

# For A "Gygaxian" Fantasy World 

The Essential Tool For Fantasy World Creation!

BY<br>GARY GYGAX<br>\& DAN CROSS

Gygaxian Fantasy Worlds, VOL. II


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## FOREWORD

The utility of this book extends beyond a mere catalog of everyday facts and things common to a fantasy milieu based mainly on the historical medieval and Renaissance periods. The chapters are arranged thematically, listing items from the mundane to the arcane in categories useful to one building a fantasy world, campaign, or an adventure from scratch.

Thus an author or game master can refer to these lists to add color, description, depth, and incredible detail to his fantasy world. For example, this book aids in determining the characteristics of a city, detailing the basic construction materials of each building according to style, then in choosing the contents of myriad room types and appurtenant structurescastle, house, manor, palace, etc. With this book, one can realistically describe the features of the wilderness, picking tree types by biome, developing regional maps in accordance with true earth-science, learn the value of metals as a true metal-smith (ordinary to magical), describe alchemical brews according to extensive hermetic lore, and so on.

Also included are several sections of "facts," all stuff common to the fantasy genre: spells and traps, archaic terms and nomenclature, all information easily extrapolated into any existing game system. Within these pages, there's enough food for thought to make your fantasy world come alive as never before!

## The Enumeration of Meaningful Ordinary Things, A to Z in A Fantastic Medieval to Renaissance Environment

This work is a book of lists and more. There are many helpful and unusual facts herein too. It is meant for the Game Masters of role-playing game campaigns, authors of both game works and fantasy stories. It gathers into one volume a trove of useful information of descriptive sort and detailing persons, places, and things. Considering the scope of language, things, the authors do not pretend it to be complete, exhaustive. In fact, they invite readers to inform them of any words or items missed, as well as to suggest additional subjects for a future edition. Direct emails of this sort may be sent to ggygax@genevaonline.com or troll@trolllord.com.

The compilation is not one that strictly follows the historical. That is, assuming that a fantasy world is not technologically advanced but development in other areas has and is proceeding, it then follows that there will be anomalies in what is available. Some things will be of ancient invention, some medieval, some of renaissance-like nature, and some beyond that. If the reader does not choose to have more advanced things in his or her fantasy environment, it is a simple matter to omit what seems inappropriate. Similarly, the reader is free to add such things as might seem proper for the milieu he or she is developing.

You will also note in examining the entries that the lists and information are not exhaustive, save in a few places. That is because this is a reference work to stimulate ideas, enable filling in "facts", details and background in a fantasy world. Also, and as a matter of fact, exhaustive information on many of the entries herein would mean one or more separate books just to cover it-birds, insects, flowers are examples of this.

The base time period considered is the later portion of the Middle Ages-say from around 1350 onwards. Where applicable and useful, ancient and earlier medieval things are included. To make the whole more interesting, however, we have added things from later historical periods. In some areas the Renaissance is covered, and in places things from the 17 century are brought in, especially in terms of transportation and luxury items-dining service, personal things, watches, etc.

## HOW TO USE THE WORLD BUILDER DESCRIPTIONARY

What the world builder IS: This is a book containing many types of lists; some of these are random generators (body parts, personality, room decorations and more). Some are simply defined, such as arms and armor, shields and helms. Some have been organized with a dictionary-encyclopedic entry. Others have random dice tables applied to them. The illustrated armor/weapons section is followed up by a four page chart for d20 rules that give all the damage, AC bonus, and so forth for most of the unique (non PHB) armor and weapons covered in the text. This book is advantageous when creating a campaign setting. It is a diverse reference, aiding in creating geographic features of continents, or government structures, the titles of a kingdom's nobility, or when sitting down to create detailed locations for adventures; the contents of dungeon rooms, or laying out terrain features in the surrounding wild. The herbs ( 250 types by magical property), gems (with magic spell associations), and precious metals sections give you magical effects, definitions, and so forth. There are lists of crimes (now more than just pick-pocketing is illegal). There are also charts for material strength and hardness so you can more accurately portray the effects and strengths of differing woods, stones, gems and other material (tensile strength of ropes). 60 different traps. $50+$ occupations for craftsmen. A random chart for generic spell effects. Stock-in-trade, Geographics, and Dwellings: Flesh to add to a world. Why lists of stuff? World building in a fantasy game has much to do with describing the surroundings of the player characters in great detail from the mundane to the bizarre. This book facilitates this important facet of design.

What the book is NOT: It is not a how-to manual. The World Builder is Volume II of a world-building series detailing the typical "Gygaxian Fantasy World" and is a "descriptionary" giving the designer and the writer a plethora of information he/she can use to grant the fantasy setting of his choice greater verisimilitude. The world builder in many areas is organized in a hierarchal fashion. For example, the fantasy cities section lists first all of the different sorts of buildings common to such a setting and then breaks that down into construction materials, and then into architectural elements, then further down into window and door types and styles, and then moves into interior design. Interior deals with everything from the ceiling to the floor, and lists "things" for reasons of placement in actual adventure locations, arranged by room type. Torture chamber, wizards lab, etc.

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## A note from the editors

## Silver, Gold and Money in a Fantasy World and d20

Coins or any other varying types of mediums of exchange have been a part of the human experience for many thousands of years. Generally fashioned from small chips of various metals, shells, valuable stones, ceramic beads and even spices, coins and their counterparts took on a wide variety of shapes and sizes, not to mention weight. Earlier societies made coins from gold, silver, copper, bronze and other metals which they deemed valuable. The value of a particular coin and its metal varied wildly from region to region. As history progressed two types of coins rose to dominance, bronze in China and silver in Greece and Rome.* The overwhelming power and influence of these three societies in their regions left an imprint on the all the adjacent regions. These metals were chosen for a wide variety of reasons far too numerous to mention here, but frequently had, as their basis, some type of common medium of exchange. In Greece, for example the Ox served as the universally prized commodity upon which the money systems was based. Suffice it to say, that values ranged from area to area.

What then to do about money. Anyone creating or dealing with a fantasy world is met with the question of how to establish a money market system. Is one to use coins or some of other medium of exchange? What are coins? What metals are used in their making? How is value set? These are questions which, if realistically dealt with, are almost impossible to answer unless you concentrate on one society, one culture, one people and one time. It is doubtful if the Greek stater (silver or gold) would have meant as much to the Chinese merchant as to an Anatolian one. What then to do?

