantress wants an artificial wolf to patrol her estate at night. She decides to fashion it from iron. An Iron Golem has a base creation level of 12. Wolves are mammals, adding +1 to its level, making the new creation level 13.

6.2.3 SIZE

How big will the Golem be? The golem's size directly determines how much material (and thus the material cost) is required to fashion it (see Table 6.18). Smaller golems are easier to make than larger ones, but the ease of handling the being is partially offset by the greater precision required in manufacture.

In mechanics terms, the Golem's intended Size multiplies the base creation level (material and shape) as follows.

Tiny (up to 1' tall): $\times 1/2$

Small (up to 3' tall): $\times 3/4$

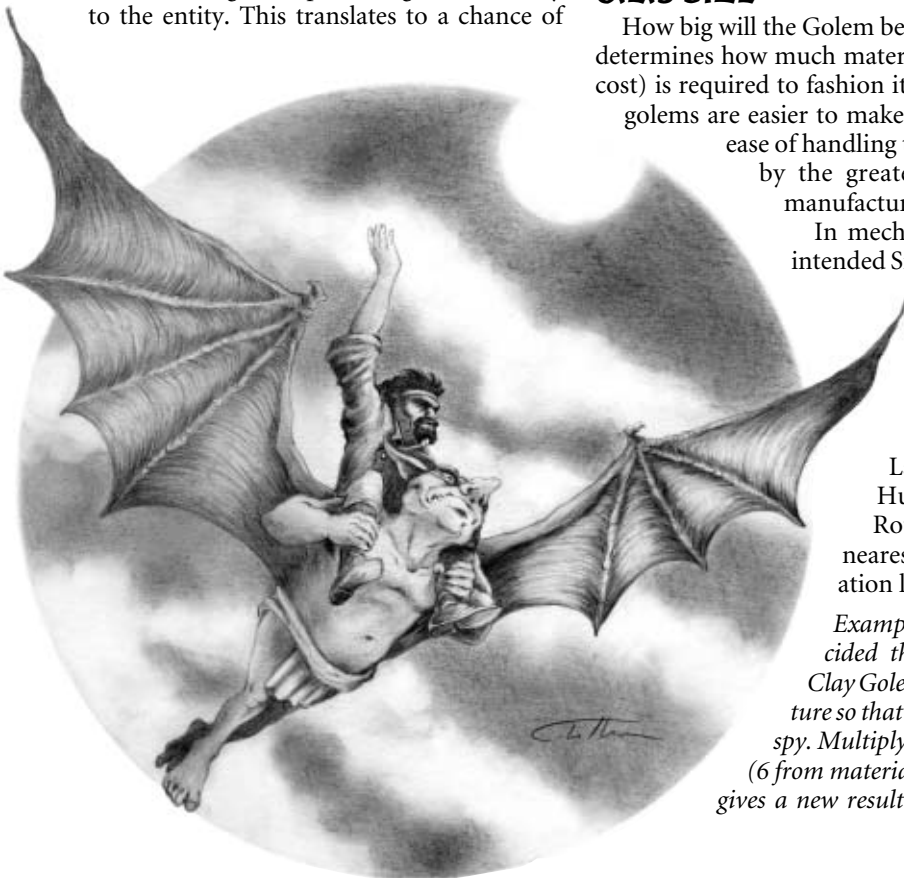
Medium (up to 6' tall): $\times 1$

Large (up to 12' tall): $\times 1.5$

Huge (more than 12' tall): $\times 2$

Round up the result to the nearest level. The minimum creation level for any Golem is 1.

Example: The alchemist has decided that his Winged Goblin Clay Golem should be a Tiny creature so that it can be a more effective spy. Multiplying its creation level of 8 (6 from material +2 from shape) by $1/2$ gives a new result of 4. Its basic statistics



from the tables are as follows: AT 3, DB 10, and 30 concussion hits. It won't be able to survive long in any fight.

Example: The magician creating the Brass Golem decides that it should be of Medium size, so its creation level remains unchanged at 9. Its basic statistics are as follows: AT 20, DB 0, and 120 concussion hits.

Example: The enchantress wants her Iron Wolf Golem to be big enough to deter or defeat most intruders, so she chooses to make it Large in size. Its original creation level was 13, multiplying by 1.5 for Large, gives 19.5, which rounded up is 20. It has the following statistics: AT 20, DB +20, and a hefty 400 concussion hits.

For steps 4 to 7, please see section 6.4.

6.3 MAKING A BASIC CONSTRUCT

Let us now examine the steps 1 to 3 in creating a Construct in greater detail.



6.3.1 SHAPE

What form will the Construct take? As with Golems, Humanoid Constructs are the easiest to fashion and the most frequently created. For the average alchemist, such forms are the easiest to render and animate. However the internal machinery required to simulate the gross dexterity of even the human form when enchanted means that even humanoid Constructs are non-trivial creations. Unusual humanoids (such as avian races) and normal animals are proportionally more difficult. Fantastic beasts, demons, and extra-planar beings with their reliance on magic and/or alternate laws of physics are at least twice as difficult to mimic as Constructs.

Some creators may seek to "improve" on nature's handiwork, by adding limbs and other appendages to a particular form. In game mechanics terms, this increases the entity's creation level, as the mage must balance the additions to the original shape. Extra limbs may provide new methods of locomotion, greater stability or extra attacks. A cautious enchanter might remove limbs from a form – this will reduce the entity's creation level marginally. A humanoid Construct without arms cannot attack its opponents (unless it has built-in missile weapons in its torso!); likewise one without legs cannot move itself.

Shape also decides the nature of the attacks available to a Construct. Humanoid Constructs are normally built as "killing machines" with each arm terminating in a weapon rather than a hand and other weapons "wired" directly into their bodies. Animal and monstrous Constructs imitate their organic counterparts with sculpted claws, talons, horns, and so forth.

The creation level modifiers for various categories of Constructs are given below.

Shape Modifiers

Humanoids:

Normal humanoids (one head, torso, two arms, and two legs): 4

Unusual humanoids (e.g. centaurs, avians, merfolk): 5

Animals:

Insects, arachnids, and crustaceans: 6

Fish: 6

Birds: 6

Mammals: 5 (6 if aquatic or winged, 7 if both)

Reptiles: 5 (6 if aquatic or winged, 7 if both)

Amphibians: 6 (7 if winged)

Exotic creatures:

Monsters: +8

Undead: +9

Demons and extra-planar beings: +10

Add +1 if the creature has wings.

Add +1 if the creature is aquatic.

Add +1 if the creature is insectoid in form.

Add +1 if the creature has any magical abilities.



Variants:

Add +1 for each extra limb.

Add +1 for each extra tail.

Add +2 for each extra pair of limbs (extra 2 arms, 2 legs, 2 wings, etc.).

Add +1 for each extra head.

Reduce entity creation level by 1 for having no legs (if the form normally has legs).

Reduce entity creation level by 1 for having no arms (if the form normally has arms).

Note: An extra leg or tail provides greater stability to the entity. This translates to a chance of negating critical results where the Construct would otherwise be knocked down. This negation chance is 10% per extra leg or tail – i.e. a construct with two extra legs would negate an unbalancing result on a roll of 01-20 on percentile dice.

Note: Dependent on position, an extra head can widen the entity's field of view, making it more difficult to achieve surprise against the Construct. Extra heads do not entail extra intelligence – that is provided by the magic rather than the non-existent brains of the entity.

Example: An archmage has been commissioned to fashion an artificial warrior for his king. He decides that the warrior will be basically humanoid in form (creation level 4) but will have an extra pair of arms (+2) and an extra head (+1), making a base creation level of 7 so far. The archmage's intent is to have one head and one pair of arms facing forwards and the other set facing backwards, making it impossible to achieve flank or rear attacks against this construct.

Example: An island witch decides to defend the off-shore waters of her home by making a Shark Construct. This is a fish shape, so the creation level is 6.

6.3.2 MATERIAL

Which materials will be used to make the Construct? All Constructs must be made from metal and/or alloys, both internally and externally. Gemstones are used for eyes. Superior alloys and/or magical metals will enhance the Construct's Offensive Bonus, Defensive Bonus, and Concussion Hits.

It is not necessary for a Construct to be composed internally and externally of the same material. The external material determines the Construct's Armor Type, and any adjustments to OBs and DB. The internal material determines the Construct's concussion hits.

For a Construct made from multiple materials, use the highest modifier for adjusting the creation level.

Materials used modify the Construct's creation level as follows.

TABLE 6.4 CONSTRUCT MATERIAL LEVEL MODIFIERS

Brass	+0
Bronze	+0
Iron	+1
Steel I	+2
Steel II	+4
Steel III	+6
Steel IV	+8
Adamantium	+10
Eog	+15

Example: The archmage chooses to manufacture the entity with +10 nonmagical steel (Steel II), which raises the creation level from 7 to 11.

Example: The witch does not have access to advanced metalworking processes, so chooses to make her Shark Construct from bronze (+0), leaving the creation level at 6.

6.3.3 SIZE

How big will the Construct be? Its size directly determines how much material (and thus the material cost) is required to fashion it (see Table 6.18). Smaller Constructs are easier to make than larger ones – but creators must make proportionately smaller mechanisms, which require more delicate manufacture and handling.

In mechanics terms, the Construct's intended Size multiplies the base creation level (shape and material) as follows.

Tiny (up to 1' tall): x1/2

Small (up to 3' tall): x3/4

Medium (up to 6' tall): x1

Large (up to 12' tall): x1.5

Huge: (more than 12' tall): x2

Round up the result to the nearest level. The minimum level for any Construct is 1.

TABLE 6.5 CONSTRUCT MATERIALS VERSUS ARMOR TYPE, DEFENSIVE BONUS, AND OFFENSIVE BONUS

Material	Armor Type	DB	OB
Adamantium	20	+25	+25
Brass	20	+0	+0
Bronze	20	+0	+0
Eog	20	+30	+30
Iron	20	0	0
Steel	20	+5	+5
Steel II	20	+10	+10
Steel III	20	+15	+15
Steel IV	20	+20	+20

TABLE 6.6 CONSTRUCT MATERIALS AND SIZE VERSUS CONSTRUCT'S CONCUSSION HITS

Material	Tiny	Small	Medium	Large	Huge
Adamantium	60	120	240	480	720
Brass	18	36	72	144	216
Bronze	20	45	90	180	270
Eog	75	150	300	600	900
Iron	30	60	120	240	360
Steel	35	75	150	300	450
Steel II	35	75	150	300	450
Steel III	35	75	150	300	450
Steel IV	35	75	150	300	450

Example: The Warrior Construct is to be Medium in size. The archmage would like to make it Large ($11 \times 1.5 = 17.5$, rounded to 18) or Huge ($11 \times 2 = 22$) but he would then be unable to make other improvements and additions—remember that he is limited to creating Constructs of a creation level equal to or less than the highest Construct # spell he knows. The Warrior Construct has Armor Type 20, +10 bonuses to all OBs and DB, and 150 concussion hits.

Example: The witch decides that her Shark Construct will be Large in size, giving a creation level of 9 (6×1.5). A Huge Shark Construct might find it difficult to pursue foes into really shallow waters and that would defeat the witch's purpose. The Shark Construct has Armor Type 20, no modifiers to OBs or DB, and 180 concussion hits.

For steps 4 and onward, please see sections 6.4 and beyond.

6.4 MODIFICATIONS

The previous choices of material, shape, and size determine the principal statistics of created Golems and Constructs. However, this will only produce an average specimen of that particular variety of Entity. Creators may adjust parameters to fashion stronger or weaker Entities. The cost for improving an Entity is to raise its creation level—reducing the parameters below the norm lowers the Entity's level. This process cannot reduce the Entity's creation level below 1.

Base Movement Rate

Movement Rate for Entities is determined by Size and means of locomotion. Larger Entities have a longer pace than their smaller rivals and hence benefit from a higher Base Movement Rate. Flying Entities of any size travel faster than their landbound or aquatic rivals. The weighty frames of Golems make for ponderous gaits rather than graceful motion, so none of them are particularly fast. The finest Constructs have such intricate clockwork

mechanisms that temporary motion might be achieved simply by winding up the springs. With the addition of magic, graceful and rapid motion is feasible. Entities' lack of any need for sleep, rest, food, or drink does mean that they can maintain a chosen pace *forever*.

TABLE 6.7 GOLEM MOVEMENT RATES

Size	Walker	Flyer	Swimmer
Tiny	Max 10	Max 20	Max 10
Small	Max 20	Max 30	Max 20
Medium	30	40	30
Large	40	50	40
Huge	50	60	50

TABLE 6.8 CONSTRUCT MOVEMENT RATES

Size	Walker	Flyer	Swimmer
Tiny	Max 10	Max 20	Max 10
Small	Max 20	Max 30	Max 20
Medium	40	50	40
Large	60	80	60
Huge	80	100	80

For flying Entities, their walking rate is **half** their flying movement rate. For swimming Entities, their walking rate (if they are able to move on land at all) is half their swimming movement rate. Landbound Entities do not *need* to swim—they *can* simply sink to the bottom and walk underwater to their destination.

Creators can raise the Movement Rates of Medium, Large, and Huge Entities. For Golems, this adds +1 creation level for every 10' increment. For Constructs, this adds +1/2 level for every 10' increment.

Example: The Tiny Winged Goblin Golem has a base Movement Rate of 20' (and a walking rate of 10'), whereas the Medium Brass Golem has a Movement Rate of 80' (30' from size and form plus a special +50' bonus because it is made from brass), and the Large Iron Wolf Golem has a Movement Rate of 40'. Our creators choose not to increase the Base Movement Rate of their golems.

Example: The witch wants her Large Shark Construct to be as swift as a real shark, so she adds 40' (+2) to the Construct's Movement Rate, making its creation level 11.

Maximum Pace

The default Maximum Pace for a Golem or Construct is Run. Creators can adjust this up or down as follows.

TABLE 6.9 GOLEM AND CONSTRUCT MAXIMUM PACE	
Maximum Pace	Creation Level Modifier
Walk	-2
Jog	-1
Run	0
Sprint	+1
Fast Sprint	+2
Dash	+3

Example: The alchemist believes that his Goblin Golem needs a higher maximum pace, so he chooses to modify it to Dash, increasing its creation level from 4 to 7.

Example: The Brass Golem has an automatic Maximum Pace of Fast Sprint because it is made from brass.

Example: The enchantress feels that her Wolf Golem needs a faster pace, so she increases it from Medium to Fast Sprint, adding +2 to its level, making its creation level 22.

Example: Continuing with her improvements to the Shark Construct, the witch raises its max pace from Run to Dash (+3), making the creation level 14.

Movement Bonus (MM Bonus)

Creators can choose to raise an entity's Moving Maneuver Bonus in increments of +5 bonus for +1/2 level for Golems, and in increments of +10 bonus for +1/2 creation level for Constructs. The default is +0.

Movement Speed (MS) and Attack Quickness (AQ)

Movement Speed determines an entity's base Defensive Bonus whereas Attack Quickness determines its Initiative modifier. For Golems and Constructs, both default to Medium. Creators can increase or decrease either or both according to the tables below.

TABLE 6.10 GOLEM MOVEMENT SPEED AND ATTACK QUICKNESS				
Level Modifier		(MS)	(AQ)	Creation
Code	Rate	Base DB	Initiative Mod	
IN	Inching	-25	-16	-2
CR	Creeping	-20	-12	-1.5
VS	Very Slow	-10	-8	-1
SL	Slow	+0	-4	-0.5
MD	Medium	+10	+0	+0
MF	Moderately Fast	+20	+4	+1
FA	Fast	+30	+8	+2
VF	Very Fast	+40	+12	+3
BF	Blindingly Fast	+50	+16	+4

TABLE 6.11 CONSTRUCT MOVEMENT SPEED AND ATTACK QUICKNESS				
Level Modifier		(MS)	(AQ)	Creation
Code	Rate	Base DB	Initiative Mod	
IN	Inching	-25	-16	-2
CR	Creeping	-20	-12	-1.5
VS	Very Slow	-10	-8	-1
S	Slow	+0	-4	-0.5
MD	Medium	+10	+0	+0
MF	Moderately Fast	+20	+4	+0.5
FA	Fast	+30	+8	+1
VF	Very Fast	+40	+12	+1.5
BF	Blindingly Fast	+50	+16	+2

Example: The alchemist believes that the best hope for his goblin golem to survive hazardous encounters is to have a high Defensive Bonus, so he raises its Movement Speed from Medium to Very Fast, which adds +40 to its DB of 10 (from material), giving it a final DB of 50. This increases the creation level from 7 to 10. Its Initiative remains +0.

Example: The Brass Golem is not altered from a Medium Movement Speed so its DB becomes 10 + 0 (from material), so 10 in total. Its Initiative is +0.

Example: The Wolf Golem has a Defensive Bonus of 10 (Medium Movement Speed) plus 20 (from material) giving a final DB of 30.

Example: The archmage wants the Warrior Construct to be swift in combat and adept at dodging blows. Hence he raises its Movement Speed from Medium to Very Fast (+1.5 level), giving a final DB of 50, and its Attack Quickness to Very Fast (+1.5) level, giving it an Initiative Modifier of +12. The adjusted creation level is 14 (11 + 1.5 + 1.5).

Example: The witch wants her Shark to equal or better its organic counterparts, so she raises its Movement Speed to Fast (+1), giving a final DB of 30, and an Attack Quickness of Fast (+1). The adjusted creation level is 16 (14 + 1 + 1).

Carrying Capacity

An Entity's size determines its carrying capacity. Entities of appropriate shape, e.g. horse, wolf, Pegasus, giant eagle, etc., can carry this load in the form of a rider and gear. The Riding Bonus for a Golem is +0. Humanoid Constructs equipped with a mechanical hand, and humanoid Golems will be able to lift half their load capacity per hand. By superior design, Constructs can be specially constructed to lift or carry heavier loads – this increases the creation level.

Example: The witch's Shark Construct can carry 500 lbs – more than sufficient for the witch to use it as a steed. The archmage's Warrior Construct has no free hands so it cannot lift its 250 lbs load capacity.

Critical Reduction

All Entities, regardless of size or material, are immune to stun and bleeding results from all criticals. As detailed in section 6.2, certain materials will also render Golems completely immune to specific attack types and/or critical results. Size affects an Entity's ability to shrug off criticals with larger Entities having superior default critical reduction abilities. Creators can improve or weaken this as shown below in tables 6.13 and 6.14. The hollow nature and the delicate mechanisms of most Constructs make improving critical protection more difficult than for Golems.

Example: The enchantress decides that she wants her Wolf Golem to be as resilient to damage as possible, so she increases its Critical Reduction by one step from Large to Super Large. The Wolf Golem's creation level is now 23.

Concussion Hits:

An Entity's concussion hits are determined by its size and material. This default can be raised or lowered in steps of 25 concussion hits (+1 for +25 hits, -1 for -25 hits) for Golems, and in steps of 10 concussion hits (+1 for +10 hits, -1 for -10 hits) for Constructs.

Example: While the alchemist does not want his Goblin Golem to become involved in combat, he believes that 30 concussion hits are too few, so he raises this by one increment to 55, and adds 1 to the creation level, making it 11.

TABLE 6.12 ENTITY CARRYING CAPACITY

Size	Golem	Construct	Extra Construct Load
Tiny	25lbs.	25lbs.	+1 lvl per extra 25lbs
Small	100lbs.	100lbs.	+1 lvl per extra 25lbs
Medium	250lbs.	250lbs.	+1 lvl per extra 25lbs
Large	500lbs.	500lbs.	+1 lvl per extra 50lbs
Huge	1000lbs.	1000lbs.	+1 lvl per extra 100lbs





TABLE 6.13 GOLEM CRITICAL REDUCTION

Creation Level Modifier Critical Reduction					
	#	I	II	LA	SL
Tiny	+0	+1	+2	+3	+4
Small	-1	+0	+1	+2	+3
Medium	-2	-1	+0	+1	+2
Large	-3	-2	-1	+0	+1
Huge	-4	-3	-2	-1	+0

TABLE 6.14 CONSTRUCT CRITICAL REDUCTION

Level Modifier Critical Reduction					
	#	I	II	LA	SL
Tiny	+0	+2	+4	+6	+8
Small	-1	+0	+2	+4	+6
Medium	-2	-1	+0	+2	+4
Large	-3	-2	-1	+0	+2
Huge	-4	-3	-2	-1	+0

Attack Types and Offensive Bonuses

Humanoid Golems attack their opponents in two ways: either by pummeling their foes with their fists or grappling their opponents followed by a devastating crushing squeeze. Such golems receive three distinct attacks with separate Offensive Bonuses as their default.

The size of each of these attacks defaults to the Golem's Size, e.g. Large Golems do Large Bash, Large Grapple, and Large Crush attacks, **except** for Tiny Golems which do Small attacks but resolve any critical results on the Tiny Critical Strike Table.

Note: Creators can raise the attack size at a cost of +1 creation level per size increment.

The basic Offensive Bonus for all three attacks is given below – note that certain materials will alter the base OBs as detailed in Table 6.2. Creators can adjust the base OB upwards or downwards at a cost of +1 or –1 creation level per OB modifier. Each OB is adjusted **separately**. The value of the OB modifier varies according to size of the golem – this is because a little extra precision equates to a much more telling blow from a larger entity owing to its greater momentum.



TABLE 6.15 HUMANOID GOLEM OBS

Golem Size	Base OB	OB Modifier
Tiny	20	+/-5
Small	40	+/-5
Medium	80	+/-10
Large	120	+/-15
Huge	160	+/-20

Example: The alchemist's Clay Goblin Golem is a Tiny Creature with Small Bash, Small Grapple and Small Crush attacks. The base OB for all three attacks is 20. Unfortunately the Golem's clay nature imposes a –20 penalty on its Bash and Crush attacks, and a –10 penalty on its Grapple attack. Thus its OBs are +0 Small Bash, +10 Small Grapple, and +0 Small Crush. The alchemist decides to reduce the Golem's Grapple attack to 0, reducing the creation level from 11 to 9.

Example: The Brass Golem has no bonuses or penalties to its attacks from being made of brass. Its base OB is 80 for its Bash, Grapple, and Crush attacks. The magician chooses to raise its Medium Bash attack from 80 to 100, increasing the Golem's level to 11. The actual encounter level for the Brass Golem is 11/4 (for Medium Size) = 2.75, rounded up to 3.

For each additional arm (**not** additional pair of arms), a Golem can make an additional Bash attack each round with half the OB of its normal Bash attack.

For each additional pair of arms possessed by the Golem, it can make an additional Bash attack at full OB or an additional Grapple attack at full OB each round.

A Golem with only **one** arm may make Bash, Grapple and Crush attacks at **half** the listed OBs.

A humanoid Golem with **no** arms may make no attacks at all.

Humanoid Constructs are frequently designed as “killing machines”. Instead of hands, their arms terminate in weapons such as swords and axes with serrated blades. Dart-throwers and crossbows are mounted on forearms, in chest cavities and so on. Sharp spikes protrude from elbows, knees, and other joints. The standard Humanoid Construct has **two** weapon attacks, one for each arm. The choice of weapon is up to the creator – however Construct size will limit the available choices. Tiny Constructs should be limited to small knives, whereas a Huge Construct could wield a two-handed sword in each arm.

Constructs (of all kinds) are less effective combatants than Golems. This is a direct consequence of their internal construction, which is much less resilient than the literally solid makeup of almost all Golems.

The basic Offensive Bonus for any Construct weapon attacks is given below. Superior and magical materials will alter these base OBs as detailed in Table 6.5. Creators can adjust the base OB upwards or downwards at a cost of +1 or –1 creation level per OB modifier. Each OB **category** (type of melee weapons, missile weapons, directed spells) is adjusted **separately**. If a Construct is armed with two swords, then the OB for both attacks can be raised simultaneously. If a Construct is armed with a sword and a morningstar, then each OB must be adjusted individually – to raise both attacks by 1 increment will increase the creation level by 2.

TABLE 6.16 HUMANOID CONSTRUCT OBS

Construct Size	Base OB	OB Modifier
Tiny	10	+/-5
Small	30	+/-5
Medium	50	+/-10
Large	80	+/-10
Huge	120	+/-10

Humanoid Constructs with extra arms (single or as pairs) that terminate in weapons may make additional attacks.

Additional weapon attacks such as built-in crossbows, wrist-mounted dart-throwers, etc. will raise the Construct’s level by 1 for each additional weapon (see section 6.3.5).

Example: The Warrior Construct is to be armed with four falchions. The base OB is 60 (50 from Size and 10 from material). The archmage decides to raise this OB by 40 to 100, adding +4 to the Construct’s creation level, which rises to 18. The Warrior Construct can make 4 falchion attacks per round with a +100 OB.

Beast Golems and Constructs emulate their organic counterparts by mimicking natural weapon attacks. Almost the entire spectrum of natural attack types is possible as they can be equipped with beaks, pincers, claws, talons, and horns. However, Swallowing attacks are **not** possible – Golems don’t have stomachs and Constructs have delicate mechanisms in their body cavities not digestive systems.

By default, a Beast Golem or Construct is fashioned with two distinct natural weapon attacks. Each additional inherent attack type adds +1 creation level to the Entity.

Beast Entities can be fashioned with only one attack type (reduce level by 1) or none (reduce level by 2).

The size of each natural weapon attack defaults to the Entity’s Size, e.g. a Large-sized Tiger Construct would do Large Bite and Large Claw attacks as its default types. Tiny Beast Entities make Small attacks but resolve any critical results on the Tiny Critical Strike Table.

Note: Creators can raise or lower the attack size at a cost of +1/-1 creation level per size change.

The basic Offensive Bonus for any natural weapon attack is given below. Certain materials will alter the base OBs as detailed in Table 6.2 for Golems and Table 6.5 for Constructs. Creators can adjust the base OB upwards or downwards at a cost of +1 or –1 creation level per OB modifier. Each natural weapon OB is adjusted **separately**.





**TABLE 6.17 BEAST GOLEM
AND CONSTRUCT OBS**

Entity Size	Golem Base OB	Golem OB Modifier	Construct Base OB	Construct OB Modifier
Tiny	10	+/-5	10	+/-5
Small	20	+/-5	20	+/-5
Medium	40	+/-10	40	+/-10
Large	80	+/-15	60	+/-10
Huge	120	+/-20	80	+/-10

Example: The Wolf Golem gains no bonuses or penalties to OB from its iron construction. The enchantress decides that it will have a Bite and a Claw attack as its two default natural weapons. The Wolf Golem's OBs are +80 Large Bite and +80 Large Claw.

Example: The Shark Construct has a Base OB of 60. However it only has one natural weapon attack – a Large Bite – so the creation level is reduced by 1 from 16 to 15. The witch decides to raise its OB to 100, adding +4 to its level (19).

Concussion Damage

Really Huge Entities will achieve additional concussion hit damage by virtue of their size (and sheer mass), making them into terrifying opponents in melee combat and walking siege weapons. This effect is only applicable to melee attacks and adheres to the following progression.

Damage Multiplier	Golem Height	Construct Height
Normal Damage	Up to 20' tall	Up to 20' tall
x2 damage	21' to 25' tall	21' to 30' tall
x3 damage	26' to 30' tall	31' to 40' tall
x4 damage	31' to 35' tall	41' to 50' tall
x5 damage	36' to 40' tall	51' to 60' tall
x6 damage	41' and taller	61' and taller

These multipliers are **additive** with any similar improvements obtained by magical imbedding (see Chapter 7).

6.5 MECHANICAL ABILITIES (CONSTRUCTS ONLY)

Creators can choose to add a variety of mechanical enhancements to Constructs. These include missile weapons such as dart throwers and self-loading crossbows, poison reservoirs, sharp metal spikes to impale foes who get too close, suction cups for climbing, and storage cavities. The list is relatively short as many interesting

effects can only realistically be achieved using magic, as the technological level of most fantasy settings is insufficient to implement more exotic capabilities (recording eyes, enhanced senses, and the like). Each mechanical enhancement adds +1 to the Construct's creation level, and requires the *Enhance Construct* spell to be cast once per day of the creation process.

Mechanical Abilities List

All-around Vision: This is literally eyes in the back of the Construct's head or heads! In addition to the obvious perception benefits, it is no longer possible to claim flank or rear positional modifiers against the Construct. All-around Vision adds +1 creation level per head and costs 100gp.

Automaton Emplacement: This feature allows one Device Automaton to be installed into a Construct. This adds +1 creation level per Emplacement.

Concealed Weapons: These are spring-loaded weapons secreted within the Construct's body behind outer panels. At need, the panels slide open, allowing the weapons to erupt. A Construct's size limits the weapons that may be concealed within it – no two-handed weapons within Tiny or Small Constructs. Each Concealed Weapon adds +1 creation level and costs five times the price of hidden weapon.

Mechanical Hand: Normally reserved for humanoid Constructs, this modification replaces a weapon arm with an arm terminating in a mechanical hand. This permits the Construct to use tools and perform tasks requiring a moderate degree of dexterity. The Construct can also wield appropriately sized weapons using the hand, but suffers a penalty of –20 to OB and may be “disarmed”. This modification adds 200gp to the entity's cost and adds +1 creation level.

Mount: This enhancement consists of a series of adjustable plates and ridges, which can rearrange itself to form a metal saddle on demand. It provides a +10 bonus to any Riding maneuver using the Construct as a steed. This enhancement can only sensibly be applied to Constructs of suitable forms – horses, pegasi, giant birds, etc. It adds +1 creation level and adds 100gp to the cost.

Poison Reservoir: This stores poison in a normally sealed container within the Construct's torso. On demand, the poison is pumped through dedicated tubing to selected weaponry where runnels on blades collect the poison for delivery via successful attacks into the opponent's body. When depleted, the Construct's reservoir can be refilled with more of the same or a different poison. Maximum storage capacities according to Construct size and associated costs are as follows: Tiny (10 doses, 50gp), Small (20 doses, 100gp), Medium (40 doses, 200gp), Large (80 doses, 400gp), and Huge (160 doses, 800gp). In all cases, this adds +1 creation level.

Retractable Appendages: This enables the Construct to protect its more sensitive limbs (or head(s)) by pulling them temporarily within its body (similar to a turtle), tripling its DB at the expense of movement and/or attacks. One application of this ability is for Constructs used as a catapult missile - the Construct places itself in a catapult, retracts its appendages, and is then fired over a stronghold's walls. With falling damage minimized (in conjunction with heavy-duty critical reduction and/or a *Landing* spell), the Construct then restores its appendages and prosecutes the attack. It requires one round to retract or restore the appendages. This modification adds +10% to the materials cost of the Construct **per limb**, and adds +1 creation level **per head or pair of limbs**.

Rotating Body: This enhancement is normally available only to humanoid Constructs. It enables them to rotate the upper half of their body 360 degrees as a single action - ideal for changing facing in battle to surprise opponents attacking from "behind". Rotating Body adds +1 creation level and +10% to the internal materials cost of the Construct.

Secret Storage Compartment: This modification allows valuables or other items (possibly even a Tiny Construct or Golem in a sufficiently large Construct) to be stored inside the torso of the Construct. Normally only the Construct can open or close the entry panel(s) to this compartment. The maximum size of this mini-vault is restricted by the Construct's Size - a storage compartment may use no more than one-tenth of the Construct's volume. This enhancement adds +1 creation level and 200gp to the Construct's cost.

Self-Destruct Mechanism: Some creators would rather destroy their Constructs than let them fall into the wrong hands. This precaution may be triggered by a codeword or a set of circumstances (the Construct reaches 0 concussion hits). Whether detonated by an explosive mixture (add 200gp to the Construct cost) or by a single-use elemental attack spell (such as Fire Bolt, add 100gp), the result is a catastrophic explosion centered on the Construct with a cloud of shrapnel expanding outwards in every direction. Treat this as a Fire Ball attack doing Puncture criticals. The area of effect and attack bonus is as follows: Tiny - 5'R, +20 bonus, Small - 10'R, +30 bonus, Medium - 20'R, +40

bonus, Large - 40'R, +50 bonus, and Huge - 80'R, +60 bonus. This modification adds +1 creation level.

Self-Reloading Light Dart Thrower: This spring-powered contraption fires small projectiles with the deadly force of a crossbow. It is frequently combined with the Concealed Weapon and the Poison Reservoir modifications for extra effect. The dart thrower is normally installed in the torsos of Tiny and Small Constructs. Wrist-mounted versions can be installed on Medium or larger Constructs. This missile weapon uses the Light Crossbow Attack Table, but due to cunning automatic reloading features can be fired once per round. Up to 50 darts can be stored inside the Construct per Dart Thrower - each dart costs the same as a conventional crossbow quarrel. This modification adds +1 creation level and costs **five times the price of an equivalent light crossbow**.

Self-Reloading Heavy Dart Thrower: This is a more powerful version of the Light Dart Thrower. It may only be installed in the torsos of Medium or larger Constructs. Wrist-mounted versions may be incorporated into Huge Constructs. This missile weapon uses the Heavy Crossbow Attack Table. This modification adds +1 creation level and costs **five times the price of an equivalent heavy crossbow**.

Spikes and Spines: Razor-sharp spikes are molded into the armor plating of the Construct. Any opponent who attempts to grapple the Construct will be impaled on the spines - use an OB (for the spikes) equal to half the opponent's Grappling OB and resolve the impaling strikes on the Knife Attack Table (for Medium or smaller Constructs) or the Dagger Attack Table (for larger Constructs). Each spike costs the price of an equivalent knife or dagger. Regardless of the number of spikes added, this modification only adds +1 creation level (representing the need to place the spikes where they will not interfere with the entity's normal movements and other features.)

Suction Cups: This enhancement is fitted to the feet (and sometimes hands) of Constructs, increasing their traction many times and enabling them to climb vertical surfaces (such as walls) and walk upside down on ceilings. Frequently added to Spider Constructs, climbing and inverted movement is limited to base movement rate. This ability adds 200gp to the Construct's materials cost, and adds +1 creation level (representing the difficulty of incorporating the mechanisms and arranging that the rest of the Construct can function properly when climbing or clinging to a ceiling.)

Telescoping Limbs: This capability allows a Construct to extend the length of its limbs. Telescoping legs can temporarily give the entity a greater height but reduces its maximum pace by one step as its center of gravity is raised and its balance is more precarious. Telescoping arms yield a greater reach but reduce melee OBs by half as it is more difficult to wield the weapons with attenuated arms. The maximum extension is double the normal limb length. It requires one round to expand or

contract the limbs. This modification adds +10% to the materials cost of the Construct **per limb**, and adds +1 creation level **per pair of telescoping limbs**.

Example: The witch wants to be able to use her Shark Construct as an aquatic steed, so she adds the Mount mechanical ability (+1) raising its creation level to 20.

Example: The Warrior Construct lacks any missile capability as yet, so the archmage adds two self-reloading light dart throwers to the design – one facing forward, one backwards. The creation level is now 20 (18 + 1 + 1) and the Construct can make two light crossbow attacks at +60 OB each round. The actual encounter level of the Warrior Construct is 20 / 4 (for Medium Size) = 5.

6.6 MAGICAL ABILITIES

Is the Entity to possess magical abilities? Imbedding magical abilities requires access to the *Golem Magic* or *Construct Magic* spell list. Abilities can either be “charged” where each use depletes a charge until there are none left, “daily” where the Entity can use the spell one or more times each day, or “constant” where the spell operates continuously or once per round. Each magical power increases the Construct’s creation level as follows.

Charged Powers: + ((level of the imbedded spell) x 0.5).

Daily Powers: + ((level of the imbedded spell) x 0.75).

Constant Powers: + ((level of the imbedded spell) x 1).

The Base OB for a directed spell attack is equal to the Entity’s Base OB (for size) without any modifications for material. The level of a base spell attack is equal to the level of the spell itself.

See section 6.10 for more details on adding spell-like abilities to Golems and Constructs.

Example: The alchemist decides that his Goblin Golem could usefully benefit from the ability to become invisible at will. The Golem is one object, so the 2nd-level Unseen spell can be used (rather than the 4th-level Invisibility spell). This constant power increases the Golem’s creation level to 11 (9 + 2 for spell). He also decides that an attack spell for emergency use might be useful, so he imbeds a 2nd-level Shock Bolt spell (with a base +20 OB) as a Charged Power, increasing the Golem’s creation level to 12. The actual encounter level of this Golem is 12 / 5 (for Tiny Size) = 2.

Example: The enchantress intends her Wolf Golem to patrol at night, so she decides to give it a 4th-level Nightvision spell as a Daily Power (4 x 0.75 = 3), raising its creation level from 23 to 26. The actual encounter level of the Wolf Golem is 26 / 3 = 8.67, rounded up to 9.

Example: The Shark Construct will be of limited utility if it cannot see underwater, hence the witch

imbeds a 5th-level Watervision spell (from the Sense Mastery spell list) raising its creation level to 25 (20 + (5 x 1)). As its size is Large, its actual encounter level is 25 / 3 = 8.33, rounded up to 9.

Example: The archmage would like to equip his Warrior Construct with an area affect elemental attack spell such as Fire Ball. Even as a Charged Power, this would add +4 (8 x 0.5) to the construct’s level raising it to 24. Unfortunately the archmage does not know the High Construct spell yet so he cannot make constructs of this level yet.

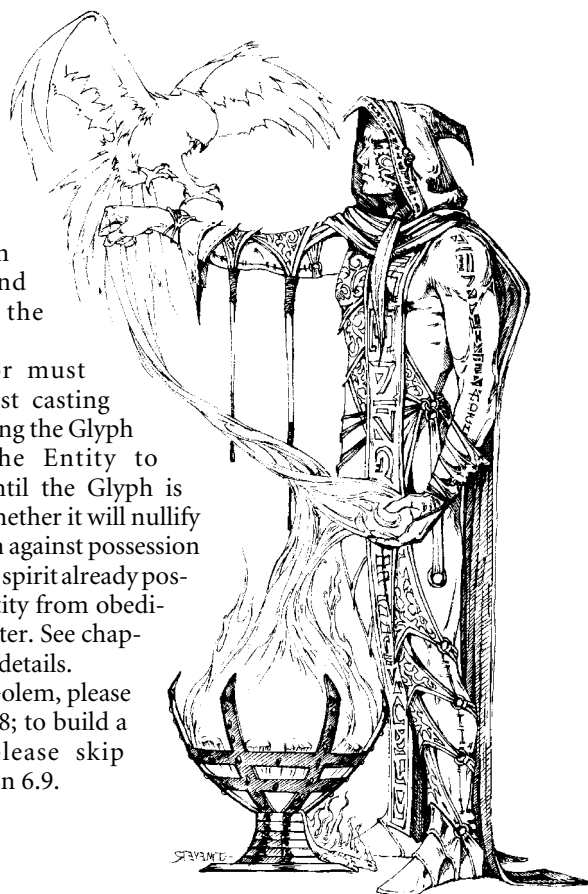
6.7 GLYPHS OF CONTROL

Does the creator wish to inscribe a *Glyph of Control* onto the Entity? Using a *Glyph of Control* does **not** alter the Entity’s creation level. *Glyphs of Control* are more commonly associated with Golems, but many enchanters appreciate the benefits of these protective spells for Constructs.

Glyphs of Control must be inscribed somewhere on the Entity’s outer surface – usually engraved, etched or sculpted as appropriate. While it is possible to merely paint the Glyph onto the surface, most alchemists deem this too susceptible to defacement. As the Glyph is an obvious target, careful enchanters will frequently decorate their Entities with false runes to divert attention from the real sigil. In the case of Golems, the Glyph may be written on parchment and affixed to the Golem.

The creator must choose on first casting whether defacing the Glyph will cause the Entity to deanimate (until the Glyph is repaired) or whether it will nullify the prohibition against possession and release any spirit already possessing the Entity from obedience to its master. See chapter 7 for more details.

To build a Golem, please read section 6.8; to build a Construct, please skip ahead to section 6.9.



6.8

BUILDING A GOLEM

Having determined the specifics of the Golem's design, the creator must assemble the necessary materials in his laboratory or workshop and commence work. (For quantities and material costs, see section 6.6).