Mr. Gygax chose the simplest approach. By following the modern standard of the dollar, he establishes a clear value in dollar signs of any given metal. Gold for instance is worth $\$ 500$. Silver, a less precious item is worth $\$ 10$ and bronze, at even less, at just under $\$ 1$. His values are roughly based on those that dominated the Renaissance when gold began to establish itself as the common metal with the greatest value and are set at a 1-10-500 standard.

As concerns the d20 game, there is no correct equation of the standard set by Mr. Gygax. This is largely due to the established rate of exchange in d20 where a gold coin is only 10 times more valuable than a silver one. $\dagger$ Seemingly gold in d20 is undervalued immensely or more plentiful than historically available on earth. However, the Core rule books nowhere state how much of any given metal is in any given coin only that each coin weighs a third of an ounce. In order to follow the clear and logical guidelines set down in the text we have developed a value of metals chart specifically for the d20 game. You will find that chart on page 103. Furthermore the equations listed below allow for greater cohesion between Mr. Gygax's text and the d20 system. They are developed off of a silver standard. Silver being the base.
$\$ 1$ is roughly equivalent to 5copper coins
$\$ 10$ is roughly equivalent to 5 silver coins
$\$ 500$ is roughly equivalent to 25 gold coins

This assumes that one silver coin possesses .2 ounces of silver in it and that one gold coin possesses .04 ounces of gold in it. It can be assumed that gold coins are smaller than silver coins or are simply coated in gold.

* These notes reference the Sung Dynasty and it is recognized that the Chinese also produced iron coins. Greece used gold and electrum and Rome bronze as well.
$\dagger$ As I write this gold is valued on the market at $\$ 240$ per ounce, silver at $\$ 4$ per ounce.
The Troll Lords
Stephen Chenault
Davis Chenault
Todd Grey


# BOOK ONE STOCK-IN-TRADE 

And he went up to the town of Magdeburg and there came upon a great store of armor, shields, helms and other weaponry and equipments. These he used to arm his foll for war and he marched forth against the power in Aufstrag
~~The Luneberg Chronicles

## ARMOR

Iron shod shields. Iron Helms. Chain in links. Plate of iron. Essential to any medieval fantasy setting are the accouterments of war. Armor, weapons, castles and the like, these are foremost on the minds of those whose business it is to lay low the wicked and bring the evil to task. Armor is oft times uppermost in the minds of those few who manifest the courage in making it their business to wage battle on your world's fields of war.

Armor comes in many shapes and forms. With one's armor come a wide variety of shields and helms. Each country, realm, band or individual possesses their own form of armor. Cataloged and illustrated below are armor, shields, and helms.

## ARMOR, WORN

Banded chain: Chain mail with lamellar strips at shoulder and/or from waist to chest.
Banded mail: Chain mail in which small bars are linked between each four rows of chain links as a reinforcement. Brigandine: Plates of tinned steel (or iron) lapped over each other in upwards direction, riveted onto a canvas inner jacket with rivet heads showing on the outer silk, velvet, or thin leather jacket portion. The jacket may be
sleeveless, but it has a waist and skirt often depending to the mid-thigh.
Chain mail: Mail made of interlaced links of steel wire, the ends of each like riveted to close it securely. Each link passes through four others, and in the best, double mail, there is very little space between links.
Cuir bouille (boiled leather): Heavy leather that after tanning is boiled in oil, then hammered into the shape (of the body) desired. It is then dried. The resulting hard leather is then trimmed and fitted out as armor.
Demi-Plate: Half-plate armor.
Laminar armor: Scale mail of large metal plates.
Leather armor: Garments of thick leather, usually reinforced with additional leather at shoulder and chest.
Leather armor, studded: Leather armor with reinforcing plates or metal or horn beneath it and a lining material of canvas, the rivets holding the plates to the material showing through the outer leather of the garment.
Padded/quilted armor: Clothing of tough material, the outer portion typically canvas, with cotton or felt padding between it and an inner lining, the whole cross-stitched in quilt-like pattern.
Plate armor, suit: Steel armor pieces that form a complete covering, these fitted to the body of the wearer. Plate armor, suit w/pauldrons: Plate armor with the addition of two single large plates covering each shoulder. Plate armor, three-quarter suit: Plate armor that extends only to the knees.


Leather Armor

Banded Links



Brigandine



Plate mail, suit: A suit of pieces of plate armor that are connected together by pieces of chain mail so as to be flexible.
Ring mail: Steel or like metal rings sewn onto a jacket or coat.
Scale mail: Overlapping plates of metal sewn onto a jacket or coat.
Splinted armor: Overlapping metal plates or splints riveted together, or sewn to a canvas or leather garment, for flexibility.



Padded


Studded


Demi-Plate


Plate 3/4

## ARMOR PIECESAND GARMENTS

Ailettes: Upright metal pieces worn on the shoulder of plate mail, usually square, but possibly of other shapes.
Aketon (underpadding): A quilted garment for protection, the padded armor of the infantry soldier, the underpadding for other armor in regards to knights and nobles.
Avant-bras: Armor for the forearm, typically as part of a suit of plate mail.
Backplate: The solid metal plate protecting the back, typically the rear piece of a cuirass, the two hinged to form that.
Bazu bands: A pair of curved plates that cover the outer arms from wrist to elbow, fastened to a pair of narrow wrist or arm bands by mail, or hinged to a smaller inner plate at the wrist.
Brassard: The plate armor for an entire arm.
Breastplate: See backplate above, this plate the front armor.
Byrnie: An aketon (q.v.) with reinforcing pieces sewn within it, the latter of horn, leather, or rings.
Camail: Chain mail that covers the neck and shoulders of the wearer, generally fastened to the helmet.
Chain mail shirt: The upper portion of a suit of chain mail.