The magician must first make a Very Hard Drafting maneuver to generate the requisite blueprints. The results of this maneuver will influence construction as follows.

Spectacular Failure: The blueprints are totally flawed, but this won't be recognized until the golem is finished. The golem will be unable to move. All the materials are wasted.

Absolute Failure: The blueprints are totally flawed, but this won't be recognized until halfway into the creation process. The work must be abandoned with 50% of the materials being wasted.

Failure: The blueprints are flawed, but this won't be recognized until one week into the creation process. The creator can start again from fresh. No materials are wasted.

For any other result, the blueprints are of sufficient quality to guide the manufacture, with Unusual Success and Absolute Success giving +20 bonuses to any other skills required in the creation process.

Note: A creator can reuse blueprints to make as many copies of a particular Golem type as he desires - other Golem types will require new designs, naturally. Likewise a creator can reuse the blueprints of another scholar to fashion a Golem according to that specification.

The Golem's material determines which skills are needed to actually fashion it. All Golems must be shaped into the correct form using Sculpting skill. Additionally Wood Golems require Wood Crafts to prepare and carve the wood. Stone Golems and those formed from crystals and gems demand expertise in Stone Crafts. Golems made from metals and alloys require Metal Crafts to forge the metals, form a containing mold, and cast the sculpted shape. Water Golems require the use of Metal Crafts skill to fashion the shaped tanks to hold the water as it is enchanted into permanent shape and animation.

The appropriate skill maneuvers for construction should be made about halfway through the creation process. The difficulty level of the Sculpting maneuvers depend on how aesthetically appealing the creator intends the golem to be.

Light: a very crude approximation to the organic form.

Medium: a stylized representation.

Hard: an accurate representation.

Very Hard: an exact representation that captures every nuance of the form.

Extremely Hard: a representation that is even more impressive than the real creature.

(This is one step higher than suggested in *School of Hard Knocks: The Skills Companion* - Golems are not intended as stationary sculptures.)

Failures in the Sculpting maneuver will produce an ugly or grotesque Golem.

The difficulty level for any required Craft maneuvers begin at Medium, and may be modified upwards depending on the Golem's size, shape, and material composition as follows.

Tiny to Medium: no change.

Large or Huge: increase Difficulty Level by one.

Humanoid: no change.

Unusual humanoid or animal form: increase Difficulty Level by one.

Monstrous, demonic, extraplanar or other form: increase Difficulty Level by two.

Materials: wood, stone, non-magical metals and alloys (excluding steel): no change.

Materials: non-magical steels: increase Difficulty Level by one.

Materials: magical metals and alloys, gems, laen: increase Difficulty Level by two.

Example: Making a Huge Adamantine Dragon Golem requires a successful Absurd Metal Crafts maneuver (Medium becomes Hard owing to its Huge size, Hard is raised two steps to Extremely Hard because dragons are a monstrous form, and Extremely Hard is raised a further two steps because adamantium is a magical metal).

A Spectacular Failure in a Crafts maneuver will lead to the Golem being misshapen and only partially functional (a winged golem might be unable to fly, a humanoid golem might be missing a hand, etc.) An Absolute Failure will cause the Golem to be merely partially misshapen but will be fully functional. A Failure result will add one extra week to the construction time.

The alchemist can have the mundane aspects of construction undertaken by expert sculptors and craftsmen - however they will have to be available and working on the project throughout the creation process.

In terms of spells, the alchemist must cast the appropriate Golem creation spell (see Table 6.1) each day. If the Golem is to receive any magical abilities, the creator must cast the spell to be imbedded, the appropriate *Imbed N* spell, and one of the *Charge*, *Daily Power N*, or *Constant Power N* spells each day. A spell failure does **not** ruin the entire process, **unless** the caster is incapable of recasting the miscast spell that day.

When the final spell of creation is cast, the spark of "life" will enter the Golem's frame and it will lurch into sudden animation, ready to serve its creator.



6.9

BUILDING A CONSTRUCT

Once the creator has determined the specifics of the Construct, the next step is to design in broad terms how the Construct will work. This will require an Engineering maneuver and one week of time (to figure out what components are needed and how they must be connected to produce a mechanical entity capable of motion).

The Difficulty Level for this maneuver is as follows.

Hard: humanoid constructs.

Very Hard: animal or unusual humanoid constructs.

Extremely Hard: monstrous, demonic and other exotic constructs.

Failures on this maneuver represent the inability of the creator to imagine a feasible mechanism to accomplish some portion of the Construct's function. A Spectacular Failure will delay the creator by one month, an Absolute Failure by one week, and a Failure by one day, before a new Engineering maneuver may be attempted. (The rationale is that the creator has found some new inspiration; generous GMs may allow creators to reattempt the design sooner if they discover an alternative solution through research or contacts with other scholars.) An Unusual Success or an Absolute Success will provide +20 bonuses to all Metal Craft and Mechanition maneuvers - the creator has found a simpler or more efficient solution to the problem.

Note: A creator need only produce one successful design for a given construct type. Thereafter, he can reuse the design to make as many copies of that particular construct as he wishes. Likewise, creators can reuse the designs of others if they have access to the blueprints (see below).

Few have infallible memories, so creators must commit their designs to paper, drawing up a set of blueprints (requiring a Very Hard Drafting maneuver). This is essential if the Construct is to be physically fabricated by craftsmen on behalf of the alchemist.

The Drafting maneuver has the following special results.

Spectacular Failure: The blueprints are flawed, but this won't be recognized until the Construct is almost complete, when it will be obvious that it will be unable to move. At 50% extra cost and additional time, it will be possible to partially dismantle the Construct and rebuild it correctly.

Absolute Failure: The blueprints are flawed, but this won't be recognized until halfway into the creation process. The Construct can be salvaged but it will add 20% to the cost and 20% extra time to complete.

Failure: The blueprints are slightly flawed, but this won't be recognized until one week into the creation process. The necessary alterations will add 10% to the materials

cost and 10% to the time to complete.

For any other result, the blueprints are of sufficient quality to guide the manufacture, with Unusual Success and Absolute Success giving +20 bonuses to any other skills required in the creation process.

(GMs will note that the failure results are less severe for Constructs than for Golems. This is due to the piecemeal nature of Construct manufacture - a slight error on a blueprint means that some components are the wrong shape or size. Failures are thus localized and recoverable.)

Having designed the Construct and drawn up the blueprints, the creator needs to assemble the necessary raw materials and start working on the entity. (For quantities and material costs, see section 6.6).

All Constructs are made of metal, so two Metal Crafts maneuvers are required. The first is to fabricate the intricate parts comprising the internal mechanisms. The second is to make the Construct's skeleton and outer body. These maneuvers should be made halfway through the creation process. The Metal Crafts maneuver starts at Medium Difficulty Level but may be increased as follows.

Tiny: increase Difficulty Level by one step (Tiny Constructs require much smaller parts which are harder to make).

Small or Medium: no change.

Large or Huge: increase Difficulty Level by one step.

Bronze or brass parts: no change.

Iron components: increase Difficulty Level by one step.

Steel components: increase Difficulty Level by two steps.

Magical metals or alloys: increase Difficulty Level by three steps.

Failures will add extra time and/or cost to the process as follows.

Spectacular Failures represent substantial errors in implementation with multiple components or several key parts being badly made. Add 20% extra cost and 20% extra time.

Absolute Failures represent errors in implementation with several components or one key part being badly made. Add 10% extra materials cost and time.

Failures represent poor manufacture but the parts can be recycled. Add 10% extra time.

In order for the Construct to look like the being it is designed to imitate, the parts must be sculpted. One Sculpting maneuver is required with Difficulty Levels as follows.

Light: a very crude approximation to the organic form.

Medium: a stylized representation.

Hard: an accurate representation.

Very Hard: an exact representation that captures every nuance of the form.

Extremely Hard: a representation that is even more impressive than the real creature.

(This is one step higher than suggested in *School of Hard Knocks: The Skills Companion* - sculptors have to perform their artistry piecemeal.)

Failures in the Sculpting maneuver will produce an ugly or grotesque Construct.

With the parts made and sculpted, the remaining purely mundane task is to fit the pieces together. This process is akin to completing a three-dimensional jigsaw, and requires a successful Very Hard Mechanition maneuver. A Spectacular or Absolute Failure will add 10% extra cost (representing damage to parts by incorrect placement) and 10% extra time to the project. A Failure will add one day to the creation time.

The mage can have the mundane aspects of construction, e.g. the Metal Crafting, the Sculpting, and the Mechanition, undertaken by expert craftsmen. However these professionals will have to be available and working on the project throughout the creation process.

In terms of spells, the creator must cast the appropriate *Construct N* spell for an entity of the desired level each day. If the Construct is to have any mechanical abilities, the *Enhance Construct* spell must also be cast each day. If the entity is to receive any magical abilities, the creator must cast the spell to be imbedded, the appropriate *Imbed N* spell, and one of the *Charged Power*, *Daily Power N*, or *Constant Power N* spells each day. A spell failure does **not** ruin the entire process, **unless** the caster is incapable of recasting the miscast spell that day.

And once the final spell has been cast, the magic will animate the finished Construct with a spark of life and a purpose – to serve its creator obediently.

6.10 MAGICAL ENHANCEMENTS

The *Construct Magic* and *Golem Magic* spell lists enable creators to imbue both types of entities with spell-like abilities. The process is broadly similar to that for imbedding spells into other sorts of magic items.

1. The appropriate *Imbed #* spell must be cast into the entity once a day. (A third-level spell will require an *Imbed III* spell.)
2. The spell to be imbedded must itself be cast into the entity once a day. (This spell may be cast by the creator, an item, or another spell user - see also the *Research* spell below.)
3. If the ability is to use charges, then one of *Minor Charged Power*, *Lesser Charged Power*, *Greater Charged Power*, or *Major Charged Power* must be cast into the entity once each day.

4. If the ability is to be a “Daily” ability, then the appropriate *Daily Power #* spell must be cast into the entity once a day. (To have a third-level spell usable by the entity once per day will require a *Daily Power III* spell.)


5. If the ability is to be continuously operational (constant) or once every round (“at will”), then the appropriate *Constant Power #* spell must be cast into the entity once a day. (To have a third-level spell effect the entity on a constant basis will require a *Constant Power III* spell.)

A *Charged Power* ability uses up one charge for each use of the ability. The *Minor Charged Power*, *Lesser Charged Power*, *Greater Charged Power*, and *Major Charged Power* spells will imbue an entity with 20, 50, 100 and 200 charges respectively. An entity can be “recharged” by casting the appropriate *Charged Power* spell once a day for a number of weeks equal to the level of the spell ability. Thus to replace 50 charges of a fourth-level spell would require a caster to cast *Lesser Charged Power* once a day for four weeks.

A *Daily Power* ability allows the entity to cast the imbedded spell a certain number of times per day. The number of times per day depends on the level of the imbedded spell and the # of the *Daily Power #* spell used. A *Daily Power III* spell could be used to imbed a 1st-level spell usable three times per day by the entity, or a 2nd-level or a 3rd-level spell usable once per day by the entity.

A *Constant Power* ability can be used in one of two ways. The first is genuinely constant, where the entity has the continuous and permanent benefit of the ability. Suitable spells which can be made constant include *Detect* spells, *Resist* spells, *Invisibility*, *Nightvision*, etc. Spells which cannot be made “constant” include elemental attack spells, base attack spells, etc., which is where the second means of using *Constant Power* imbedding comes in. A *Constant Power* ability can be designated as being “at will”, allowing the entity to use the ability up to once every round. This variant is suitable for providing golems and constructs with frequent elemental attack capabilities and so on.

In standard item creation, there is only a single *Constant* spell, which in conjunction with a sufficiently high-powered *Imbed* spell can render any appropriate spell effect constant. Conversely for entity creation, there is a series of *Constant Power #* spells with the # limiting the maximum spell which can be rendered “constant” or “at will”. The net effect is that entities can receive low-level constant abilities by low to medium powered casters. This is deliberate and necessary to simulate the magical abilities of existing beast golems and constructs without requiring the existence of many very high-level casters to create the world’s supply of interesting artificial entities. However, GMs concerned about play-balance issues should remember that these constant and at-will abilities are **not** being imbedded in inanimate items automatically accessible to the caster, but in autonomous artificial creatures who may or may not be obedient to their creators.



As described in *Treasure Companion*, the *Research* spell provides a neat solution to the logistical nightmares of imbedding spells into items where the alchemist lacks the intrinsic ability to cast the imbedded spell himself. Equivalent *Research* spells have been placed on both *Construct Magic* and *Golem Magic* to achieve the same effect. The spell to be imbedded must be cast once into the entity - prior to this casting, the *Research* spell may be cast which will record the magical patterns of the spell to be imbedded if that spell is cast within one minute. On every day thereafter, the creator may cast the *Research* spell (at a power point cost of one plus the level of the imbedded spell) instead of the imbedded spell itself. A caster may only have one spell's parameters stored in a *Research* spell at any given time (but may choose to replace the stored spell at any time).

6.11 OBEDIENCE AND INTELLIGENCE ENHANCEMENTS

When the final spell of creation is cast, magic will imbue the finished Golem or Construct with a semblance of "life" and a purpose to serve its master with total and literal obedience. Unless possessed accidentally or deliberately by some errant spirit or enhanced temporarily by a spell from the *Sentience* spell list, the entity will have a very minimal mind, equating to somewhere between empathic and very low intelligence. It will comprehend simple orders, if expressed as spoken phrases of five words or less in the native language of its creator. If its creator issues these orders, it will attempt to fulfill them to the best of its ability. In combat situations, this means that a Golem or Construct will use lethal force even if only ordered to "Attack all intruders" rather than "Kill all intruders". Moreover, these entities have no tactical common sense – so a Golem with spell capabilities will unleash attack spells at the first foe rather than the most dangerous opponents, just as a Construct with charged powers will make no attempt to conserve those charges. Even in non-combat situations, literalism will prevail and entities may repetitively follow orders until and unless they are ordered to stop.

Unless they are subverted by possessing spirits or magic, unenhanced Golems and Constructs will obey all orders given to them by their creator. In the unlikely event that multiple spell users have undertaken the magical portions of the creation process, the entity will consider its "creator" to be the most powerful spell user (in terms of level) involved in the ritual.

Additionally a creator can designate another individual as the entity's *Master*, e.g. by pointing at that being and saying "Obey your master". The entity will

obey the *Master* as if that person were its creator, except that any orders from the creator will be followed in preference to the orders from the *Master*. The *Master* can transfer the bond of obedience similarly, except that the former master may no longer command the entity without recourse to magic.

In the event that either the creator or the master perishes without designating a new master, the entity will attempt to fulfill the last instruction it was given. If this is an ongoing duty, such as guarding a door, it will continue doing this *forever* or until it is destroyed or mastered by another wizard. In the event that it has no final orders from either creator or master, it will wait until someone attempts to command it, whereupon the entity will go berserk and attack that person (and anyone else nearby), unless the entity is restrained by magic.

(A note to GMs: in *Creatures & Monsters*, it is stated that golems only obey their makers. The aim of allowing makers to designate a *Master* is to enlarge the role-playing opportunities possible to GMs – using this enables Golems and Constructs to be found in the service of individuals other than high-powered wizards, opening the door to many different types of encounter.)

While *Glyph of Control* # spells will ensure obedience by preventing unwanted possession, improving the intelligence of a Golem or a Construct requires either the use of a *Sentience* spell (which provides a temporary boost) or the imbedding of a spirit of some kind. As these modifications are temporary to a greater or lesser extent, these do not increase the entity's creation level for creation purposes.

6.12 TIME, MATERIALS, AND MONEY

6.12.1 TIME COST

The base time cost for creating a Construct or a Golem is one week per creation level of the entity.

Examples: The Tiny Winged Goblin Clay Golem has a creation level of 12, so it will require at least 12 weeks to create, whereas the Large Shark Construct has a creation level of 25, so it will require 25 weeks to make.

As described in sections 6.8 and 6.9, the time to physically manufacture a Golem or a Construct can be delayed by failed skill maneuvers, so this base time cost is a minimum.

Certain materials do not *naturally* occur in single pieces of sufficient size to create even a Tiny Golem from them. In some settings, magical phenomena such as earthnodes will create diamonds and other gemstones of huge sizes. For those who dwell in worlds where such happenings are impossible, the *Golem* spells can be used to merge fragments of a material (such as crystal, bones, laen, etc.) into a single whole before the normal enchanting process begins. This **doubles** the base creation time to **two weeks** per creation level.

Really huge Entities (with at least one dimension greater than 20') are more laborious to physically manufacture. For each 20' (or part of 20') above 20', add one unit of base time cost. For example, a 20' tall Golem with a creation level of 28 has a base creation time of 28 weeks. A 35' tall Golem with the same creation level (28) would take 56 weeks to build (28 + 28) - its advantage is that its concussion hit damage is multiplied by 4.

Option: A GM may wish to allow the time costs to be distributed over several alchemists if they are all capable of casting all the spells involved in the creation process. If this is done, then the creators must also physically manufacture the entity themselves or hire more craftsmen and sculptors. Any time-sharing does not change the monetary cost of the entity.

6.12.2 MATERIALS AND MONEY

In standard *Rolemaster* item creation, all magic items have a financial cost representing the exotic materials, special equipment, and materials needed to make them. These costs are calculated abstractly from the levels of the spells involved. Where Golems and Constructs are concerned, the material involved is the principal cost factor – a Wood Golem and an Iron Golem could be generated using the above rules with the same creation level, nevertheless the Iron Golem should be more expensive.

Creators face three costs in creating Golems and Constructs, namely the setting up of a laboratory, tools and process costs for a specific entity, and the actual materials cost for the entity.

Laboratory Cost

This is a one-off investment in suitable facilities such as a workshop to perform the fabricating and enchanting. Larger entities require more extensive facilities as follows.

Tiny Constructs and Golems: 100 gold pieces

Small Constructs and Golems: 200 gold pieces

Medium Constructs and Golems: 500 gold pieces

Large Constructs and Golems: 1,000 gold pieces

Huge Constructs and Golems: 2,000 gold pieces

These are minimum costs – dedicated creators might invest substantially more resources to create superb laboratory complexes in defensible strongholds, just in case the locals take exception to the experiments.

Tools and Process Cost

Creating these entities requires such mundane necessities as parchment to record blueprints, tools and moulds to shape component parts, fuel for forges, etc. These costs are determined by the complexity of the entity to be created, and are equal to its creation level squared in gold pieces.

Example: The Tiny Winged Goblin Golem has a creation level of 12, which means it has a tools and process cost of 12 x 12 or 144 gold pieces. The Large Shark Construct has a creation level of 25, which entails a tools and process cost of 25 x 25 or 625 gold pieces.

Material Quantities and Costs

To determine how much an entity will cost in terms of materials, it is necessary to first calculate how much material in terms of **mass** is required for its construction. This requires the **volume** of the entity to be calculated first – as density times volume equals mass.

To make the situation more complex, it is not the volume of the final entity, which we require, but the volume of the original block of material, which was carved, sculpted or otherwise fashioned into the final form. When creating a statue, a sculptor begins with a large block of stone and chips bits of that stone away until the desired shape is revealed. Likewise with Golems and (to a lesser extent) with Constructs.

There are two methods for calculating entity volume, with the second generating a very approximate estimate.

Method A: Known Organic Mass

Many creators model their artificial entities on actual living creatures. For some of these, the typical mass of a living specimen can be referenced in *Creatures & Monsters*, or found in the Height and Weight Tables for standard PC races, and for real-world species in some encyclopedias.

If the organic mass is known, then use the following formula to calculate the creature's volume in cubic feet:

$$\text{Volume (in cubic feet)} = \text{Mass (in pounds)} / 62.5$$

(average density of flesh in pounds per cubic foot).

Example: The Brass Humanoid Golem is modeled on a six-foot tall human being with a mass of 180 lbs. The entity volume is 180 / 62.5 equals 2.88 cubic feet.

This method should be used wherever possible as it provides realistic but fair costings for entities.

Method B: Creature Dimensions Known

If the mass of an equivalent living creature is not known, or no organic counterpart exists, a very rough approximation to the entity volume can be estimated using whatever size dimensions (e.g. length, height, width, etc.) of the entity design are known.

Humanoids can be approximated as cylinders. The girth (waistline) of the entity can be further approximated as a circumference equal to half the entity's height. After a bit of algebraic manipulation of the formulae for the volume of a cylinder and the circumference of a circle, the Humanoid Entity Volume Formula is:

Volume = (height cubed) / (16 times pi) [pi is 3.14].

Example: The Warrior Construct is also to be designed as a 6' tall humanoid. Using this method, the volume is 216 (6 cubed) / (16 times 3.14) or 4.3 cubic feet. In this case, this method has over-estimated the volume by 1.42 cubic feet.

Most land animals can be approximated as cuboids. If only one dimension is known (e.g. length), the volume is simply the cube of the known dimension. If two dimensions are known, say length and height, the volume is length times height times the smaller dimension. If all three dimensions are known, multiply all three to obtain the volume.

Example: The Iron Wolf Golem is to be Large in size, and the enchantress has decided it will be 9' tall, 6' long from nose to tail, and 2' wide. Its volume is 108 cubic feet (9 times 6 times 2).

For birds, the key dimension is wingspan, the distance from the tip of one wing to the other. The length of a bird (from beak to tail feather) can be approximated as one-third of the wingspan. Thus the shape can be approximated as a cylinder of "height" equal to wingspan and radius equal to one-sixth wingspan, leading to the following formula

Avian Entity Volume = (pi * (wingspan cubed)) / 36.

Example: A sorcerer decides to create a Construct in the form of a Great Falcon. The wingspan of this majestic bird is 25'. The volume is 3.14 times 15625 (25 cubed) divided by 36, which is approximately 1363 cubic feet.

For reptiles and amphibians, use either cuboids or cylinders (as appropriate) to bound the volume, e.g. a normal snake is a cylinder with a "height" equal to its length and a radius of several inches maximum, while a frog may be estimated as a cube. For fish, use the same formula as for humanoid creatures, substituting length for height.

Example: The Shark Construct is to be 10' long. Its volume is 1000 (10 cubed) divided by (16 times 3.14), or 19.9 cubic feet.

The volumes of most monsters, Demons, and so on can be approximated by the formulae. Simply consult the physical description in *Creatures & Monsters* and choose the most apt bounding shape. Flying monsters such as Dragons require a special form of the Avian formula, as they are essentially beings with large central bodies and even larger wings.

Flying Monster Entity Volume = wingspan * pi * (body length squared) / 4.

Example: The Winged Goblin Golem is to be Tiny in size, so both its body and wingspan must be 1' or smaller in length. The alchemist decides to make its body length six inches and its wingspan 1'. The volume is 1 times 3.14 times 0.25 (0.5 squared) divided by 4, or 0.2 cubic feet.

The volumes calculated by either method can be used as is for Golems. However as Constructs are not solid pieces of material, the following approximations may now be made for the volume of the Construct's exterior armor and its internal mechanisms.

Exterior armor volume = Volume / 4.

Interior components = Volume / 4.

If the Construct is fashioned from two materials (one external, one internal), then the mass and cost must be calculated separately for each.

Examples: The actual volume of the Warrior Construct is 4.3 / 4 or 1.075 cubic feet for exterior components, and an equal amount for internal components. The total volume of required material is 2.15 cubic feet. Likewise the Shark Construct is half of 19.9 or 9.95 cubic feet.

Next, consult the Materials Table for the density of the desired entity material, and then calculate the required mass as follows.

Material mass (in pounds) = Volume * Material Density.

Examples: The Brass Golem has a volume of 2.88 cubic feet, times 507 (for density), equals 1460 lbs. The Iron Wolf has a volume of 108 cubic feet, times 491, equals 53028 lbs. The Winged Goblin has a volume of 0.2 cubic feet, times 140 (for clay) which equals 28 lbs. The Warrior Construct has a volume of 2.15 cubic feet, times 489 (for Steel II), equals 1051 lbs. The Shark Construct has a volume of 9.95 cubic feet times 547 which equals 5443 lbs. All results have been rounded to the nearest pound.

Finally, consult the Materials Table for the material's base price. The materials cost is: Cost = Material mass * Price per pound.

Examples: The Brass Golem has a materials cost of 876gp (1460 times 7sp). The Iron Wolf has a materials cost of 33,9379 tin pieces and 4 iron pieces (53028 times 6.4 tin pieces) or almost 34gp. The Winged Goblin Clay Golem is even cheaper at 3cp per lb (28 times 3) – a cost of 84cp. The Bronze Shark Construct costs 3483gp, 5sp, and 2bp (5443 lbs times 64bp per lb equals 348352bp). The Warrior Construct has a materials price of 33,632cp (or less than 34gp) from 1051 lbs times 32cp.

In Table 6.18, the gems and metals pricing scheme from *Treasure Companion* has been used wherever possible. The prices for bone, clay, ice, stone, tar, water and wood assume that they are readily available. In environments where this is not the case, e.g. ice in a desert, the GM should adjust the prices accordingly. Conversely for an alchemist working in the tundra the only materials cost related to ice would be a nominal sum to cover collecting and transporting a large enough chunk to the alchemist's workshop.

Alchemists wishing to build substantial Golems or Constructs from magical materials or gemstones will need to be very rich.

TABLE 6.18 MATERIALS DENSITY AND PRICES

Material	Density≈ (lbs / cubic foot)	Price per pound
Adamantium	1300	640gp
Bone	115	6bp, 4cp
Brass	507	7sp
Bronze	547	6sp, 4bp
Clay	140	3cp
Copper	557	6bp, 4cp
Crystal	165	81gp, 8sp, 2bp, 8cp
Diamond	218	34095gp
Emerald	172	15911gp
Eog	1400	640gp
Gold	1204	64gp
Ice	57	2cp
Illinar	57	5gp
Iron	491	6tp, 4ip
Laen	160	640gp
Lead	704	1sp
Ruby	250	44550gp
Sapphire	250	19093gp
Silver	655	6gp, 4sp
Steel	490	6cp, 4tp
Steel II	489	3bp, 2cp
Steel III	488	6bp, 4cp
Steel IV	487	3sp, 2bp
Stone	118-162 (limestone), 125-162 (sandstone), 162-181 (granite)	8tp
Tar	53	1bp
Water	62.5	5tp
Wood	8 (balsa), 28 (pine), 35 (cedar), 41 (mahogany), 47 (oak and ash), 76 (ebony)	7tp

6.13 REPAIRING GOLEMS AND CONSTRUCTS

It is a sad fact of existence that Golems and Constructs will sooner or later become damaged. As these entities are not organic creatures, they cannot "heal" themselves. Moreover as the entities are magically animated beings, they cannot be repaired through the simple use of skills—if a Stone Golem has one of its arms severed, glue might suffice to reattach it physically but the affixed arm will be "dead" (motionless and inanimate).

Instead, spells are required to mend these entities, namely the *Minor Construct Repair*, *Major Construct Repair*, and *Construct Repair True* spells for Constructs, and the *Minor Golem Repair*, *Major Golem Repair*, and *Golem Repair True* spells for Golems. Each of these Repair spells can be used to remedy ordinary damage in the form of concussion hits—they can also be used to repair more substantial damage.

The *Minor Golem Repair* and the *Minor Construct Repair* spells can reattach a severed body part to a Golem or Construct, or repair a damaged body part still attached to the entity. A *Minor Golem Repair* could reattach the Stone Golem's arm, provided the arm was not shattered when it was severed.

The *Major Golem Repair* and the *Major Construct Repair* spells can reattach a severed body part to a Golem or Construct, even if the body part is in fragments. However all the pieces must be available for this restoration to work.

In extreme cases, entities will suffer complete destruction of parts of their bodies. Replacements must be fashioned using the appropriate Crafting and Sculpting skills. This will take 20% of the original time required to manufacture the whole entity (minimum of one day), and 20% of the original materials cost for the entire entity. A *Repair Golem True* or a *Repair Construct True* spell must then be cast to unite the new component with the original body.

If a Golem or Construct's *Glyph of Control* is damaged or destroyed, a new *Glyph* spell can be placed on the entity. If this is successful, then the entity will switch its obedience to the caster of the new *Glyph* spell. Restraining a possessed berserk entity long enough for the spell to take effect will prove a perilous challenge. Frequent use of *Purge Golem* and *Purge Construct* spells should prevent the entity being taken over by a malevolent spirit; the basic entity may still be hostile to losing its newfound independence and willing to fight for its freedom.

The *Charged Power* spells can restore charged abilities of both Constructs and Golems as described in section 6.10.

Many Construct designs incorporate missile weapons, poisons and other expendable items. Constructs can be reloaded manually with crossbow bolts, poison doses, and so on – alternatively high-powered creators can use the *Replenish Construct* spell to resupply the entity with such items. For non-magical materials, this spell will transmute and transform base materials (raw iron, water, etc.) into finished bolts and poisons inside the Construct. (If the construct uses high steel weaponry, the spell will transform ordinary iron into high steel bolts.) For magical materials such as adamantium, the spell can only transform the material into the right forms and transfer them into the Construct.

6.14 A BESTIARY OF GOLEMS AND CONSTRUCTS

These artificial entities have all been created using the rules in preceding sections. They are presented in standard C&M format, but the following statistical entries have been omitted - #Enc (number encountered), Treasure, Habitat, and Outlook (IQ) as these depend wholly on the creator (or GM!). Instead the creation formulae and materials costs (rounded up to nearest relevant coin) have been provided.

6.14.1 GOLEMS

Stone Chessmen

Level: 1 Size: T MS/AQ: MD/MD
Base Move: 10 Max Pace: Run MM Bonus: +0
Hits: 45 Crits: # AT(DB): 16(20)
Attacks: 20SBa / 0SGr / 20SCr / Spells

Creation Level is: 6 [(7 (stone) + 0 (humanoid) x0.5 (size)) +2 (*Shock Bolt* at will)].

Process cost: 36gp. Materials cost: 4tp (stone is cheap).

Iron Bear

Level: 10 Size: L MS/AQ: MF/MF
Base Move: 80 Max Pace: Spt MM Bonus: +0
Hits: 400 Crits: LA# AT(DB): 20(40)
Attacks: 95LBa / 95LGr / 80LCI / 80LBI

Creation Level is: 30 [(12 (iron) + 1 (mammal) x1.5 (size)) +4 (movement) + 1 (pace) +1 (MS) +1 (AQ) +2 (extra attacks) +2 (increased OBs)].

Process cost: 900gp. Materials cost (8' length): 161gp.

Stone Beetle

Level: 4 Size: M MS/AQ: MF/MF
Base Move: 50 Max Pace: Spt MM Bonus: +0
Hits: 180 Crits: II# AT(DB): 16(30)
Attacks: 100MPi

Creation Level is: 16 [(7 (stone) + 2 (insect) x1 (size)) +3 (movement) + 1 (pace) +1 (MS) +1 (AQ) -1 (less attack) +2 (increased OBs)].

Process cost: 256gp. Materials cost (granite, 6' length): 32gp.

Iron Elephant

Level: 21 Size: H MS/AQ: FA/FA
Base Move: 120 Max Pace: Spt MM Bonus: +0
Hits: 600 Crits: SL# AT(DB): 20 (50)
Attacks: 120HHo / 120 HGr / 120HCr / 120HBa / 120HTs

Creation Level is 41 [(12 (iron) + 1 (mammal) x2 (size)) +7 (movement) + 1 (pace) +2 (MS) +2 (AQ) +3 (extra attacks)].

Process cost: 1681gp. Materials cost (24' long, 12' tall): 1087gp.

Steel Griffin

Level: 16 Size: L MS/AQ: FA/VF
Base Move: 100 Max Pace: Dash MM Bonus: +0
Hits: 500 Crits: LA# AT(DB): 20(65)
Attacks: 100LCI / 80LBa / 100LPi

Creation Level is 48 [(14 (steel II) + 6 (flying monster) x1.5 (size)) +5 (movement) + 3 (pace) +2 (MS) +3 (AQ) +1 (extra attacks) +4 (bonus to OBs)].

Process cost: 2304gp. Materials cost (6' long, 30' wing-span): 13,267gp (Steel II is expensive!).

Bronze Hippocampus

Level: 11 Size: L MS/AQ: FA/MF
Base Move: 100 Max Pace: Dash MM Bonus: +0
Hits: 300 Crits: LA# AT(DB): 20(30)
Attacks: 80LBI / 80LCI

Creation Level is 33 [(9 (bronze) + 5 (aquatic monster) x1.5 (size)) +6 (movement) + 3 (pace) +2 (MS) +1 (AQ)].

Process cost: 1089gp. Materials cost (10' long): 6969gp.

Copper Zephyr Hound

Level: 12 Size: M MS/AQ: VF/VF
Base Move: 150 Max Pace: Dash MM Bonus: +0
Hits: 125 Crits: II# AT(DB): 20(40)
Attacks: 60MBi / 40Lightning Bolt

Creation Level is 46 [(8 (copper) + 4 (monster) x1 (size)) +12 (movement) + 3 (pace) +4 (MS) +4 (AQ) -1 (fewer attacks) +2 (bonus to OBs) +10 (*Lightning Bolt* at will)].

Process cost: 2116gp. Materials cost (6' long): 7700gp.

The Stone Chessmen are miniature humanoid Golems (usually around 6" tall), fashioned in the shape of chess pieces for which they are sometimes mistaken. They have minimal mundane offensive potential as their creators reserve their enchantments for deadly attack spells (such

as the at-will *Shock Bolt* sported by the example). Magician-creators normally imbue them with Directed Spells skill via the *Sentience* spell list. One magician was even known to keep two chessmen in his pockets, only bringing them out when combat situations became critical. (An imbedded spirit intelligence would object to being kept in someone's pockets on a permanent basis.)

The Beast Golems are modeled on (but as deadly or more so than) their organic counterparts. Creators may wish to choose alternative materials or supply additional magical capabilities.

The Iron Bear Golem can stand (briefly) 8' tall on its legs, but its greatest asset is its ability to absorb substantial damage. Suitably painted and enhanced, this Golem can be used as a natural-seeming protector of forest-lands.

The Stone Beetle Golems mimics the unearthly Jadeback species, but lacks the poisonous bite of the living insect.

Iron Elephant Golems are prized as the ultimate in heavy cavalry, with a carrying capacity of 1,000 lbs. (+0 Riding Bonus). Unlike real elephants, these Golems cannot be frightened into stampeding against their creator's (master's) will. They are also more fearsome opponents. Maintenance to prevent rust damage can become a serious issue for these entities when deployed in rainforests, jungles or in monsoon conditions.

Steel Griffin Golems are both excellent aerial transport (with 500 lbs. carrying capacity and a top speed in excess of 30 mph) and fine steeds for airborne combat and air-to-ground attacks. Their 30' wingspan makes them expensive to construct.

The Bronze Hippocampus Golem is an equivalent aquatic steed (with a 500 lbs. carrying capacity), suited for both surface and underwater combat.

This Copper Zephyr Hound Golem is an artificial version of the Storm Zephyr Golem. Its copper composition makes it immune to electricity attacks, whilst the accuracy of its *Lightning Bolt* can be improved by imbedding Directed Spells skill.

6.14.2 CONSTRUCTS

Basilisk

Level: 21 Size: H MS/AQ: VF/VF
Base Move: 100 Max Pace: Dash MM Bonus: +20
Hits: 450 Crits: SL# AT(DB): 20(60)
Attacks: 100HPi(2D) / 100HCl (2D) / poison

Creation Level is: 42 [(9 (winged monster) +8 (steel IV) x2 (size)) +3 (pace) +1 (mm bonus) +1.5 (MS) +1.5 (AQ) +1 (poison reservoir)].

Process cost: 1764gp. Materials cost (25' long, 25' wingspan): 955,738gp (Steel IV costs!).

Eagle (Giant)

Level: 38 Size: H MS/AQ: BF/BF
Base Move: 300 Max Pace: Dash MM Bonus: +20
Hits: 450 Crits: SL# AT(DB): 20(70)
Attacks: 200HCl(3D) / 120HBa(3D) / 150 HPi(3D)

Creation Level is: 76 [(9 (winged monster) +8 (steel IV) x2 (size)) +15 (movement) +3 (pace) +1 (mm bonus) +2 (MS) +2 (AQ) +1 (extra attack) +17 (extra OBs) + (mount)].

Process cost: 5776gp. Materials cost (40' wingspan): 434,967gp (you had better own a small kingdom!).

Kraken

Level: 21 Size: H MS/AQ: MF/MF
Base Move: 120 Max Pace: Dash MM Bonus: +20
Hits: 450 Crits: SL# AT(DB): 20(30)
Attacks: 100HGr(2D) (8x)

Creation Level is: 42 [(6 (aquatic) +4 (steel II) x2 (size)) +2 (movement) +3 (pace) +1 (MM Bonus) +0.5 (MS) +0.5 (AQ) +6 (extra attacks) +8 (increased OBs) +1 (all-around vision) +5 (constant *Watervision*)].

Process cost: 1764gp. Materials cost (30' long, 4' thick body, 8 30' long and 1' thick tentacles): 4423gp.

Manticore

Level: 12 Size: L MS/AQ: BF/BF
Base Move: 100 Max Pace: Dash MM Bonus: +0
Hits: 240 Crits: LA# AT(DB): 20(50)
Attacks: 100LCl / 100hcb

Creation Level is: 36 [(8 (monster) +1 (iron) x1.5 (size)) +2 (movement) +3 (pace) +2 (MS) +2 (AQ) +8 (increased OBs) +1 (self reloading heavy dart thrower) +4 (constant *Nightvision*)].

Process cost: 1296gp. Materials cost (9' long): 115gp.

Rat

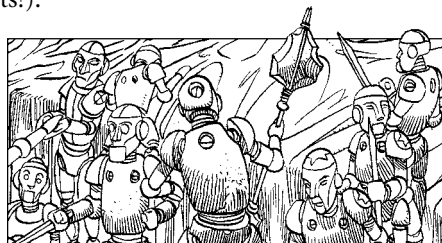
Level: 5 Size: S MS/AQ: FA/FA
Base Move: 20 Max Pace: Dash MM Bonus: +20
Hits: 60 Crits: I# AT(DB): 20(30)
Attacks: 20SBi / 40lcb

Creation Level is: 20 [(5 (mammal) +1 (iron) x0.75 (size)) +3 (pace) +1 (MM Bonus) +1 (MS) +1 (AQ) +2 (increased OBs) +2 (mechanical paws) +1 (poison reservoir) +1 (concealed weapon) +1 (Self-Reloading Light Dart Thrower) +4 (constant *Nightvision*)].

Process cost: 400gp. Materials cost (1.25' long): 31bp.

Scorpion

Level: 8 Size: M MS/AQ: FA/BF
Base Move: 100 Max Pace: Spt MM Bonus: +20
Hits: 150 Crits: II# AT(DB): 20(35)
Attacks: 80LPi (x2) / 90lcb





Creation Level is: 32 [(6 (insect) + 2 (Steel I) x1 (size)) +3 (movement) + 1 (pace) +1 (MM Bonus) +1 (MS) +2 (AQ) +1 (extra attack) +2 (increased attack sizes) +13 (increased OBs) +1 (poison reservoir) +1 (Self-Reloading Light Dart Thrower)].

Process cost: 1024gp. Materials cost (6' long): 339gp.

Tiger

Level: 11 **Size:** L **MS/AQ:** VF/VF
Base Move: 100 **Max Pace:** Dash **MM Bonus:** +40
Hits: 300 **Crits:** LA# **AT(DB):** 20(50)
Attacks: 100LCI / 100 LBi

Creation Level is: 33 [(5 (mammal) + 4 (Steel II) x1.5 (size)) +2 (movement) + 3 (pace) +2 (MM Bonus) +1.5 (MS) +1.5 (AQ) +8 (increased OBs) +1 (mount)].

Process cost: 1089gp. Materials cost (8' long): 4006gp.