Ailettes


Aketo


Breastplate

Chausses: The close-fitting leg pieces of a suit of plate mail.
Coat of plates: A knee-length cloth garment of several layers between two of which there are sewn and riveted plates of metal, usually steel. The rivet heads show through the outer layer.
Courdiere: The segment of armor covering the elbow. Held with a tight band.
Cuirass: The combined backplate and breastplate covering the wearer from shoulders to waist.
Cuissards: Added defense for the thighs made of heavy quilted cloth armor or cuir bouille, the pieces worn above chain. Later versions are of lames or solid steel plate and become a part of the suit of plate mail.
Demi-Brassarts: Half armor for the upper arm.
Demi-Jambarts: Half armor for the front of the leg.
Demi-Vambraces: Half armor for the upper arm.
Epaulieres: Small shoulder plates that cover the front and top of the shoulder, fasted to the hauberk by lacing or points.
Gambeson: An aketon (q.v.) with reinforcing pieces of small plates of metal sewn within it.
Gauntlets: Glove-like metal armor for the hands, consisting of overlapping plates for the fingers, a solid plate covering the back of the hand, this riveted to a wrist guard.


Gorget: Two pieces of hinged metal armor that cover the neck of the wearer, usually worn with and attached to a cuirass.
Hacqueton (var. of aketon): See aketon.
Hauberk: The long coat of chain mail, usually reaching to the knees. A gambeson is worn beneath this armor.
Hoguine: Narrow lames riveted together and fastened below the cuirass that protect the buttocks of the man fighting on foot.
Jack: A leather coat generally reaching to the mid-thigh worn by common soldiers for protection.
Jerkin: A close-fitting, hip-length jacket made of quilted cloth or studded leather.
Plaquet: An addition to, or separate armor piece worn over, the breastplate or worn alone to protect the stomach. Plastron: A reinforcing metal breastplate worn over the gambeson and under the hauberk.
Roundrels: A round metal plate used to reinforce the places where plate mail pieces are fastened together with chain mail, such as at the joining of arm to shoulder.
Sabbatton: Broad plates of metal armoring the upper portion of the foot, worn over other armor and held in place by straps.
Taces: Lames for protecting the thighs, these being hung from the breastplate.


Tuilles: Pointed thigh guards depending from the breastplate.
Vambraces: Armor for the forearm, originally worn under other armor, but eventually forming a part of plate mail and plate armor.


## Hauberk



## ARMOR, HEADCOVERINGSAND HELMETS

Armet: A close-fitting helmet that conforms to and completely covers the wearer's head. This term refers to a helm of Italian design which possesses chin plates hinged above the ears. The plates are lowered and fastened with a holding pin when the helm is worn.
Arming cap: A small steel cap, padded inside, usually worn under a chain mail coif.
Bacinet: A light helmet covering the head and leaving the face open, save in the full-armor version with visor.
Bacinet, closed: A helmet attached to the gorget, covering the head fully and with a movable visor.
Bacinet, pig-faced: A bacinet whose visor resembles the snout of a pig.
Burgonet: An open helmet with a brim to protect the eyes and one or more combs atop it, being similar to a morion. Casquetal: An open helmet with a brim to protect the eyes, being similar to the burgonet with less facial protection.
Celt Helmet: This helm generally followed the Roman Legionnaire pattern in design, with supporting cheek guards. The helm is usually capped by some form of animal or totem design.
Coif, chain mail: A close-fitting, hood-like piece of mail covering the head, neck, and shoulders.
Coif, leather: A coif that is made of leather.
Helm: A helmet with earflaps, eye and nasal guard.

Helm, pot: A flat-topped helmet or helm.
Helmet: An open-faced head covering, usually of solid metal, but sometimes of metal cross pieces reinforcing leather.
Heaume (Hume): A huge, fully-enclosed helm that completely covers the head and rests on the shoulders of the wearer.
Gladiator Helmet: A helm generally of hammered bronze, one plate to which are riveted one or all of the following: a crest, wide brim, face piece or frontal ornaments.
Kettle Hat (Helm): One of the earliest non-riveted helmets. The Kettle Hat or War Hat is shaped from one piece of iron. It offers little protection for the neck or cheeks and is chiefly worn by common soldiery. The wide brim affords some protection from mounted blows.
Middle Eastern: The helm possesses a light chain mail "skirt" attached to a skull cap. The nose guard or comb is generally for decorative purposes.
Morion: A burgonet with high-peaked front and rear brim, the sides of the latter being turned down.
Norman Helmet: A helm possessed of a conical shape. An elongated piece of iron descends from the crest over the forehead and nose. This Nasal guards against horizontal blows.
Roman Legionnaire Helmet: An iron skull cap with reinforcing cross-bands and a hollow neck guard off the


Armet


Casquetel

Arming Cap


Bascinet


Benin Cowrie


Burgonet


Coif, Chainmail


Kettle Hat
back. Iron cheek guards attach to the cross-bands fasten the helm under the chin.
Salade: A close-fitting helmet at front and sides, extends in a long rear portion to cover the wearer's neck; it has a front cover for the wearers face, sometimes with a movable visor included.
Salade, mentonniere: The salade with a visor slit, it being worn tilted back for full vision but protection for the forehead, down to protect the upper face.
Ventail: The lower movable chin covering of a helmet
Visor: The upper movable eye covering of head armor.
War Hat (with sights): See Kettle hat above.
Zischagge: Also called the "Lobstertail." It serves as a pikeman's helm. It consists of a skull-cap with neck piece and two ear pieces.


Middle Eastern


Norman Helmet


Pot


Roman Legionnaire Helm


Salade


Sallet
Pig Faced Bascinet

War Hat

## ARMOR,SHIELDS

Adaga: A shield and parrying weapon that is of two small circular plates or reinforced leather or metal joined in the center, with a bar holding them, the bar barbed at the ends for stabbing.
Buckler/targe: A small, usually round, shield held in the hand by a single strap or handle. The targe is a slightly larger version of the buckler, with two straps for the arm or arm-hand.
Bull-hide: A round or figure-eight shield of heavy leather. Central American: A hide or wood shield. They are fashioned in a wide variety of geometric shapes.
Egyptian: A long shield, square at the base, round at the top. Made of light wood or hides stretched over a frame.
Bronze is used for the frames or on rare occasions latticed wood.
Figure-eight (Grecian): A wood or wood and leather shield of this shape.
Heater: A small rectangular shield of various composition, metal being the most common.
Jousting: The jousting shield complements a knight's heavy armor. Consisting of single sheet of worked metal the knight wears the bulky shield as much as it is carried. A sling supports the weight of the shield. The size of the shield affords good protection but restricted movement. It