These Beast Constructs are modeled on their organic counterparts. With the possible exception of the Basilisk, they are all more deadly than the living creatures. Further spell augmentation is left to the creative discretion of the alchemist. Likewise creators may wish to choose alternative materials, balancing capabilities and financial cost.

The Basilisk Construct lacks the spell-casting and petrifying abilities of a real Greater Basilisk, but its mundane combat capabilities are significantly superior. Frequently Basilisk Constructs are designed as 25' long with a 9' tail and 25' wingspan, and enhanced with a selection of destructive spell abilities. Its attacks do double concussion hit damage due to its size.

The Giant Eagle Construct mirrors in form (if not in size) the mightiest birds of the air. Requiring an extremely powerful (and wealthy) Creator, the example Giant Eagle has a wingspan of 40' (equivalent to a Minor Great Eagle), but has the speed and offensive potential of the largest Great Eagles without their arrogance. Its attacks do triple concussion hit damage due to its size. A superb flyer, this entity has a carrying capacity of 1000 lbs. and a Riding Bonus of +10.

The Kraken Construct is essentially a huge squid with a 30' body and eight strong 30' long tentacles. Owing to its size, its tentacles do double Concussion hit damage. With its improved all-around watervision and natural weaponry, this construct is designed for underwater patrol and guard duties at any depth. Some versions incorporate poison reservoirs channeled to strategically placed spines to immobilize or slay enemies faster. *Unseen* or equivalent spells are preferred as camouflage rather than the "ink cloud" released by natural squids (the need for frequent ink refills would limit the construct's range.)

Manticore Constructs are frequently deployed to protect wizards' manses from unwanted intrusion or as frontline assault forces against lightly armored cavalry. Suitably empowered, these constructs can also serve as relentless trackers.

Rat Constructs are fashioned to be as lifelike and innocuous seeming as possible. Their application is as spies and scouts, relying on their small size to infiltrate tight spaces, and mechanical paws to manipulate tools and mechanisms. They are almost always enhanced us-

ing *Sentience* to give them perception and thieving skills as well as sensory recording capabilities. As a nasty surprise, most Rat Constructs have concealed dart throwers (with poisoned darts) to use against anyone who discovers them in action.

The Scorpion Construct mimics the Gemsting (Giant Scorpion), but its dart thrower gives it the opportunity to engage opponents at long range. Sometimes enhanced with *Nightvision* (or *Darkvision*), these entities are used as sentries or roving patrols inside underground complexes.

The Tiger Construct is both a fine steed (with a +10 Riding bonus and 500 lbs. carrying capacity) and a dangerous combatant. It is frequently reserved as a mount for elite warriors in battle.

6.14.3 THE COLOSSUS

Level: 25 **Size:** H **MS/AQ:** BF/BF
Base Move: 100 **Max Pace:** Dash **MM Bonus:** +20
Hits: 450 **Crits:** SL# **AT(DB):** 20(70)
Attacks: 220Morningstar (6D) / 220Falchion(6D)

Creation Level is: 50 [(4 (humanoid) + 8 (steel IV) x2 (size)) +1 (movement) +3 (pace) +1 (MM Bonus) +2 (MS) +2 (AQ) +16 (increased OBs) +1 (spikes and spines)].

Process cost: 2500gp. Materials cost (75' tall, steel IV): 654,528gp.

This 75' tall Colossus Construct is one possible implementation of the gigantic artificial warrior, which is featured on the front cover devastating some unfortunate stronghold. (An iron-only version would reduce the cost to just over 13,000gp, as well as allowing for more mechanical abilities and magical abilities to be permanently imbedded.) This is definitely an entity that deserves to be made intelligent using the means presented in the next chapter. A new body for a Demon Prince perhaps? Better hope the *Glyph of Control* holds!



Intelligent Entities

7.1

THINKING CREATIONS

A standard golem or construct, fresh from the workshop, is an extremely stupid creature. Its intelligence can be rated as equivalent to the empathic intelligences of some magical items or animals with “low” intelligence or worse (Memory and Reasoning stats of 12 or less). Limited to comprehending spoken orders of five words or less, the entities are always literal in their obedience. Woe betide the sarcastic mage who cannot guard his tongue – those off-hand remarks could cost him his life!

Golems and constructs can be made substantially more intelligent. The first method draws upon a mage’s own sentience and is a temporary magical effect. The second method requires a spirit, a demon, an elemental, or a living creature to place its “essence” (soul and mind) within the entity, voluntarily or otherwise. In some cases, the new inhabitants will require some mental boosting for them to be smarter than the original basic creature. The third method is to permit a wandering spirit or demon to possess the artificial being.

7.1.1 ADVANTAGES AND DISADVANTAGES

An entity with superior intelligence can be of great benefit to its creator. It would be able to follow more complex orders with less direct supervision. It would be able to interpret orders less literally, and be able to improvise solutions when the obvious methods have failed. In combat situations, the entity would have a better tactical grasp of its environment, its opponents, and its own resources, enabling it to utilize its attacks and special abilities to maximum effect. For creators who don’t inscribe *Glyphs of Control* onto their entities, methods of enhancing entity sentience via imbedding spirits and the like have the other advantage that they know the “mind” inhabiting their entity rather than having to deal with an opportunistic spirit which chanced to possess the creature. “Better the devil you know” is an article of faith in some arcane circles.

Unfortunately increased intelligence is not without a few subtle drawbacks. A little learning can be a dangerous thing – the entity may now be sufficiently smart to avoid obvious flaws in its reasoning, only to be outwitted by a truly clever opponent willing to do the unexpected. Conversely, mages may treat the entity as being more intelligent than it actually is, and become habituated to issuing casual and potentially ambiguous commands. Sooner or later, such orders will be misinterpreted and there may be no one nearby able to countermand the entity in time.

Masters of golems and constructs, which have been animated by incarnate spirits and their ilk, should always be alert for signs of disloyalty. Whereas a standard entity will simply go berserk immediately, its smarter siblings will bide their time and await the most opportune moment to strike.

For every spell, there is a counterspell. Intelligence provided by purely magical means is subject to dispelling and the normal process of the spells’ durations running out. Intelligence provided by the life essences of natural and supernatural beings can be removed by exorcism rituals and spells such as *Purge Golem #* and *Purge Construct #*. The unfortunate entity will then revert to its normal level of stupidity, with serious adverse consequences if it is undertaking orders that require intelligence to complete safely, let alone successfully.

7.1.2 THE ETHICS OF IMBEDDING INTELLIGENCE

Raising the intelligence of a Golem or a Construct by drawing upon one’s own capabilities is unlikely to raise moral concerns. Raising an entity’s intellect by imbedding the life essence of another creature into that entity does have ethical implications, however, and can cause conflict between creators and the spiritual and temporal authorities of the world.

Confinement to the body of a golem or construct may be considered by some beings (such as itinerant spirits, some elementals, etc.) to be a particularly cruel form of imprisonment. Once resident, there is no escape unless a *Purge Golem* or a *Purge Construct* spell expels the animating spirit, the entity is destroyed beyond repair, or the caster relents.

The confinement may also be worse than just captivity. Mages normally create golems and constructs to serve them and others. The imprisoned being may find itself deprived of its free will and compelled to obey every order of its creator and master – condemned to be an eternal slave in an alien body. Demons and other highly independent beings will normally resent the loss of their independence.

For some beings, such as demons, elementals, and spirits, the process of imbedding them into an entity transforms them into a wholly spiritual nature. On release from being incarnated within the entity, they are restored to their natural physical body, elemental energy or original spiritual form. For all other creatures, such as animals, monsters, and members of intelligent races, the process of imbedding separates the life essence from the physical body. Unless special precautions are taken, the body will sicken and die preventing the animating spirit from returning there, but the creature’s mind and soul will remain with the entity for an indefinite period. If and when the life essence is released, the soul may be finally able to journey to the next plane of existence or alternatively it may be damned to roam the living world as a disembodied spirit. The decision as to what happens in such cases will vary from setting to setting and is a decision for the GM to make.

For many, what or who is imbedded may determine whether the act of imbedding is itself an evil act. Some may consider forcibly imbedding an inherently evil being such as a demon into a Golem a just punishment

rather than a crime. Imbedding a creature of minimal self-awareness such as a “lower” animal, particularly if it was already dying, may raise no qualms. Likewise certain types of Elementals have negligible sentience, and will not even remember being imbedded once released, so may be considered fair game for temporary imbedding.

Of course, some beings may voluntarily submit to imbedding, either to further their own beliefs and goals or because they have been convinced by a persuasive caster. (For instance, Paladins of an order dedicated to protecting religious shrines might, on their deathbed, volunteer to be imbedded into Constructs for some defined period to serve as temple guardians.) Most casters will have no problems justifying such voluntary imbedding. Some religions may disagree vigorously with any imbedding, deeming it to be a blasphemous meddling with the natural order of life, death, and the after-life.

GMs may choose to accentuate the moral ambiguities inherent in imbedding, and may wish to use them as an ethical in-game reason for controlling access and/or use of the Empowerment spell lists.

7.2 ENDOWING SENTIENCE

Each of the three methods of granting intelligence to Golems and Constructs will be considered in turn.

7.2.1 SELF EMPOWERMENT

This method draws upon the caster’s own intellect to grant a Golem or a Construct a temporary mind. It requires the caster to have access to the *Sentience* spell list. It can also be combined with the imbedding techniques to boost the intelligence and abilities of a resident Spirit, Demon, Elemental, or Life Essence.

There are several advantages to using the *Sentience* spell list. Perhaps the most important is that there are no moral issues about obtaining and utilizing the spiritual essences and minds of other beings. The “minds” inhabiting such enhanced entities are manifestations of the caster’s own mind, shadowy reflections temporarily animated by magic. Secondly the creator can share appropriate skills and knowledge with the entity – but can choose what and how much is learned by the entity. Thirdly the spells are temporary when not used on an imbedded spirit – if the entity goes rogue, the caster can end the spells prematurely.

The most obvious disadvantage is that the spells on the *Sentience* are all tempo-

rary (unless applied to resident spirits) and can be dispelled by more powerful spell users. Secondly (as indicated by the special notes accompanying the spell list), the maximum effects of the spells are limited by the caster’s own mental prowess, knowledge, and skills. Thirdly if the *Sentience* spell list is used to empower resident spirits, the benefits to them are permanent which is fine so long as they remain obedient, but gravely dangerous should they rebel.

Creators from the Mentalism Realm of Power favor the *Sentience* spell list.

7.2.2 SPIRIT EMPOWERMENT

Spirits were perhaps the first type of being to be imbedded as sources of intelligence for Golems and Constructs. Certainly almost all types of Spirits have been known to possess artificial entities by accident. Nature abhors a vacuum and the mental vacuum within entities is very attractive to wandering spirits. More deliberate imbedding of Spirits requires access to the *Spirit Empowerment* spell list.


This method has several advantages. Most Spirits can be reasoned with; those immune to persuasion can be forced by magical might. The *Spirit Empowerment* spells can summon any chosen spirit type and level – and can control or banish any spirit. Some types of Spirits can be persuaded to accept imbedding voluntarily – and fortu-

itously these happen to be the most useful Spirits in terms of potential intellect. Finally summoned Spirits can be used for other purposes.

In terms of disadvantages, imbedded Spirits do not have the potential to bestow limited magical abilities to their entity bodies. (Certain priests and shamans can use *other* spell lists to fashion temporary spirit-powered magical items.) Further, imbedded Spirits cannot use their possession, emanation, or inundation attacks when inhabiting an entity – they are already possessing the Golem or Construct and its creation magic inhibits the other attacks. Low-level Spirits have limited mental abilities – creators may need to resort to the *Sentience* spell list to boost these if they are unwilling or unable to summon greater Spirits.

The greatest disadvantage of Spirits is that incorporation within a physical body places them at great risk of accumulating “taint levels”. As described in *Channeling Companion*, Spirits desire purity of thought, emotion, or ideal, and





contact with the material world gradually erodes (“taints”) this purity. As the Spirit acquires more taint, it slowly changes its personality, until it becomes an “Angry Spirit”. These Spirits detest the material world, desiring to kill everyone and destroy everything that they encounter – allow them unrestrained control of a Golem or a Construct and they will cause untold devastation. High-level casters can reduce taint levels using the *Purify Taint* spell – less powerful creators must rely on *Glyphs of Control* or *Compel* spells to enforce restraint, *Purge* spells to expel a hostile Spirit, or find a friendly Shaman fast.

Creators, who wish to persuade a Spirit to voluntarily submit to being imbedded, should consider some measure of personal spiritual preparation (such as prayer, fasting or participation in religious ceremonies for a number of hours or even days equal to the level of the desired Spirit) before casting any spells. Summoning should also take place in a location appropriate to the Spirit (e.g. nature-related Spirits should be called in their preferred locale rather than in a busy city street.) The purpose is to show due respect to the Spirit and prevent it receiving taint just by being summoned.

Having summoned the Spirit, the creator should use *Spirit Tongue* to converse with the spirit, and make his proposal. Certain types of Spirits appreciate incarnation more than others – they will be attracted by entities with magical abilities or unusual construction as well as promises of gaining benefits from the use of the *Sentience* spell list. Bargains that limit the creator’s dominance, e.g. a guaranteed release after some period, only to receive orders of a specific nature (i.e. to defend the creator’s community), or the entity not being restrained by a *Glyph of Control*, will sweeten the deal. GMs may choose to abstract the bargaining by a Diplomacy maneuver – see Table 7.1 for base Difficulty Levels and bargaining modifiers.

The various Spirit types have different degrees of intelligence – see Table 7.2 for details. Each type and their attitude to imbedding are also briefly described below.

Angry Spirits: Warped and twisted by too much taint, these Spirits seek only destruction. Almost always hostile to imbedding, only offers involving opportunities to kill and destroy on a grand scale will interest them, assuming that they even listen to their summoner.

Conceptual Spirits: Embodying the goals and ideals of a single concept (e.g. Christmas Past) or an event, these Spirits have no interest in becoming incarnate within artificial entities. Only a proposal that has the potential of helping them to further understand their concept will tempt them.

Elemental Spirits: These Spirits are the spirits of the natural elements (Earth, Water, Fire, Air, Light, and Cold), embodying their essence and nature rather than the elemental force represented by Elementals per se. They are attracted to physical forms that have purity of body (such as Golems) or elemental-based abilities. If *Fire & Ice: The Elemental Companion* is in use in the campaign, then these Spirits should not be available via the *Spirit Empowerment* spell list.

Emotive Spirits: These Spirits encapsulate raw emotion. Their limited intellects prevent meaningful negotiation as well as reducing their utility as animating spirits for artificial entities. Few creators use them.

Entity Spirits: These were formerly Standard Spirits, which accumulated more than their own level in taint through incarnation in a Golem or Construct. Released deliberately or through the destruction of their artificial body, they seek to return to a new body, and are the easiest of all Spirits to persuade to undergo voluntary imbedding.

Haunts: Created by traumatic events such as violent death, betrayal, etc., haunts are difficult to bargain with as their own rage and despair frequently overpowers them. Rarely used as a result, only the opportunity to achieve revenge on the cause of their agony and consequently a release to the spirit world will tempt them.

Rational Spirits: These spirits are defined by logic. Their weakness is a desire to gain knowledge, so creators with access to the *Sentience* spell list will have much to offer them in return for these spirits’ great intellectual potential.

Rural Spirits: In some settings, fey creatures such as Dryads and Nixies may be considered “Spirits” which have a physical form in the material world. Such spirits will seldom be interested in possessing artificial entities – they have their own physical bodies, after all. (Where such beings are not considered Spirits, they may be imbedded using the *Imbed Being Essence* # spells from the *Life Empowerment* spell list.) Non-physical rural spirits may be persuaded to inhabit organic Golems, particularly if the intention is to defend the environment.

Shaman Spirits: These are the spirits of Shamen, who by design or accident, have chosen to remain on the spirit world. Capable of using all its abilities and skills possessed in life even incarnate in an artificial body, a Shaman Spirit will exact a deadly revenge on anyone foolish enough to imbed it against its will. Persuading a Shaman Spirit to be imbedded is exceptionally difficult – usually only the need to defend the Shaman’s people from a clear and present danger will convince a Shaman Spirit to rejoin the mortal world (temporarily), and even then it will insist that no *Compel* or *Glyph of Control* spells are used to control it.

Standard (Unborn) Spirits: Without focus or theme, these Spirits transform into other spirit types by association with other spirits or by the accumulation of their level in taint. Their malleability and curiosity makes them a preferred animating spirit for creators.

Thematic Spirits: Similar to Conceptual Spirits in their focus, these are moreover tied to specific physical locations and as such are unsuitable for almost all imbedding purposes.

Totem Spirits: These represent a given ideal, theme and/or goal. Having the abilities to travel freely between the spirit world and the physical world, and to take a

material form in the physical world, incarnation in an artificial body has few attractions to a Totem Spirit. Indeed their physical form is a manifestation of their guiding ideology, so inhabiting any other form (i.e. that is not an artificial analogue of that form) is a denial of themselves. Very few creators can understand the subtle complexities of Totem Spirits; many are dissuaded by the fact that Totem Spirits have all the natural allies and *enemies* of their physical form, even when imbedded – a complication that the average creator does not need or desire.

TABLE 7.1 SPIRIT BARGAINS: DIFFICULTY LEVELS AND MODIFIERS

Spirit Type	Difficulty Level
Angry Spirits	Sheer Folly (-50)
Conceptual Spirits	Sheer Folly (-50)
Elemental Spirits	Very Hard (-20)
Emotive Spirits	Sheer Folly (-50)
Entity Spirits	Medium (+0)
Haunts	Sheer Folly (-50)
Rational Spirits	Extremely Hard (-30)
Rural Spirits	Sheer Folly (-50)
Shaman Spirits	Absurd (-70)
Standard (Unborn) Spirits	Hard (-10)
Thematic Spirits	Sheer Folly (-50)
Totem Spirits	Absurd (-70)
Bargain	Modifier
Caster has shown respect by self-preparation prior to Summoning	+10
Caster has shown respect in location of Summoning	+10
Caster is willing to purify the spirit's existing taint	+20
Caster has been disrespectful – not personally purified	-20

Caster has been disrespectful – improper Summoning location	-20
Proposed entity to animate has a suitable form for Spirit	+10
Proposed entity to animate has an unsuitable form for Spirit	-20
Proposed entity has intrinsic magical abilities (some Spirits only)	+10/ability
Caster will boost Spirit's IQ (some Spirits only)	+20
Caster will imbed skill knowledge (some Spirits only)	+5 per skill
Imbedding is temporary (e.g. one day per level of the caster)	+20
Imbedding is temporary (e.g. one week per level of the caster)	+10
Imbedding is temporary (e.g. one month per level of the caster)	+0
Imbedding is long-term (e.g. one year per level of the caster)	-10
Imbedding is indefinite	-30
Caster's aims are aligned with Spirit's goals	+10
Caster promises to assist Spirit in furthering its goals	+20
Caster's and Spirit's aims are diametrically opposed	-30
Caster promises to limit orders to specific types of commands	+10
Entity is not restrained by a Glyph of Control	+20
Entity is restrained by a Glyph of Control	-20
Caster promises to grant the Spirit complete freedom in Entity body	+20
Caster has good reputation for keeping his bargains with Spirits	+10
Caster has reputation for breaking his bargains with Spirits	-20

TABLE 7.2 SPIRIT INTELLIGENCE BY TYPE

Spirit Type	IQ (Me and Re stats) by lvl		
	Lvls 1-10	Lvls 11-20	Lvls 21+
Angry Spirits	As original Spirit type		
Conceptual Spirits	Mediocre (23-50)	Average (35-65)	Above Average (50-77)
Elemental Spirits	Little (7-25)	Mediocre (23-50)	Average (35-65)
Emotive Spirits	Very Low (1-5)	Low (3-12)	Little (7-25)
Entity Spirits	Average (35-65)	Superior (60-86)	High (80-98)
Haunts	Inferior (13-40)	Average (35-65)	Superior (60-86)
Rational Spirits	Superior (60-86)	High (80-98)	Very High (94-99)
Rural Spirits	As <i>Creatures & Monsters</i> entry		
Shaman Spirits	Above Average (50-77)	Superior (60-86)	High (80-98)
Standard Spirits	Mediocre (23-50)	Average (35-65)	Above Average (50-77)
Thematic Spirits	Mediocre (23-50)	Average (35-65)	Above Average (50-77)
Totem Spirits	Average (35-65)	Superior (60-86)	High (80-98)

Note: Table 7.2 is merely a set of suggestions for defining Spirit intelligence by type and level. GMs who wish to accentuate the uniqueness of Spirits may assign Memory and Reasoning stats by unmodified d100 rolls.

Imbedded Spirits accumulate taint levels simply by their prolonged presence on the physical plane in a material body. For all Spirits, **excluding** Standard Spirits and Angry Spirits, the acquisition of more than twice the Spirit's level in taint levels will transform that Spirit into an Angry Spirit, i.e. a fifth-level Rational Spirit can have ten taint levels, if it gains an eleventh taint level, it becomes an Angry Spirit. A Standard Spirit can only have its own level in taint level without transforming into an Entity Spirit, i.e. a fourth-level Standard Spirit that gains five taint levels will become a fourth-level Entity Spirit. It retains the five taint levels, making it that much closer to a further transformation into an Angry Spirit.

The process for determining whether an imbedded Spirit acquires a taint level is as follows:

The Spirit must make a Resistance Roll versus its own level, with the roll modified by -10 for every level of taint already incurred.

If an attempt is made to remove the taint, using *Purify Taint* say, the process is as follows:

The Spirit must make a Resistance Roll, with a +5 modifier to the roll for each level of taint already acquired. This Resistance Roll is required, even from willing Spirits, and the Spirit does **not** have the normal -50 modifier for being a willing target.

If all the taint is removed from an Angry Spirit, it will return to its original form. An Entity Spirit that has become an Angry Spirit and is then purified will remain an Entity Spirit. Likewise a purified Entity Spirit will not return to being a Standard Spirit.

The circumstances that trigger a taint check are listed below.

Once per week that a **willing** Spirit is imbedded in a Golem or Construct.

Once per day that an **unwilling** Spirit is imbedded in a Golem or Construct.

Immediately after the Spirit is commanded to act in a way counter to its nature (e.g. a Rural Spirit ordered to destroy a natural feature).

Immediately the Spirit completes an order that is counter to its nature.

Immediately the entity's master breaks the bargain made with an erstwhile willing imbedded Spirit.

Entity creators of the Channeling realm of power favor *Spirit Empowerment*.

7.2.3 ELEMENTAL EMPOWERMENT

Many creators employ elemental beings as the guiding spirits for Golems and Constructs. This method requires access to the *Elemental Empowerment* spell list, which gives the caster the ability to summon, control, imbed and banish elemental beings of various types.

This method has a number of advantages. Most Elementals are easy to manipulate (compared to Demons) – the spells summon the chosen type of being (and nothing else!) and there are banishing and control spells capable of handling any threat less severe than an

Elemental Savant. Elementals, particularly the more intelligent types, can be persuaded to undergo imbedding. Moreover the intrinsic magical potentials of imbedded Elementals can be triggered to imbue entities with random magical abilities using the *Manifest Element* spells (see section 7.3 for more details.) Elementals summoned using this list may also be used for other purposes than entity creation.

There are drawbacks, however.

The lesser Elementals have only “instinctive” or low intelligence and limited knowledge of the material plane – thus it will be necessary to enhance them with *Sentience* spells. (Even Elemental Guardians and Savants may benefit from imbedded skills.)

Compulsion, whether by *Compel* spells or via *Glyphs of Control*, is normally necessary to keep the stupider Elementals obedient. If such spells fail, such Elementals will seek their freedom, resorting quickly to violence if they are not released from the imbedding spell. Destruction of the Construct or Golem body in an orgy of mayhem will free the Elemental, which may either choose to depart for its native plane or attack its foes in its natural form. Elemental Guardians and Savants may similarly become aggressive towards creators and their allies, if they feel that bargains have been broken.

It might seem implausible at first that an Elemental would consent to imbedding within a Golem or Construct. For Elementals of all power levels, imbedding provides an opportunity to experience the material plane for an extended period. Entity forms with their concentrations of pure matter and undoubted physical strengths appeal as fitting forms to inhabit – earth-based elementals find Stone and Metal Golems particularly attractive, for instance. (Conversely fire-based elementals will not willingly be imbedded into Water Golems, while air-based elementals will balk at landbound constructs.) Elemental Guardians and Savants will appreciate any existing magical abilities offered by the body, but are most likely to be swayed by promises of improvements to their own capabilities through *Sentience* spells. Casters who are willing to promise to release the Elemental after a set period are more likely to receive a favorable response from the being.

Persuading any Elemental to voluntarily undergo imbedding requires a successful Diplomacy maneuver (with Difficulty Level of at least Very Hard). GMs should feel free to increase this Difficulty Level if the caster is not offering the Elemental much in return.

Elemental Empowerment is most popular among Essence-based creators.

Using Elemental Empowerment without Fire & Ice: The Elemental Companion

If the GM does not have access to, or does not use, *Fire & Ice: The Elemental Companion*, then the following points should be noted.

1. According to *Creatures & Monsters*, Elemental Servants are “extensions of their maker/summoner's (master's) mind, and they follow him wherever he goes (range of 5' per level of the master)”. As such, they are not autonomous beings – imbedding such mindless things in an entity would serve no useful purpose, while their limited



range of existence would actually be detrimental. Consequently there are no spells on the *Elemental Empowerment* spell list dealing with these creatures.

2. Also according to *Creatures & Monsters*, Weak and Strong Elementals have “NO” (“animal instincts”) IQ. If imbedded into a Construct or Golem, the creation magic of the entity itself increases their IQ to Low (3-12, roll D10+2). Elemental Guardians have Above Average intelligence (50-77, roll 3D10 + 47). Elemental Savants have Exceptional IQ (100-102, roll D3 + 99).
3. In terms of pure level, Strong Elementals are normally level 20, whereas Elemental Guardians are only level 15. Yet, it is harder to summon the latter using *Elemental Empowerment*. The rationale is simple – Guardians with their higher intelligence are much more useful to golem and construct creators than the stupider, if more physically potent, Strong Elementals.

Using Elemental Empowerment with Fire & Ice: The Elemental Companion

If the GM does use *Fire & Ice: The Elemental Companion*, then the spells on the *Elemental Empowerment* spell list have different effects to take into account the elemental metaphysics explored in that work and the changes made to existing Elementals as well as the new beings introduced.

1. Most importantly, Elementals conjured by this list onto this plane are *summoned* rather than *gated* to the material plane. This means that there is no risk of elemental corruption as the being’s true body remains on the elemental plane.
2. The Elemental Powers activated by the *Manifest Element* spells represent the supernatural abilities of the imbedded Elementals given limited potency on this plane. The advantage is that this control prevents the entity’s body suffering elemental corruption; the disadvantage is that the powers are randomly activated rather than deliberately chosen by the caster or the Elemental because much of the spell’s potency is used to prevent elemental contamination.
3. The Elementals as described in *Fire & Ice* have a greater variety of IQ levels, giving the creator increased freedom of choice and reducing the need to utilize the *Sentience* spell list. The mapping of Elementals to mental prowess (Memory and Reasoning stats) is as follows.

Minor Elementals (Servants): Very Low (1-5, roll D10 and divide by two).

Lesser Elementals (Weak Elementals): Low (3-12, roll D10 + 2).

Elemental Giants: Little (7-25, roll 2D10 + 5).

Elemental Guardians: Above Average (50-77, roll 3D10 + 47).

Greater Elementals (Strong Elementals): Inferior (13-40, roll 3D10+10).

Superior Elementals: Mediocre (23-50, roll 3D10+20).

High Elementals: Average (35-65, roll 3D10, if 15 or less subtract from 50, if 16 or more, add to 35).

Elemental Savants: Exceptional (100-102, roll D3 + 99).

4. There are more elemental beings and creatures in *Fire & Ice* than possessors of this list may summon and imbed. This is deliberate – this is a spell list designed to procure suitable elemental spirits to inhabit artificial entities, not to ally the caster with the full diversity of the elemental hosts.

5. The alert will notice that Elemental Guardians require stronger summoning, controlling, imbedding, and banishing than Elemental Giants or Greater Elementals. This is due again to their higher IQ rating compared to equivalent or even slightly more powerful entities in terms of strict level.

In a setting where Elemental magic is practiced, GMs may wish to consider the interplay between Elementalist and non-Elementalist practitioners. True Elementlists may be jealous, even violently hostile, to this knowledge being available to *mere* Magicians and other Essence spell users, let alone those of other realms of power. They may seek to reserve these arcana for the sole use of their own adherents.

7.2.4 DEMONIC EMPOWERMENT

Perhaps the most potent and dangerous of all guiding spirits for artificial entities are Demons. Casters, who are brave or foolhardy enough to seek such power, will require access to the *Demonic Empowerment* spell list, which has spells dealing with the summoning, banishment, control, and imbedding of Demons from Types I through to VI.

Demonic Empowerment can be used to summon and imbed Demons of the Pale, certain Demons of the Void (specifically the Elf-Demons, the Man-Demons, the Noble Gogonaur, and the Raukamar), and Demons from the other demonic planes, as detailed in *Creatures & Monsters*. Demons from Beyond the Pale are too powerful to be summoned, let alone imbedded by this spell list, as are the Moloch Demons of Might (Type VI+ Demon) and the Demon Lords, Maleskari, Sith, and Yrrigav. The Agothu and Agothu Servants are not Typed – their natures are so alien and contradictory that no mortal sorcerer has yet found the means of summoning even the least of them into the world.

Other extra-planar entities exist, notably Champions, Djinn, and Chaos Demons. However, none of them are appropriate targets for imbedding via *Demonic Empowerment*, and the *Summon Demon* spells on this list will not call any of them to this plane.

Champions are too dedicated to the service of their deity to be persuaded to undergo potentially indefinite imbedding, and no true follower of a “good” or “lawfully” aligned deity would dream of forcing a Champion against its will. (Anyone who isn’t a true follower and somehow manages to summon a Champion is likely to find himself or herself on the receiving end of divine justice from the Champion ...)

Djinn (also known as Genii) are Nature or Household Spirits, who are already trapped in objects or locations in this world. While it is conceivable that a freed Djinn could be imprisoned by chance (or just possibly imbedding) in an artificial entity, it would be released from this focus as soon as it completed its quest. For lesser Djinn, even following one order from the entity’s master could be

considered granting the master one wish. Serious practitioners of entity creation do not consider Djinn worth the effort as animating spirits.

Chaos Demons warp order by their very existence.

Place a Golem or Construct too close to a Chaos Demon for a prolonged period and strange things will happen to the entity – its color will fluctuate, its size and shape will stretch, shrink, and transform in multiple directions, and even its material will alter. Its magic will fail and the artificial entity will be no more than a misshapen amorphous blob of matter. The magical order essential to artificial entities is diametrically opposed to the anarchic nature of Chaos Demons – imbedding attempts simply fail.

The natures of the other extra-planar entities are too poorly understood for the *Compel Demon* # and *Imbed Demon* # spells to effect them. Gaining that understanding and creating the requisite spells would be an epic quest in itself ...

Demonic Empowerment has a number of advantages over alternative methods. Intellectually, Demons cover the entire range with even some of the least powerful possessing substantial intelligence. Thus casters will rarely need access to the *Sentience* spell list. Once a Demon has been imbedded in an artificial entity, the amalgam will spontaneously manifest at least one magical ability (see section 7.3 for further details). Demons summoned using *Demonic Empowerment* can also be ordered to perform tasks other than enhancing entities.

The bad news is that summoning and imbedding Demons is extremely dangerous. Demons hate taking orders from anybody else, and detest being summoned from their own planes by mortal wizards. Being forcibly imbedded into an artificial entity heightens their antipathy to non-Demons –

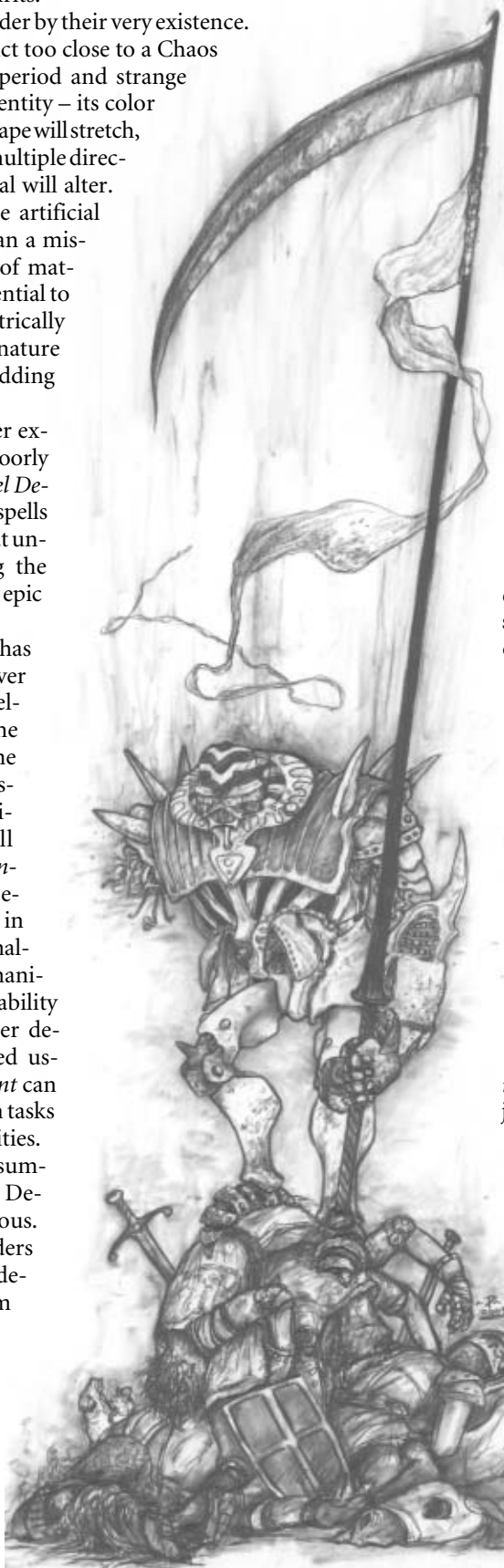
every indignity suffered and every order received will be

remembered until the day of reckoning when the Demon escapes from the caster's control. Demons, whose rebelliousness is restrained by *Compel Demon* # spells, will seize any chance for liberty provided by the interruption of those spells, either by their duration running out or the entity moving beyond their range. Even Demons that have been imbedded into Golems or Constructs protected by *Glyphs of Control* will plot against their masters, although they may not act directly against them. Acts of omission, support for third parties, and finding loopholes in ambiguously worded orders are the traditional techniques of disobedience.

Exacerbating the issue of control is the lesser potency of *Compel Demon* # spells. Compared to *Elemental Compel* # and *Compel Spirit* # spells, the initial duration and range of control supplied by *Compel Demon* # spells is significantly better. However both *Spirit Empowerment* and *Elemental Empowerment* include *Extend Compel I* and *II*, which provide order of magnitude improvements in both distance and time. Spirit-animated and Elemental-animated Golems and Constructs are better suited for long-term and long-distance duties; Demon-animated entities must remain close to their master, who must ensure that he is able to renew the control spells regularly.

Finally most of the *Summon Demon* spells do not guarantee the conjuring of a specific species of Demon.

The caster can only specify the Type of the demon desired, i.e. *Summon Demon I* will summon a Type I Demon, but this might be a Demon of the First Pale, a Daedhel or a Hothrog from the Void, a Corvox, a Frizzm, a Grumoz, or a Tlaque. (Casters who summon a Shaan, for instance, will banish it immediately and try again for a more intelligent victim.) Unless *Summon Demon True* is used, the result will be completely random.



GMs should roll d100 and consult Table 7.3 to determine which specific Demon variety appears using a *Summon Demon I* spell. For easy reference, the IQ codes are listed in brackets with each Demon.

TABLE 7.3 IMBEDDABLE DEMONS	
Roll	Type I Demons
01-30	First Pale Demon (LI)
31-35	First Pale: Orgal (LO)
36-40	First Pale: Shaan (NO)
41-50	Elf-Demon: Daedhel (HI)
51-60	Man-Demon: Hothrog (AV)
61-70	Corvox (AV)
71-80	Frzzzm (Normal) (AV)
81-90	Grumoz (LO)
91-00	Tlaque (LO)
Roll	Type II Demons
01-20	Second Pale Demon (IN)
21-25	Second Pale: Vooj (NO)
26-30	Second Pale: Algalon (NO)
31-40	Elf-Demon: Culraug (VH)
41-50	Man-Demon: Daerauk (HI)
51-56	Acid Demon (AV)
57-62	Demon Dog (VL)
63-68	Frzzm (Large) (AA)
69-74	Rashtar (LO)
75-80	Smoke Demon (AV)
81-88	Succubus/Incubus (VH)
89-94	Thorned Demon (LO)
95-00	Warrior Demon: Clubber (IN)
Roll	Type III Demons
01-20	Third Pale Demon (MD)
21-25	Third Pale:Urki (NO)
26-30	Third Pale: Morl (NO)
31-40	Elf-Demon: Hothedhel (AV)
41-50	Man-Demon: Gogonaur (AA)
51-57	Acarva (MD)
58-64	Demon Horse (AV)
65-71	Demon Protoplasm (HI)
72-78	Frzzm (Giant) (AA)
79-85	Ice Demon (AV)
86-92	Plague Demon (LO)
93-00	Warrior Demon: Spear Demon (MD)
Roll	Type IV Demon
01-30	Fourth Pale Demon (SU)
31-40	Elf-Demon: Thauredhel (VH)
41-50	Man-Demon: Narauk (HI)
51-58	Black Stalker (HI)
59-66	Eraditor (LO)
67-74	Huntaar (HI)
75-82	Neng (HI)
83-90	Shade Demon (HI)
91-00	Warrior Demon: Sentinel (AA)

Roll	Type V Demon
01-20	Fifth Pale Demon (HI)
21-25	Xuun (IN)
26-27	Ag-Ak (LO)
28-30	Ophul (LI)
31-40	Elf-Demon: Celebdel (VH)
41-50	Demon of Might: Noble Gogonaur (SU)
51-60	Demon Drake (HI)
61-70	Rhodintor (EX)
71-80	Storm Demon (VH)
81-90	Sword Demon (VH)
91-00	Thonis (EX)
Roll	Type VI Demon
01-40	Sixth Pale Demon (AV)
41-45	Murg (NO)
46-50	Karax (LO)
51-60	Demon of Might: Raukamar (VH)
61-75	Demon Scourge (HI)
76-90	Shadow Demon (SU)
91-00	Terrorite (EX)

For easy reference, the levels of IQ and methods for randomly generating them are given in Table 7.4.

It is possible to persuade a Demon to voluntarily accept imbedding, by negotiating a suitable pact binding caster and demon, similar to the Spirit Bargains entered into by willing Spirits. Demon Pacts, owing to the nature of the parties involved, are more likely to be broken than Spirit Bargains, so prudent mages insist on *Glyphs of Control* for their own protection as well.

There are several very different reasons why a Demon might consent to imbedding. Firstly, a Demon might be convinced by a caster's arguments that incarnation in an entity will provide it with better opportunities to further its own evil goals on this plane. Secondly the Demon may be persuaded that an evil spell-user requires more lasting diabolical support in the war against the forces of good – frequently the Demon to be imbedded will have been “volunteered” for this service by a Demon Lord. If the spell-user fails in his mission, the imbedded Demon may have orders from its superiors to punish failure with death. Thirdly, politics in some of the demonic realms can become exceedingly violent – plots and counterplots are rife as Demons jockey for position, betray allies, overthrow their leaders, and defend themselves from their own underlings. For the victims of such coups, prolonged sojourns in the physical realm provide chances to wait out the purges.

Rarest of all, and only applicable to settings where *Demonic Empowerment* is learned by non-Evil spell users, an Elf-Demon or a Man-Demon may seek redemption through incarnation in an entity and a pledge of a lifetime's service to a just cause.