## The Shield



Base


Zischagge


THE ARMORED KNIGHT


|  |  | Armor | Max | Armor | Arcane |  | ed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Armor | Cost | Bonus | Dex bon. | Check Pen. | Spell Failure | (30 ft.) | ( 20 ft .) | Weight |
| Light Armor |  |  |  |  |  |  |  |  |
| Aketon | 5 gp | +1 | +8 | 0 | 5\% | 30 ft . | 20 ft . | 5 lbs. |
| Bison bone breastplate | 10 gp | +2 | +6 | 0 | 10\% | 30 ft . | 20 ft . | 10 lbs . |
| Central | American |  |  |  |  |  |  | 12 lbs . |
| Cloth | 2 gp | +1 | +8 | 0 | 5\% | 30 ft . | 20 ft . | 8 lbs . |
| Egyptian | 12 gp | +2 | +6 | 0 | 10\% | 30 ft . | 20 ft . | 15 lbs . |
| Gambeson | 20 gp | +3 | +5 | -1 | 15\% | 30 ft . | 20 ft . | 18 lbs . |
| Iron Age, European | 15 gp | +2 | +6 | 0 | 10\% | 30 ft . | 20 ft . | 15 lbs . |
| Ring Mail | 40 gp | +3 | +4 | -1 | 20\% | 30 ft . | 20 ft . | 20 lbs . |
| Medium Armor |  |  |  |  |  |  |  |  |
| Brigadine | 75 gp | +4 | +4 | -3 | 20\% | 20 ft . | 15 ft . | 25 lbs . |
| Classical | 250 gp |  | +3 | -4 | 25\% | 20 ft . | 15 ft . | 30 lbs . |
| Cuir bouille (boiled leather) | 35 gp | +3 | +4 | -3 | 20\% | 20 ft . | 15 ft . | 25 lbs . |
| English | Civil War |  |  |  |  |  |  | 30 lbs . |
| Indian | 165 gp | +5 | +2 | -5 | 30\% | 20 ft . | 15 ft . | 40 lbs . |
| Inuit | 25 gp | +3 | +4 | -3 | 20\% | 20 ft | 15 ft . | 25 lbs . |
| Lamellar, metal | 45 gp | +4 | +4 | -3 | 20\% | 20 ft . | 15 ft . | 25 lbs . |
| Lamellar, leather | 35 gp | +3 | +4 | -3 | 20\% | 20 ft . | 15 ft . | 25 lbs . |
| MiddleEastern | 170 gp | +5 | +2 | -5 | 20 \% | 20 ft . | 15 ft . | 40 lbs . |
| Heavy Armor |  |  |  |  |  |  |  |  |
| Banded Chain | 220 gp |  | +1 | -6 | 35\% | 20 ft . | 15 ft . | 40 lbs . |
| Roman | 265 gp |  | +1 | -6 | 35\% | 20 ft . | 15 ft . | 35 lbs . |
| Plate, three quarter suit | 1000 gp |  | +1 | -6 | 35\% | 20 ft . | 15 ft . | 45 lbs . |
| Polish Hussar | 750 gp | +7 | +0 | -7 | 35\% | 20 ft . | 15 ft . | 50 lbs . |
|  |  |  |  |  |  |  |  |  |



Table 1:2 d20 Head Coverings \& Helmets


Table 1:3 d20 Shields

| Armor | Cost | Armor <br> Bonus | Max <br> Dex bon. | Armor <br> Check Pen. | Arcane <br> Spell Failure | Speed <br> $(\mathbf{3 0}$ ft.) |
| :--- | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| (20 ft.) |  |  |  |  |  |  | Weight

## WEAPONS

## WEAPONS, AXES \& AXE LIKE

Axe: A wedge, honed at one extremity to a sharp edge and hollowed at the other. The hollow end holds a shaft or haft of wood. The handle is generally fashioned at right angles to the axe head. A loop is attached at the end of the haft.


Axe, Assyrian bronze: As above, but as a club or mace. The head fashioned out of bronze.


Axe, battle: A single edge axe blade with curved edges up to twelve inches in length. The weapon is heavy headed, using the weight of its head as much as the cutting edge of its blade. Up to 4 feet in length.


Axe, bearded: A formidable, socketed metal axe blade fitted to a wooden handle and wielded two-handed. $41 / 2$ feet in total length. A single curved blade on the lower end marks the head.


Axe, broad: A single edge axe blade with curved edges twelve to fifteen inches in length. Very light, mounted on a curved haft 4+ feet in length.


Axe, Egyptian bronze: A single edge axe blade made of bronze. The blade ranges in size but not over 9 inches in length. The haft is up to $31 / 2$ feet long.


## WEAPONS, CLUBS \& CLUB LIKE

Aclis (Club, spiked, throwing): A throwing stick with a spiked head, usually attached to the wielder's arm by a leather strap allowing it to be retrieved after it had been thrown. Assagai: The Zulu Tribe in Africa used this short, approximately five foot long spear for thrusting to stab opponents at
 close quarters. It is an adaptation from the throwing spear, the length cut down and given a knob at the butt so as to prevent throwing, forcing hand-to-hand use only.


Belaying Pin: A belaying pin is a small wooden billet used on sailing ships to secure lines. As a weapon it is like a small wooden club. Billy club: A heavy wooden club.
 Bludgeon: A short stick or club with one thick or loaded end.


Bo Stick (Japanese): A 6 to 9 foot wooden fighting staff.

Club: A heavy staff or stick, usually tapered, made of wood or metal.
Club, spiked: As with Club above, with spikes attached. The spikes were either driven into the club, riveted or bound on the end. Also, barbed wire strands or even thorn bushes may be wrapped tightly around the end.


Club, spiked, throwing (acylis): A lighter club (as above) with heavier end for momentum (see above).
Cudgel: By broad definition a cudgel is any small club. The cudgel also refers to a practice sword made of wood and fitted with a basket hilt used in broad-
 sword practice.
Godentag: A type of morningstar.


Hammer, military : a $21 / 2$ foot hammer with a wide heavy head. The head is quite large, sometimes three inches in width, it is balanced with a double edged curved blade several inches long and topped by a spike.


Hammer, Maul: A large hammer with a wooden or iron head. Wielded two handed with a haft about $31 / 2$ feet long. The head is disproportionately heavy to the haft and socketed.