Creators seeking to make a pact with a Demon should simply summon one of the desired Type, use *Demon Tongue* to speak with it, and make his proposal. More powerful Demons will be harder to persuade than their lesser brethren. Summoners, who have a reputation for

hard bargaining, adherence to the letter (not necessarily the spirit) of previous pacts, and a dedication to evil (shown by deeds not words), will be better received. Pacts which limit the creator's mastery, e.g. the Demon to be released after a set period, limiting orders to specific classes of commands (i.e. no mundane chores), or the entity not being restrained by a *Glyph of Control*, may appear to assist in gaining agreement. Most Demons, however, will consider such concessions to be a sign of weakness, and begin plotting their supposed master's downfall even before they are imbedded. GMs may choose to abstract the bargaining by a Diplomacy maneuver – see

Table 7.5 for base Difficulty Levels and pact modifiers.

Unsurprisingly Evil spell users of all realms of power favor *Demonic Empowerment*.

7.2.5 LIFE EMPOWERMENT

Life Empowerment is the most morally suspect of all the techniques for granting intelligence to artificial entities. It involves the transfer of the soul and mind of a living (or dying) creature – the original body will deteriorate and die (unless magical precautions are taken) leaving the spirit trapped in an artificial body. *Life Empowerment* can be used on the whole range of living

**TABLE 7.5 DEMON PACTS:
DIFFICULTY LEVELS AND MODIFIERS**

Demon Type	Difficulty Level	
Type I	Medium (+0)	day per level of the caster) +20
Type II	Hard (-10)	Imbedding is temporary (e.g. one week per level of the caster) +10
Type III	Very Hard (-20)	Imbedding is temporary (e.g. one month per level of the caster) +0
Type IV	Extremely Hard (-30)	Imbedding is long-term (e.g. one year per level of the caster) -10
Type V	Sheer Folly (-50)	Imbedding is indefinite -30
Type VI	Absurd (-70)	Caster's aims are aligned with Demon's goals +10
Pact	Modifier	
Caster has reputation for evil deeds (Evil demons only)	+10	Caster intends to assist Demon in furthering its (or its Lord's) goals +20
Caster demonstrates evil in Demon's presence (e.g. sacrifices one or more sentient beings) (Evil demons only)	+20	Caster's and Demon's aims are diametrically opposed -30
Caster is not Evil (Evil demons only)	-20	Caster promises to limit orders to specific types of commands +10
Caster is Good (Elf-Demons or Man-Demons seeking redemption only)	+20	Entity is not restrained by a Glyph of Control +20
Proposed entity to animate has a "majestic" form	+10	Entity is restrained by a Glyph of Control +0
Proposed entity to animate has a "puny" or "weak"-seeming form	-20	Caster is willing to give the Demon complete freedom in Entity body +30
Proposed entity has intrinsic magical abilities	+10/ability	Caster has reputation for keeping the "letter" of pacts +10
Imbedding is temporary (e.g. one		Caster has reputation for breaking the "letter" of pacts -20

TABLE 7.4 IQ GENERATION

IQ	Re/Me stat	Generate by:
NO = none	Animal Instincts	Not applicable
VL = very low	1-5	roll D10 and divide by two
L0 = low	3-12	roll D10 +2
LI = little	7-25	roll 2D10 +5
IN = inferior	13-40	roll 3D10+10
MD = mediocre	23-50	roll 3D10+20
AV = average	35-65	roll 3D10, if 15 or less subtract from 50, if 16 or more, add to 35
AA = above average	50-77	roll 3D10 + 47
SU = superior	60-86	roll 2D10 +58
HI = high	80-98	roll 2D10 +78
VH = very high	94-99	roll D6 + 93
EX = exceptional	100-102	roll D3 + 99



creatures, including normal and “unearthly” animals, sentient plants, monsters of land, sea, and air, and members of any of the sentient races (e.g. Men, Dwarves, Elves, Giants, etc.). It cannot be employed against Demons or other extra-planar entities, Elementals, Spirits, natural Shapechangers (such as Doppelgangers) or Undead.

Transferring a Life Essence

The process of transferring and imbedding a life essence (the combination of soul and mind) from a creature is somewhat complex. The caster should first select the creature or being whose life essence is desired, perhaps using the *Identify Attributes* spell to assess the nature and potency of its skills and abilities. Next, the caster must have a suitable receptacle prepared to contain the life essence – this can either be the intended Golem or Construct or a special jar known as a Life Essence Vessel. Then the alchemist must successfully cast *Transfer Life Essence* twice and the target must fail the Resistance Rolls twice.

The first casting of *Transfer Life Essence* weakens the bonds between the life essence and its body. If the spell is successfully cast and the target fails its RR, the victim will experience a momentary wrenching sensation and feel light-headed, but will not suffer any other adverse effects as the life essence remains within the body. Unless the life essence is transferred to another body, the bonds will automatically reform after two minutes.

The second casting of *Transfer Life Essence* actually moves the life essence from one body to either another body or a “Life Essence Vessel”. The original body (if organic) falls into a coma (see below). Attempts to move a life essence into a random object (such as a pebble) will immediately and instantaneously cause the life essence to return and rebond with its original body.

If the life essence has been placed in a Life Essence Vessel as an intermediate step, a third casting of *Transfer Life Essence* will be required. If this casting fails or the target successfully resists, the life essence will immediately return to its original body, if it still survives.

Once a life essence has been removed from a living body, the physical body lapses immediately into a coma. If the body was healthy prior to this, then it will remain “alive” for **two hours** per level of the being. After this period, the body will “die” and the normal *Rolemaster* rules for stat deterioration should be applied. If the target was injured or dying when his life essence was removed, then physical death may occur much sooner as a direct consequence of those wounds. Likewise if the unattended body is harmed, death may happen earlier.

The *Body Stasis* # spells can be used to preserve an organic body. These spells prevent the body’s vital functions from failing and supply it with the necessary nutrition for their duration. They do not protect the body from physical harm caused by the environment (fire, cold, etc.) or attackers.

Once moved into a new host body, the life essence must be imbedded within **one minute per level of the caster** (of *Transfer Life Essence*) – unless *Preserve Life Essence* is cast. Imbedding requires the use of the correct

Imbed Animal Essence #, *Imbed Being Essence* #, *Imbed Beast Essence* #, or *Imbed Life Essence True* spell. If the casting is successful and the life essence fails its RR, then the Golem or Construct will be animated by the spirit. If imbedding is not completed within the time limit, then the life essence “dissipates”.

“Dissipation” represents the life essence escaping from its current host. If its original organic body is still alive, then the life essence will return to it immediately and the rejoined creature will regain full consciousness in one round (halting any stat deterioration which may be taking place). If the body is dead, then the GM must choose an appropriate destination for the life essence. The soul might be permitted to travel to the after-life or it might become some form of incorporeal Undead such as a Ghost and seek revenge on its foes. If the artificial entity’s body is destroyed, dissipation of the life essence will also occur. Likewise if a Purge Construct or a Purge Golem spell expels the life essence, it will also dissipate. *Purge Construct* and *Purge Construct* spells may be used in this way to restore a life essence to its original body; alternatively two *Transfer Life Essence* spells can be cast – the first to weaken the imbedding, the second to perform the transfer. In this situation, it isn’t necessary to “imbed” the life essence in its own body – the bond between body and soul will reform naturally.

Assuming the imbedding is successful, the body of the Golem or Construct will now be directed by the life essence. If the caster has not used a *Glyph of Control* spell to bind the entity to obedience, then the entity will **not** be controlled by the caster. How the entity chooses to exercise that independence will depend on its attitudes to imbedding and the imbedder, and level of intelligence. Pets and trained animals may be confused but still sympathetic to the imbedder; wild beasts are more likely to be hostile. Sentient beings will range the entire gamut from cheerful acceptance to bitter hostility. Most creators who utilize *Life Empowerment* employ *Glyphs of Control* to forestall immediate rebellions.

Alchemists should cast *Body Acclimatization* to enable the life essence to integrate its instincts and learned behavior with its new artificial body. Otherwise the entity will require time to adjust and will suffer the following penalties to all actions (-30 for the first week, -20 for the second week, and -10 for the third week) until it is comfortable with its new host.

The entity has the personality and mental stats of the imbedded creature. In terms of other capabilities, it may use all of the abilities of the Construct or Golem form. Additionally casters may choose to restore the individual capabilities, skills, and spells of the original being so that it can make use of them in its new body. This requires the use of the relevant *Manifest Ability*, *Manifest Skill*, or *Manifest Spell* enchantment as the talents must be integrated with the existing body and its magic. Thus a Wolf essence imbedded in a Wolf Construct could have its scent ability restored, a human soldier imbedded into a war Golem could have his Tactics and Military Organization skills returned, or a sorceress could regain access to one of her spell lists. *Manifest Ability* may be used to restore speech capabilities to a sentient life essence. Each

ability, skill, and spell list must be individually restored, but restorations are permanent. If weapon or combat skills are restored, the entity may choose to use these rather than the default OBs of the artificial body.

Life Essence Vessels

A Life Essence Vessel is a special container used by alchemists to store and transport life essences. It normally takes the form of a large transparent jar, urn or vase, with a top lid to seal its contents. When not storing a life essence, it contains only pure spring water. To store a life essence in the Vessel, the caster must cast *Transfer Life Essence* twice (first to weaken the bonds, then to move the life essence) on the target. A miniature image of the target will appear inside the Vessel if the spells are successful.

A life essence may be trapped in a Vessel for ten minutes per level of the caster. After this period, it will dissipate normally. If the caster places a fragment of the original body (e.g. a lock of hair, nail clippings, some blood, a piece of flesh), then the duration is extended to one hour per level of the caster. The *Preserve Life Essence* spell can be used to increase this duration still further.

If a Life Essence Vessel containing a trapped life essence is destroyed, the life essence dissipates at once.

The minimum cost for a Life Essence Vessel is 20 gold pieces per level of being to be trapped within it, e.g. a Life Essence Vessel capable of storing a life essence from a 5th-level creature costs at least 100 gold pieces. Alchemists may choose to spend more to fashion sturdier containers.

Advantages and Disadvantages

In terms of advantages, *Life Empowerment* provides the alchemist with the ability to use almost all living creatures to animate his entities. Any level of intelligence can be obtained, simply by acquiring the right creature. Moreover the natural abilities of the creature or being can be tapped, replacing the need to simulate such talents with spells and avoiding the resulting increase in construction level from imbedding magical powers. Further, the magician is not limited by his own

capabilities in terms of skills, spells, and so on which can be triggered (unlike the *Sentience* spell list).

The drawbacks are that *Life Empowerment* does not, in itself, grant any control over animals, beasts or beings, either in their natural form or when imbedded. Alchemists must use other means to obtain their sources of life essences, and must rely on *Glyphs of Control* if they desire obedience from their empowered entities. The *Sentience* spell list cannot be used in conjunction with *Life Empowerment* – hence entities are limited in terms of intelligence and skills to the innate and restored capabilities of the life essence. Restoring all the abilities, skills, and so on of a life essence requires significant power expenditure and time. If the life essence is ever expelled from the entity, all the manifested abilities are forfeited.

7.2.6 SPONTANEOUS EMPOWERMENT

After creation, Golems and Constructs are empty vessels animated solely by the magical energies harnessed in their creation. They are magnets for every kind of disembodied intelligence in the vicinity, and sooner or later something will find the entity, enter its body, and control it.

There are only two ways of forestalling unwanted possession. The first is to place a *Glyph of Control* on the entity – this will stop any attempts to enter the entity. (The caster of the *Glyph* can bypass this defense to imbed a spirit of his choice.) The second is to imbed a spirit (Demon, Elemental, Spirit or Life Essence) of one's choosing first. Both Golems and Constructs can be animated by one and only one spirit at any given time, so preemptive imbedding prevents any interlopers taking up residence.

The probability of a stray Spirit or Undead locating and possessing an uninhabited or unGlyphed entity is 1% per minute or 45% per hour. (GMs should roll either every minute or every hour at their discretion according to the current pace of their game.)

Roll d100 and consult Tables 7.6 and 7.7 to determine the type and level of a possessing spirit.

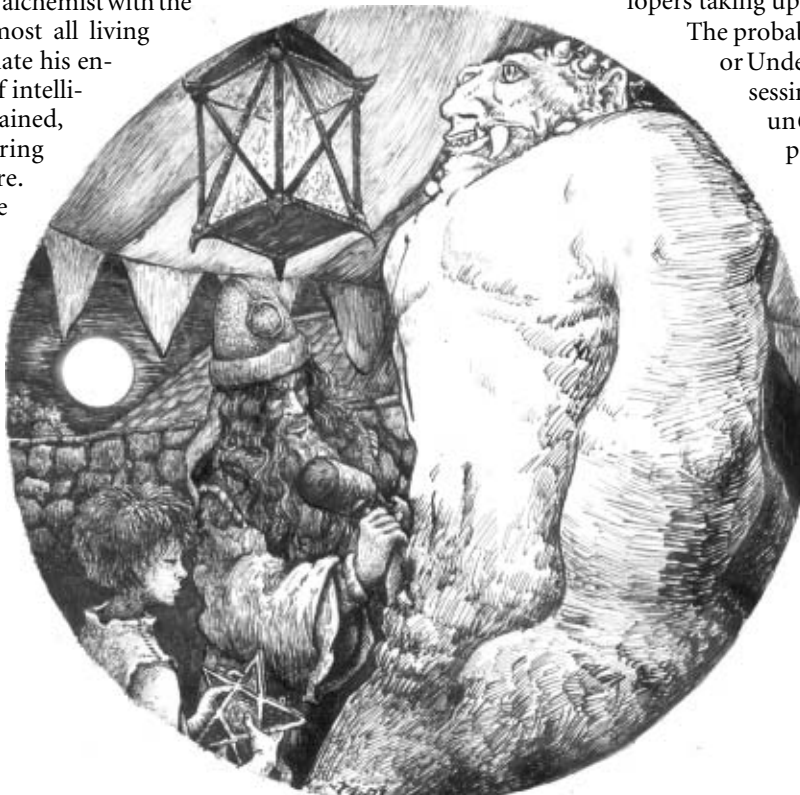


TABLE 7.6 RANDOM POSSESSING SPIRITS

D100 Roll	Type of Spirit or Undead Spirits
01-10	Angry Spirits
11-15	Elemental Spirits
16-20	Emotive Spirits
21-30	Entity Spirits
31-35	Haunts
36-40	Rational Spirits
41-50	Standard (Unborn) Spirits
	Undead
51-53	Apparition
54	Firephantom
55	Headless Ghost
56-60	Minor Ghost
61-65	Lesser Ghost
66-70	Greater Ghost
71	Mara
72-74	Phantom
75	Revenant
76-80	Minor Specter
81-83	Lesser Specter
84-85	Greater Specter
86-89	Minor Wight
90-92	Lesser Wight
93-94	Major Wight
95-97	Lesser Wraith
98-99	Greater Wraith
100	GM Choice

Consult the relevant entries in *Creatures & Monsters* for Undead statistics and abilities. For Spirits, please roll on the table below to determine their level. If an Undead possesses an artificial entity, it will almost certainly use its new body to kill as many living beings and creatures as possible. It will inhabit the entity for as long as possible and will be able to manifest all its normal powers (Constitution draining, spells, etc.) while resident in the artificial body. Physical attacks, even with magical weapons, will harm the Golem or Construct, not the Undead. *Repel Undead* spells will affect the Undead – however the Undead will flee in its artificial body. If expelled using a *Purge Golem #* or *Purge Construct #* spell, the Undead being will reform outside the entity and attack the caster normally, if possible.

If instead a Spirit possesses a Golem or Construct, the behavior will depend on the type of Spirit. Angry Spirits will immediately attack the living, while Haunts will try to use the entity to exact their revenge on whoever wronged them. Elemental and Emotive Spirits will toy with the entity's abilities, possibly endangering it or bringing it into conflict with the living. Rational and Standard Spirits will be curious about the entity and its surroundings – they are likely to go exploring in their artificial bodies. Entity Spirits will make themselves “at home” and seek out the entity's creator, either to “volunteer” their services or to harm him, if he has mistreated the Entity Spirit or others in the past.

Angry Spirits and Haunts will inhabit entities until they are forcibly expelled. Elemental, Emotive, Rational and Standard Spirits will depart of their own volition, once they have finished indulging their curiosity or they have accumulated taint exceeding half their level through interaction with the physical world. An Entity Spirit will only leave an artificial body, if the body is badly damaged or destroyed or the Spirit is expelled or it locates a more powerful Golem or Construct that it can possess.

Some creators, who cannot obtain animating spirits by other means, deliberately leave their entities unprotected. As soon as possession by a desired Spirit occurs, they trap the unwary Spirit with *Compel Spirit* spells and then permanently imbed it. Once the Spirit is under the restraint of magical compulsion, a *Glyph of Control* can be safely added to ensure permanent compliance. Nevertheless, this is a risky strata-

TABLE 7.7 LEVEL OF RANDOM POSSESSING SPIRITS

D100 Roll	Spirit Level	D100 Roll	Spirit Level
01-05	1	69-71	17
06-10	2	72-74	18
11-15	3	75-77	19
16-20	4	78-80	20
21-25	5	81-82	21
26-30	6	83-84	22
31-35	7	85-86	23
36-40	8	87-88	24
41-45	9	89-90	25
46-50	10	91	26
51-53	11	92	27
54-56	12	93	28
57-59	13	94	29
60-62	14	95	30
63-65	15	96-00	31+ (GM choice)
66-68	16		

gem – if the entity is taken over by a powerful hostile Spirit or Undead, the creator may be vanquished and a dangerous evil loosed upon the world.

7.3 EMPOWERED ABILITIES

One of the advantages of imbedding either Demons or Elementals into artificial entities is that they can manifest magical abilities in their new homes and enhance the entities' existing capabilities. These powers are random – the creator has no control over which powers are triggered. The powers are also permanent. However, if the Demon or Elemental is ever expelled from its host entity, the powers are lost immediately.

7.3.1 DEMONIC POWERS

Demonic Powers are classified according to their potency into four degrees. In order of increasing might, these are Demonic Minor Powers, Demonic Lesser Powers, Demonic Greater Powers, and Demonic Major Powers. When a Demon is imbedded into a Golem or a Construct, one or more Demonic Powers will manifest automatically. The degree of a manifested Demonic Power depends on the Demon's Type; the number of manifested powers depends on which *Imbed Demon* # spell was used. Using a more powerful imbedding spell than the minimum required, yields the possibility of multiple powers being manifested. The relationship is given in the Demonic Power Matrix (Table 7.8) below. To use, simply cross-index the Demon's Type with the *Imbed Demon* spell, and roll d100 where appropriate.

Example: Maleficus imbeds a Type I Demon using the Imbed Demon I spell into a new Golem. Using the Demonic Power Matrix, the Golem manifests a single Minor Power.

Example: Some years later, Maleficus imbeds a Type II Demon using his newly learned Imbed Demon IV spell into an ancient Construct. His player consults the Demonic Power Matrix and sees that there are two possible outcomes – 1 Lesser or 2 Lesser Powers. His player rolls 66 on d100, so two Lesser Powers manifest.

Having discovered how many powers are manifested, it is necessary to identify their nature. A separate table is provided for each degree of Demonic Power. The GM should roll d100 for each manifested power. If the same result is generated multiple times, reroll until a different result is obtained or choose an alternative.

If a Spell Power is manifested, use the Demonic Spell List Table to identify the originating spell list. In the event that there is no spell at a given level on a spell list, use the closest spell on that list instead.

If "GM's choice" is rolled, the GM may either pick an entry from the relevant table or consult the specific Demon entry in *Creatures & Monsters* and manifest any one special ability described there.



TABLE 7.8 THE DEMONIC POWER MATRIX

Type	Imbed Demon I	Imbed Demon II	Imbed Demon III	Imbed Demon IV	Imbed Demon True
I	1 Minor	01-75 1 Minor 76-00 2 Minor	01-50 1 Minor 51-00 2 Minor	01-25 1 Minor 26-75 2 Minor 76-00 3 Minor	01-50 2 Minor 51-00 3 Minor
II	-	1 Lesser	01-75 1 Lesser 76-00 2 Lesser	01-50 1 Lesser 51-00 2 Lesser	01-25 1 Lesser 26-75 2 Lesser 76-00 3 Lesser
III	-	-	1 Greater	01-75 1 Greater 76-00 2 Greater	01-25 1 Greater 26-75 2 Greater 76-00 3 Greater
IV	-	-	-	1 Major	01-75 1 Major 76-00 2 Major
V	-	-	-	-	01-50 2 Major 51-00 3 Major
VI	-	-	-	-	3 Major


TABLE 7.9 MINOR DEMONIC POWERS

D100 Roll	Minor Demonic Power
01-10	Minor Attack: +5 to all OBs
11-20	Minor Defense: +5 to DB
21-30	Minor Spell Resistance: +5 to all RRs
31-35	Minor Self-Repair (heals 1 concussion hit per round of damage to itself)
36-45	Minor Robustness: +10 hits
46-50	Minor Movement: +10' to Base Movement Rate
51-55	Minor Swiftiness: +2 to Initiative
56-60	Acute Hearing (+20 to all awareness rolls related to hearing)
61-65	Nightvision 100' (continuous)
66-75	Bleeding Damage (+1 hit per round on any "A", "B", or "C" critical delivered, +2 hits per round on "D" or "E" criticals)
76-85	Minor Daily Spell Power (one 1st-5th level spell usable once per day, roll d5 for level)
86-95	Minor Daily Spell Power (one 1st-5th level spell usable twice per day, roll d5 for level)
96-00	GM choice

TABLE 7.10 LESSER DEMONIC POWERS

D100 Roll	Lesser Demonic Power
01-10	Lesser Attack: +10 to all OBs
11-20	Lesser Defense: +10 to DB
21-30	Lesser Spell Resistance: +10 to all RRs
31-35	Lesser Self-Repair (heals 2 concussion hits per round of damage to itself)
36-45	Lesser Robustness: +20 hits
46-50	Lesser Movement: +20' to Base Movement Rate
51-55	Lesser Swiftiness: +5 to Initiative
56-60	Acute Smell (+30 to all awareness rolls related to smell)
61-65	Nightvision 300' (continuous)
66-75	Critical Damage (all Entity's melee attacks deliver an extra critical at 2 levels lower than the primary critical, roll d6 for type (1: Cold, 2: Electricity, 3: Heat, 4: Impact, 5: Crush, 6: Unbalancing))
76-80	Extra Damage (all Entity's melee attacks do 2x normal concussion hit damage)
81-90	Lesser Daily Spell Power (one 1st-10th level spell usable once per day, roll d10 for level)
91-95	Lesser Daily Spell Power (one 1st-10th level spell usable twice per day, roll d10 for level)
96-00	GM choice

TABLE 7.11 GREATER DEMONIC POWERS

D100 Roll	Greater Demonic Power
01-10	Greater Attack: +20 to all OBs
11-20	Greater Defense: +20 to DB
21-30	Greater Spell Resistance: +20 to all RRs
31-35	Greater Self-Repair (heals 3 concussion hits per round of damage to itself)
36-40	Greater Robustness: +30 hits
41-45	Greater Movement: +30' to Base Movement Rate
46-50	Greater Swiftiness: +8 to Initiative
51-55	Acute Sight (+30 to all awareness rolls related to vision)
56-60	Darkvision 100' (continuous)
61-70	Critical Damage (all Entity's melee attacks deliver an extra critical at 1 level lower than the primary critical, roll d6 for type (1: Cold, 2: Electricity, 3: Heat, 4: Impact, 5: Crush, 6: Unbalancing))
71-75	Extra Damage (all Entity's melee attacks do 4x normal concussion hit damage)
76-80	Greater Daily Spell Power (one 11th-15th level spell usable once per day, roll d5 +10 for level)
81-90	Greater Daily Spell Power (one 1st-10th level spell usable three times per day, roll d10 for level)
91-95	Constant Spell Power (one 1st to 5th level spell usable either "At Will" or continuously (Constant))
96-00	GM choice

TABLE 7.12 MAJOR DEMONIC POWERS

D100 Roll	Major Demonic Power
01-10	Major Attack: +30 to all OBs
11-20	Major Defense: +30 to DB
21-30	Major Spell Resistance: +30 to all RRs
31-35	Major Self-Repair (heals 4 concussion hits per round of damage to itself)
36-40	Major Robustness: +40 hits
41-45	Major Movement: +40' to Base Movement Rate
46-50	Major Swiftiness: +12 to Initiative
51-55	Acute Senses (+30 to all awareness rolls)
56-60	Darkvision 300' (continuous)
61-70	Critical Damage (all Entity's melee attacks deliver an extra critical at the same level as the primary critical, roll d6 for type (1: Cold, 2: Electricity, 3: Heat, 4: Impact

TABLE 7.12 MAJOR DEMONIC POWERS CONT.

5: Crush, 6: Unbalancing))	
71-75	Extra Damage (all Entity's melee attacks do 4x normal concussion hit damage)
76-80	Major Daily Spell Power (one 11th-20th level spell usable once per day, roll d10 +10 for level)
81-85	Major Daily Spell Power (one 11th-20th level spell usable twice per day, roll d10 +10 for level)
86-90	Major Daily Spell Power (one 1st-10th level spell usable three times per day, roll d10 for level)
91-95	Constant Spell Power (one 1st to 10th level spell usable either "At Will" or continuously (Constant))
96-00	GM choice

7.3.2 ELEMENTAL POWERS

Elemental Powers are also classified by their potency into four degrees. In order of increasing strength, these are Elemental Minor Powers, Elemental Lesser Powers, Elemental Greater Powers, and Elemental Major Powers. When an Elemental is imbedded into a Golem or Construct, and a *Manifest Element* # spell is cast, one or more Elemental Powers will manifest. The number of powers depends on which *Manifest Element* spell is cast; the more powerful versions yield more powers. The degree of the manifested powers depends on which variety of Elemental was imbedded in the entity. Again, the greater Elementals have potentially greater capabilities.

Unlike other forms of elemental crafting, the triggering of Elemental Powers neither corrupts nor poisons the entity. However as a consequence, the abilities available are more limited than Demonic Powers. Casters also have no control over the exact nature of a manifested power.

To determine the nature of manifested Elemental Powers, roll d100 for each Power and consult the tables below. If the same result is generated twice, reroll until a different result is obtained or simply choose an alternative. In some cases, the result will vary according to the Element (Air, Earth, Fire, Ice, Light, or Water), so use the final table to identify Element-specific abilities. If a Spell Power is indicated (and *Fire & Ice: The Elemental Companion* is not available), then use the elementally appropriate Magician base list, otherwise roll on the Elemental Spell Table.

TABLE 7.13 DEMONIC SPELL POWERS

D100 Roll	Demonic Spell List
01-02	Curses
03-04	Dark Channels
05-06	Dark Lore
07-08	Disease
09-10	Necromancy
11-13	Wounding
14-15	Delving Ways
16-17	Detecting Ways
18-19	Essence Hand
20-21	Essence's Perceptions
22-23	Lesser Illusions
24-25	Dispelling Ways
26-27	Invisible Ways
28-29	Lofty Bridge
30-31	Shield Mastery
32-33	Spirit Mastery
34-35	Earth Law
36-37	Fire Law
38-39	Ice Law
40-41	Light Law
42-43	Water Law
44-45	Wind Law
46-48	Flesh Destruction
49-51	Fluid Destruction
52-54	Gas Destruction
55-57	Mind Destruction
58-60	Solid Destruction
61-63	Soul Destruction
64-65	Dark Contacts
66-67	Dark Summons
68-70	Darkness
71-72	Entity Summons
73-75	Matter Disruption
76-78	Physical Erosion
79-81	Mind Death
82-83	Mind Disease
84-86	Mind Domination
87-89	Mind Erosion
90-92	Mind Illusions
93-95	Mind Subversion
96	Any Channeling Spell List (GM choice)
97	Any Essence Spell List (GM choice)
98	Any Mentalism Spell List (GM choice)
99	Any Elementalism Spell List (GM choice)
100	Any Arcane Spell List (GM choice)



TABLE 7.14 ELEMENTAL MINOR POWER

D100 Roll	Elemental Minor Power
01-10	Minor Attack: +5 to all OBs
11-20	Minor Defense: +5 to DB
21-30	Minor Own Element Resistance: +15 to all RRs and DB against elemental attacks of own element
31-40	Minor Triad Element Resistance: +10 to all RRs and DB against elemental attacks using other elements of the triad
41-50	Minor Complementary Element Resistance: +10 to all RRs and DB against elemental attacks using complementary element
51-55	Minor Other Triad Element Resistance: +5 to all RRs and DB against elemental attacks using non-complementary elements of other triad
56-60	Minor Robustness: +10 hits
61-65	Minor Movement: +10' to Base Movement Rate
66-70	Minor Swiftiness: +2 to Initiative
71-85	Minor Daily Spell Power (one 1st-5th level spell usable once per day, roll d5 for level)
86-95	Minor Daily Spell Power (one 1st-5th level spell usable twice per day, roll d5 for level)
96-00	GM choice

TABLE 7.16 ELEMENTAL GREATER POWER

D100 Roll	Elemental Greater Power
01-10	Greater Attack: +20 to all OBs
11-20	Greater Defense: +20 to DB
21-30	Greater Own Element Resistance: +50 to all RRs and DB against elemental attacks of own element
31-40	Greater Triad Element Resistance: +30 to all RRs and DB against elemental attacks using other elements of the triad
41-50	Greater Complementary Element Resistance: +30 to all RRs and DB against elemental attacks using complementary element
51-55	Greater Other Triad Element Resistance: +20 to all RRs and DB against elemental attacks using non-complementary elements of other triad
56-60	Greater Robustness: +30 hits
61-65	Greater Movement: +30' to Base Movement Rate
66-70	Greater Swiftiness: +8 to Initiative
71-75	Elemental Damage (all Entity's melee attacks deliver an extra Elemental critical at 1 level lower than the primary critical)
76-80	Greater Daily Spell Power (one 11th-15th level spell usable once per day, roll d5 +10 for level)
81-90	Greater Daily Spell Power (one 1st-10th level spell usable three times per day, roll d10 for level)
91-95	Constant Spell Power (one 1st to 5th level spell usable either "At Will" or continuously (Constant))
96-00	GM choice

TABLE 7.15 ELEMENTAL LESSER POWER

D100 Roll	Elemental Lesser Power	
01-10	Lesser Attack: +10 to all OBs	non-complementary elements of other triad
11-20	Lesser Defense: +10 to DB	
21-30	Lesser Own Element Resistance: +30 to all RRs and DB against elemental attacks of own element	56-60 Lesser Robustness: +20 hits
31-40	Lesser Triad Element Resistance: +20 to all RRs and DB against elemental attacks using other elements of the triad	61-65 Lesser Movement: +20' to Base Movement Rate
41-50	Lesser Complementary Element Resistance: +20 to all RRs and DB against elemental attacks using complementary element	66-70 Lesser Swiftiness: +5 to Initiative
51-55	Minor Other Triad Element Resistance: +10 to all RRs and DB against elemental attacks using	71-80 Elemental Critical (all Entity's melee attacks deliver an extra Elemental critical at 2 levels lower than the primary critical)
		81-90 Lesser Daily Spell Power (one 1st-10th level spell usable once per day, roll d10 for level)
		91-95 Lesser Daily Spell Power (one 1st-10th level spell usable twice per day, roll d10 for level)
		96-00 GM choice



TABLE 7.17 ELEMENTAL MAJOR POWER

D100 Roll	Elemental Major Power		
01-10	Major Attack: +30 to all OBs	61-65	Major Movement: +40' to Base Movement Rate
11-20	Major Defense: +30 to DB	66-70	Major Swiftsness: +12 to Initiative
21-30	Major Own Element Resistance: Entity is immune to all elemental attacks of own element	71-75	Elemental Damage (all Entity's melee attacks deliver an extra Elemental critical at the same level as the primary critical)
31-40	Major Triad Element Resistance: +50 to all RRs and DB against elemental attacks using other elements of the triad	76-80	Major Daily Spell Power (one 11th-20th level spell usable once per day, roll d10 +10 for level)
41-50	Major Complementary Element Resistance: +50 to all RRs and DB against elemental attacks using complementary element	81-85	Major Daily Spell Power (one 11th-20th level spell usable twice per day, roll d10 +10 for level)
51-55	Major Other Triad Element Resistance: +30 to all RRs and DB against elemental attacks using non-complementary elements of other triad	86-90	Major Daily Spell Power (one 1st-10th level spell usable three times per day, roll d10 for level)
56-60	Major Robustness: +40 hits	91-95	Constant Spell Power (one 1st to 10th level spell usable either "At Will" or continuously (Constant))
		96-00	GM choice

TABLE 7.18 ELEMENTAL MAPPINGS

Element (Own)	Own Triad	Complementary	Other Triad	Elemental Critical
Air	Earth, Light	Water	Fire, Ice	Unbalancing
Earth	Air, Light	Ice	Fire, Water	Crush
Fire	Ice, Water	Light	Air, Earth	Heat
Ice	Fire, Water	Earth	Air, Light	Cold
Light	Air, Earth	Fire	Ice, Water	Electricity
Water	Fire, Ice	Air	Earth, Light	Impact

TABLE 7.19 THE ELEMENTAL SPELL LIST TABLE

D100 Roll	01-50	51-75	76-00
Air	Wind Law	Air Control	Wind Mastery
Earth	Earth Law	Earth Fields	Earth Mastery
Fire	Fire Law	Fiery Ways	Flames Course
Ice	Ice Law	Cold Mastery	Ice Mastery
Light	Light Law	Dark Mastery	Light Mastery
Water	Water Law	Water Mastery	Water Ways



Creating Amalgams, Simulacra & Changelings



Amalgams, Simulacra, and Changelings represent three very different approaches to the creation of “artificial life”. Amalgams are the revivification of the dead, Simulacra are nourished by the blood of their creators, and Changelings represent the reshaping of the living into new forms.

8.1 AMALGAMS

An Amalgam is created by assembling a collection of body parts from multiple corpses, joining these parts into a single body using Surgery and magic, and drawing a wandering spirit or soul shard into the body by electrical means. Amalgams look “like death warmed up”. Translucent skin reveals their network of veins and arteries, while their eyes are yellowing and pus-filled, their breath is fetid, and surgical stitches demarcate the edges of each part of their body jigsaw.

A “Living” Amalgam is made by grafting one or more body parts from a corpse (or alternatively transplanting a mechanical appendage or organ) by Surgery and magic into the body of a living person. The transplant may then be used to control the person.

Creating Amalgams of either type requires access to the *Amalgam Law* spell list.

8.1.1 THE ASSEMBLY PROCESS

A Reanimator (as many of the surgeon-mages who create Amalgams style themselves) needs a secure workroom for engaging in his craft and ready access to dead

bodies. Raiding the local graveyard for freshly buried corpses will suffice for humanoid Amalgams; acquiring the raw material for animal and monstrous Amalgams may require hiring hunters who can be trusted to bring back the remains quickly. Every day of decomposition increases the difficulty of creating a functional Amalgam. Reanimators should cast *Preserve Amalgam* on harvested body parts as soon as possible as this suspends the deterioration process. This spell should be renewed as necessary until the creation process is complete.

For true Amalgam creation, the Reanimator requires at least **two** corpses (preferably but not necessarily of the same species), with more bodies being needed if the corpses are incomplete or damaged. An Amalgam cannot be fashioned from a single corpse as that is reanimating the dead, which is the province of *Lifegiving* and necromancy.

Having obtained the necessary bodies, the Reanimator must first dismantle them and then perform the equally gruesome task of stitching the pieces together. This process takes a number of days equal to the intended level of the Amalgam. On each day of reassembly, the Reanimator must cast an *Amalgam #* spell of equivalent or higher level than the Amalgam’s level.

Example: Doctor Frankenstein wishes to construct a 7th-level Amalgam. This will take him seven days and require him to cast Amalgam X on the pieces each day.

On the final day of the process, the Reanimator must make a Surgery maneuver to determine the quality of the workmanship, particularly the number of Weaknesses and Improvements possessed by the Amalgam.

**TABLE 8.1 AMALGAM
ASSEMBLY MANEUVER CHART**

-26 down	Spectacular Failure
Your total ineptness means that the Amalgam has 7 Weaknesses, which it will just have to live with. Consider a career change.	
-25-04	Absolute Failure
Perhaps you should consider actually learning some Surgery skill. Your incompetence means that the Amalgam has 5 Weaknesses.	
05-75	Failure
Instead of pacing yourself, you rush the job, botching the Amalgam's assembly. It has 4 Weaknesses.	
UM 66	Unusual Event
Oops! You've put some of the pieces on the wrong way round. Amalgam has 3 Weaknesses (See section 8.1.3 for penalties rear-facing head, torso, or limbs). Pay attention in future.	
76-90	Partial Success
Alas, your scalpel slipped a couple of times near the end. Amalgam has 2 Weaknesses.	
91-110	Near Success
Nobody's perfect and that includes this Amalgam. It has 1 Weakness.	
UM 100 Unusual Success	
More by luck than judgement, you've created a superior Amalgam with 3 Improvements and no Weaknesses. A word to the wise: Don't go boasting to the locals in the nearest tavern – they won't understand.	
111-175	Success
As good as new. The Amalgam has no Weaknesses.	
176 and up	Absolute Success
All those nights spent dissecting corpses have paid off. The Amalgam has 2 Improvements and no Weaknesses.	

GENERAL MODIFIERS:

Difficulty

Medium (all corpses of same humanoid species) ...	+0
Hard (all corpses of same animal (non-humanoid) species)	-10
Very Hard (corpses are of different humanoid species)	-20
Extremely Hard (corpses of different animal or humanoid species)	-30
Sheer Folly (all corpses are of same "monster" species)	-50
Absurd (corpses are of different "monster", animal, or humanoid species)	-70

Miscellaneous

Decomposition penalty (use single most decayed body part):	-5 per full day
Bonus from Analyze Amalgam spell:	+25

8.1.2 THE SPARK OF LIFE

Once its body has been assembled and the final spell cast, the Amalgam is capable of life, but does not yet possess it. To cross the barrier into life, a spirit must be drawn and bound into the Amalgam's body. Reanimators accomplish this by releasing a sudden surge of electricity into the Amalgam, which sucks the nearest wandering spirit of appropriate power into the body. Once inside, the spirit is permanently bound to the Amalgam, receiving release only when the Amalgam is destroyed.

While early Reanimators relied on natural lightning or attempted to utilize *Shock Bolts*, modern practitioners prefer the controlled release of energy from Leyden jars (see Chapter 5). One fully charged Leyden jar is required for every five levels (round up) of the Amalgam. Charging a Leyden jar is an Easy (+10) Operating Equipment maneuver, while connecting them into a battery is a Medium (+0) Operating Equipment maneuver.

To determine what is summoned, roll d100 and consult Table 8.2.

TABLE 8.2 AMALGAM ANIMATING SPIRITS

D100 Roll	Type of Spirit, Soul or Undead Spirits
01-10	Angry Spirits
11-15	Elemental Spirits
16-20	Emotive Spirits
21-30	Entity Spirits
31-35	Haunts
36-40	Rational Spirits
41-70	Standard (Unborn) Spirits
	Souls
71-95	Soul Shard / Reincarnated Soul
	Undead
96-00	Ghost

A Soul Shard is a fragment of a pre-existing soul. It is most frequently a residue from one of the dead bodies, which have contributed to the Amalgam. A Reincarnated Soul is just that – a soul which has by chance, destiny, or the will of the God(s) been reborn into the Amalgam rather than into a normal living creature. GMs should choose which best suits their cosmology – alternatively simply treat these results as Standard Spirits or Ghosts.

The other spirits are as described in Chapter 7 – treat Ghosts as Haunts in terms of their worldview. No Reanimator has yet discovered a way of summoning specific spirit types into an Amalgam body.

The "level" of any summoned spirit equals the level of the Amalgam.

With the spirit in place, the Amalgam will spasm into life.