Jo stick (Asian): This weapon is a simple short maple staff, very well balanced, and having the same length as a katana.


Knobkerrie: A short wooden club with mounted knob at the end. A staple of the Zulu armies it was thrown or used in melee combat.


Mace: A descendent of the early clubs, and used primarily against heavily armored opponents. Often extensively decorated for combat the mace's heavy iron end crushed armor plates and the bone beneath. The flanges on the mace serve to pierce armor as well as dent it.


Mace, two-handed: As above but generally $41 / 2$ feet in length and used two handed on foot.


Maquahuilt: This is wooden club that has embedded in it obsidian chips. It is intended to slash opponents as well as bludgeon them.


Morning star: A form of mace, preferred by foot soldiers, with a spiked head for piercing armor.


Sap (blackjack, cosh): A short hand held weapon. Usually a metal or wooden stud bound in leather attached to a springy handle.
Staff (fighting staff, quarterstaff):
This weapon is carried by a wide
 variety of people. The length is approximately six feet and is made of wood. Sometimes the staff is reinforced with metal caps on the ends and metal bands as well to make it a more durable fighting weapon. Tonfa (Okinawan nightstick): The Tonfa is made of hardwood, it's body square or round. It is about 2 feet in length with

a side handle at a right angle, serving as a forearm guard for blocking attacks.
Warclub: A short club associated with the American Indian.


## WEAPONS, KNIVES \& KNIFE LIKE

Arkansas toothpick: An 18" long double edged knife. The lower edge extends the full length of the blade, whereas the upper edge extends along $1 / 4$
 length of the blade.
Bottle: broken Self-explanatory construction, last ditch thrusting weapon.
Dagger: A general term for all short thrusting bladed
 weapons with points or edges.
Dirk: A long thin dagger straight bladed dagger, ranging in length from 12 to 20 inches.
Haladie: A double ended fighting knife with the single edged blades curving opposite one another. The handle is in the center of the weapon, and is usually bound with leather or wire.


Hook: A curved tool, generally used for pulling or holding. Ice pick: A hand tool with a sharp
 pointed spike. Used for chipping ice.

Katar, bifid blade: The blade of
 this weapon is notched (Vshaped) giving two points for piercing. The handle of this punching dagger remains the same as the katar.


Knife, bowie: A single edged knife with part of the back edge shaped con-
 cavely and pointed.
Knife, green river: A knife, about 9 3/4" in
 overall length with 4 1/ 2" blade, often depended on for hunting and fighting. The
 Greco Green River knife is big enough for most large game.
Kris: A dagger with a serpentine blade, associated with Indonesian or Malaysia. Main gauche: A fencing
 dagger, double-edged with prongs designed to catch an opponent's blade. For use with the wielder's off hand and
 fitted with a triangular guard, often engraved.
Poniard: A dagger-like weapon with a thin blade, about 1 foot in length, useful for piercing chain mail or finding gaps in plate armor, puncturing vital organs. Often featuring a bloodletting groove down the thin blade.


Sai: A Japanese parrying baton
consisting of an iron bar with leather covered grip and two small side hooks mounted parallel to the bar. Sai with triangular main blade are also known. These weapons are often used in pairs.


Sickle: A tool or weapon with a long metal blade curved for cutting. Mounted on a short handle.
Stiletto: A slender dagger with a blade that is thick in
 proportion to its width.


## WEAPONS, FLAILS \& FLAIL LIKE

Bullwhip: A lash, made of leather interlaced strips, ranging from 6 ' to $25^{\prime}$ in length.
Cat-o-nine-tails: The usual variety of this item is smaller than abullwhip, more intended for pain and torture than as a
 weapon. The martial variety possesses an 18" handle controlling nine $18^{\prime \prime}$ whip strands of silk or leather cord usually set with metal bits (or sometimes small, flesh-rending hooks with poison). Unlike the whip, the cat-o-nine tails deals actual damage and is not restricted in effectiveness by those having armor.
Flail: The flail consists of two differing lengths of wood attached with a chain or leather thong. The longer piece serves as the handle while the shorter, usually heavier piece, serves as the weapon.


Flail, two-handed: As above but longer.


Meteor hammer: A cone-shaped metal head attached to a length of chain or rope. The meteor hammer threatens a 10 ft . area around the wielder and can be used to trip and strangle opponents.


Nunchaku: This weapon has two pieces of wood, of equal length and equally weighted, and attached with rope or chain.
Whip: As with the Bull whip above.


## WEAPONS, MISCELLANEOUS

Adz: A piercing tool, like the axe, but with thin cutting blades set at right angles of the haft. Generally not used as a weapon but rather as a tool for cutting or shaping wood.
Brass Knuckles: A set of metal finger
 rings or guards attached to a transverse piece and worn over the front of the doubled fist. An attached bar sits in swell of palm, taking pressure off the knuckles.


Cestus: The original cestus was a leather hand wrap with lead weights at the knuckle areas inflicting deep cuts
 and abrasions. The more recent
 cestus is a heavy gauntlet, worn by a hand clenched into a fist. It weighs about six pounds and has bronze (or iron) spikes.
Garrote: Two handles of wood or metal affixed to a strong line (trip wire, piano wire, etc.) used for strangulation of a foe. Attacker usually closes in from behind, throwing the line over his victim's head and pulling back with a deadly snap, crossing the handles to form a loop.


Harpoon: A barbed spear or javelin, about 7 feet in length, with a rope or chain attached to the shaft for recovery of the weapon.


Hat pin: A long thin needle-like device.
Hook, hafted: The hafted hook is used to catch on an opponent's shield or parts of the body to rend flesh.
Kiseru (Iron Pipe): A heavy iron smoking pipe that tapers from the stem to the bowl. These range from 2 to $21 / 2$ feet in length.
Lasso: A rope
 or long thong of leather with a noose used especially for catching obstinate humanoids.
Net: Cord laced or knotted together at regular
 intervals. Generally four feet in diameter with metal weights attached to the cords. The weights give the net greater accuracy when throne. A long cord ran from the net's center to a wrist or hand held thong allowing for quick retrieval.


Scythe: A two to three foot long cutting blade attached to a wooden haft. The blade is set at a right angle from the haft to allow for even cutting. A slender handle is attached to the haft to allow for better control.


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Tiger claws (bagh nakh): The bagh nakh is a metal bar with 3-5 sharp, claw-like blades extending from the base and outwards from the palm of the wearer's hand. The little and forefingers fit through the rings, the bar grasped in the palm.


Water parting shield: This weapon has a thin blade attached at two ends of a wooden handle, two feet in length. The blade is three inches wide where attached to the handle and tapers out to five inches in width. It is often used in pairs.


## WEAPONS, PICK-LIKE

Crowbill: A $31 / 2$ foot beaked hammer mounted on a thick shaft of wood. The "beak" is thick and often four bladed. It serves as the main striking end and is balanced out by a heavy notched hammer. Used against armored opponents, designed to damage armor as much as the flesh beneath.


Dagger-axe (chinese): The dagger-axe is a hafted, short piercing dagger blade set at a right angle, and is about 2 feet in length.
Pick: A tool used for breaking ground or rocks. A three to four foot haft topped by a metal tool pointed at one or both ends.
 Military pick: A $31 / 2$ foot pick. The pointed ends are notched allowing for greater damage to the armor or shield when struck.


Demi-lune (crescent-like, the "half-moon"): Crescentshaped blade mounted so that its tips are facing forward form the shaft (European) or so that its tips are facing the butt of the shaft (Chinese). About 7 feet in length.


Fauchard (sickle or scythe-like): The fauchard is a poleax readily made from simple grain scythes, its wooden shaft 7 to 9 feet in length, the inward curving blade often straightened from its original curve to aid thrusting attacks, and mounted to the top of a long wooden shaft.


Fauchard fork: The fauchard fork has a forward pointing spike, a tine of .5 to 1 foot long set at the back of the fauchard blade to catch, hold, or dismount an opponent. It is about 9 feet in length.


Fauchard-guisarme: A fauchard with a small, curved hook (fluke) added to improve the weapon's thrusting capability. Still a unwieldy weapon requiring much space.


## Feather staff (long and two side blades hidden in staff):

 The feather staff is a four to six foot walking stick with two 16 in . concealed blades. This weapon is usually wielded two-handed.

Fork, military (bident): A polearm approximately 10 feet in length or longer, a lethal 2-tine fork, sometimes with a shorter third point in the center. It is used to pierce plate armor, hold off counted opponents or by castle defenders to push ladders from the walls during a siege. The military fork has reach. You can strike opponents 10 feet away with it, but you can't use it against an adjacent foe.


Glaive (machete-like): This weapon is perhaps the earliest combination of the bill hook and the spear. The Glaive possesses a long slender blade mounted on a haft $51 / 2$ feet in length. The blade varies in length, coming in a wide variety of shapes.


Glaive-fork: The glaive-fork is backed at its base by a metal bat protruding at a right angle, from which bar extends a long and pointed tine so as to form a fork. The angle of the tine is somewhat away from the glaive, so as to offer a wider opening between the two at the business end of the weapon.


Glaive-guisarme: Combining the long thrusting blade of the guisarme with the slender cutting blade of the glaive this weapon served the footman as a formidable weapon as it can be used as a thrusting or cutting device.


Guisarme: Considered a long and beautiful spear. However, its heavy unusually long and heavy blade served the foot man as a pole arm and not as a throwing weapon.


Guisarme-fork: The guisarme-fork is backed at its base by a metal bat protruding at a right angle, from which bar extends a long and pointed tine so as to form a fork. The angle of the tine is somewhat away from the guisarme, so as to offer a wider opening between the two at the business end of the weapon.


Halberd: The halberd, like the glaive, developed from a combination of spear and bill hook. It has a broader axe head and a longer, narrower spike on the top. Similar to a pole axe, however, it had the advantage as a thrusting weapon as well.


Hook-fauchard: Wooden hafted weapon, about 7 feet in length, with a metal hook and a scythe-like blade.


Korseke (spetum-like): A spear-like weapon of c. 8-foot length with side blades to block and catch opponent weapons.


Kwan dao: A broad thin blade with a small crossguard placed on top of a thick wooden shaft. The bottom of the shaft is capped in metal which can be used for striking an opponent, but also works as a counter weight when swinging the weapon.


Lucerne hammer: A polearm with a relatively small, usually three-pointed hammer head at right angles to the shaft, usually backed by a slightly hooked back-spike. Over 9 feet in length.


Man-catcher: A polearm with two crescent-like blades set so that when thrust they encircle the opponent, the blades spring back to make escape difficult.


Monk cudgel: A large mace-like metal head on top of a wooden haft five feet in length.


Monk spade: A small bladed spade on one end and a small crescent-shaped blade on the other end of a thick wooden shaft for a six foot length.


Partizan: A long spear, about six feet in length, to the base of the head of which are small axe-like side blades for striking or catching the weapons of an opponent.


Partizan, ox-tongue: As partizan but with a broader spear point and usually side-mounted axe-heads reduced in size, and with their upper portions pointed outwards in curved form. The weapon is about 6 feet in length.


Pike \& Awl Pike: A sharp spearhead on the end of an 18 to 21 foot pole, good only as a thrusting weapon. These weapons are long and unwieldly and generally best used in large units of troops.

Ranseur (bohemian ear spoon, chauves souris, runka): A type of spetum or partisan..


Saber-axe (curved glaive-and pole-axe like): A heavy, saber-like blade of perhaps two-and-half foot length with a small head at its base, set on a wooden haft of four or so feet length.


Scorpion (bill-guisarme-like): A halberd with a long and thick dagger blade at its top end, and two or three backspikes.


Spear-guisarme: A spear to which is affixed at the base of the head a large hook of guisarme-like sort for catching opponents, and pulling mounted ones out of the saddle. The spear-guisarme has reach. You can strike opponents 10 feet away with it, but you can't use it against an adjacent foe.


Spetum (korseke): A type of ranseur with a unusualy long and slender blade and fork spikes.


Spontoon (c. 5' - 7'): A type of pike with a shorter haft and a thicker head. Not used in mass formations.


Tiger fork: As a trident.


Trident: Any of the three pronged spears. The middle prong is frequently longer the outer two. Ranges in length from 5 to 7 feet.


Voulge (cleaver-like): A cleaver blade on a pole, usually but not always with a top spike of short to dagger-sized length. One is usually about seven feet long.