TABLE 8.3 AMALGAM IMPROVEMENTS AND WEAKNESSES

D100 Roll	Statistic	Weakness	Improvement
01-10	Base Rate	-10' (minimum 1')	+10'
11-15	Maximum Pace	Decrease 1 step (minimum Walk)	Increase 1 step (maximum Dash)
16-20	MM Bonus	-10	+10
21-30	Movement Speed	Decrease 1 step (minimum Inching)	Increase 1 step (maximum Blindingly Fast)
31-40	Attack Quickness	Decrease 1 step (minimum Inching)	Increase 1 step (maximum Blindingly Fast)
41-60	Hits	-10	+10
61-65	AT	-1 (minimum 1)	+1 (maximum 20)
66-75	DB	-5	+5
75-00	OB (choose one)	-10	+10

8.1.3 RECALLED TO LIFE

For animal and monstrous Amalgams, the level of the Amalgam is equivalent to an average living specimen as per *Creatures & Monsters*. For humanoid and other sentient Amalgams, the Reanimator chooses the level at creation time. While 1st-level Amalgams are easy to fashion and control, they have lower OBs and fewer residual skills than their high-level counterparts.

To calculate the statistics for an animal or monstrous Amalgam, use those given in *Creatures & Monsters* as a basis and then modify them by rolling once on the chart above for each Weakness and Improvement resulting from the Surgery maneuver. However no true Amalgam will suffer stun results. (For Amalgams that represent combinations of different species, the GM should average the relevant *Creatures & Monsters* statistics.)

Note: If a minimum or maximum is reached for any statistic, do not reroll the Weakness or Improvement.

Note: If an Amalgam has its legs on backwards, its Maximum Pace is reduced to Walk. If an Amalgam has its arms (or equivalent limbs) on backwards, reduce all OBs by 50%. If the Amalgam's head is facing the wrong way, reduce Maximum Pace to Walk and all OBs by 50%.

For humanoid Amalgams, use the following base stats for a 1st-level Amalgam and adjust upwards or downwards by rolling on Table 8.3 for Weaknesses and Improvements.

Level: 1

Size: Medium

Movement Speed /Attack Quickness: MF/MF

Base Move: 60'

Max Pace: Sprint

MM Bonus: +20

Hits: 50

Crits: @ (no stuns)

AT(DB): 1 (30)

Attacks: 40 Small Bash / 20 Medium Grapple / 40 Medium Crush / 50 Weapon.

(Humanoid Amalgams may wear clothes and armor, as well as use weapons and shields).

For each level above first, add 5 to all OBs and concussion hits of humanoid Amalgams.

Example: A third-level Amalgam with no Weaknesses or Improvements would have 60 concussion hits and OBs of 50 Small Bash / 30 Medium Grapple / 50 Medium Crush / 60 Weapon.

For humanoid Amalgams, the GM should roll d100 to generate all stats except Memory and Reasoning, which depend on the type of inhabiting spirit. See Tables 7.2 and 7.4 for intelligence ranges and appropriate dice rolls for all Spirits. For Soul Shards, Reincarnated Souls and Ghosts, roll d100.

Humanoid Amalgams also have "residual skills". It is theorized that these may be memories lingering in their bodies and brains, which are revived when the Amalgam is fully animated; alternative conjectures consider them to be leakages from the past lives of reincarnated souls and ghosts.

For humanoid Amalgams possessed by Spirits, the number of residual skills is d4 + 1 for every five levels. For humanoid Amalgams possessed by Soul Shards, Reincarnated Souls, or Ghosts, the number of residual skills is d6 + 1 for every five levels. For each residual skill, roll on Table 8.4 for the skill category. The GM determines which specific skill is known by the Amalgam, choosing a different skill each time a given category is rolled.

TABLE 8.4 AMALGAM RESIDUAL CATEGORIES

D100 Roll	Category
01-05	Armor Group
06-15	Athletic Brawn
16-30	Athletic Endurance
31-35	Athletic Gymnastics
36-40	Awareness Perceptions
41-45	Martial Arts – Strikes
46-50	Martial Arts – Sweeps
51-55	Special Attacks
56-60	Subterfuge Attack
61-70	Subterfuge Stealth
81-00	Weapons Group

The number of skill ranks in each residual skill equals the Amalgam's level – they do not retain category ranks.

8.1.4 LIVING AMALGAMS

There are two stages to converting a being or creature into a "Living Amalgam". The first is to cast an *Amalgam* # spell of equal or higher level than the victim for a number of days equal to the victim's level. If the victim succeeds in making any of the Resistance Rolls, the process must begin again from scratch.

The second stage is to perform the grafting operation, amputating a body part from the victim and replacing it with an equivalent part from a corpse. The Reanimator must cast the appropriate *Graft* spell as a preliminary to the operation. If the victim succeeds in resisting the *Graft* spell, then the body part will fail to attach properly and the victim will not become a Living Amalgam. He is likely to be very upset at having some part of his body removed.

The actual operation requires a Surgery maneuver. Reanimators with access to the *Medical Law* spell list (*Mentalism Companion*) may use the Incision spell to avoid any harm (through blood-loss) to their victim – other spells on that list will also be helpful. Creators who are Lay Healers by profession will also be able to minimize injury to the target.



TABLE 8.5 LIVING AMALGAM SURGERY MANEUVER

-26 down	Spectacular Failure
Doctor Death, you've mangled the amputation and the graft totally. The process has failed and the graft part is destroyed. If appropriate, the victim suffers bleeding at 10 hits per round.	
-25-04	Absolute Failure
Your amputation and grafting techniques were crude. The process fails as the graft comes loose immediately. If appropriate, the victim is bleeding at 7 hits per round.	
05-75	Failure
Another botched job, but at least the grafted body part can be salvaged. If appropriate, the victim is bleeding at 5 hits per round.	
UM 66	Unusual Event
Somehow you've managed it. The graft has taken well and the process has worked. The victim is bleeding at 5 hits per round.	
76-90	Partial Success
Very close. You've nearly got the grafted part joined into the victim. Try another Surgery maneuver immediately – the victim is bleeding at 3 hits per round.	
91-110	Near Success
Almost there! A few more stitches and you'll be done. Make another Surgery maneuver at +10 immediately – the victim is bleeding at 3 hits per round.	
UM 100	Unusual Success
Magnificent! The process has worked without a hitch. The victim is now a Living Amalgam. He's not even bleeding.	
111-175	Success
The victim is now a Living Amalgam. Do something about the bleeding at 2 hits per round or your success will be short-lived.	
176 and up	Absolute Success
Your skills with the scalpel amaze even you. The victim is a Living Amalgam, and is only bleeding at 1 hit per round.	

GENERAL MODIFIERS

Difficulty

Medium (grafting an appendage)	+0
Hard (grafting a limb)	-10
Very Hard (grafting a sensory organ)	-20
Extremely Hard (grafting an internal organ) ...	-30

Miscellaneous

Graft is mechanical: -10
Grafted body part is of a different species to recipient: -10
Patient is conscious and struggling: -20
Patient is conscious: -10
Patient is under a <i>Local Anesthesia</i> spell: +10
Patient is under a <i>General Anesthesia</i> spell: +30
Surgeon is using <i>Phase Surgery</i> : +25

8.1.5 MATERIALS, MONEY, AND TIME

There are two material costs involved with making Amalgams: a process cost for special unguents, preservatives, and medical supplies, and a “parts” cost for the corpses.

Process cost: Amalgam level squared in gold pieces.

“Parts” cost: (Amalgam level squared) times a rarity multiplier.

For common animals and humanoids, the rarity multiplier is 4.

For rare or dangerous creatures, the rarity multiplier is 10.

For very rare or dangerous creatures, the rarity multiplier is 30.

Example: A Battle Boar is a 4th-level animal. Creating a Battle Boar Amalgam will cost 16gp for the process, and 160gp (16 times 10) for two battle boar corpses.

In some circumstances, such as the Reanimator having free access to the local cemetery, the GM may waive the parts cost.

Time to create: One day per level of the Amalgam.

8.1.6 AMALGAMS AND HEALING

A true Amalgam cannot be healed by normal healing magic. Instead an Amalgam heals (slowly) through its own magic regenerating injuries or by the application of *Amalgam Healing* spells from the *Amalgam Law* spell list. The latter cannot cure destroyed external or internal body parts – these must be replaced using *Graft* spells.

Living Amalgams can have most of their injuries healed either by normal magic or by *Amalgam Healing* spells. Any wound to the graft can only be healed using *Amalgam Healing*. If the grafted part is totally destroyed, the individual is no longer a Living Amalgam.

8.2 SIMULACRA

Simulacra are artificial beings mixing inorganic and organic substances according to arcane formulae. They are grown in special enchanted creation vats or tanks, each unique to a particular Simulacrum type. Suspended in the pseudo-amniotic fluids of the creation vat, the potential Simulacrum is both nourished by and bonded to its master through the daily sacrifice of blood from the master. These infusions impart a measure of the blood donor’s own personality and prowess to the Simulacrum. The blood forms a permanent bond of loyalty and obedience between the Simulacrum and the donor. Using *Awaken* spells, the power of the blood can be tapped to manifest the talents, skills, and spells of the donor in the Simulacrum. (The donor does not lose those abilities; equally important, the Simulacrum can only manifest abilities possessed by the donor at the time of its creation.)



8.2.1 OBTAINING MATRICES


Underpinning all Simulacra design is the concept of the matrix. This is a mystical signature pattern, which is unique to each individual, and encodes its form and abilities. Adepts may use the *Simulacrum Matrix* spell to glean and mentally store these matrices. Obtaining matrices is perhaps the most dangerous part of Simulacra creation – as the caster must be within ten feet of the target, succeed at casting a mental attack spell, and then is unable to do anything but concentrate on assimilating the matrix for an entire minute. Unfortunately *Simulacrum Matrix* is not a “quiet” spell, so the target will be aware that something has been cast and may become hostile to the caster. Cautious mages will seek to have their victims restrained before attempting this procedure.

Nevertheless the effectiveness of a Simulacra creator is defined by the diversity of his matrix repertoire, so wise mages will seek to extend this at every opportunity.

8.2.2 BUILDING THE VAT

The next step in creating a Simulacrum is to enchant a suitable creation “vat”. The nature of this vat depends on the adept’s magical tradition. Some favor huge glass sealed tanks, others prefer metal hemispherical vats, whilst still others construct shallow pits. Each vat is enchanted to support the creation of a particular Simulacrum matrix; a given vat can only grow Simulacra of that type.

To enchant a vat, the magician must cast a *Simulacrum* # spell of equal or higher level than the intended Simulacrum’s level once per day for a number of weeks equal to the Simulacrum’s level. Additionally if the vat is to be used for the creation of Simulacra who match one of the alchemist’s stored matrices, then the appropriate *Plant/Animal Matrix*, *Sentient Matrix*, or *Exotic Matrix* spell must also be cast once per day for a number of weeks equal to the Simulacrum’s level.



The materials cost for the vat is 50gp times the Simulacrum's level.

The level of a Simulacrum is normally determined by its matrix, i.e. the average level for that creature as given in *Creatures & Monsters*. For "humanoid" (or other sentients who are permitted to take professions), the Simulacrum's level is chosen by the creator with the limitation that the maximum level possible is set by the most potent *Simulacrum* spell that he can cast. For soul-clones (see below) the maximum level is the original's level or the maximum level set by the caster's highest known *Simulacrum* spell (whichever is lower).

8.2.3 GROWING THE MATRIX

There are normally three components to fashioning the Simulacrum itself, namely spells, nutrient fluids, and blood. (Some special Simulacra have special material components.)

The adept must cast a *Simulacrum* # spell of equal or higher level than the Simulacrum's level once per day of the creation process. Unless there is a special material component to direct the growth, the *Simulacrum* spell on its own will only produce a living amorphous blob. To achieve a particular form, the creator must impress a stored matrix onto the growth, by casting one of the *Plant/Animal Matrix*, *Sentient Matrix*, or *Exotic Matrix* spells once per day of the creation process. This will change the growth to take on the physical and other characteristics of an average member of the species stored in the matrix, **not** an exact copy of the studied target.

Creators may choose to alter the form of an individual Simulacra by using *Warp Matrix* # spells during the incubation process. Each individual alteration requires a separate *Warp Matrix* spell, which must be cast once per day, and extends the duration of the creation process. (It is possible to totally change a form in this way, but in practice most creators would seek a closer matrix to use as a starting point. To paraphrase an Irish saying, "if I was going there, I wouldn't start from here".)

Throughout the creation process, the vat must be kept filled with nutrient fluids. These include water (salt and fresh), sugar in solution, alcohol, the juices of pulped fruits, herbal extracts, liquid fertilizer, and so forth. The cost of this nutrient solution is the level of the Simulacrum cubed in gold pieces. (While vats are routinely reused, the cost of the nutrients is paid for each individual Simulacrum grown.)

To give life to the Simulacrum, blood must be regularly infused into the vat. This sharing of blood grants the Simulacrum a measure of independent life force but simultaneously forges its personality and mental stats (Me, Re, SD, Em, In, and Pr) into copies of its blood donor, and makes it totally loyal (and usually obedient)

to that donor. The blood donor may or may not be the creator. The nature of the loyalty bond will make most adepts very wary of fashioning powerful Simulacra who are totally obedient to another person.

For each day of the creation process, the donor must contribute at least one concussion hit worth of blood per level of the Simulacrum.

The other vital statistics (St, Ag, Qu, and Co stats as well as the level, AT, DB, OBs, etc.) of the Simulacrum are identical to an average individual of the species stored in the matrix. (Consult *Creatures & Monsters* for the relevant details.) For humanoid and other fully sentient races, the GM should randomly roll the St, Ag, Qu, and Co stats. Humanoid simulacra should have ranks in Body Development equal to their level. OBs etc. will be negligible unless the adept can cast *Awaken* spells.

8.2.4 WARPING THE MATRIX

To create Simulacra of a unique form or with above or below average statistics, the adept must use *Warp Matrix* # spells during the entity's growing stages. The possible alterations are classified into three categories: Minor Alterations (require *Warp Matrix I*), Lesser Alterations (require *Warp Matrix II*), and Greater Alterations (require *Warp Matrix III*). Each specific alteration requires a separate *Warp Matrix* spell, and in particular making two or more changes of the same type requires two or more warpings. For instance, an alchemist desiring to increase a Simulacrum's Armor Type from 1 to 3 must use two *Warp Matrix I* spells (the first to go from AT 1 to AT 2, the second to raise it from AT 2 to AT 3).

Explanations of the potential benefits of the biological changes can be found in section 8.3.4.

Note: Alterations that are detrimental to the Simulacrum (such as lowering AT) still require a Warp Matrix spell. Such effects are usually only performed when the creator and the blood donor are different.

Minor Alterations

Armor Type: Raise or lower natural armor type by 1 (minimum of 1, maximum of 20).

Body Coverings: Add, remove, or modify any one external body part, which covers another (e.g. eye lids, gill slots, neck and stomach pouches, feathers, fur, hair, whiskers, etc.).

Bone Projection: Add, remove or modify one external bone projection (e.g. antlers, barbs, beaks, horns, talons, thorns, etc.).

Cartilage Change: Add, remove, or modify any one piece of external cartilage (e.g. antenna, ear, nose, spikes, stalks, etc.).

Maneuver Bonus: Alter Maneuver Bonus by +5 or -5.

Skin Color: Alter skin color (hue change, adding/removing spots or stripes).

Skin Texture: Alter skin texture (dry, leathery, metallic, oily, scaly, etc.).

Lesser Alteration

Attack Quickness: Adjust Attack Quickness up or down one step (to a minimum of Inching and a maximum of Blindingly Fast) – this affects Initiative directly.

Concussion Resilience: Adjust concussion hits by +10 or –10.

External Appendages: Add, remove, or modify miscellaneous external appendages (e.g. sex organs, stingers, rattles, web spinners, etc., but not hands or feet).

Manipulator Alteration: Add, remove, or modify whatever the Simulacrum's means of manipulation (e.g. fingers, toes, claws, nails, webbing between digits, small tentacles).

Movement Speed: Adjust Movement Speed up or down one step (to a minimum of Inching and a maximum of Blindingly Fast) – this affects Defensive Bonus directly.

Mouth Alteration: Add, remove, or modify parts of the Simulacrum's mouth (e.g. snout, lips, teeth, fangs, suckers, tusks, tongue).

Pace Alteration: Adjust Maximum Pace up or down one step (to a minimum of Walk and a maximum of Dash).

Greater Alteration

Critical Resilience: Adjust the Simulacrum's critical reduction by one step up or down (None to I (reduce crits by 1 severity level), I to II (reduce crits by 2 severity levels), II to LA (Large Creature Critical Table), LA to SL (Super Large Creature Critical Table) and vice versa).

Internal Alteration: Add, remove or modify any one internal organ (e.g. gills, glands, heart, lungs, poison sac, sex organs, spit, stomach) or make an internal change. (e.g. balance, bone density, fat layer, floatation, metabolism). The blood **cannot** be changed.

Limb Alteration: Add, remove, or modify any one (pair of) limb(s) (e.g. arm, leg, wing, tentacle, tail, etc.) or limb part (e.g. hand, foot, joint, etc.).

Movement Rate: Adjust the Simulacrum's base movement rate by +20' or –20' (minimum of 1').

Offensive Alteration: Adjust any one of the Simulacrum's OBs by +20 or –20. (No OB can be reduced below zero.)

Sensory Alteration: Add, remove, or modify in shape or sensory range one sensory organ (e.g. eyes, ears, nose, etc.).



Size Alteration: Alter the overall size by one step (e.g. from Tiny to Small, Small to Medium, Medium to Large, Large to Huge, or vice versa).

8.2.5 SPECIAL SIMULACRA

Certain Simulacra transcend the conventional masteries of the adept's living art forms. These include the homunculus familiar, the homunculus (sometimes called a soul-clone), the multiple-headed Warders, Eye Entities, Solaars, Viles, and Shards (both Lesser and Greater). The knowledge of how to fashion Eye Entities, Solaars, Viles, and Shards is exceedingly rare among mortal mages, although Demon sorcerers may impart such lore to their favorites, but always at a high price. A successful *Analyze Simulacrum* on these exotic Simulacra will reveal their construction secrets – whether the caster survives the encounter to make use of this knowledge is a different matter.



The secret of these Simulacra is that they almost all require special material components in addition to the normal spells, nutrients, and blood.

Eye Entities (see C&M)

Eye Entity are huge, flying, disembodied eyes, created using *Simulacra* # spells and dozens, even hundreds, of eyes torn bloodily from living beings. Only evil alchemists would even consider crafting such an entity. The spell and material requirements are:



TABLE 8.6 EYE ENTITIES

Type	Level	Blood Requirement	Simulacrum Spell	Number of eyes
Minor	2	2 hits per day	Simulacrum III	20 pairs of eyes
Lesser	6	6 hits per day	Simulacrum X	180 pairs of eyes
Greater	10	10 hits per day	Simulacrum X	500 pairs of eyes
Major	15	15 hits per day	Simulacrum XV	1125 pairs of eyes

Homunculus Familiars (see Homunculus entry in C&M)

This entity is made using a combination of the *Simulacrum III* spell (for a 2nd-level homunculus), twice the normal amount of the donor's blood, and the donor's familiar. Instead of using a stored matrix, the caster places the donor's familiar into the creation vat on the last day of the creation process. This is "absorbed" into the forming Simulacrum (though the donor does not suffer any penalties normally associated with a familiar's death), reshaping it into a winged goblinoid with poison fangs and a much extended bond range with its master.

Homunculus Soul-clone

This Simulacrum is a perfect physical duplicate of an individual being or creature. The normal *Simulacrum* # and *Matrix* spells must be cast to achieve the basic form – to achieve the exact form, the adept must add fragments obtained from the original's body (i.e. nail clippings, hairs, shed skin or scales, etc.) and a piece of flesh and blood cut from the original being (10 concussion hits worth of damage). The creator may choose to halt the Simulacrum's maturation at the original's prime as opposed to the original's current age.

To achieve a true soul-clone, which mirrors the personality of the original, the original being must also be the homunculus' blood donor. For mages seeking immortality, such soul-clones represent the perfect destination for a *Transfer Soul* spell.

Mockery

A Mockery Simulacrum is a poor duplicate of the form of a living creature. Unlike ordinary Simulacra, which are faithful copies of their creative matrices or even exact matches as with homunculi, a Mockery achieves only the basic outline of the original form. A closer examination reveals unhealthy (even diseased looking) skin and fur, warped bone structures, protruding fleshy lumps, limbs and other features mismatched in size, shape or position, and so on.

Mockeries require no special ingredients. Their advantages are that they can be created in **half** the time (round up) and at **half** the cost of a standard Simulacrum of their level. They do require the same total amount of blood during their creation process (e.g. a 6th-level Mockery requires 12 concussion hits per day for three weeks whereas a 6th-level Simulacra requires 6 Concussion hits per day for six weeks.)

The disadvantage is that their unfinished, incomplete and/or twisted forms impose penalties in many areas.

For a Mockery, reduce natural AT by 1 (minimum 1), base movement rate by 10' (minimum 1'), maximum pace by 1 step (minimum Walk), attack quickness and movement speed by 1 step (minimum Inching), and reduce all OBs by 10. For humanoid Mockeries with Awakened skills and spells, impose a –10 penalty to all maneuvers using Awakened capabilities.

Shards (see C&M)

The secrets of Shard creation are *almost* unknown in the present age, but there are always insane Loremasters who will pursue knowledge that should remain lost. Lesser Shards require *Simulacrum XV* while Greater Shards need *High Simulacrum* in their making. Both types require *Sentient Matrix* of an Elf or lordly race of Men. Multiple castings of *Warp Matrix I* are essential for creating their facial shrouds, natural hide, and bone disc tracks as well as enhancing their maneuver bonus. *Warp Matrix II* provides their heightened Movement Speed, Attack Quickness and concussion hits. *Warp Matrix III* alters their light sensitivity, increases their sense of smell, improves their critical reduction, raises their metabolism, and creates their bone disc and poison generation mechanisms.

Additionally Shards also require special ingredients to enable the full range of their legendary powers to manifest. For Lesser Shards, these consist of fifteen pints of liquid poison and blood donations from **two** demons (15 concussion hits' worth per day **each**). Greater Shards must have twenty-five pints of liquid poison, two gems enchanted as Daily I *Lightning Bolt* items, and blood donations (25 Concussion hits' worth per day) from **three** demons. It is the multiple blood donors which permit the matrix warps to achieve otherwise impossible effects. The unstable blood and poison mixture gives them their craving to feast on brains and means that no single individual can control a Shard through its blood.

Solaars (see C&M)

Solaars require the *High Simulacrum* and *Sentient Matrix* to obtain their humanoid form. Several applications of *Warp Matrix I* will eliminate the nose, eyebrows, and ears. *Warp Matrix II* can be used to alter the mouth, while *Warp Matrix III* eliminates the eyes, permits the joining of metal plates to the skin, and rewires the body to obtain "nourishment" from heat and light. The initial energy source is provided either by a piece of high elemental fire (see *Fire & Ice: The Elemental Companion*) conjured into the vat or by summoning a Fire Elemental and compelling it to enter the vat.

Viles (see C&M)

Viles are the mindless, artificial spawn of Rhodintor Demons. The creation ritual involves the *Simulacrum X* and *Sentient Matrix* spells, plus three applications of *Warp Matrix I* to remove ears, and nose, and then alter the skin pigmentation to pure white or jet black. *Warp Matrix II* reconfigures the mouth area into a maw of sharp teeth. *Warp Matrix III* removes the eyes. To achieve the network of heat sensing nerves on a Vile's body, most Rhodintor prefer to wrack a living humanoid with spells from the *Physical Erosion* list or electricity-based attacks and then drown him in the creation vat. When victims are unavailable, *Warp Matrix III* may be used instead. The blood component is sourced from other Demons, preferably the berserker Rashtar Demons.

Warders (see C&M)

Multi-headed beasts fashioned as eternal guardians, Lesser and Greater Warders are typically made in the likeness of wolves, panthers, lions, and other deadly predators. The alchemist must use *Simulacra X* (for Lesser Warders) and *Simulacra XV* (for Greater Warders) in conjunction with a suitable *Animal Matrix*. Their Large size is frequently achieved via *Warp Matrix III*. In addition to the normal blood component, one amputated head (of the desired animal form) must be cast into the creation vat for each head of the final Warder, e.g. a three-headed wolf Warder needs three wolves' heads.

8.2.6 MATERIALS, MONEY, AND TIME

To recap, the monetary cost for building a suitable creation vat is 50 gold pieces per level of the Simulacrum to be grown in the vat.

Example: A creation vat for a 5th-level Simulacrum will cost 250 gold pieces (5 times 50).

The materials cost to grow an individual Simulacrum in the appropriate vat is the level of the Simulacrum cubed in gold pieces.

Example: To actually grow a 5th-level Simulacrum in the above creation vat will cost 125 gold pieces (5 times 5 times 5).

The time required to design and build a creation vat equals the Simulacrum's level in weeks.

The time required to grow an individual Simulacrum equals:

the Simulacrum's level (in weeks)

plus one week for each Minor Alteration (*Warp Matrix I*) to the Matrix,

plus two weeks for each Lesser Alteration (*Warp Matrix II*) to the Matrix,

plus three weeks for each Greater Alteration (*Warp Matrix III*) to the Matrix.

Example: It will take five weeks to design and build the creation vat for 5th-level Simulacra, with another five weeks being necessary to grow and decant the first Simulacrum from it.

8.2.7 SIMULACRA AND HEALING

Simulacra cannot benefit from normal healing magic. Instead a Simulacra heals (slowly) through its own magic regenerating injuries or by the application of *Heal Simulacrum #* spells from the *Simulacra* spell list. For more severe damage, the Simulacrum must return to its creation vat and remain in it for **one** full day. This will heal all damage, but will require the creator to spend the Simulacrum's level **squared** (in gp) on growth fluids.

8.3 CHANGELINGS

Changelings are not artificial entities *per se*, rather they are natural creatures, who have been changed or mutated into unnatural forms and shapes. Magicians who explore Changeling lore study natural beasts and magically store their matrix patterns for later use. Unlike the adepts who fashion whole Simulacra from *complete* matrices, the Changeling creators (or Transformers) use *matrix fragments* and superimpose these fragments onto the original matrices of their victims to change some portion of their physical bodies.



8.3.1 GATHERING THE PATTERNS

The matrix or mystical signature pattern is the foundation of all Changeling magic. The Transformers use the *Study Original* spell to obtain and mentally store their matrices. This can be dangerous – as the caster must be within ten feet of the target, succeed at casting a mental attack spell, and then is unable to do anything but concentrate on assimilating the matrix for an entire minute. *Study Original* is a “noisy” spell, alerting even the most magically insensitive of targets that a spell has been cast upon them. As with the Simulacra adepts, the potency of a Transformer is constrained by their matrix collection, so the perils of pattern acquisition must be risked.

8.3.2 CREATING A CHANGELING

To create a Changeling of a specific type, the Transformer must first have a matrix with the appropriate facet.

Example: Gregoras wishes to give his henchman Stabian the capability of delivering a poisoned bite. Many types of snakes are venomous, so Gregoras' next task is to find and cast Study Original on a suitable serpent.

Secondly the mage must determine what Change spells will be necessary to achieve the desired effect. In some cases, this will be obvious. In others, the GM may insist that the PC succeeds at either a Very Hard (-20) Fauna Lore maneuver or a Medium (+0) Biology maneuver to understand the ramifications of the alteration.

Example: Gregoras succeeds at a Biology maneuver and realizes that he needs to cast Change Mouth to reshape Stabian's front incisors into injector fangs and Change Internal Organ to create a functional poison sac in the roof of Stabian's mouth with connections to the fangs.

Actually implementing *Change* spells requires the Transformer to touch the target and then successfully cast the necessary spells. If the target fails its Resistance Roll, and the caster can maintain concentration on the spell for a number of rounds equal to the spell's level whilst still touching the target, then the change will take occur and be permanent. *Change* spells are thus unsuitable for combat casting.

8.3.3 CREATING AN ABOMINATION

Whereas most Transformers prefer to mutate adult individuals, some choose to breed new composite creatures by facilitating unnatural unions across species boundaries. In nature, cross-species matings only produce sterile offspring, even if the individuals are of very close species. The *Lesser Abomination*, *Greater Abomination*, and *Abomination True* spells achieve fertile offspring across wide pairings. However, they cannot compel a union or speed the normal processes of gestation

and maturation. Furthermore abominations must be trained, educated, and fed for years. Creating abominations is a long-term strategy, but is the only magical irreversible means of developing wholly new species.

In terms of game statistics, the GM has full discretion over the values assigned to each factor as well as the final say on the form of hybrids created using *Lesser Abomination* and *Greater Abomination*. For composites made via *Abomination True*, the PC may choose the final form (and the player may suggest the statistical values), but the GM retains right of veto on all proposals. When assigning stats, the hybrid may receive either the value possessed by one of its parents or the average of its parents' scores.

8.3.4 BIOLOGICAL CHANGES

Both Changelings and Simulacra can benefit from a variety of bodily alterations. This section aims to suggest some benefits and physical manifestations for these modifications. All natural attacks should be at least one step smaller than the original creature (i.e. a Medium animal may only have a Small Claw attack), unless a second casting is made to equalize attack and creature size.

Armor Type: Increased natural armor may manifest as hardened skin, leathery hides, scales, and even hardened shells.

Body Coverings: Useful modifications in this area include transparent nictitating membranes (protects eyes in dusty conditions), fur, feathers and hair for insulation, pouches for secreting young, and so forth.

Bone Projection: Antlers, beaks, talons and the like can provide useful natural weapons.

Cartilage Change: Modifying external cartilage may assist certain types of sensory organs and body functions – the outer ear cartilage channels vibrations inward; noses are entry/exit routes for air as well as smell sensors.

External Appendages: Stingers can provide an excellent delivery mechanism for poison, web spinners can generate gossamer strands capable of supporting the creature or to trap prey, and so on.

Internal Alteration: Adding gills and lungs will permit underwater and air breathing respectively, increasing lung capacity will assist at high altitudes, while poison sacs and venomous spit will provide natural toxins (level as creature). Increasing the fat layer may help survival in cold climes, floatation bladders will aid swimming, and metabolic changes may confer immunity to specific substances (alcohol, individual toxins) or diseases. Bone density decreases will lighten the weight of flying creatures but make them more fragile.

Limb Alteration: This can include changing joints for increasing or decreasing agility, elongating necks for a longer reach, adding a tail (same size as legs or joining two legs into a tail) for greater stability or a Bash attack, additional legs (for stability or quadruped forms), extra arms or tentacles (potentially more actions and

attacks), and wings (for aerial movement, initially at half land base movement rate). Wings may be made of stretched skin, replace or incorporate arms (with the hand in the middle) or be an extra pair of limbs.

Manipulator Alteration: Fingers (and thumbs) will improve manual dexterity (and encourage tool use), webbing between digits will assist swimming, and claws add a natural weapon. Retractable claws won't impair manual dexterity (if any).

Mouth Alteration: Changes to the mouth could provide a Bite, Tusk or Stinger attack.

Sensory Alteration: Possibilities include nightvision, low-light vision and infravision, ultrasonic and infrasound hearing, improved smell and taste, echolocation, magnetic and electrical senses. Sensitivity to colors, eye placement (depth perception versus 360 degree vision), and single versus compound eyes (greater resolution versus faster update) are all vision-specific modifications. (See *Mentalism Companion* for an in-depth treatment of animal senses.)

Skin Changes: These may assist in camouflaging the beneficiary in specific environments or provide greater sensitivity to or greater protection from sunlight.

8.3.5 SAMPLE CHANGELINGS AND ABOMINATIONS

Aquatic Orcs

Level: 4	Size: M	MS/AQ: MD/MD
Base Move: 60	Max Pace: FSpt	MM Bonus: +10
Hits: 60	Crits: -	AT(DB): 1(40s)
Attacks: 70Melee / 45Missile		

Aquatic Orcs have the grotesque faces, brutish features, and muscular bodies of their Orcish heritage. From the waist downward, a fish-like scaly tail has replaced their legs. Their hide and scales are colored for the gloom of deep waters. They are equally able to breathe air and water, having both gills and lungs.

Aquatic Orcs can be created as Changelings by adding gills, replacing legs with a single tail, altering eyesight for better underwater vision, and changing skin color. Alternatively they may be Abominations formed of the union of Orcs and Mermen.

Demonic Scorpinaur

Level: 4	Size: M	MS/AQ: MD/FA
Base Move: 60	Max Pace: FSpt	MM Bonus: +20
Hits: 70	Crits: I	AT(DB): 12(30)
Attacks: 60Weapon / 60 LSt / 40LPi / Spells		

The Demonic Scorpinaur is an Abomination created through the union of a Culraug Elf-Demon and a Scorpion Centaur. From the waist up, they have golden-red slim bodies with elven features. Below the waist, they have the body of a fiery red scorpion, complete with stinger (which delivers a level 6C respiratory poison). This creature is immune to flames and has access to the Fire Law spell list (up to 5th level) with 4PPs per level.

Winged (Horse) Centaurs

Level: 3	Size: M	MS/AQ: FA/MD
Base Move: 100	Max Pace: Dash	MM Bonus: +20
Hits: 45	Crits: -	AT(DB): 1(30s)
Attacks: 35Melee/55Missile/Spells		

Winged Centaurs stand 6' tall (from hoof to head) with a pair of great wings (12' wingspan) growing out of their human backs. Slimmer than their flightless brethren, the winged centaurs also have a lighter bone structure, making them less resilient to injury. If forced to fight, they will always seek to use missile weaponry and gain an altitude advantage over their foes.

Winged Centaurs can be created as Changelings by adding a pair of wings, giving them transparent nictitating membranes to protect their eyes from dust in flight, reducing their bone density, and increasing their lung capacity for high altitudes. Alternatively Winged Centaurs can be the Abomination offspring of Horse Centaurs and Hira'razhir (avians).



Campaigns

9.1 CREATION MAGIC, ARTIFICIAL ENTITIES, AND THE CAMPAIGN SETTING

9.1.1 WHICH TYPES OF CREATION MAGIC?

Construct Companion has presented six different categories of magical machines and artificial life. Including all six types in the same setting could potentially overwhelm it through sheer diversity in much the same way that having all the races from *Creatures & Monsters* appear in one small area will strain most players' credibility (unless of course that locale is a key nexus of world or interplanar commerce). Too much of a good thing can be harmful, so moderation is the key. Choosing which to include is a key decision for the GM.

For GMs running historical campaigns incorporating magical or legendary elements, the appropriate creation magics will be largely determined by the period (see Chapter 2).

Automata will almost certainly be present, as every age has had its inventors. GMs should consider adjusting the Difficulty Levels for technology upwards for early historical periods (e.g. perhaps steam power should be Extremely Hard or even Sheer Folly) unless the intent is to create an alternate history with more advanced "magical" technology.

In terms of artificial entities, Golems and Constructs are the obvious representatives. Strict interpretations of the various legends will impose constraints on the auxiliary spell lists allowed in the game. *Spirit Empowerment* and *Demonic Empowerment* are likely to be the only intelligence imbedding lists available. The GM may also have to codify the spirits and demons described in the era's myths and possibly adjust the two Empowerment lists accordingly. *Golem Magic* and *Construct Magic* should not be generally available – instead acquiring such knowledge should require dedicated research, travel to consult with sages, and quests.

For campaigns set in medieval and Renaissance times, the homunculi of alchemists such as Paracelsus may be represented by Simulacra. GMs may allow some of the "creation time" (as determined by the formulae in section 8.2) to include maturation time outside the vat. Amalgams may first appear in games set in the Enlightenment era of the 18th century.

Changelings are too fantastic for most historical campaigns.

For GMs using published fantasy settings or novels as the basis for their worlds, determining which types are available requires a thorough search of the modules and source material. (See Section 2.5 for commentary on several classic fantasy novels.) ICE's *Shadow World* setting contains recognizable Golems, Constructs, Amalgams (more familiarly known as Flesh Golems), and Simulacra (in the form of Shards, Viles, etc.). Many of the stranger species could be explained away as

descendants of Changelings created by the Lords of Essence, while Automata may have a role to play in *Shadow World's* more technologically advanced societies.

For GMs using settings of their own devising, anything is possible. None, some or all of the six categories may appear in the world and/or be available to PCs. Personal preference and the GM's vision of the setting will guide the selection. The following guidelines may prove helpful.

While there are six distinct entity categories, these can be grouped into three larger classes with similar creation processes: Automata; Golems and Constructs; Amalgams, Simulacra, and Changelings. Each of these "supercategories" is independent of the others and so may appear on its own in a world.

Golems and Constructs are different routes to the same sort of artificial entity. The existence of Golems does not require or preclude the existence of Constructs and vice versa. GMs who only wish to have either Golems or Constructs need simply ban the spell list relating to the other variety. The *Entity Control* spell list of the Entity Hunter TP is designed to handle both types but has been written in an "entity-neutral" fashion, so may be used without alteration. GMs will also need to decide on which types of intelligence imbedding are available – if *Demonic Empowerment* and *Elemental Empowerment* lists are prohibited, then the Dark Creator and Elemental Creator TPs should be removed. The generic Creator and Religious Creator TPs do not have specific Empowerment lists "hard-wired" in, so should be always available.

Amalgams, Simulacra, and Changelings may be used individually or in combination. The only difficulty with using only one or two of this supercategory is that the *Abomination Lore* spell list is not "entity-neutral". GMs should either remove the list entirely (and the absence of a counterspell list makes the entity creators more powerful) or remove the unused spells from the list. In the second case, the GM may wish to consider shuffling the spells to fill gaps at key slot levels (5, 10, 15, 20, 25, 30, and 50) and inserting intermediate spells to fill the new gaps. For example, in a Simulacrum-only world, the GM might introduce *Command Simulacrum I, III, V, VII, XII*, and *High Simulacrum* (30th-level) as well as longer ranged versions of *Hold Simulacrum* or *Trace Abomination*, while raising the levels of the existing *Command Simulacrum* spells.

The GM may also wish to consider making creation magic racially or culturally-specific. This is an excellent way of both allowing a gradual introduction of the material into an existing world (e.g. PCs on an expedition to a distant land encounter distinctive magical traditions) and enhances the diversity of the world (e.g. Dwarves are the Construct masters, while Elves are the Simulacra adepts, say). No individual culture has a monopoly on all creation magic, so accidental game imbalances are prevented. And the GM can now play with all the "cool toys" in this book without worrying that the campaign world has been over-seasoned.

9.1.2 CREATION MAGIC VERSUS GOOD AND EVIL

The next major questions to be answered concern the cosmology and theologies of the settings. In many worlds, there are powers that are definitely “Good” and those which are most definitely “Evil”. In other worlds, where the deities are less inclined to make explicit pronouncements, their mortal followers in terms of organized priesthoods may have their own interpretations of what their deities would say. If magic generally is suspected of being tainted with evil or diabolical associations (as is the case in many historical eras), then creation magic will be tarred with the same brush and its practitioners forced into secrecy for fear of the Inquisition or local witch-hunters.



Most GMs will adopt a cosmological compromise where creation magic in itself is neutral but certain techniques are likely to incur the wrath of the local authorities (religious, secular, and/or thaumaturgical). For instance, the grave-robbing activities of Reanimators to fashion their Amalgams will inflame grieving relatives in most societies, while their Living Amalgams will inspire horror in all who view them. Changelings and bred Abominations, particularly the more outlandish composites, are likely to be viewed as wholly unnatural, even offenses against the natural order of creation – humanity tends to be intolerant of the different, fearing and despising them with equal fervor. Section 7.1.2 discusses the ethics of imbedding intelligence into Golems and Constructs. The GM must decide which creation magics are deemed “evil” or “ambiguous” (relatively or objectively) and communicate this to the players. Those who wish to play PCs with “Good” dispositions can then avoid the unsafe choices; those preferring more ambivalent characters know the risks.