Voulge-fork: A cleaver blade on a pole, usually with a top spike of short to dagger-sized length. It is backed at its base by a metal bat protruding at a right angle, from which bar extends a long and pointed tine so as to form a fork. The angle of the tine is somewhat away from the voulge, so as to offer a wider opening between the two at the business end of the weapon. The head is smaller and lighter than on a plain voulge, and the shaft of the weapon is longer.


Voulge-guisarme: A cleaver blade on a pole, where the spike is replaced by a guisarme spear head.


Wolf teeth spiked trident: Similar to the trident, but the outer prongs are ridged with points.


## WEAPONS, SPEARS \& SPEAR LIKE

Lance: A long pole, tapered to the end and mounted with a small iron point akin to the pike head. The head of a lance takes on any number of a variety of shapes or designs. Later lances possessed hand guards called Vamplates.


Naginita: (Japanese) Technically a short sword blade attached to a long wooden staff, sometimes called a "woman's spear". Favored weapon with the bushi and monks by the twelfth century. Practitioners use a skill called "ha-kaishi", the ability to change blade position fast, which enables the wielder to slash with devastating sweeping arcs with impressive reach.

Spear (c. 9' $\mathbf{- 1 1}$ '): One of the oldest weapons known to man. A spear is a pole with a point, wooden, stone or metal at one end. It ranges in length and haft thickness. The points range in size, shape and design. There are many variations of the spear, the boar spear with a broad leaf shaped head and short shaft to the string spear with an attached cord allowing for retrieval of prey. Used for throwing or close quarters combat.

Spear, Boar: A shorter spear with a thicker haft, generally 1-3 inches in diameter. The spear point consists of a wide leafe shaped blade. Particularly designed to pin target and hold it.


Spear, Leaf headed: A hunting spear. The short haft and wide head served much the same purpose as the boar spear.

Spear, long (c.12' - 14'): As above though with a longer haft than usual. Predominantly used for setting against cavalry.
Spear, short (c. 6' - 8'): A spear with a thicker, heavier head. Predominantly used for close quarters combat.
Spear, throwing (c. 5'): A lighter spear, with a small, slender head, used for throwing. The throwing spear is a well balanced weapon with the head almost the same weight as the haft.

Spear, Snake: A thick hafted spear marked by the curved blade of the head and point. Particularly designed to cause more damage upon entry and exit.


Spear, Spined: The ridges or spines protruding from the head and point served to entangle both flesh and armor. The spear proved burdensome and difficult to extricate, despite this the spear saw wide spread use as the victims were gnerally incapacitated through wounds or through the spears ability to cling to armor.


## WEAPONS, SWORDS \& SWORDS LIKE

Basket hilt broad sword: See broadsword.


Bastard sword (hand-and-a half): Generally the bastard sword is used one handed, but when in need the wielder can use two hands by way of an extended grip. The sword gains added momentum when used two handed inflicting more damage.


British cavalry sword: See saber below.


Broad sword: Much like the long sword the broad sword is doubled edged and straight. The blade however is shorter and does not taper to a point but rather remains straight until it comes to a point. It ranges about 3 to $31 / 2$ feet in length with a blade width of 1.5 to 2 ".


Celtic iron age sword: The ancestor of the medieval iron sword these were the first swords cast in iron and included such design changes as making the hilt out of the same piece of iron as the sword itself. They range in a wide variety of widths and lengths.


Chinese broad sword: A curved single edged fighting weapon, see scimitar below.


Claybeg (treat as broadsword): Called a Claymore before the 17th century, this 4 foot, two-handed sword has drooping quillions terminating in three or four rings.
Claymore (two-handed): A Scottish version of the twohanded sword, refer to two-handed sword below.


Cutlass: A cutlass is a curved sword about three feet in length with a broad blade, often associated with a pirate's weapon.


Dan-dao: Broad, thick curved, single-edged blade with two handed grip, about 3 feet in length and used primarily for executions. The end of the blade is wider than at the hand guard, with a sloping blunt tip.
Epee: A slender, straight blade of extraordinary length. Recorded lengths range up to 5 feet and indicate that the sword is generally carried from a mounted position. Referred to as the Civic Sword.


Estoc: The Estoc, built after the model of the standard long sword, but with a thinner blade designed for piercing.


Falchion (machete-like): Generally a sword, shorter than a long sword, with one single edge and straight "flat" back. These ranged from the simple thick cleaver swords to more graceful curved swords.


Flameberge: This blade is a two handed weapon with the blade etched as to resemble a waving pattern. This is done in order to lighten the blade and cause more damage to open wounds by tearing as much as cutting.


Flatchet (machete-like): A short, heavy, single-edged cutting sword.
Foil: A fencing tool used to train in the use of the Rapier.


Ghost head broad sword: See scimitar below.


Gladius (short): This Roman-style blade was approximately 2.5 feet in length and 2 inches wide, tapered down to a point.


Great (two-handed): Refer to two-handed sword below.


Great scimitar: See scimitar below. The blade of Great scimitar is 4+ feet in length.


Hanger: A variant of the saber, see below.


Hook sword: A thin bladed sword with a hook on the end of the blade. The grip, which is usually bound in leather, has a hand guard around it that has a crescent shaped blade pointing out away from the grip. Just below the grip, on the end of the sword is a small spike.


Katana (long sword): This weapon is slightly curved, single edged and three feet in length. It is intended to be wielded with either one or two hands, and serve as either a slashing or piercing weapon.


Katzbalger: See short sword below.


Khanda: See long sword below.


Kopesh (sickle-ended): A sickle-like weapon about 2 feet in length, the blade edged on the inside for hacking damage or on the outside curve for slashing wounds (or both). The spine of the weapon heaver than most swords, with the center of gravity centered along the blade.


Kukri, large: A unique "L" shaped weapon of between 2024 inches in length. The
 damage of this weapon is magnified because of the shape, which makes it a great cleaving weapon for its size. On first appearance one would think that the kukri is a weapon to be hurled, but this is not the case. It is an excellent weapon for close quarter fighting.


Long sword: The long sword is the standard weapon of most men-at-arms and warriors. The blade is long, double edged and straight. The edges are separated by a small ridge running down the center of the blade. The hilt and guard of a standard long sword produce a cross, though the shape of the cross guard varies widely as does the shape of


Machete: A large straight-backed blade, wider at the last 8 inches of the weapon, only sometimes curved. Also used for cutting through thick foliage.