9.1.3 CREATION MAGIC AND SOCIETY

The final series of campaign-level questions concern the prevalence of creation magic and its impact on society.

How much creation magic is there?

Creators may be isolated scholars, pursuing their magical research in relative solitude. Their creations are individual masterworks of sophistication and the marvels of fireside tales. Many will be Experimentalists in motivation (see section 4.1), oblivious to the perils of their work. Barring localized disasters where a powerful entity goes rogue, there will be minimal impact on society as a whole.

Creators may be employed as court wizards to fashion Automata and entities on demand for noble and/or wealthy patrons (as Royal Creators or Guild Creators, see section 4.1). Their proximity to the movers and shakers of the world will bring creation magic to the attention of the upper classes and the religious hierarchies. Appointments as court wizards imply some tolerance by the major churches or aristocrats willing and able to defy them. For the employers, creation magic may provide loyal guards and servants, “creature comforts” (pun intended), advantages in warfare, transport, and industry, or even be a status symbol. In some societies, “ownership” of entities may even be reserved to the nobility. For commoners, creation magic will normally have only an indirect impact, and will be yet another advantage of the aristocrats of which the peasantry may be jealous.

Creators may be sufficiently numerous and well established to be organized into guilds (as Guild Creators, see section 4.1). In wealthy societies, “ownership” of automata and artificial entities will percolate down from the upper classes. As the advantages of Automata and entities become better appreciated, demand for them will increase and the guilds will be pressurized to supply those needs. Entrepreneurs will find uses for them in prototype factories and the society will experience the beginnings of a magic-based “Industrial Revolution”.

Is creation magic old secrets rediscovered, established traditions, or new teachings?

If creation magic is well established, then there will be a choice of mentors for budding apprentices, well-known and safe arcane formulae for specific items and entities, and a general consensus on what is and what is not appropriate.

If creation magic is ancient lore, which has been partially or wholly lost for centuries, then there will be few sources of knowledge and much of a creator's effort will involve arduous quests to uncover the secrets. GMs may reserve some spell lists, items, Simulacra formulae, and so on as only available through adventuring. Why did the lore become forgotten? Did something go terribly wrong? Are there secret societies (religious or otherwise) that want to ensure the magic stays lost?

If creation magic is a new arcane development, then every creator is on their own. New discoveries may be zealously guarded, leading to potential "industrial espionage". Patrons may be required for funding or protection. Setbacks can become major disasters – the local authorities may exile a wizard who unwittingly unleashes dangerous constructs. Conservative elements may try to block experiments, religious authorities may denounce them, and the local populace may simply be terrified.

Different types of creation magic may have differing pedigrees, e.g. Golems and Constructs might be established, Simulacra and Changelings lost lore, and Automata and Amalgams the new wave.

Who are the creators?

Can anyone become a Creator or are there social, cultural, or racial requirements? Do aspiring Creators join Guilds or apprentice themselves to senior wizards? Are there any individuals or organizations that are supportive of creation magic? Is there any organized opposition to creation magic? Who are they and how do they recruit new members?

What is the impact on society?

The impact depends on the number and kind of Automata and entities as well as the type of society. Automata are more likely to revolutionize society than artificial entities.

In a slave-based economy or other society where labor is cheap and plentiful, the results of creation magic will only be used for applications where slaves cannot be used (elite bodyguards) or the task can only be achieved using magic (particular modes of travel).

In feudal societies, creation magic will be used where it can give a lord the edge over his rivals. Nobles will acquire advantages in specific areas, not in all, and jealousy will serve to limit cross-pollination of ideas.

In post-feudal societies, the value of increased efficiency and costs savings associated with magical machines and artificial workers will be clear. Making ever-greater profits will drive progress for better Machine Automata especially. Industry is likely to be transformed from craftsmen working in their own homes and shops to factory workers servicing machines. Some types of unskilled and semi-skilled work will disappear, but the

relative simplicity of Machine Automata functionality will preserve more skilled careers. Agriculture and mining, particularly in dangerous conditions, may justify the expense of entities. The displacement of human workers may lead to "Luddite"-style outbreaks of machine breaking.

For all societies, the widespread adoption of offensive Automata will require alterations in warfare. Battlewagons and Metal Leviathans will smash through infantry formations, whilst being impervious to most archers and cavalry. Ornithopters and Skyriders will make aerial observation and warfare practical, while submarines will provide new opportunities for amphibious operations and seaborne commerce raiding. In peace, Vehicle Automata will offer new possibilities for long-range transport, trade and exploration. Supporting a new road network and fuel infrastructure may provide gainful employment for many adventurers.

Do entities have rights? Are they "human" too?

Are all artificial entities "things" which can be created, owned, and destroyed at the whim of their possessors? If a human soul is imbedded into a Golem or Construct, does the artificial entity gain (retain) the rights and responsibilities accorded by law, custom, or belief to "normal" human beings? If a creator makes a homunculus soul-clone, is the original person responsible for his soul-clone's actions? Can a soul-clone inherit the property of its originator legally or must it rely on possession being nine-tenths of the law?

9.2 ARTIFICIAL ENTITIES AS PCS AND NPCS

Incorporating an artificial entity into the campaign as a hostile encounter is a simple matter of following the creation process to build it in terms of statistics (but ignoring time, money and other details) and then unleashing it at the right juncture. As long as the GM remembers to simulate its actual intelligence and utilizes all its abilities (to the best of the entity's tactical sense), then the result should be a satisfying challenge. Incorporating an artificial entity as an NPC or even PC requires more thought.

Running an artificial entity as an NPC is both similar to and different from running real flesh-and-blood NPCs. Both require consistent characterization. Entities with minimal intelligence may legitimately be "one-dimensional" characters. Golems and Constructs animated by the *Sentience* spell list and most Simulacra will be extensions of their creator's (donor's) will. Golems and Constructs with imbedded essences (and Amalgams) may be in "two minds" exhibiting their own personality but implementing the will of their masters. When role-playing entities, it should be remembered that many of them are "idiot savants", extremely capable at one or more tasks, but completely ignorant of everything else. By all means, role-play their strengths, but also underscore this by allowing their lack of intelligence and/or general common sense to cause blunders from time to time.

For the GM, having an NPC entity in a group of adventuring PCs is no more hassle than a wizard having a familiar or a Beastmaster with a troupe of Bonded animals. The player is largely responsible for organizing the entity's life with occasional role-playing (or adjudication) by the GM. The situation becomes problematic if an alchemist creates an entire retinue of artificial bodyguards and servants and insists on taking them everywhere. GMs should emphasize the practical difficulties, whether it is innkeepers refusing to "serve their kind" or the local authorities considering a score of Warrior Constructs marching down the road as an invasion force. Large numbers of entities are much better for garrison duties—in one of the author's earliest *Rolemaster* campaigns, his PCs gained possession of a castle with a variety of Beast Constructs. It gave them a secure base, which could be maintained by one, or two retired characters while the others went adventuring.

At the GM's discretion, artificial entities may be PCs and, in some cases, normal PCs may become artificial entities. Such PCs may have an uphill struggle to gain tolerance and acceptance of their different nature from potential comrades and others. Ensuring that they have adequate means for repairs and healing will be another problem.

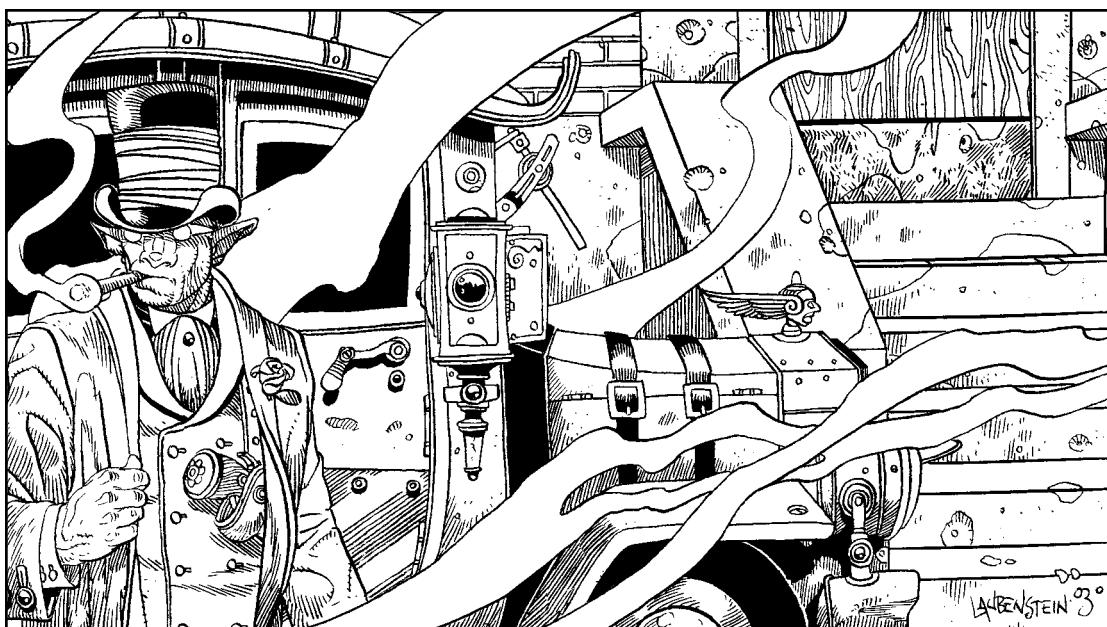
For Changeling PCs, the GM need only decide upon the game mechanic effects of the mutation(s). Likewise Living Amalgam PCs require no special treatment, although players should be warned that their characters are very vulnerable to mind control by Reanimators and some Entity Hunters.

True Amalgams can make interesting PCs, but will be under-skilled compared to normal characters. Whereas a 7th-level human character will have benefited from seven levels of full DP expenditure, adolescence skill ranks, etc., a 7th-level Amalgam (created at 7th-level) will only have 7 skill ranks in a handful of skills. Once created, an Amalgam can gain experience points, advance levels, and expend Development Points just like any other character. For that 7th-level Amalgam to

become an 8th-level character requires the same number of experience points as would be required by a normal 7th-level adventurer, **not** the number of XPs required to go from 1st to 2nd level. Players who wish to play Amalgams should start them at 1st-level to minimize the skill discrepancy. Escaping permanently from the control of its Reanimator will be a seminal time in the "life" of the Amalgam PC.

The blood-bond of a Simulacrum with its donor determines its mental stats and personality. Consequently no player can be expected to role-play a Simulacrum whose personality has been donated by another PC; such Simulacra should normally be run as NPCs by the blood donor PC. Players who like a role-playing challenge may wish to have a Simulacrum character who was created by an NPC – the Simulacrum PC's independence will depend on how active that NPC is (assuming he or she is still alive). Simulacra who have had **all** their skills etc., triggered by *Awaken* spells may gain experience and advance levels normally, with the same caveat that their starting level is their creation level, **not** necessarily 1st level. (Compared to the original blood donor, such Simulacra will only have **half** the number of skill ranks in each awakened skill and spell list.) A PC who transfers his soul into a Simulacrum may gain experience normally – however if the Simulacrum is not a homunculus soul-clone, Agility, Constitution, Quickness, and Strength stats will likely be different (and probably change the number of DPs gained at future levels.) Eye Entities, Shards, Solaars, and Viles are **not** acceptable as Simulacra PCs.

Golems and Constructs whose intelligence and personalities are supplied by the *Sentience* spell list are not PC material as the spells are essentially temporary fragments of the creator's mind. Golems and Constructs animated by Spirits, Demons, or Elementals are also unsuitable as PCs. The animating essences have world-views and "life experiences" which require too much special "insider" knowledge of the campaign setting. They are simply too alien.



By contrast, a PC whose life essence has been transferred into a Golem or Construct using the *Life Empowerment* spell list is perfectly acceptable as a playable PC. For reasonable independence, the entity should not have a *Glyph of Control*. If the PC's abilities, skills, and spells have all been restored using *Manifest* spells, then the PC may gain experience points and advance levels as normal in the artificial body.

The PC's mental stats (SD, Me, Re, Em, In, and Pr) transfer as normal and are subject to normal stat gain rolls at level advancement. For the purposes of calculating Development Points and skills, the PC's Constitution and Agility stats are fixed at their temporary values at the time of life essence transfer. Note the PC's Body Development skill is replaced by the entity body's concussion hits. The PC's Quickness stat is forfeit; instead use the Attack Quickness bonus as the stat bonus for Initiative and Qu-related skills, and the entity's Movement Speed bonus determines Defensive Bonus directly. Likewise the PC's Strength stat is forfeit; use the Bash material bonus as the "Strength" stat bonus for Golems (see Table 6.2) and the material OB bonus (see Table 6.5) for Constructs. All racial modifiers for Agility, Constitution, Strength, and Quickness are lost.

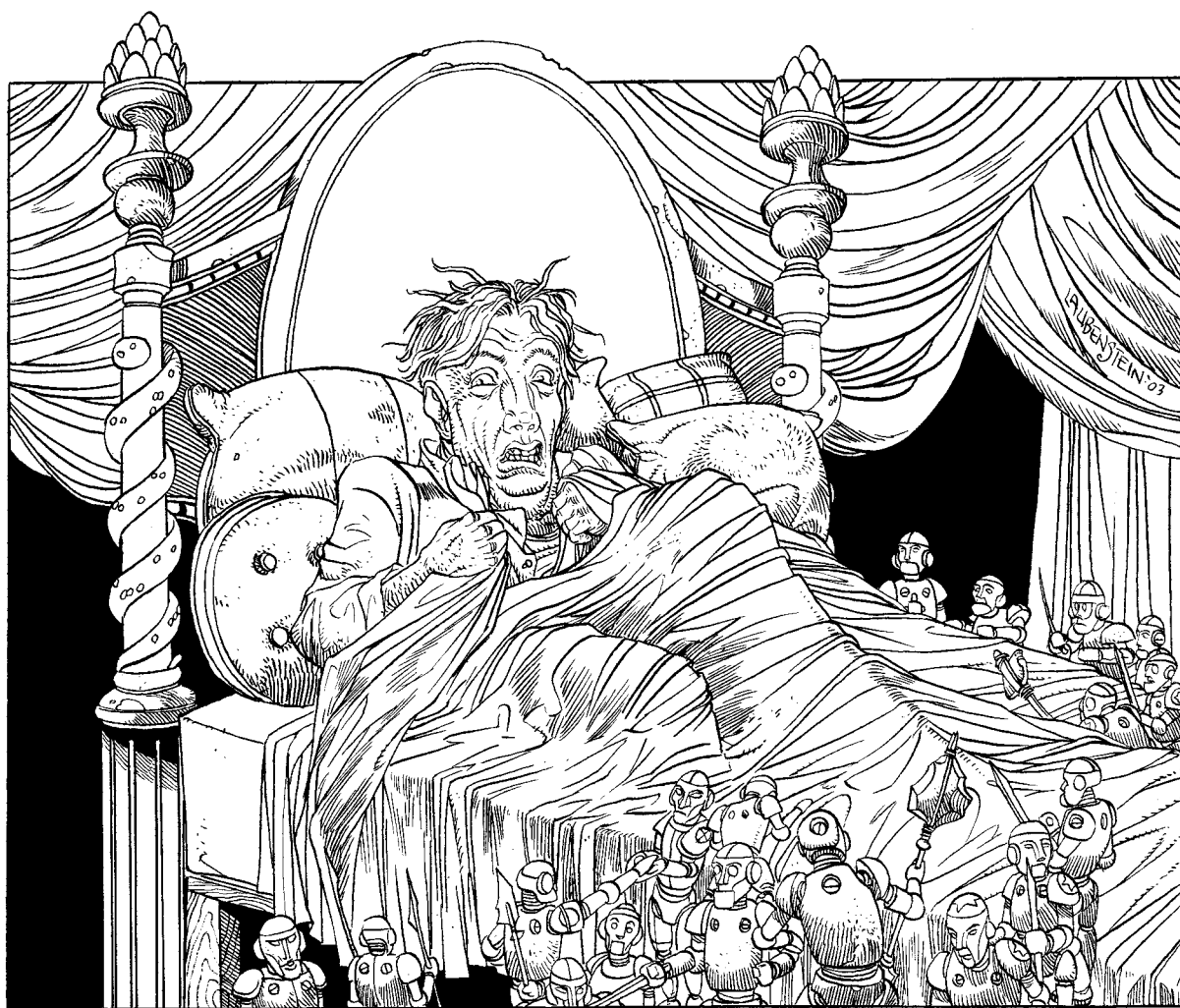
When buying skills, a Golem or Construct PC cannot purchase Body Development (concussion hits are fixed at entity creation). Entity PCs who have weapons rather than hands should avoid purchasing skills that require manual dexterity, as they will be unable to sensibly use them.

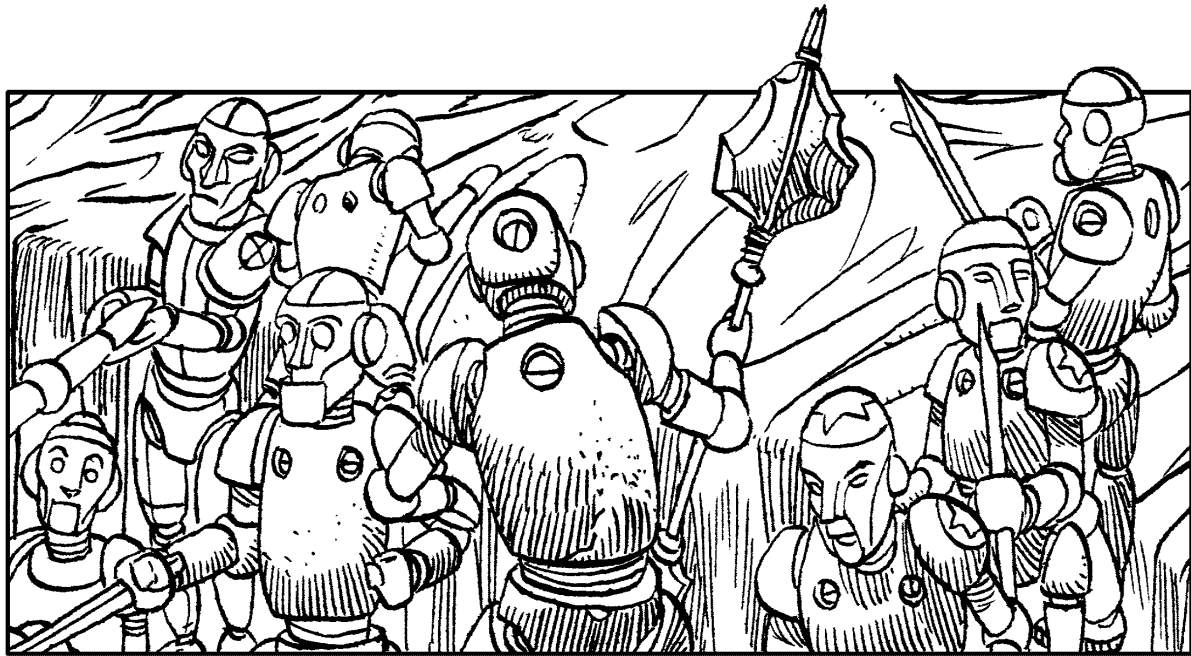
9.3 ADVENTURE AND CAMPAIGN SEEDS

Here is a selection of adventure and campaign seeds using elements of *Construct Companion*.

Amok Time: A powerful Construct or Golem bound to obedience by a *Glyph of Control* is unexpectedly freed by the destruction of the Glyph. Possessed by a demon or malevolent spirit, the entity will wreak terror until it is stopped.

Attack of the Clone: A long-time foe that the PCs have killed returns as a homunculus soul-clone. Did he transfer his soul? Is the new incarnation intent on vengeance or has the death of its blood master given it an opportunity to develop its personality along new lines? Has the foe returned in a different body (perhaps of a former friend)? Has the old enemy created





multiple Simulacra? How will the PCs be sure that they've killed them all?

Brave New World: A Transformer with delusions of grandeur is breeding a new master race. Unwanted Changelings and Abominations have been loosed on the world, posing a threat to travelers, isolated farms, and even small settlements. The individual horrors must be wiped out (or restored to normality) before more innocents die, while a major expedition must be mounted to take on and destroy the Transformer and minions in their lair before an army of Abominations is created and unleashed.

Manimal: The region is afflicted with an outbreak of outlawry (or piracy). The true identity of the rogue is unknown as he uses Changeling magic to transform his features. The raids will become more daring as the Transformer takes advantage of animal and monstrous forms. Allies and enemies may become (un)willing recipients of transformation.

The Body Snatchers: Graves have been desecrated and the locals suspect an Undead infestation. Actually Reanimators are despoiling the graves to create Amalgams. Anyone who finds out the truth is either killed or converted into a Living Amalgam. The Reanimators' eventual aim is to control the town/city – with their Living Amalgams as puppet rulers. The PCs must discover the truth and stop this evil plan.

The Broken Bargain: Years (perhaps even decades) ago, a Paladin or other good individual volunteered to become the animating life essence of an entity, so that he might continue to serve his cause. However the entity is governed by a *Glyph* and has now fallen into the ownership of an evil master who uses it for his own dark purposes. The entity will need help to destroy its master and win its freedom. For a twist, perhaps the spirit isn't what he claims – perhaps he is really a demon who has been imbedded to forestall his own evil.

The Little People: The star attraction of a travelling circus or carnival is its theatrum mundi. Instead of being an elaborate Machine Automaton, the miniature actors are actually tiny Golems, Constructs, or Simulacra. During the day, they entertain the crowds. At night, they are employed as burglars, spies and even assassins. Their small size allows them to slip unnoticed, while mechanical contraptions and magical abilities make them deadly opponents.

The New Machines: Breakthroughs in Automata design are imminent. The PCs may include an Artificer or be employed to protect an Artificer. The campaign may involve acquiring a suitably wealthy patron, building and testing the Automata, and conducting and combating the fantasy equivalents of industrial espionage and sabotage. If the Automata are a novel form of transport (submarine or flying vehicle), successful trials may lead to voyages of exploration to new lands.

The Return of the Creator: A long time ago, a powerful creator fashioned a veritable army of Golems and/or Constructs to defend a stronghold, city, or temple. A hereditary caste of Keepers became the entities' masters, while the creator disappeared. Now generations later, the creator has secretly returned and is using his supremacy (in countermanding orders from their masters) to infiltrate and subvert the entities. The authorities and/or PCs may slowly come to realize that something is subtly wrong, but unraveling the truth should form the basis for a series of conspiratorial / mystery scenarios.

The Spirit Trap: An alchemist is trapping Spirits within Golems. This is disturbing the magical balance of the region as the imprisonment of Totem Spirits and Shaman Spirits prevents them from helping their tribes and the ideals that the totems represent are fading from the world. Perhaps the alchemist is doing this deliberately. The Spirits must be freed and it is up to the PCs to accomplish this.

Spell Lists

10.1.1

AMALGAM LAW

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Preserve Amalgam	1 target	1 day/lvl	10'	F
<input type="checkbox"/>	2 Analyze Amalgam	1 amalgam	-	100'	I
<input type="checkbox"/>	3 Amalgam III	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	4 Compel Amalgam III	1 target	Varies	Varies	Fm
<input type="checkbox"/>	5 Amalgam V	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	6 Min. Amalgam Healing	1 amalgam	Permanent	Touch	U
<input type="checkbox"/>	7 Compel Amalgam V	1 target	Varies	Varies	Fm
<input type="checkbox"/>	8 Graft Appendage	1 target	Permanent	10'	Fm
<input type="checkbox"/>	9 Less. Amalgam Healing	1 amalgam	Permanent	Touch	U
<input type="checkbox"/>	10 Amalgam X	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	11 Graft Limb	1 target	Permanent	10'	Fm
<input type="checkbox"/>	12 Compel Amalgam X	1 target	Varies	Varies	Fm
<input type="checkbox"/>	13 Grt. Amalgam Healing	1 amalgam	Permanent	Touch	U
<input type="checkbox"/>	14 Graft Sensory Organ	1 target	Permanent	10'	Fm
<input type="checkbox"/>	15 Amalgam XV	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	16 Maj. Amalgam Healing	1 amalgam	Permanent	Touch	U
<input type="checkbox"/>	17 Graft Internal Organ	1 target	Permanent	10'	Fm
<input type="checkbox"/>	18 Compel Amalgam XV	1 target	Varies	Varies	Fm
<input type="checkbox"/>	19 Graft Mechanical	1 target	Permanent	10'	Fm
<input type="checkbox"/>	20 Lord Amalgam	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	25 Compel Lord Amalgam	1 target	Varies	Varies	Fm
<input type="checkbox"/>	30 Amalgam True	1 target	24 hrs	10'	Fm
<input type="checkbox"/>	50 Compel Amalgam True	1 target	Varies	Varies	Fm

10.1 CREATION LISTS

- 1. Preserve Amalgam:** Caster can preserve one corpse (or a severed body part) from any deterioration and decay for the duration of this spell.
- 2. Analyze Amalgam:** This spell analyzes one Amalgam, giving the caster in-depth information on how it was created and on its abilities. This translates into a +25 bonus to all maneuvers made by the caster to fashion an Amalgam of a similar nature.
- 3. Amalgam III:** Caster can convert a living person (of up to 3rd level) into a "Living" Amalgam of the same level or assemble (from body parts) an "assembled" Amalgam of up to 3rd level.
- 4. Compel Amalgam III:** Caster can totally control an Amalgam of up to 3rd level. If the target is a "Living" Amalgam, then the duration of this spell is 1 hour per level of the caster and the range is 100' per level of the caster. If the target is an "assembled" Amalgam, then the duration of this spell is 1 day per level of the caster and the range is 1000' per level of the caster. If the Amalgam moves beyond this range or the spell expires, then the Amalgam is free to act (including attacking the caster). When not acting on the caster's orders, the Amalgam will wait idly by on the next command.
- 5. Amalgam V:** As *Amalgam III*, except the resulting Amalgam can be up to 5th level.
- 6. Minor Amalgam Healing:** Target Amalgam is healed of 5d10 concussion hits or up to 2 hits per round of bleeding damage.

7. **Compel Amalgam V:** As *Compel Amalgam*, except the caster can control an Amalgam of up to 5th level.

8. **Graft Appendage:** Allows the caster to attach an external body part (such as a hand, foot, etc.) to an assembled or living Amalgam in a one-hour operation. If the Surgery maneuver is successful and the target fails to resist this spell, then the appendage will function normally for the Amalgam.

9. **Lesser Amalgam Healing:** Target Amalgam is healed of 5d10 concussion hits or up to 5 hits per round of bleeding damage or one damaged or severed, muscle or tendon is healed. A 1-hour operation is required for any muscle and tendon repairs. Recovery time for muscle or tendon damage is 1 day.

10. **Amalgam X:** As *Amalgam III*, except the resulting Amalgam can be up to 10th level.

11. **Graft Limb:** As *Graft Appendage*, except the caster can attach a limb to an Amalgam and the operation takes 2 hours.

12. **Compel Amalgam X:** As *Compel Amalgam*, except the caster can control an Amalgam of up to 10th level.

13. **Greater Amalgam Healing:** Target Amalgam is healed of any one broken (not shattered) bone or joint. A 2-hour operation and a recovery time of 1-10 days are required.

14. **Graft Sensory Organ:** As *Graft Appendage*, except the caster can attach (or transplant) a sensory organ (such as an eye, tongue, ear, etc.) into an Amalgam and the operation takes 3 hours.

15. **Amalgam XV:** As *Amalgam III*, except the resulting Amalgam can be up to 15th level.

16. **Major Amalgam Healing:** Target Amalgam is healed of any one shattered bone or joint or one damaged nerve or one damaged external or internal organ. A 3 hour operation is required for bone / joint damage. In all cases, a recovery time of 1-10 days is required.

17. **Graft Internal Organ:** As *Graft Appendage*, except the caster can transplant an internal organ (such as a heart, liver, lung) into an Amalgam and the operation takes 3 hours.

18. **Compel Amalgam XV:** As *Compel Amalgam*, except the caster can control an Amalgam of up to 15th level.

19. **Graft Mechanical:** As *Graft Appendage*, except the caster can attach or transplant a mechanical body part and the operation takes 3 hours.

20. **Lord Amalgam:** As *Amalgam III*, except the resulting Amalgam can be up to 20th level.

25. **Compel Lord Amalgam:** As *Compel Amalgam*, except the caster can control an Amalgam of up to 20th level.

30. **Amalgam True:** As *Amalgam III*, except the resulting Amalgam can be of any level.

50. **Compel Amalgam True:** As *Compel Amalgam*, except the caster can control an Amalgam of any level.

Special Notes

1. Many of the spells described here have a duration of "24 hours". For these spells, it is assumed that the caster must cast the spell once per day during the creation process (see also *Spell Law*, section 7.4.1) – the creations of these spell lists are **permanent** unless otherwise stated.

2. For details on the creation of Amalgams and their abilities, please see Chapter 8.

1. **Identify Automaton:** Caster can determine whether a specific device, machine, or vehicle in the area of effect is actually an Automaton. Caster can concentrate on a different 10'R area each round.
2. **Enchant Device I:** Allows the caster to create and imbue with magical energy a portable device whose mundane capabilities depend on muscle power, water or wind power, or clockwork. The result is a Device Automaton.
3. **Enchant Machine I:** Allows the caster to create and imbue with magical energy a non-portable machine whose mundane capabilities depend on muscle power, water or wind power, or clockwork. The result is a Machine Automaton.
4. **Enchant Land Vehicle:** Allows the caster to create and imbue with magical energy a vehicle designed for surface land travel. The result is a Vehicle Automaton.
5. **Analyze Automaton:** This spell analyzes one Automaton, giving the caster in-depth information on its operation and construction. This translates into a +25 bonus to all maneuvers made by the caster to operate this Automaton or to design and build an identical Automaton. Anyone to whom he describes the analysis receives a +10 bonus.
6. **Empower Device I:** Allows the caster to add a Lesser Empowerment to a Device Automaton.
7. **Empower Machine I:** Allows the caster to add a Lesser Empowerment to a Machine Automaton.
8. **Enchant Aerial Vehicle:** As *Enchant Land Vehicle*, except the vehicle must be designed to fly or glide in atmosphere.
9. **Empower Vehicle I:** Allows the caster to add a Lesser Empowerment to a Vehicle Automaton.
10. **Repair Automaton I:** The caster may restore 3d10 concussion hits of damage to an Automaton or repair one malfunction or replace one damaged part. A malfunction repair or replacement takes 10 minutes to take effect. Replacing a part requires a spare component.
11. **Enchant Device II:** As *Enchant Device I*, except the device may utilize steam power or electricity.
12. **Enchant Marine Vehicle:** As *Enchant Land Vehicle*, except the vehicle must be designed to travel over water (but not underwater).
13. **Enchant Machine II:** As *Enchant Device I*, except the machine may utilize steam power or electricity.
14. **Empower Device II:** As *Empower Device I*, except the caster may add a Greater Empowerment.
15. **Empower Machine II:** As *Empower Machine I*, except the caster may add a Greater Empowerment.
16. **Enchant Underwater Vehicle:** As *Enchant Land Vehicle*, except the vehicle must be designed to travel over water and underwater.
17. **Empower Vehicle II:** As *Empower Vehicle I*, except the caster may add a Greater Empowerment.
18. **Incorporate Magical Item:** The caster may combine a standard magical item into any type of Automaton.
19. **Enhance Automaton:** The caster may double the effects of all Empowerments on a specific Automaton for the duration of this spell. Once this spell ends, an

10.1.2

AUTOMATA

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Identify Automaton	10'R	1min/lvl(C)	100'	P
<input type="checkbox"/>	2 Enchant Device I	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	3 Enchant Machine I	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	4 Enchant Land Vehicle	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	5 Analyze Automaton	1 automaton	1 hour	Self	I
<input type="checkbox"/>	6 Empower Device I	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	7 Empower Machine I	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	8 Enchant Aerial Vehicle	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	9 Empower Vehicle I	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	10 Repair Automaton I	1 automaton	P	100'	F
<input type="checkbox"/>	11 Enchant Device II	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	12 Enchant Marine Vehicle	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	13 Enchant Machine II	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	14 Empower Device II	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	15 Empower Machine II	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	16 Enchant U/W Vehicle	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	17 Empower Vehicle II	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	18 Inc. Magical Item	1 automaton + 1 item	24 hrs	10'	F
<input type="checkbox"/>	19 Enhance Automaton	1 automaton	1 hr/level	10'	F
<input type="checkbox"/>	20 Repair Automaton II	1 automaton	P	100'	F
<input type="checkbox"/>	25 En. Exotic Vehicle	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	30 Empower Automaton	1 automaton	24 hrs	10'	F
<input type="checkbox"/>	50 Automaton True	1 automaton	24 hrs	10'	F

immediate Malfunction check must be made at **three times** the design malfunction number.

20. **Repair Automaton II:** The caster may restore 7d10 concussion hits of damage to an Automaton or repair all malfunctions or replace all damaged parts with spares. Any repairs or replacements take 10 minutes to take effect.

25. **Enchant Exotic Vehicle:** As *Enchant Land Vehicle*, except the vehicle may be designed to travel in two or more of the following environments: land, sea (above or below water), air, or underground. At GM's discretion, the vehicle may be able to travel in extra-planar or similarly unnatural environments.

30. **Empower Automaton:** Allows the caster to add a True Empowerment to any type of Automaton.

50. **Automaton True:** Allows the caster to create and imbue with magical energy an Automaton (Device, Machine, or Vehicle), whose mundane capabilities depend on "advanced" (pseudo)scientific principles.

Special Notes

1. Many of the spells described here have a duration of "24 hours". For these spells, it is assumed that the caster must cast the spell once per day during the creation process (see also *Spell Law*, section 7.4.1) – the creations of these spell lists are **permanent** unless otherwise stated.
2. For details on the definitions and basic capabilities of Device, Machine, and Vehicle Automata, as well as appropriate Empowerments, please see Chapter 5.

10.1.3

CHANGELING MASTERY

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Study Original	1 target	Varies	10'	Fm
<input type="checkbox"/>	2 Analyze Changeling	1 changeling	-	100'	P
<input type="checkbox"/>	3 Change Skin Appearance	1 target	Permanent	Touch	F
<input type="checkbox"/>	4 Change Skin Density	1 target	Permanent	Touch	F
<input type="checkbox"/>	5 Change Bone Projection	1 target	Permanent	Touch	F
<input type="checkbox"/>	6 Change Cartilage	1 target	Permanent	Touch	F
<input type="checkbox"/>	7 Change Covering	1 target	Permanent	Touch	F
<input type="checkbox"/>	8 Change Mouth	1 target	Permanent	Touch	F
<input type="checkbox"/>	9 Change Manipulators	1 target	Permanent	Touch	F
<input type="checkbox"/>	10 Change Appendage	1 target	Permanent	Touch	F
<input type="checkbox"/>	11 Change Sense Organ	1 target	Permanent	Touch	F
<input type="checkbox"/>	12 Change Limb	1 target	Permanent	Touch	F
<input type="checkbox"/>	13 Change Size	1 target	Permanent	Touch	F
<input type="checkbox"/>	14 Change Internal Organ	1 target	Permanent	Touch	F
<input type="checkbox"/>	15 Inherit Lesser Change	1 spell	1 minute	Self	U
<input type="checkbox"/>	16 Change Resistance	1 target	Permanent	Touch	F
<input type="checkbox"/>	17 Change Inherent	1 target	Permanent	Touch	F
<input type="checkbox"/>	18 Lesser Abomination	2 targets	1 hr/lvl	Touch	F
<input type="checkbox"/>	19 Change Brain	1 target	Permanent	Touch	F
<input type="checkbox"/>	20 Change Body	1 target	Permanent	Touch	F
<input type="checkbox"/>	25 Inherit Greater Change	1 spell	1 minute	Self	U
<input type="checkbox"/>	30 Greater Abomination	2 targets	1 hr/lvl	Touch	F
<input type="checkbox"/>	50 Abomination True	2 targets	1 day/lvl	Touch	F

- Study Original:** Caster may magically study and store the form and nature of the target, if it fails to resist this spell. The caster must spend one minute in uninterrupted concentration after a successful casting in order to assimilate the information. Caster may only have as many targets stored as his temporary Memory stat (not stat bonus). Stored patterns may be released at any time.
- Analyze Changeling:** This spell analyzes one Changeling, giving the caster in-depth information on how the changes were made and the nature of the changes (+25 to any maneuvers related to this knowledge). Even if the caster does not have the Changeling's original form stored, this spell gives the caster sufficient details to use the appropriate higher-level *Change* spell(s) to reverse the effects. Abominations cannot be reversed by this means.
- Change Skin Appearance:** Target's skin is altered (e.g. one change in hue, addition/removal of spots or stripes, one change in texture (oily, dry, scaly, leathery, metallic, etc.)).
- Change Skin Density:** Target's natural armor type can be raised or lowered by 1. Armor Type may not be reduced below 1 or raised above 20.
- Change Bone Projection:** Caster can add, remove or modify one external bone projection of target (e.g. antlers, barbs, beaks, horns, talons, thorns, etc.).
- Change Cartilage:** Caster can add, remove, or modify any one piece of external cartilage of the target (e.g. antenna, ear, nose, spikes, stalks, etc.).
- Change Covering:** Caster can add, remove, or modify any one external body part that covers another (e.g. eye lids, gill slots, neck and stomach pouches, feathers, fur, hair, whiskers, etc.).
- Change Mouth:** Caster can add, remove, or modify parts of the target's mouth (e.g. snout, lips, teeth, fangs, suckers, tusks, tongue).

- Change Manipulators:** Caster can add, remove, or modify whatever the target uses for manipulation (e.g. fingers, toes, claws, nails, webbing between digits, small tentacles).
- Change Appendage:** Caster can add, remove, or modify miscellaneous external appendages (e.g. sex organs, stingers, rattles, web spinners, etc., but not hands or feet).
- Change Sense Organ:** Caster can add, remove, or modify in shape or sensory range one sensory organ (e.g. eyes, ears, nose, etc.).
- Change Limb:** Caster can add, remove, or modify any one (pair of) limb(s) (e.g. arm, leg, wing, tentacle, tail) or limb part (e.g. hand, foot, joint, etc.).
- Change Size:** Caster can alter the overall size of a creature by one step (e.g. from Tiny to Small, Small to Medium, Medium to Large, Large to Huge, or vice versa).
- Change Internal Organ:** Caster can add, remove or modify any one internal organ of the target (e.g. gills, glands, heart, lungs, poison sac, sex organs, spit, stomach) or affect the target internally (e.g. balance, blood type, bone density, fat layer, floatation, metabolism).
- Inherit Lesser Change:** By casting this spell, the caster may make the next *Change* spell of 10th level or lower on this list affect the target and be inherited by all his/her future progeny.
- Change Resistance:** Caster can alter any one racial Resistance Roll modifier of the target by +5 or -5.
- Change Inherent:** Caster can alter any one racial stat modifier of the target by +2 or -2.
- Lesser Abomination:** If cast on two targets of the opposite sex, who then mate within the duration, the union will result in a fertile hybrid offspring, known as an Abomination. The targets may be of different species, but not of different "orders" (e.g. mammals, reptiles, fish, birds, etc.) e.g. using this spell, a lion may be mated with a horse, but a lion may not successfully mate with a crocodile. The result in form and statistics is at the GM's discretion.
- Change Brain:** Caster can make any target with animal instincts or no intelligence sentient (roll d100 for each mental stat). This spell has no effect on targets who are already sentient.
- Change Body:** Caster can alter the target to any desired shape or form.
- Inherit Greater Change:** As *Inherit Lesser Change*, except any *Change* spell of 20th level or lower may be made permanent.
- Greater Abomination:** As *Lesser Abomination*, but the targets may be of any species.
- Abomination True:** As *Greater Abomination*, but the caster may choose the form and statistics (within limits) of the resulting hybrid.

Special Notes

- See Chapter 8 for details on Changelings and Abominations.
- All *Change* spells on this list require the caster to concentrate for a number of rounds equal to the spell's level after casting for the spell to take permanent effect. The caster must continue touching the target during this period. If either of these conditions is not met, the spell will fail and the effect will be undone.

1. **Construct I:** Allows the caster to create and animate a construct of creation level 1.
2. **Detect Construct Possession:** Caster is aware of any spirits trapped or possessing any constructs within range.
3. **Construct III:** As **Construct I**, except constructs of up to creation level 3 can be created and animated.
4. **Purge Construct V:** Allows the caster to expel one spirit of up to 5th level from a Construct.
5. **Construct V:** As **Construct I**, except constructs of up to creation level 5 can be created and animated.
6. **Glyph of Control:** Allows the caster to inscribe a symbol on a Construct of up to 10th level, which will prevent any spirit from possessing the entity without permission from its creator. Any spirit trapped within the Construct must obey the entity's creator and designated master. At casting, the caster must choose what will happen if the glyph is defaced: **either** the Construct will deanimate (until the Glyph is repaired) **or** the protection against possession is removed and any spirit already possessing the Construct is released from obedience to the entity's creator and master. It takes one round per creation level of the entity to inscribe the glyph.
7. **Construct VII:** As **Construct I**, except constructs of up to creation level 7 can be created and animated.
8. **Minor Construct Repair:** Caster can restore 2d10 concussion hits to a Construct **or** reattach an undamaged body part to a Construct **or** repair a damaged body part, which is still attached to a Construct. A reattachment or repair takes 10 minutes to take effect.
9. **Purge Construct X:** As **Purge Construct V**, except one spirit of up to 10th level can be expelled.
10. **Construct X:** As **Construct I**, except constructs of up to creation level 10 can be created and animated.
11. **Enhance Construct:** Allows the caster to integrate one mechanical contraption into a Construct during the creation process.
12. **Construct XII:** As **Construct I**, except constructs of up to creation level 12 can be created and animated.
13. **Major Construct Repair:** Caster can restore 5d10 concussion hits to a Construct **or** reattach a damaged body part to a Construct, as long as all the bits are available. A reattachment takes 30 minutes to take effect.
14. **Lord Purge Construct:** As **Purge Construct V**, except one spirit of up to 20th level can be expelled.
15. **Construct XV:** As **Construct I**, except constructs of up to creation level 15 can be created and animated.
16. **Glyph of Control II:** As **Glyph of Control**, except it can be applied to a Construct of up to 20th level.
17. **Replenish Construct:** Allows the caster to replenish a Construct's supply of expendable materials. For non-magical materials, this spell will transmute and transform base materials (raw iron, water, etc.) into finished bolts and poisons inside the Construct. For magical materials, the spell will transform the material into the right forms and transfer them into the Construct.

10.1.4

CONSTRUCT MASTERY

Lvl	Name	Area of Effect	Duration	Range	Type
1	Construct I	1 entity	24 hrs	10'	F
2	Detect Construct Possession	10'R	1min/lvl(C)	100'	P
3	Construct III	1 entity	24 hrs	10'	F
4	Purge Construct V	1 spirit	P	100'	F
5	Construct V	1 entity	24 hrs	10'	F
6	Glyph of Control	1 entity	P	Touch	F
7	Construct VII	1 entity	24 hrs	10'	F
8	Minor Construct Repair	1 entity	P	10'	F
9	Purge Construct X	1 spirit	P	100'	F
10	Construct X	1 entity	24 hrs	10'	F
11	Enhance Construct	1 entity	24 hrs	10'	F
12	Construct XII	1 entity	24 hrs	10'	F
13	Major Construct Repair	1 entity	P	10'	F
14	Lord Purge Construct	1 spirit	P	100'	F
15	Construct XV	1 entity	24 hrs	10'	F
16	Glyph of Control II	1 entity	P	Touch	F
17	Replenish Construct	1 entity	P	10'	F
18	Construct Repair True	1 entity	P	10'	F
19	Purge Construct True	1 spirit	P	100'	F
20	Lord Construct	1 entity	24 hrs	10'	F
25	Glyph of Control True	1 entity	P	Touch	F
30	High Construct	1 entity	24 hrs	10'	F
50	Construct True	1 entity	24 hrs	10'	F

18. **Construct Repair True:** Caster can restore all concussion hits to a Construct **or** unite a replacement body part to a Construct. Installing a replacement body part takes 1 hour to take effect.

19. **Purge Construct True:** As **Purge Construct V**, except one spirit of any level can be expelled.

20. **Lord Construct:** As **Construct I**, except constructs of up to creation level 20 can be created and animated.

25. **Glyph of Control True:** As **Glyph of Control**, except it can be applied to a Construct of any level.

30. **High Construct:** As **Construct I**, except constructs of up to creation level 30 can be created and animated.

50. **Construct True:** As **Construct I**, except constructs of any creation level can be created and animated.

Special Notes:

1. Many of the spells on this spell list have a duration of 24 hrs – the creation process requires that these spells be cast once per day during entity creation and gives the caster the ability to enchant entities for a whole day. The Construct's animation is permanent once the creation process is complete.

2. For more details on Construct creation, please see Chapter 6.

10.1.5

GOLEM MASTERY

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Detect Golem Possession	10'R	1min/lvl(C)	100'	P
<input type="checkbox"/>	2 Wood Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	3 Purge Golem V	1 spirit	P	100'	F
<input type="checkbox"/>	4 Ice Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	5 Glyph of Control	1 entity	P	Touch	F
<input type="checkbox"/>	6 Organic Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	7 Minor Golem Repair	1 entity	P	10'	F
<input type="checkbox"/>	8 Stone Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	9 Purge Golem X	1 spirit	P	100'	F
<input type="checkbox"/>	10 Metal Golem I	1 entity	24 hrs	10'	F
<input type="checkbox"/>	11 Major Golem Repair	1 entity	P	10'	F
<input type="checkbox"/>	12 Metal Golem II	1 entity	24 hrs	10'	F
<input type="checkbox"/>	13 Lord Purge Golem	1 spirit	P	100'	F
<input type="checkbox"/>	14 Iron Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	15 Glyph of Control II	1 entity	P	Touch	F
<input type="checkbox"/>	16 Crystal Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	17 Golem Repair True	1 entity	P	10'	F
<input type="checkbox"/>	18 Steel Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	19 Purge Golem True	1 spirit	P	100'	F
<input type="checkbox"/>	20 Gemstone Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	25 Glyph of Control True	1 entity	P	Touch	F
<input type="checkbox"/>	30 Diamond Golem	1 entity	24 hrs	10'	F
<input type="checkbox"/>	50 Golem True	1 entity	24 hrs	10'	F

- 1. Detect Golem Possession:** Caster is aware of any spirits trapped or possessing any golems within range.
- 2. Wood Golem:** Allows the caster to create and animate a Wood Golem.
- 3. Purge Golem V:** Allows the caster to expel one spirit of up to 5th level from a Golem.
- 4. Ice Golem:** Allows the caster to create and animate a Water or an Ice Golem.
- 5. Glyph of Control:** Allows the caster to inscribe a symbol on a Golem of up to 10th level, which will prevent any spirit from possessing the entity without permission from its creator. Any spirit trapped within the Golem must obey the entity's creator and designated master. At casting, the caster must choose what will happen if the glyph is defaced: **either** the Golem will deanimate (until the Glyph is repaired) **or** the protection against possession is removed and any spirit already possessing the Golem is released from obedience to the entity's creator and master. It takes one round per creation level of the entity to inscribe the glyph.
- 6. Organic Golem:** Allows the caster to create and animate a Golem made from any organic materials, such as a Tar Golem, a Clay Golem, or a Bone Golem.
- 7. Minor Golem Repair:** Caster can restore 2d10 concussion hits to a Golem **or** reattach an undamaged body part to a Golem **or** repair a damaged body part, which is still attached to a Golem. A reattachment or repair takes 10 minutes to take effect.
- 8. Stone Golem:** Allows the caster to create and animate a Stone Golem.

- 9. Purge Golem X:** As *Purge Golem V*, except one spirit of up to 10th level can be expelled.
- 10. Metal Golem I:** Allows the caster to create and animate a Golem made from a single non-magical metal, **excluding** iron. This spell covers Copper Golems, Lead Golems, Silver Golems, and Gold Golems.
- 11. Major Golem Repair:** Caster can restore 5d10 concussion hits to a Golem **or** reattach a damaged body part to a Golem, as long as all the bits are available. A reattachment takes 30 minutes to take effect.
- 12. Metal Golem II:** Allows the caster to create and animate a Golem made from any non-magical alloy, **excluding** steel. This spell covers Brass Golems and Bronze Golems.
- 13. Lord Purge Golem:** As *Purge Golem V*, except one spirit of up to 20th level can be expelled.
- 14. Iron Golem:** Allows the caster to create and animate an Iron Golem.
- 15. Glyph of Control II:** As *Glyph of Control*, except it can be applied to a Golem of up to 20th level.
- 16. Crystal Golem:** Allows the caster to create and animate a Crystal Golem.
- 17. Golem Repair True:** Caster can restore all concussion hits to a Golem **or** unite a replacement body part to a Golem. Installing a replacement body part takes 1 hour to take effect.
- 18. Steel Golem:** Allows the caster to create and animate a Steel Golem.
- 19. Purge Golem True:** As *Purge Golem V*, except one spirit of any level can be expelled.
- 20. Gemstone Golem:** Allows the caster to create and animate a Golem made from non-magical gems, **excluding** diamond. This spell covers Emerald Golems, Ruby Golems, and Sapphire Golems.
- 25. Glyph of Control True:** As *Glyph of Control*, except it can be applied to a Golem of any level.
- 30. Diamond Golem:** Allows the caster to create and animate a Diamond Golem.
- 50. Golem True:** Allows the caster to create and animate a Golem from any material, including magical metals, alloys and crystals.

Special Notes

- Many of the spells on this spell list have a duration of 24 hrs – the creation process requires that these spells be cast once per day during entity creation and gives the caster the ability to enchant entities for a whole day. The Golem's animation is permanent once the creation process is complete.
- For more details on Golem creation, please see Chapter 6.

1. **Simulacrum Matrix:** Caster may determine and mentally store the mystical matrix of the target as well as learning the target's level, if the target fails to resist this spell. (The target will be aware that the caster has uses magic against him regardless of the RR outcome.) The caster must spend one minute in uninterrupted concentration after casting this spell to assimilate the information. Caster may only have as many matrices stored as his temporary Memory stat (**not** stat bonus). Matrices may be released at any time.

2. **Animal/Plant Matrix:** Caster can shape a Simulacrum into an animal or a plant form whose matrix he has previously stored using *Simulacrum Matrix* or enchant a vat to grow Simulacra of the chosen matrix.

3. **Simulacrum III:** Caster can create and animate a Simulacrum of up to 3rd level or enchant a vat to grow Simulacra of up to 3rd level.

4. **Analyze Simulacra:** This spell analyzes one Simulacrum, giving the caster in-depth information on how it was made (which *Simulacrum #*, *Matrix*, and *Warp Matrix #* spells were used and any special components) and the nature of its abilities.

5. **Simulacrum V:** As *Simulacrum III*, except the Simulacrum or vat can be up to 5th level.

6. **Warp Matrix I:** Caster can make one Minor alteration to a Simulacrum's matrix during its creation.

7. **Transfer Soul:** The caster may transfer the soul of a **willing** target into a Simulacrum of equivalent level that was created using the target's blood. Once in the Simulacrum, the target has access to all his skills, spells, and other abilities. The original body falls into a coma and will eventually die.

8. **Awaken Ability:** This spell allows a natural ability (chosen by the caster at time of casting) possessed by the blood donor of the Simulacrum to manifest in the Simulacrum. Such abilities include senses, movement abilities, natural resistances, ranks in Power Point Development (limited to the lesser of the Simulacrum's level or the donor's number of ranks), Talents, etc. The spell allows the Simulacrum to use the ability.

9. **Heal Simulacrum I:** Target Simulacrum is healed of 5d10 concussion hits or up to 5 hits per round of bleeding damage or one damaged or severed muscle or tendon is healed. Recovery time for muscle or tendon damage is 1 day.

10. **Simulacrum X:** As *Simulacrum III*, except the Simulacrum or vat can be up to 10th level.

11. **Sentient Matrix:** As *Animal/Plant Matrix*, except the Simulacrum may be shaped into a sentient (normally humanoid) form or the vat is designed for similar forms.

12. **Awaken Skill:** As *Awaken Ability*, except allows one single skill known by the blood donor (chosen by the caster at time of casting) to be manifested by the Simulacrum (with the lesser of ranks equal to the Simulacrum's level or half the number of ranks possessed by the donor, rounding down).

13. **Warp Matrix II:** As *Warp Matrix I*, except the caster may make one Lesser alteration.

14. **Heal Simulacrum II:** Target Simulacrum is healed of any one broken (**not** shattered) bone or joint. Recovery time of 1-10 days is required.

15. **Simulacrum XV:** As *Simulacrum III*, except the Simulacrum or vat can be up to 15th level.

16. **Awaken Spell:** As *Awaken Skill*, except allows one single spell list (or spell-like ability) known by the blood donor (chosen by the caster at time of casting) to be manifested by the Simulacrum. If this is a spell list, then the Simulacrum gains the lesser of ranks equal to the Simulacrum's level or

10.1.6

SIMULACRA

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/> 1	Simulacrum Matrix	1 target	Varies	10'	Fm
<input type="checkbox"/> 2	Animal/Plant Matrix	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 3	Simulacrum III	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 4	Analyze Simulacra	1 simulacrum	-	100'	P
<input type="checkbox"/> 5	Simulacrum V	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 6	Warp Matrix I	1 entity	24 hrs	10'	F
<input type="checkbox"/> 7	Transfer Soul	2 targets	-	Touch	Fm
<input type="checkbox"/> 8	Awaken Ability	1 simulacrum	Permanent	Touch	Fm
<input type="checkbox"/> 9	Heal Simulacrum I	1 simulacrum	Permanent	Touch	U
<input type="checkbox"/> 10	Simulacrum X	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 11	Sentient Matrix	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 12	Awaken Skill	1 simulacrum	Permanent	Touch	Fm
<input type="checkbox"/> 13	Warp Matrix II	1 entity	24 hrs	10'	F
<input type="checkbox"/> 14	Heal Simulacrum II	1 simulacrum	Permanent	Touch	U
<input type="checkbox"/> 15	Simulacrum XV	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 16	Awaken Spell	1 simulacrum	Permanent	Touch	Fm
<input type="checkbox"/> 17	Beast Matrix	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 18	Warp Matrix III	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 19	Heal Simulacrum III	1 simulacrum	Permanent	Touch	U
<input type="checkbox"/> 20	Lord Simulacrum	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 25	Compel Simulacrum	1 simulacrum	10 min/lvl(C)	100'/lvl	Fm
<input type="checkbox"/> 30	High Simulacrum	1 entity or vat	24 hrs	10'	F
<input type="checkbox"/> 50	Simulacrum True	1 entity or vat	24 hrs	10'	F

half the number of ranks possessed by the donor, rounding down).

17. **Beast Matrix:** As *Animal/Plant Matrix*, except the Simulacrum may be shaped into a beast form (e.g. monster, unnatural creature, or sentient plant) or the vat is designed for one such form.

18. **Warp Matrix III:** As *Warp Matrix I*, except the caster may make one Greater alteration.

19. **Heal Simulacrum III:** Target Simulacrum is healed of any one shattered bone or joint or one damaged nerve or one damaged external or internal organ. In all cases, a recovery time of 1-10 days is required.

20. **Lord Simulacrum:** As *Simulacrum III*, except the Simulacrum or vat can be up to 20th level.

25. **Compel Simulacrum:** The caster may command a Simulacrum of any level, even if the caster is **not** its blood donor. The caster must concentrate for one round to give or cancel an order, but need not maintain concentration to ensure the order is undertaken. The simulacrum will continue to obey the order until it is accomplished or cancelled or the spell's duration ends. If the Simulacrum moves beyond the spell's range of the caster, the spell ends. If the Simulacrum receives orders from its creator / blood donor in the same round as it receives an order from the caster, the Entity may make a new RR. Success terminates this spell.

30. **High Simulacrum:** As *Simulacrum III*, except the Simulacrum or vat can be up to 30th level.

50. **Simulacrum True:** As *Simulacrum III*, except the Simulacrum or vat can be of any level.

Special Notes

1. Many of the spells on this spell list have a duration of 24 hrs – the creation process requires that these spells be cast once per day during creation and gives the caster the ability to enchant Simulacra or vats for a whole day. The Simulacrum's animation is permanent once the creation process is complete.

2. For more details on Simulacra and vat creation, please see Ch. 8.

10.2.1

CONSTRUCT MAGIC

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Research	Self	1 min	Self	I
<input type="checkbox"/>	2 Imbed I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	3 Minor Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	4 Daily Power I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	5 Imbed III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	6 Constant Power I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	7 Daily Power III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	8 Imbed V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	9 Lesser Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	10 Constant Power III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	11 Imbed VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	12 Daily Power V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	13 Greater Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	14 Imbed X	1 entity	24 hrs	Self	F
<input type="checkbox"/>	15 Constant Power V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	16 Daily Power VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	17 Major Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	18 Constant Power VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	19 Daily Power X	1 entity	24 hrs	Self	F
<input type="checkbox"/>	20 Lord Imbed	1 entity	24 hrs	Self	F
<input type="checkbox"/>	25 Constant Power X	1 entity	24 hrs	Self	F
<input type="checkbox"/>	30 Lord Daily Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	50 Lord Constant Power	1 entity	24 hrs	Self	F

10.2 ENHANCEMENT LISTS

- Research:** Allows the caster to store the parameters of any one spell cast within the next minute for use in later imbedding. Thereafter, the creator may cast the *Research* spell (at a power point cost of one plus the level of the imbedded spell) instead of the imbedded spell itself. A caster may only have one spell's parameters stored in a *Research* spell at any given time (but may choose to replace the stored spell at any time.)
- Imbed I:** Allows caster to imbed a 1st-level spell of any realm into an artificial entity.
- Minor Charged Power:** Allows caster to charge an entity with 20 charges of any spell (imbedded using an *Imbed* spell).
- Daily Power I:** Allows caster to imbed a 1st-level spell (using an *Imbed* spell) that can be cast once per day.
- Imbed III:** As *Imbed I*, except 1st through 3rd level spells can be imbedded.
- Constant Power I:** Allows caster to imbed a 1st-level spell (using an *Imbed* spell) so that it functions either constantly or "at will".
- Daily Power III:** As *Daily Power I*, except 1st through 3rd level spells can be imbedded; a 1st level spell could be cast 3 times per day; a 2nd or 3rd, once per day.
- Imbed V:** As *Imbed I*, except 1st through 5th level spells can be imbedded.
- Lesser Charged Power:** As *Minor Charged Power*, except the entity receives 50 charges.

- Constant Power III:** As *Constant Power I*, except 1st through 3rd level spells can be imbedded.
- Imbed VII:** As *Imbed I*, except 1st through 7th level spells can be imbedded.
- Daily Power V:** As *Daily Power I*, except 1st through 5th level spells can be imbedded; a 1st level spell could be cast 5 times per day; a 2nd, twice per day; a 3rd, 4th, or 5th, once per day.
- Greater Charged Power:** As *Minor Charged Power*, except the entity receives 100 charges.
- Imbed X:** As *Imbed I*, except 1st through 10th level spells can be imbedded.
- Constant Power V:** As *Constant Power I*, except 1st through 5th level spells can be imbedded.
- Daily Power VII:** As *Daily Power I*, except 1st through 7th level spells can be imbedded; a 1st level spell could be cast 7 times per day; a 2nd, 3 times per day; a 3rd, twice per day; a 4th, 5th, 6th, or 7th, once per day.
- Major Charged Power:** As *Minor Charged Power*, except the entity receives 200 charges.
- Constant Power VII:** As *Constant Power I*, except 1st through 7th level spells can be imbedded.
- Daily Power X:** As *Daily Power I*, except 1st through 10th level spells can be imbedded; a 1st level spell could be cast 10 times per day; a 2nd, 5 times per day; a 3rd, 3 times per day; a 4th or 5th, twice per day; a 6th, 7th, 8th, 9th or 10th, once per day.
- Lord Imbed:** As *Imbed I*, except 1st through 20th level spells can be imbedded.
- Constant Power X:** As *Constant Power I*, except 1st through 10th level spells can be imbedded.
- Lord Daily Power:** As *Daily Power I*, except 1st through 20th level spells can be imbedded; a 1st level spell could be cast 20 times per day; a 2nd, 10 times per day; a 3rd, 6 times per day; a 4th, 5 times per day; a 5th, 4 times per day; a 6th, 3 times per day; a 7th, 8th, 9th or 10th, twice per day; a 11th to 20th level spell, once per day.
- Lord Constant Power:** As *Constant Power I*, except 1st through 20th level spells can be imbedded.

Special Notes

- Many of the spells described here have a duration of "24 hours". For these spells, it is assumed that the caster must cast the spell once per day during the creation process (see also *SpellLaw*, section 7.4.1) – the creations of these spell lists are **permanent** unless otherwise stated.
- See section 6.10 for more details on imbedding magical enchantments into entities.

1. **Research:** Allows the caster to store the parameters of any one spell cast within the next minute for use in later imbedding. Thereafter, the creator may cast the *Research* spell (at a power point cost of one plus the level of the imbedded spell) instead of the imbedded spell itself. A caster may only have one spell's parameters stored in a *Research* spell at any given time (but may choose to replace the stored spell at any time.)

2. **Imbed I:** Allows caster to imbed a 1st-level spell of any realm into an artificial entity.

3. **Minor Charged Power:** Allows caster to charge an entity with 20 charges of any spell (imbedded using an *Imbed* spell).

4. **Daily Power I:** Allows caster to imbed a 1st-level spell (using an *Imbed* spell) that can be cast once per day.

5. **Imbed II:** As *Imbed I*, except 1st through 2nd level spells can be imbedded.

6. **Constant Power I:** Allows caster to imbed a 1st-level spell (using an *Imbed* spell) so that it functions either constantly or "at will".

7. **Daily Power II:** As *Daily Power I*, except 1st through 2nd level spells can be imbedded; a 1st level spell could be cast twice per day; a 2nd, once per day.

8. **Imbed III:** As *Imbed I*, except 1st through 3rd level spells can be imbedded.

9. **Lesser Charged Power:** As *Minor Charged Power*, except the entity receives 50 charges.

10. **Constant Power II:** As *Constant Power I*, except 1st or 2nd level spells can be imbedded.

11. **Daily Power III:** As *Daily Power I*, except 1st through 3rd level spells can be imbedded; a 1st level spell could be cast 3 times per day; a 2nd or 3rd, once per day.

12. **Imbed V:** As *Imbed I*, except 1st through 5th level spells can be imbedded.

13. **Greater Charged Power:** As *Minor Charged Power*, except the entity receives 100 charges.

14. **Constant Power III:** As *Constant Power I*, except 1st through 3rd level spells can be imbedded.

15. **Daily Power V:** As *Daily Power I*, except 1st through 5th level spells can be imbedded; a 1st level spell could be cast 5 times per day; a 2nd, twice per day; a 3rd, 4th, or 5th, once per day.

16. **Imbed VII:** As *Imbed I*, except 1st through 7th level spells can be imbedded.

17. **Major Charged Power:** As *Minor Charged Power*, except the entity receives 200 charges.

18. **Constant Power V:** As *Constant Power I*, except 1st through 5th level spells can be imbedded.

19. **Daily Power VII:** As *Daily Power I*, except 1st through 7th level spells can be imbedded; a 1st level spell could be cast 7 times per day; a 2nd, 3 times per day; a 3rd, twice per day; a 4th, 5th, 6th, or 7th, once per day.

10.2.2

GOLEM MAGIC

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Research	Self	1 min	Self	I
<input type="checkbox"/>	2 Imbed I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	3 Minor Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	4 Daily Power I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	5 Imbed II	1 entity	24 hrs	Self	F
<input type="checkbox"/>	6 Constant Power I	1 entity	24 hrs	Self	F
<input type="checkbox"/>	7 Daily Power II	1 entity	24 hrs	Self	F
<input type="checkbox"/>	8 Imbed III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	9 Lesser Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	10 Constant Power II	1 entity	24 hrs	Self	F
<input type="checkbox"/>	11 Daily Power III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	12 Imbed V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	13 Greater Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	14 Constant Power III	1 entity	24 hrs	Self	F
<input type="checkbox"/>	15 Daily Power V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	16 Imbed VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	17 Major Charged Power	1 entity	24 hrs	Self	F
<input type="checkbox"/>	18 Constant Power V	1 entity	24 hrs	Self	F
<input type="checkbox"/>	19 Daily Power VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	20 Imbed X	1 entity	24 hrs	Self	F
<input type="checkbox"/>	25 Constant Power VII	1 entity	24 hrs	Self	F
<input type="checkbox"/>	30 Daily Power X	1 entity	24 hrs	Self	F
<input type="checkbox"/>	50 Constant Power X	1 entity	24 hrs	Self	F

20. **Imbed X:** As *Imbed I*, except 1st through 10th level spells can be imbedded.

25. **Constant Power VII:** As *Constant Power I*, except 1st through 7th level spells can be imbedded.

30. **Daily Power X:** As *Daily Power I*, except 1st through 10th level spells can be imbedded; a 1st level spell could be cast 10 times per day; a 2nd, 5 times per day; a 3rd, 3 times per day; a 4th or 5th, twice per day; a 6th, 7th, 8th, 9th or 10th, once per day.

50. **Constant Power X:** As *Constant Power I*, except 1st through 10th level spells can be imbedded.

Special Notes

1. Many of the spells on this spell list have a duration of 24 hrs – the creation process requires that these spells be cast once per day during entity creation and gives the caster the ability to enchant entities for a whole day. The Golem's animation is permanent once the creation process is complete.

2. See section 6.10 for more details on imbedding magical enchantments into entities.

10.2.3

SENTIENCE

Lvl	Name	Area of Effect	Duration	Range	Type
<input type="checkbox"/>	1 Low Sentence	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	2 Imbed Language	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	3 Imbed Category V	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	4 Imbed Skill V	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	5 Extension I	1 spell	1 day/lvl	Touch	F
<input type="checkbox"/>	6 Visual Recording	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	7 Imbed Category X	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	8 Imbed Skill X	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	9 Medium Sentence	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	10 Extension II	1 spell	1 wk/lvl	Touch	F
<input type="checkbox"/>	11 Auditory Recording	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	12 Entity Voice	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	13 Imbed Category XV	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	14 Imbed Skill XV	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	15 Extension III	1 spell	1 mo/lvl	Touch	F
<input type="checkbox"/>	16 Entity Will	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	17 High Sentence	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	18 Imbed Lord Category	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	19 Imbed Lord Skill	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	20 Extension IV	1 spell	1 yr/lvl	Touch	F
<input type="checkbox"/>	25 Very High Sentence	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	30 Imbed Skill True	1 entity	1 hr/lvl	Touch	Fm
<input type="checkbox"/>	50 Extension V	1 spell	10 yr/lvl	Touch	F

- 1. Low Sentence:** Caster grants a measure of rudimentary reasoning to the entity. This takes the form of Memory and Reasoning stats with a range of values from 11 to 30. After the spell is cast, roll a d20 and add 10 (D20+10) separately to determine Re and Me stats randomly. If the caster's Memory or Reasoning stats are lower than the randomly generated stats, then use the caster's stats instead. The entity will be able to follow simple orders (e.g. single sentences of ten words or less), but will have no ability for independent thinking.
- 2. Imbed Language:** Caster grants the entity the ability to understand a specific language. The number of ranks in both written and spoken forms is equal to the ranks possessed by the caster. The entity cannot actually speak using this spell.
- 3. Imbed Category V:** Caster imparts up to five category ranks of a single chosen skill category to the entity.
- 4. Imbed Skill V:** Caster imparts up to five skill ranks of a single chosen skill to the entity. Ranks in spell lists, Power Point Development, Body Development and language skills may not be imbedded.
- 5. Extension I:** Caster can extend the duration of the next spell cast from this list onto an entity to 1 day per level of the caster.
- 6. Visual Recording:** The entity's eyes record all that it sees during the duration of this spell for playback later (the caster need only look into their eyes).

- 7. Imbed Category X:** As *Imbed Category V*, except the caster imparts up to ten category ranks.
- 8. Imbed Skill X:** As *Imbed Skill V*, except the caster imparts up to ten skill ranks.
- 9. Medium Sentence:** As *Low Sentence*, except the caster grants a greater measure of rudimentary reasoning to the entity. This takes the form of Memory and Reasoning stats with a range of values from 33 to 69. After the spell is cast, roll 4d10 and add 29 (4D10+29) separately to determine Re and Me stats randomly. The entity will be able to follow complex orders, but will have no ability for independent thinking.
- 10. Extension II:** As *Extension I*, except the duration is 1 week per level of the caster.
- 11. Auditory Recording:** As *Visual Recording*, except that the entity's ears can record any sounds that it hears during the duration of this spell for playback later (the caster need only touch their ears to hear the sounds himself.)
- 12. Entity Voice:** Caster grants the entity the ability to speak any languages to understand. Golem voices are low and rumbling; Construct voices sound hollow.
- 13. Imbed Category XV:** As *Imbed Category V*, except the caster imparts up to fifteen category ranks.
- 14. Imbed Skill XV:** As *Imbed Skill V*, except the caster imparts up to fifteen skill ranks.
- 15. Extension III:** As *Extension I*, except the duration is 1 month per level of the caster.
- 16. Entity Will:** The caster grants the entity a measure of willpower and personality. This takes the form of either Self Discipline, Intuition, Empathy and Presence stats with a range of values from 33 to 69 (roll 4d10 and add 29 (4D10+29) to determine each stat randomly) or one of Self Discipline, Intuition, Empathy and Presence stats with a range of values from 70 to 89 (roll d20 and add 69 (D20+69) to determine the chosen stat). This spell can be cast multiple times. If the caster's equivalent stat is lower than the randomly generated stat, use the caster's stat instead.
- 17. High Sentence:** As *Medium Sentence*, except the caster grants the entity the ability of independent thinking. This takes the form of Memory and Reasoning stats with a range of values from 70 to 89. After the spell is cast, roll d20 and add 69 (D20+69) separately to determine Re and Me stats randomly. The entity will thus be able to improvise solutions by adapting previously received orders to new situations.
- 18. Imbed Lord Category:** As *Imbed Category V*, except the caster imparts up to twenty category ranks.
- 19. Imbed Lord Skill:** As *Imbed Skill V*, except the caster imparts up to twenty skill ranks.
- 20. Extension IV:** As *Extension I*, except the duration is 1 year per level of the caster.
- 25. Very High Sentence:** As *High Sentence*, except the caster grants the entity a high degree of intelligence. This takes the form of Memory and Reasoning stats

with a range of values from 91 to 100. After the spell is cast, roll d10 and add 90 (D10+90) separately to determine Re and Me stats randomly. The entity will be able to react new and unfamiliar situations, determining responses on the basis of its creator's and master's priorities (as evidenced by previous orders and actions), and to improvise in emergencies.

30. Imbed Skill True: As *Imbed Skill V*, except the caster imparts up to thirty skill ranks.

50. Extension V: As *Extension I*, except the duration is 10 years per level of the caster.

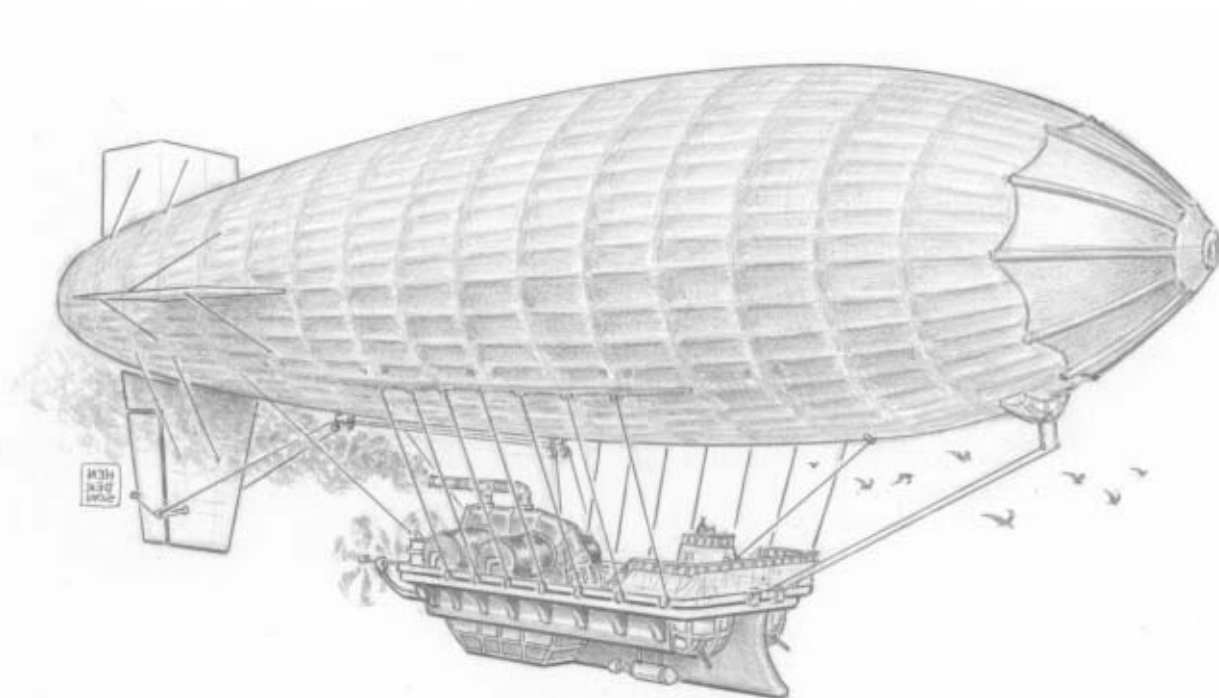
Special Notes

1. This list boosts the intellect of a Golem or Construct by sharing the caster's intelligence and skills. Once the enhancing spell duration ends, the entity reverts to its previous degree of intelligence and skill.
2. For *Sentience* and *Entity Will* spells, the relevant stats of the caster determine the maximum stat attainable by the entity. The entity is drawing directly on the caster's intellect and so cannot be smarter than the caster.
3. For *Imbed Category* and *Imbed Skill* spells, the caster must possess the necessary category or skill ranks that he wishes to impart to the entity. Thus an alchemist with only 7 ranks in Heraldry could only impart 7 ranks to a Golem using an *Imbed Skill X* or higher spell. If the same alchemist had no ranks in Tactics, then she would be unable to give her Golem any ranks in that skill.

4. If a life essence (i.e. a Spirit, a Demon, an Elemental, or the mind and soul of a living being) is resident in a Golem or Construct, then the duration of all the non-*Extension* spells on this list increases to Permanent. The entity retains the benefit of these enhancements until such time as the animating spirit is expelled from the entity.

5. If a life essence is resident in an entity, then the *Sentience*, *Entity Will*, and the various *Imbed* spells will not reduce the normal capabilities of the animating spirit. For instance, Javanna imbeds an Earth Elemental Guardian into a Golem. This Guardian has a natural intelligence equivalent to that granted by *Medium Sentience* – hence casting either *Low Sentience* or *Medium Sentience* will have no effect on the Guardian. A *High Sentience* or *Very High Sentience* spell would, however, raise the Guardian's IQ. Likewise, if Javanna imbeds the life essence of the General Aurelian into her Warrior Construct, she could boost his knowledge of magical lore by using an *Imbed Skill* spell to impart ranks in Artifact Lore, but cannot reduce his leadership abilities by using an *Imbed Skill V* spell to impart her one rank in Leadership. The *Imbed Skill V* spell simply has no effect.

6. A resident life essence may attempt to resist the effects of any spell on this list, unless its obedience is required by a *Glyph of Control* or other influencing spell.



10.3.1

DEMONIC EMPOWERMENT

Lvl	Name	Area of Effect	Duration	Range	Type
1	Detect Demon	10'R	1 min/lvl(C)	100'	P
2	Identify Demon	1 demon	-	100'	P
3	Summon Demon I	1 target	1 min/lvl	50'	F
4	Banish Demon I	1 target	-	50'	F
5	Imbed Demon I	1 target	Permanent	10'	Fm
6	Compel Demon I	1 target	Varies	Varies	Fm
7	Demon Communication	Self	1 min/lvl	self	I
8	Summon Demon II	1 target	1 min/lvl	50'	F
9	Banish Demon II	1 target	-	50'	F
10	Imbed Demon II	1 target	Permanent	10'	Fm
11	Compel Demon II	1 target	Varies	Varies	Fm
12	Summon Demon III	1 target	1 min/lvl	50'	F
13	Banish Demon III	1 target	-	50'	F
14	Imbed Demon III	1 target	Permanent	10'	Fm
15	Compel Demon III	1 target	Varies	Varies	Fm
16	Summon Demon IV	1 target	1 min/lvl	50'	F
17	Banish Demon IV	1 target	-	50'	F
18	Imbed Demon IV	1 target	Permanent	10'	Fm
19	Compel Demon IV	1 target	Varies	Varies	Fm
20	Summon Demon True	1 target	1 min/lvl	50'	F
25	Banish Demon True	1 target	-	50'	F
30	Imbed Demon True	1 target	Permanent	10'	Fm
50	Compel Demon True	1 target	Varies	Varies	Fm

10.3 INTELLIGENCE IMBEDDING LISTS

- Detect Demon:** Allows the caster to detect any demon within the area of effect of the spell. The caster may concentrate on a different area each round. The caster may stop concentrating, and then resume at a later time, as long as the spell is still active.
- Identify Demon:** The caster learns the type, home plane, and nature of a given Demon.
- Summon Demon I:** The caster can summon one Type I Demon. The caster has no control over what specific kind of Type I Demon is conjured. The caster is not granted the ability to converse with the Demon nor any control over the Demon through this spell.
- Banish Demon I:** The caster can banish one Type I Demon back to its natural plane of existence. The Demon may make a Resistance Roll against this effect.
- Imbed Demon I:** Allows the caster to imbed a Type I Demon into a Golem or a Construct within 10' of the caster. The demon may make a Resistance Roll to prevent this. Once imbedded, the Golem or Construct will spontaneously manifest one or more Demonic Powers (see notes below).
- Compel Demon I:** The caster may totally control one Type I Demon. The Demon receives an initial Resistance Roll to resist this spell's effects. If the Demon is **not** imbedded in a Golem or a Construct, then the duration of this spell is 5 minutes per level of the caster, and the range is 100'. If the Demon moves outside this 100' range, then it becomes free to attack the caster and/or return to its natural plane of existence. If the Demon is (later) imbedded in a Golem or a Construct, then the duration of this spell is 4 hours per level of the caster and the range is 300' per level of the caster. If the Golem or Construct moves beyond this range or the spell expires, then the

Demon is free to act (including attacking the caster) – however the imbedded Demon cannot leave the body of the entity. When not acting on the caster's orders, the Demon will wait idly by on the next command.

- Demon Communication:** Gives the caster the ability to speak with and understand Demons.
- Summon Demon II:** As *Summon Demon I*, except the caster can summon a Type II Demon.
- Banish Demon II:** As *Banish Demon I*, except the caster can banish a Type II Demon.
- Imbed Demon II:** As *Imbed Demon I*, except that the caster can imbed a Type II (or lower) Demon.
- Compel Demon II:** As *Compel Demon I*, except the caster can control a Type II Demon.
- Summon Demon III:** As *Summon Demon I*, except the caster can summon a Type III Demon.
- Banish Demon III:** As *Banish Demon I*, except the caster can banish a Type III Demon.
- Imbed Demon III:** As *Imbed Demon I*, except that the caster can imbed a Type III (or lower) Demon.
- Compel Demon III:** As *Compel Demon I*, except the caster can control a Type III Demon.
- Summon Demon IV:** As *Summon Demon I*, except the caster can summon a Type IV Demon.
- Banish Demon IV:** As *Banish Demon I*, except the caster can banish a Type IV Demon.
- Imbed Demon IV:** As *Imbed Demon I*, except that the caster can imbed a Type IV (or lower) Demon.
- Compel Demon IV:** As *Compel Demon I*, except the caster can control a Type IV Demon.
- Summon Demon True:** As *Summon Demon I*, except the caster can summon **either** one random Type V Demon **or** one random Type VI Demon **or** one specific Type I-IV Demon.
- Banish Demon True:** As *Banish Demon I*, except the caster can banish a Type V or a Type VI Demon.
- Imbed Demon True:** As *Imbed Demon I*, except that the caster can imbed a Type VI (or lower) Demon.
- Compel Demon True:** As *Compel Demon I*, except the caster can control a Type V or Type VI Demon. If this spell is used on an imbedded Demon of Type IV or less, the duration of the compulsion is extended to **one day per level of the caster** and the range becomes **1000' per level of the caster**.

Special Notes:

- The Demons conjured by this list should normally be limited to Demons from the First to Sixth Pale, Demons of the Void, and other Demon entities. Caster should not be permitted to summon other extra-planar creatures using this list. See section 7.2.4 for further details and tables to randomly determine which Demon is summoned by a particular spell.
- Demonic Powers are classified as Demonic Minor Powers, Demonic Lesser Powers, Demonic Greater Powers, and Demonic Major Powers. The nature and numbers of powers manifested by an imbedded Demon is random, but the range is constrained by the Type of the Demon and the level of the *Imbed Demon* #spell. More powerful Demons have greater potential powers; likewise imbedding a less powerful demon with a more potent imbedding spell yields greater abilities.

1. **Detect Elemental:** Allows the caster to detect any elemental within the area of effect of the spell. The caster may concentrate on a different area each round. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
2. **Identify Elemental:** The caster learns the type and nature of a given Elemental.
3. **Elemental Banish I:** The caster can banish one Class A Elemental back to its natural plane of existence. The Elemental may make a Resistance Roll. See Special Notes for definitions of Class A, B, C, and D Elementals.
4. **Elemental Summons I:** Allows the caster to summon a Class A Elemental of a type chosen by the caster prior to the casting of this spell. The caster is not granted the ability to converse with the Elemental nor any control over the Elemental through this spell.
5. **Elemental Imbed I:** Allows the caster to imbed a Class A Elemental into a Golem, or a Construct within 10' of the caster. The Elemental may make a Resistance Roll to prevent this.
6. **Elemental Compel I:** The caster may totally control one Class A Elemental. The Elemental receives an initial Resistance Roll to resist this spell's effects. If the Elemental is **not** imbedded in a Golem or a Construct, then the duration of this spell is 1 minute per level of the caster, and the range is 100'. If the Elemental moves outside this 100' range, then it becomes free to attack the caster and/or return to its natural plane of existence. If the Elemental is imbedded in a Golem or a Construct, then the duration of this spell is 1 hour per level of the caster and the range is 100' per level of the caster. If the Golem or Construct moves beyond this range or the spell expires, then the Elemental is free to act (including attacking the caster) – however the imbedded Elemental cannot leave the body of the entity. When not acting on the caster's orders, the Elemental will wait idly by on the next command.
7. **Manifest Element I:** If cast on an entity with an imbedded Elemental of any Class, one random Elemental Minor Power can be triggered. Only one Manifest Element spell can be active on any entity at any one time.
8. **Elemental Tongue:** Gives the caster the ability to speak with and understand Elementals.
9. **Elemental Banish II:** As *Elemental Banish I*, except the caster can banish one Class B Elemental.
10. **Extend Compel I:** If cast within one minute prior to casting a *Compel* spell from this spell list on an elemental imbedded within a Golem or Construct, it increases the duration to 1 day per level of the caster and the range to 1000' per level of the caster. This has no effect on a *Compel* spell used to control a non-imbedded Elemental.
11. **Elemental Summons II:** As *Elemental Summons I*, except the caster can summon a Class B Elemental.
12. **Elemental Imbed II:** As *Elemental Imbed I*, except the caster can imbed a Class B Elemental.
13. **Elemental Compel II:** As *Elemental Compel I*, except the caster can control a Class B Elemental.

10.3.2

ELEMENTAL EMPOWERMENT

Lvl	Name	Area of Effect	Duration	Range	Type
1	Detect Elemental	10'R	1 min/lvl(C)	100'	P
2	Identify Elemental	1 elemental	-	100'	P
3	Elemental Banish I	1 target	-	50'	F
4	Elemental Summons I	1 target	1 min/lvl	50'	F
5	Elemental Imbed I	1 target	Permanent	10'	Fm
6	Elemental Compel I	1 target	Varies	Varies	Fm
7	Manifest Element I	1 entity	Permanent	10'	F
8	Elemental Tongue	Self	1 min/lvl	self	I
9	Elemental Banish II	1 target	-	50'	F
10	Extend Compel I	1 entity	1 day/lvl	1000'/lvl	Fm
11	Elemental Summons II	1 target	1 min/lvl	50'	F
12	Elemental Imbed II	1 target	Permanent	10'	Fm
13	Elemental Compel II	1 target	Varies	Varies	Fm
14	Manifest Element II	1 entity	Permanent	10'	F
15	Elemental Banish III	1 target	-	50'	F
16	Elemental Summons III	1 target	1 min/lvl	50'	F
17	Elemental Imbed III	1 target	Permanent	10'	Fm
18	Elemental Compel III	1 target	Varies	Varies	Fm
19	Manifest Element III	1 entity	Permanent	10'	F
20	Extend Compel II	1 entity	1 week/lvl	1 mile /lvl	Fm
25	Elemental Summons True	1 target	1 min/lvl	50'	Fm
30	Elemental Imbed True	1 target	Permanent	10'	Fm
50	Manifest Element True	1 entity	Permanent	10'	F

14. **Manifest Element II:** As *Manifest Element I*, except either two random Elemental Minor Powers or one random Elemental Lesser Power can be triggered. A Class B Elemental must be imbedded to trigger a Lesser Power.
15. **Elemental Banish III:** As *Elemental Banish I*, except the caster can banish one Class C Elemental.
16. **Elemental Summons III:** As *Elemental Summons I*, except the caster can summon a Class C Elemental.
17. **Elemental Imbed III:** As *Elemental Imbed I*, except the caster can imbed a Class C Elemental.
18. **Elemental Compel III:** As *Elemental Compel I*, except the caster can control a Class C Elemental.
19. **Manifest Element III:** As *Manifest Element I*, except either three random Elemental Minor Powers or two random Elemental Lesser Powers or one random Elemental Greater Power can be triggered. A Class B (or higher) Elemental must be imbedded to trigger a Lesser Power; a Class C (or higher) must be imbedded to trigger a Greater Power.
20. **Extend Compel II:** As *Extend Compel I*, except the duration is now 1 week per level of the caster and the range is 1 mile per level of the caster.
25. **Elemental Summons True:** As *Elemental Summons I*, except the caster can summon a Class D Elemental.
30. **Elemental Imbed True:** As *Elemental Imbed I*, except the caster can imbed a Class D Elemental.

50. Manifest Element True: As *Manifest Element I*, except either four random Elemental Minor Powers or three random Elemental Lesser Powers or two random Elemental Greater Powers or one random Elemental Major Power can be triggered. A Class B (or higher) Elemental must be imbedded to trigger a Lesser Power; a Class C (or higher) must be imbedded to trigger a Greater Power; a Class D must be imbedded to trigger a Major Power.

Special Notes

1. The available Elemental Types are Air, Earth, Fire, Ice, Light, and Water.

2. If *Fire & Ice: The Elemental Companion* is not used, then references to Elemental Class in the above spells should be resolved as follows.

Class A: Weak Elementals, Class B: Strong Elementals, Class C: Elemental Guardians, and Class D: Elemental Savants. See *Creatures & Monsters* for details on the elemental creatures mentioned.

3. If *Fire & Ice: The Elemental Companion* is used, then references to Elemental Class in the above spells should be resolved as follows.

Class A: Minor Elemental or Lesser Elemental

Class B: Elemental Giant or Greater Elemental

Class C: Elemental Guardian or Superior Elemental

Class D: High Elemental or Elemental Savant

The caster may choose which kind of Elemental is summoned. See *Fire & Ice: The Elemental Companion* for details on these creatures.

4. See chapter 7 for details on imbedding elementals into entities as well as listings of Elemental Minor, Lesser, Greater, and Major Powers.



1. **Identify Attribute:** Caster can identify either one skill or one spell list or one ability possessed by the target. The caster learns the number of skill ranks, the ranks known in the spell list, or the approximate power level of the ability, as appropriate.

2. **Transfer Life Essence:** This spell is used in two modes – the first temporarily weakens the association between body and life essence, the second actually transfers the disassociated life essence from one body or vessel to another. When successfully cast in the first mode, the target will feel a wrenching sensation as the disassociation takes place. If the spell is successfully recast within two minutes, the caster may transfer the target's life essence into any chosen Life Essence Vessel or physical body (which does not already have a possessing life essence). The target's original body falls into a coma. If the second casting does not take place or succeed within the two minutes, the target's life essence rejoins his body, and the process must begin again from scratch. Targets receive a special +25 bonus to all Resistance Rolls against this spell. Only animals, beings, and "beasts" may be affected by this spell (see notes below).

3. **Body Acclimatization:** This spell allows an imbedded life essence to "translate" its natural instincts and learned behavior (e.g. ability to walk) into the ability to use all the facilities of an artificial body. This spell has the side-effect of making artificial bodies seem "natural" to animals and beasts, if they have been imbedded in an equivalent or very similar form, e.g. an imbedded Wolf essence will feel "normal" in a Wolf Construct or Wolf Golem.

4. **Manifest Ability:** This spell allows a natural ability (chosen by the caster at time of casting) of the imbedded life essence to manifest in an artificial body. Such abilities include senses, movement abilities, natural resistances, Power Points, Talents, etc., possessed by the life essence in its original body. The spell allows the life essence to use the ability in its artificial body.

5. **Imbed Animal Essence V:** The caster may imbed the life essence from an animal of up to 5th level into a Golem or Construct. The life essence must previously have been transferred into the entity's body.

6. **Manifest Skill:** As *Manifest Ability*, except allows one single skill known by the imbedded life essence (chosen by the caster at time of casting) to be manifested in the artificial body, enabling the life essence to effectively use the skill in its new body.

7. **Imbed Being Essence V:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from an intelligent (humanoid) being of up to 5th level into a Golem or Construct.

8. **Imbed Beast Essence V:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from a beast (monster, unnatural creature, or sentient plant) of up to 5th level into a Golem or Construct.

9. **Body Stasis I:** Caster can preserve a body which has had its life essence transferred out from it, preventing any deterioration in stats and physical condition, and removing the need for food, water and air. The body may still be destroyed by violence during the duration of the spell. If the life essence is not returned to the body before the spell ends, the normal process of death will resume as soon as the spell ends.

10. **Manifest Spell:** As *Manifest Skill*, except allows one single spell list (or spell-like ability) known by the imbedded life essence (chosen by the caster at time of casting) to be manifested in the artificial body, enabling the life essence to effectively use the spells in its new body.

10.3.3

LIFE EMPOWERMENT

Lvl	Name	Area of Effect	Duration	Range	Type
1	Identify Attribute	1 target	-	10'	I
2	Transfer Life Essence	1 target	Varies	10'	F
3	Body Acclimatization	1 target	Permanent	10'	Fm
4	Manifest Ability	1 essence	Permanent	10'	Fm
5	Imbed Animal Essence V	1 essence	Permanent	10'	Fm
6	Manifest Skill	1 essence	Permanent	10'	Fm
7	Imbed Being Essence V	1 essence	Permanent	10'	Fm
8	Imbed Beast Essence V	1 essence	Permanent	10'	Fm
9	Body Stasis I	1 body	1 day/lvl	Touch	F
10	Manifest Spell	1 essence	Permanent	10'	Fm
11	Imbed Animal Essence X	1 essence	Permanent	10'	Fm
12	Imbed Being Essence X	1 essence	Permanent	10'	Fm
13	Imbed Beast Essence X	1 essence	Permanent	10'	Fm
14	Body Stasis II	1 body	1 week/lvl	Touch	F
15	Preserve Life Essence	1 essence	1 day/lvl	10'	Fm
16	Imbed Animal Essence XV	1 essence	Permanent	10'	Fm
17	Imbed Being Essence XV	1 essence	Permanent	10'	Fm
18	Imbed Beast Essence XV	1 essence	Permanent	10'	Fm
19	Body Stasis III	1 body	1 month/lvl	Touch	F
20	Imbed Lord Animal Essence	1 essence	Permanent	10'	Fm
25	Imbed Lord Being Essence	1 essence	Permanent	10'	Fm
30	Imbed Lord Beast Essence	1 essence	Permanent	10'	Fm
50	Imbed Life Essence True	1 essence	Permanent	10'	Fm

11. **Imbed Animal Essence X:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from an animal of up to 10th level.

12. **Imbed Being Essence X:** As *Imbed Being Essence V*, except the caster may imbed the life essence from a being of up to 10th level.

13. **Imbed Beast Essence X:** As *Imbed Beast Essence V*, except the caster may imbed the life essence from a beast of up to 10th level.

14. **Body Stasis II:** As *Body Stasis I*, except the duration of the stasis is one week per level of the caster.

15. **Preserve Life Essence:** Caster can prevent a life essence transferred out of its own body but not imbedded in an artificial body from dissipating out of its current container for the duration of this spell.

16. **Imbed Animal Essence XV:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from an animal of up to 15th level.

17. **Imbed Being Essence XV:** As *Imbed Being Essence V*, except the caster may imbed the life essence from a being of up to 15th level.

18. **Imbed Beast Essence XV:** As *Imbed Beast Essence V*, except the caster may imbed the life essence from a beast of up to 15th level.

19. **Body Stasis III:** As *Body Stasis I*, except the duration of the stasis is one week per level of the caster.

20. **Imbed Lord Animal Essence:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from an animal of up to 20th level.

25. **Imbed Lord Being Essence:** As *Imbed Being Essence V*, except the caster may imbed the life essence from a being of up to 20th level.

30. **Imbed Lord Beast Essence:** As *Imbed Beast Essence V*, except the caster may imbed the life essence from a beast of up to 20th level.

50. **Imbed Life Essence True:** As *Imbed Animal Essence V*, except the caster may imbed the life essence from an animal, being, or beast of any level.

Special Notes

1. See section 7.2.5 for a full treatment of how this spell list should be used.

10.3.4

SPIRIT EMPOWERMENT

Lvl	Name	Area of Effect	Duration	Range	Type
1	Detect Spirit	10'R	1 min/lvl(C)	100'	P
2	Identify Spirit	1 spirit	-	10'	P
3	Spirit Tongue	self	1 min/lvl	self	I
4	Banish Spirit V	1 spirit	-	50'	Fm
5	Determine Taint	1 spirit	-	50'	P
6	Summon Spirit V	1 spirit	1 min/lvl	10'	Fm
7	Imbed Spirit V	1 spirit	Permanent	10'	Fm
8	Compel Spirit V	1 spirit	Varies	Varies	Fm
9	Banish Spirit X	1 spirit	-	50'	Fm
10	Summon Spirit X	1 spirit	1 min/lvl	10'	Fm
11	Purify Taint	1 spirit	-	10'	Fm
12	Imbed Spirit X	1 spirit	Permanent	10'	Fm
13	Compel Spirit X	1 spirit	Varies	Varies	Fm
14	Extend Compel I	1 spell	1 day/lvl	1000'/lvl	Fm
15	Banish Lord Spirit	1 spirit	-	50'	Fm
16	Summon Lord Spirit	1 spirit	1 min/lvl	10'	Fm
17	Imbed Lord Spirit	1 spirit	Permanent	10'	Fm
18	Compel Lord Spirit	1 spirit	Varies	Varies	Fm
19	Banish Spirit True	1 spirit	-	50'	Fm
20	Summon Spirit True	1 spirit	1 min/lvl	10'	Fm
25	Extend Compel II	1 spell	1 week/lvl	1 mile /lvl	Fm
30	Imbed Spirit True	1 spirit	Permanent	10'	Fm
50	Compel Spirit True	1 spirit	Varies	Varies	Fm

- 1. Detect Spirit:** Allows the caster to detect any spirit within the area of effect of the spell. The caster may concentrate on a different area each round. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
- 2. Identify Spirit:** The caster learns the type of a given Spirit as well as its power level.
- 3. Spirit Tongue:** Gives the caster the ability to speak with and understand Spirits.
- 4. Banish Spirit V:** The caster can banish one spirit of up to 5th level back to the Spirit world. The Spirit may make a Resistance Roll.
- 5. Determine Taint:** Caster learns the number of taint levels possessed by a given Spirit.
- 6. Summon Spirit V:** Allows the caster to summon a spirit of up to 5th level of a type chosen by the caster prior to the casting of this spell. The caster is not granted the ability to converse with the spirit nor any control over the Spirit through this spell. The Spirit will appear before the caster as a wavering form.
- 7. Imbed Spirit V:** Allows the caster to imbed a Spirit of up to 5th level into a Golem or a Construct within 10' of the caster. The Spirit may make a Resistance Roll to prevent this.

8. Compel Spirit V: The caster may totally control one Spirit of up to 5th level. The Spirit receives an initial Resistance Roll to resist this spell's effects. If the Spirit is **not** imbedded in a Golem or a Construct, then the duration of this spell is 1 minute per level of the caster, and the range is 100'. If the Spirit moves outside this 100' range, then it becomes free to attack the caster and/or return to the Spirit world. If the Spirit is imbedded in a Golem or a Construct, then the duration of this spell is 1 hour per level of the caster and the range is 100' per level of the caster. If the Golem or Construct moves beyond this range or the spell expires, then the Spirit is free to act (including attacking the caster) – however the imbedded Spirit cannot leave the body of the entity. When not acting on the caster's orders, the Spirit will wait idly by on the next command.

9. Banish Spirit X: As *Banish Spirit V*, except the caster can banish one Spirit of up to 10th level.

10. Summon Spirit X: As *Summon Spirit V*, except the caster can summon one Spirit of up to 10th level.

11. Purify Taint: The caster may purify up to one taint level per caster level from a given Spirit. Each level of taint that a Spirit has gives it a special bonus of +5 to its Resistance Roll.

12. Imbed Spirit X: As *Imbed Spirit V*, except the caster can imbed one Spirit of up to 10th level.

13. Compel Spirit X: As *Compel Spirit V*, except the caster can control one Spirit of up to 10th level.

14. Extend Compel I: If cast within one minute prior to casting a *Compel Spirit* spell on a spirit imbedded within a Golem or Construct, it increases the duration to 1 day per level of the caster and the range to 1000' per level of the caster. This has no effect on a *Compel Spirit* spell used to control a disembodied Spirit.

15. Banish Lord Spirit: As *Banish Spirit V*, except the caster can banish one Spirit of up to 20th level.

16. Summon Lord Spirit: As *Summon Spirit V*, except the caster can summon one Spirit of up to 20th level.

17. Imbed Lord Spirit: As *Imbed Spirit V*, except the caster can imbed one Spirit of up to 20th level.

18. Compel Lord Spirit: As *Compel Spirit V*, except the caster can control one Spirit of up to 20th level.

19. Banish Spirit True: As *Banish Spirit V*, except the caster can banish one Spirit of any level.

20. Summon Spirit True: As *Summon Spirit V*, except the caster can summon one Spirit of any level.

25. Extend Compel II: As *Extend Compel I*, except the duration is now 1 week per level of the caster and the range is 1 mile per level of the caster.

30. Imbed Spirit True: As *Imbed Spirit V*, except the caster can imbed one Spirit of any level.

50. Compel Spirit True: As *Compel Spirit V*, except the caster can control one Spirit of any level.

Special Notes

- See chapter 7 for details on imbedding Spirits, types of Spirits, taint levels, etc.

10.4 MISCELLANEOUS LISTS

1. **Detect Abomination:** Caster can detect the presence of any Amalgam, Simulacrum, or Changeling in the area of effect. Caster may concentrate on a different area each round. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
2. **Hold Amalgam:** The target Amalgam is held to 25% of normal action. The entity may act normally in any round when the caster is not concentrating on this spell. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
3. **Hold Simulacrum:** As *Hold Amalgam*, except affects one Simulacrum.
4. **Identify Amalgam:** The caster gains a detailed insight into the nature and powers of an Amalgam. Specifically, the caster learns the Amalgam's level, animating Spirit type (if any), abilities, and grafted body parts (for living Amalgams only).
5. **Identify Simulacrum:** The caster gains a detailed insight into the nature and powers of a Simulacrum. Specifically, the caster learns the Simulacrum's level, matrix type and modifications, natural and supernatural abilities, and any abilities, skills, or spell lists triggered by an *Awaken* spell.
6. **Identify Changeling:** The caster gains a detailed insight into the nature of any Changes made to a Changeling, and whether they are inheritable by future offspring. This spell will also identify the nature and parentage of hybrids created by *Abomination* spells or *Inherit Lesser Change* or *Inherit Greater Change*.
7. **Trace Abomination I:** Caster can determine the direction and distance to any one Amalgam, Simulacrum, or Changeling previously analyzed by an *Identify Amalgam*, *Identify Simulacrum*, or *Identify Changeling* spell.
8. **Command Amalgam X:** The caster may command an Amalgam of up to 10th level. The caster must concentrate for one round to give or cancel an order, but need not maintain concentration to ensure the order is undertaken. The Amalgam will continue to obey the order until it is accomplished or cancelled or the spell's duration ends. If the Amalgam moves beyond 20' per level of the caster, this spell terminates immediately. If the Amalgam succumbs to another *Command Amalgam #* or *Compel Amalgam #* spell, this spell terminates immediately.
9. **Command Simulacrum X:** The caster may command a Simulacrum of up to 10th level. The caster must concentrate for one round to give or cancel an order, but need not maintain concentration to ensure the order is undertaken. The entity will continue to obey the order until it is accomplished or cancelled or the spell's duration ends. If the Simulacrum moves beyond 20' per level of the caster, this spell terminates immediately. If the Simulacrum receives orders from its creator / blood donor in the same round as it receives an order from the caster, the Simulacrum may make a new RR. Success terminates this spell.
10. **Restore Changeling V:** Caster can reverse the effect of one Change spell (of up to 5th-level) from the Changeling spell list from the target. This also prevents the change from being inherited by future offspring.
11. **Suppress Graft:** Caster can prevent a grafted body part being used to control a living Amalgam. The target retains use of the grafted body part.

10.4.1

ABOMINATION LORE

Lvl	Name	Area of Effect	Duration	Range	Type
1	Detect Abomination	10'R	1 min/lvl(C)	100'	P
2	Hold Amalgam	1 Amalgam	1 min/lvl(C)	100'	Fm
3	Hold Simulacrum	1 Simulacrum	1 min/lvl(C)	100'	Fm
4	Identify Amalgam	1 Amalgam	-	100'	Fm
5	Identify Simulacrum	1 Simulacrum	-	100'	Fm
6	Identify Changeling	1 Changeling	-	100'	Fm
7	Trace Abomination I	Caster	C	100'/lvl	Pm
8	Comm. Amalgam X	1 Amalgam	1 min/lvl(C)	100'	Fm
9	Comm. Simulacrum X	1 Simulacrum	1 min/lvl(C)	100'	Fm
10	Restore Changeling V	1 Changeling	Permanent	10'	Fm
11	Suppress Graft	1 Amalgam	10 min/lvl	10'	Fm
12	Suppress Awakened	1 Simulacrum	10 min/lvl	100'	Fm
13	Identify Maker	1 abomination	-	100'	Fm
14	Trace Abomination II	Caster	C	1000'/lvl	Pm
15	Restore Changeling X	1 Changeling	Permanent	10'	Fm
16	Comm. Lord Amalgam	1 Amalgam	1 min/lvl(C)	100'	Fm
17	Comm. Lord Sim.	1 Simulacrum	1 min/lvl(C)	100'	Fm
18	Nullify Awakened	1 Simulacrum	Permanent	50'	Fm
19	Suppress Graft True	1 Amalgam	Permanent	10'	Fm
20	Restore Changeling XV	1 Changeling	Permanent	10'	Fm
25	Comm. Amalgam True	1 Amalgam	1 min/lvl(C)	100'	Fm
30	Comm. Sim. True	1 Simulacrum	1 min/lvl(C)	100'	Fm
50	Restore Changeling True	1 Changeling	Permanent	10'	Fm

12. **Suppress Awakened:** Allow the caster to temporarily annul the effects of **one** *Awaken Ability* or **one** *Awaken Spell* or **one** *Awaken Skill* spell on the target Simulacrum.
13. **Identify Maker:** Caster can identify the creator (and blood donor, if any) of one Amalgam, Simulacrum, or Changeling.
14. **Trace Abomination II:** As *Trace Abomination I*, except the range is 1000' per level of the caster.
15. **Restore Changeling X:** As *Restore Changeling V*, except one Change of up to 10th-level can be reversed.
16. **Command Lord Amalgam:** As *Command Amalgam X*, except it affects an Amalgam of up to 20th level.
17. **Command Lord Simulacrum:** As *Command Simulacrum X*, except it affects a Simulacrum of up to 20th level.
18. **Nullify Awakened:** As *Suppress Awakened*, except for the shorter range and the permanent duration.
19. **Suppress Graft True:** As *Suppress Graft*, except the duration is permanent.
20. **Restore Changeling XV:** As *Restore Changeling V*, except one Change of up to 15th-level can be reversed.
25. **Command Amalgam True:** As *Command Amalgam X*, except it affects an Amalgam of any level.
30. **Command Simulacrum True:** As *Command Simulacrum X*, except it affects a Simulacrum of any level.
50. **Restore Changeling True:** As *Restore Changeling V*, except **all** Changes of any level can be reversed.

10.4.2

ENTITY CONTROL

Lvl	Name	Area of Effect	Duration	Range	Type
1	Detect Artificial Entity	10'R	1 min/lvl(C)	100'	P
2	Locate Glyph	1 entity	-	100'	I
3	Hold Entity	1 entity	1 min/lvl(C)	100'	Fm
4	Analyze Entity	1 entity	-	100'	Fm
5	Command Entity I	1 entity	1 min/lvl(C)	100'	Fm
6	Analyze Entity Spirit	1 entity	-	100'	Fm
7	Purge Entity I	1 entity	-	50'	Fm
8	Nullify Glyph	1 entity	1 min/lvl	100'	Fm
9	Nullify Entity Magic	1 entity	1 min/lvl	100'	Fm
10	Transfer Mastery I	1 entity	Permanent	20'	Fm
11	Nullify Sentience	1 entity	1 min/lvl	100'	Fm
12	Command Entity II	1 entity	1 min/lvl(C)	100'	Fm
13	Nullify Manifestation	1 entity	1 min/lvl	100'	Fm
14	Nullify Empowerment	1 entity	1 min/lvl	100'	Fm
15	Purge Entity II	1 entity	-	50'	Fm
16	Erase Glyph	1 entity	-	50'	Fm
17	Remove Sentience	1 entity	Permanent	50'	Fm
18	Remove Manifestation	1 entity	Permanent	50'	Fm
19	Remove Empowerment	1 entity	Permanent	50'	Fm
20	Transfer Mastery II	1 entity	Permanent	20'	Fm
25	Command Entity True	1 entity	1 min/lvl(C)	100'	Fm
30	Purge Entity True	1 entity	-	50'	Fm
50	Transfer Mastery True	1 entity	Permanent	20'	Fm

- 1. Detect Artificial Entity:** Caster can detect the presence of any Golem or Construct in the area of effect. Caster may concentrate on a different area each round. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
- 2. Locate Glyph:** Caster learns the location of any *Glyph of Control* on the target's body.
- 3. Hold Entity:** The target entity is held to 25% of normal action. The entity may act normally in any round when the caster is not concentrating on this spell. The caster may stop concentrating, then resume at a later time, as long as the spell is still active.
- 4. Analyze Entity:** The caster gains a detailed insight into the nature and powers of a Golem or Construct. Specifically, the caster learns the entity's creation level, physical composition, modifications (i.e. deviations from standard entities of that type), mechanical abilities (if any), and magical abilities (if any). The caster does **not** learn any details relating to any imbedded spirit or powers manifested by that essence or benefits granted by spells from the *Sentience* spell list.
- 5. Command Entity I:** The caster may command an Entity of up to 5th level (see notes below). The caster must concentrate for one round to give or cancel an order, but need not maintain concentration to ensure the order is undertaken. The entity will continue to obey the order until it is accomplished or cancelled or the spell's duration ends. If the Entity moves beyond 20' per level of the caster, this spell terminates immediately. If the Entity receives orders from either its

creator or its master in the same round as it receives an order from the caster, the Entity may make a new RR. Success terminates this spell.

- 6. Analyze Entity Spirit:** The caster gains a detailed insight into the nature and powers of any essence residing or imbedded in a Golem or Construct. Specifically, the caster learns the essence's exact type (type of Demon, Elemental, Spirit or identity of a Life Essence) and level, and any powers or abilities manifested by the essence (if any). The caster also learns if the Entity is receiving any benefits granted by spells from the *Sentience* spell list.
- 7. Purge Entity I:** The caster can expel an imbedded or inhabiting essence of up to 10th-level from an Entity.
- 8. Nullify Glyph:** Caster temporarily annuls the effects of a *Glyph of Control* on an Entity, which either deanimates or releases the Entity (and resident essence) from obedience to its creator/master as specified by the original *Glyph* caster.
- 9. Nullify Entity Magic:** The Entity cannot use **one** of its Charged, Daily or Constant Magical Powers for the duration of this spell. (This only counters spell abilities from the Golem Magic and Construct Magic spell lists.) Caster chooses which power is restrained.
- 10. Transfer Mastery I:** Allows the caster to wrest permanent control of an Entity of up to 10th level from its current master (if any). If the Entity fails its RR, caster can choose to become the Entity's master or may designate another individual as its master within 20'. The Entity's relationship with its creator is unchanged.
- 11. Nullify Sentience:** Allow the caster to temporarily annul one chosen enhancement from the Sentience spell list, e.g. **all** imbedded categories, skills or languages or the effects of a *Sentience* or an *Entity Will* spell.
- 12. Command Entity II:** As *Command Entity I*, except the caster may command artificial entities of up to 20th level.
- 13. Nullify Manifestation:** Allow the caster to temporarily annul one chosen enhancement from the Life Essence spell list, i.e. the effects of **one** *Manifest Ability* or **one** *Manifest Skill* or **one** *Manifest Spell* spell.
- 14. Nullify Empowerment:** Allows the caster to temporarily annul one chosen Demonic or Elemental Power.
- 15. Purge Entity II:** As *Purge Entity I*, except the caster may expel essences of up to 20th level.
- 16. Erase Glyph:** As *Nullify Glyph*, except that the *Glyph of Control* is permanently removed.
- 17. Remove Sentience:** As *Nullify Sentience*, except that the chosen enhancement is permanently removed.
- 18. Remove Manifestation:** As *Nullify Manifestation*, except that the chosen manifested ability is permanently removed.
- 19. Remove Empowerment:** As *Nullify Empowerment*, except that the chosen empowerment is permanently removed.
- 20. Transfer Mastery II:** As *Transfer Mastery I*, except affects artificial entities of up to 20th level.
- 25. Command Entity True:** As *Command Entity I*, except the caster may command artificial entities of any level.

30. Purge Entity True: As *Purge Entity I*, except the caster may expel essences of any level.

50. Transfer Mastery True: As *Transfer Mastery I*, except affects artificial entities of any level.

Special Notes

1. The spells on this list affect all types of Golems and Constructs.

2. The level of an Entity for *Command Entity #* and *Transfer Mastery #* spells is either the Entity's creation

level (if no essence has been imbedded) or the level of the imbedded essence.

3. Targets of this spell list receive a RR against all "Fm"-type spells.

4. For the duration of the various *Nullify* spells, the Entity may not use the annulled enhancement. After the *Nullify* spell ends, the Entity may use the enhancement normally.



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CONSTRUCT CREATION WORKSHEET				
Step 1 Shape	Base Shape:		Shape Creation Level:	
	Extra Limb (+1)			
	Extra Tail (+1)			
	Extra Pair of Limbs (+2)			
	Extra Head (+1)			
	No Legs (-1)			
	No Arms (-1)			
	Total Shape Lvl			
Step 2 Material	Outer Material:		Material Level Mod:	
	Inner Material:			
	AT:	OB Mod:	DBMod:	
Step 3 Size	Size:		Base Concussion Hits:	
	Size Multiplier: Tiny (up to 1' tall): x1/2; Small (up to 3' tall): x3/4			
	Medium (up to 6' tall): x1; Large (up to 12' tall): x1.5; Huge: (12' plus tall): x2			
	Lvl = (Shape Lvl + Material Lvl) x Size Multiplier (round up)			
	New Creation Lvl =			
Step 4 Modifications	Default Base Movement Rate:		(+1/2 lvl per extra 10')	Lvl Mod
	Final Base Movement Rate:			
	Maximum Pace (default Run):			
	Moving Maneuver Bonus (default 0, +1/2 lvl per extra +10):			
	Movement Speed:		DB Mod:	
			Final DB:	
	Attack Quickness:		Initiative:	
	Carrying Capacity (+1 lvl per extra load):			
	Critical Reduction (+2/-1 lvl per + /- step):			
	Extra/Fewer Concussion Hits (+/-1 per +/- 10 hits):			
	Final Concussion Hits:			
	Attack Size/# of Attacks (+1 lvl per size increment):			
	Base OB:	Mat. Mod:	OB Mod:	Final OB:
	OB1:			
	OB2:			
	OB3:			
	OB4:			
	OB5:			
	Total Lvl Modifier:			
Step 5 Mechanical Abilities	Ability 1:			
	Ability 2:			
	Ability 3:			
	Ability 4:			
	Total Lvl Modifier:			
Step 6 Magical Abilities	Spell Power		Spell Level (x0.5 Charged, x0.75 Daily, x1 Constant)	Lvl Mod
Final Level Encounter Level	Total Lvl Modifier:			
	Creation Level (Step 3) + Lvl Mod (Step 4) + Lvl Mod (Step 6) = Final Creation Level / Size Mod = (Size Mod: Tiny/Small =5, Medium = 4, Large =3, Huge =2)			

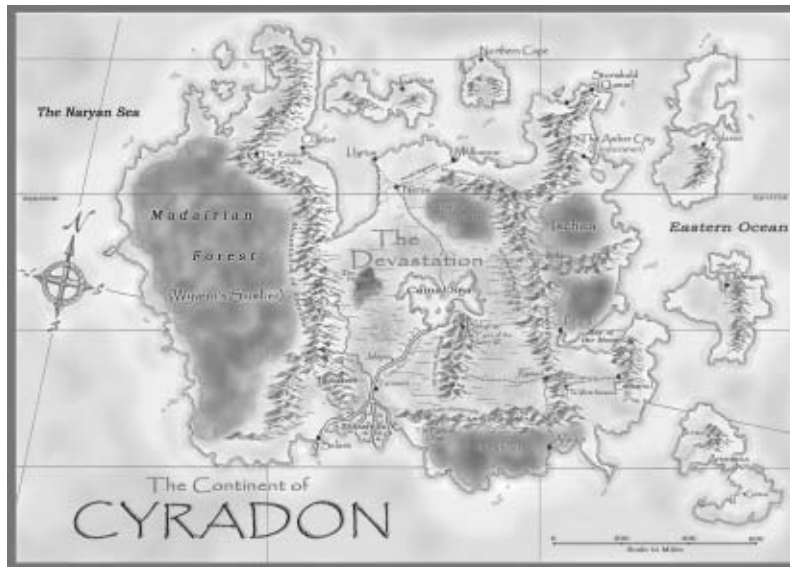
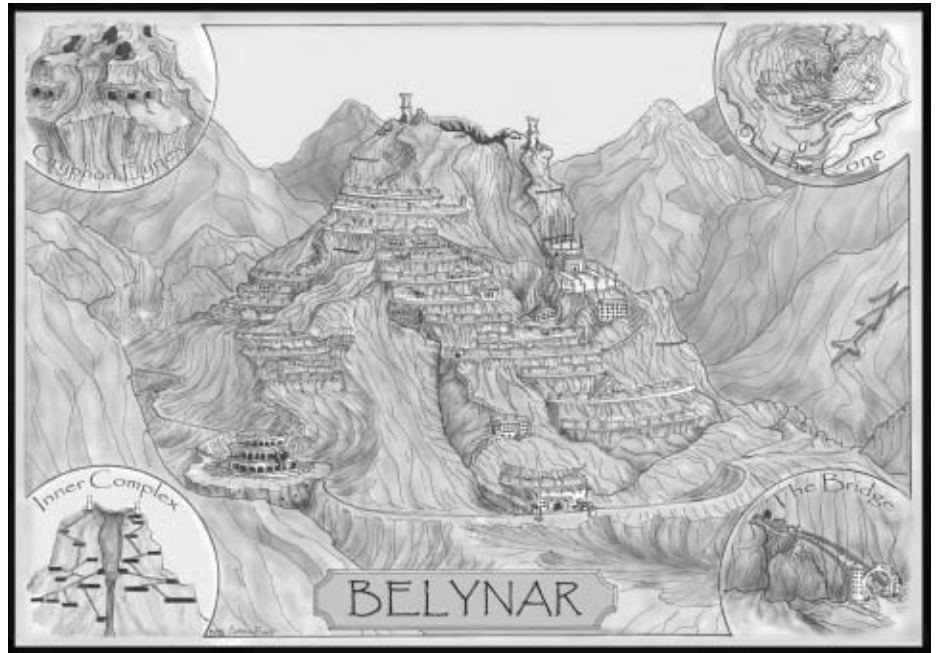
GOLEM CREATION WORKSHEET				
Step 1 Material	Material:			
	Material Creation Level:			
	AT:	DB:	Bash:	Grapple:
	Crush:			
	Other:			
	Special:			
Step 2 Shape	Base Shape:		Lvl Modifier:	
	Extra Limb (+1)			
	Extra Tail (+1)			
	Extra Pair of Limbs (+2)			
	Extra Head (+1)			
	No Legs (-1)			
	No Arms (-1)			
	Total Shape Lvl Modifier			
Step 3 Size	Size:		Base Concussion Hits:	
	Size Multiplier: Tiny (up to 1' tall): x1/2; Small (up to 3' tall): x3/4			
	Medium (up to 6' tall): x1; Large (up to 12' tall): x1.5; Huge: (12' plus tall): x2			
	Lvl = (Material Lvl + Shape Lvl) x Size Multiplier (round up)			
	New Creation Lvl =			
Step 4 Modifications				Lvl Mod
	Default Base Movement Rate:		(+1 lvl per extra 10')	
	Final Base Movement Rate:			
	Maximum Pace (default Run):			
	Moving Maneuver Bonus (default 0, +1/2 lvl per extra +5):			
	Movement Speed:		DB Mod:	
			Final DB:	
	Attack Quickness:		Initiative:	
	Carrying Capacity:			N/A
	Critical Reduction (+/- 1 lvl per step):			
	Extra/Fewer Concussion Hits (+/-1 per +/- 25 hits):			
	Final Concussion Hits:			
	Attack Size/# of Attacks (+1 lvl per size inc. or extra attack):			
	Base OB:	Mat. Mod:	OB Mod:	Final OB:
	Bash:			
	Crush:			
	Grapple:			
	Other:			
	Other:			
	Other:			
Other:				
Total Lvl Modifier:				
Step 6 Magical Abilities	Spell Power		Spell Level (x0.5 Charged, x0.75 Daily, x1 Constant)	Lvl Mod
	Total Lvl Modifier:			
Final Level	Creation Level (Step 3) + Lvl Mod (Step 4) + Lvl Mod (Step 6) =			
Encounter Level	Final Creation Level / Size Mod = (Size Mod: Tiny/Small =5, Medium = 4, Large =3, Huge =2)			

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