Manopele (gauntlet sword with side blades): A two-foot gauntlet-sword with a double-edged blade and two short curved side blades.


Masai Sword: Short, double bladed weapon with central ridge. The point is wider than the base allowing for a deeper cuts.


Moorish long sword: See long sword above.


Nine ring broad sword: A variation of the broadsword, this weapon has nine metal rings along the back. Rings are common accouterments to Oriental weapons. The extra rings protect the sword and add weight to its swing. The rings can cause greater damage by making the cut "dirtier."



Rapier: A long slender blade, very sharp at the point. Predominantly a thrusting weapon with a wide, deep basket to protect the hand. Earlier models were longer and 1 " at the base.


Saber: A single edged sword about 3 feet in length ending in a sharp point. The back of the sword is flat and narrow The saber is preferred by cavalry and is used as a slashing or thrusting weapon.


Schiavona: This basket-hilt weapon because of the grip and hand protection is a favored weapon of the cavalry. Treat as a long sword.


Scimitar: A sword with a curved blade that is larger at the end than the base. It is about 3 feet in length. Some are exaggeratedly larger. The tip broadens into a flat surface. The weight of the blade is cast forward giving it far more force when striking an enemy than a normal saber. The scimitar was not used to parry, that job being left to the shield and in this vane later scimitars abandoned cross guards almost altogether.


Short sword: A double edge sword ending in a point, roughly 2 to 3 feet in length.


Spatha: This refers to the main sword of the Roman cavalry. A slashing sword ranging from 2 to 3 feet in length it much resembled the gladius, having two keen edges and being about $1 \frac{1}{2}$ inches wide at the base.


Sword, small: A small sword is a short and thin-bladed sword worn on "dress" occasions.
Sword breaker: A
weapon of from 18-24 inches in length, it has one edged side and the other is notched down its length to catch opponents blades.
Sword cane: A small, thin, pointed blade sheathed in a cane.


Tachi (medium sword): This is cousin to the "Katana". Both blades are curved, but Tachi are more curved than Katana and have a rounder profile to the tip. The fighting style is different between Tachi and Katana; Tachi is directing the curve over, and Katana directs the curve


Tulwar: A long curved blade similar to a scimitar, though the angle is slightly more exaggerated. The Tulwar, designed for slashing, could be used for thrusting. It is best used mounted. Associated with Indian swords the blades are often decorated with family histories and the like.


Two-handed sword: An enormous sword with a long expanding blade, double edged and pointed. Usually possesses a large hand guard. The blade is very unwieldly in the hands of inexperienced swordsmen. It can be as dangerous to allies standing near as enemies in the front. The blade is carried on the back.


Wakizashi (short): The smaller version of the katana. This weapon is normally 24 inches in length.


Yatigan: A single-edged cleaving weapon with a slightly curved blade, curves inward, and comes to a sharp point. These are normally from 2-2 1/2 feet in length.


Zweihander: See Two-handed sword above.


## WEAPONS, MISSLE

Blow pipe (in small to large sizes): A long tube holding projectile darts that can be fired by force of breath. The darts are often poisoned.


Bow, self (bamboo or wood, in small to large size): One of the earliest tools and weapons a bow is simply a stave of wood, bent by a string attached at its ends. The bow stave can be made from a variety of woods but is best made from wood that is somewhat flexible. The string is usually made of some type of animal sinew. Bows range from long to short, hunting bows to composite bows.


Bow, composite: The composite bow is a bow made in three pieces, the center and wings. The wings are bound with resin to the center and the whole reinforced with horn or sinew. The bow is then pulled backwards in order to make the arc of the bow. The horn on the inside pushes forward as the sinew pulls creating far greater pressure and making the bow that much more powerful.


Bow, foot, composite: As above, but slightly large and made with some manner of " $D$ " ring attachment on the bow's stave for greater power. It must be fired from the prone position.


Bow, foot, self: As above but with a regular bow.
Bow, Japanese Long: An asymetrical long bow with the nocking point $1 / 3$ of the way up from the bottom of the bow. It also has a unique compound construction, being made of five layers of bamboo. It is 7 feet in length and well designed to fire from horseback.
Bow, Long: Longbows are made of yew, the staves being cut in winter when the sap isn't running from either the the heartwood or the sapwood. The staves are seasoned, and worked on over a period of three to four years. They vary in size but the average long bow was about 70 in . with a drawing pull of 75-100 lbs with arrows between 27-36 inches long. It takes some mastering but a trained archer can shoot a dozen arrows a minute. The arrow can wound at 250-300 yards, kill at 100 yards and penetrate armor at 60 yards.


English Long Bow


Japanese Long Bow


Crossbow: There are a wide variety of crossbows, from very small to extremely large. In general a crossbow employs a bow stave mounted horizontally on a stock. The string is pulled back across the stock and held in a notch. An arrow, or bolt is set on the stock against the string. A groove on the stock holds the bolt, in place. A trigger releases the string from the notch and the bolt is fired. The crossbow could be held in a firing position indefinitely. Later crossbows were improved by adding bridles and steel bows. This allows for far stronger bows than any regular bow could achieve. So great is the pull of some crossbows that windlass', pulley mechanisms, were added in order to allow the archer to fire the weapon. This can shoot a variety of heavy bolts several hundred yards with amazing penetrating power. The crossbow can be very bulky and can be slow to load and fire.


Crossbow, hand, repeating (magazine): The repeating crossbow utilizes a lever system that allows the soldier to pull back the string quickly. The soldier pushes forward on the level, it catches the string and pulls it back into a firing position. A magazine is attached to the top of the crossbow, and each time the lever pulls the string back the next bolt falls or rolls into place. The magazine holds 10 to 12 bolts. The bolts of the repeating crossbow have smaller heads than most bolts, usually being made of simple wooden points. "Hand" crossbow does not refer to the size of the crossbow, it is necessary to utilize two hands to load a bolt and fire the weapon. The weapon is generally just over 3' in length.


Crossbow, small, Hand held: As with the normal crossbow above but gripped in one hand.


Crossbow, small, pellet: As above, but fires a small metal pellet. Used primarily for hunting.


Crossbow, small, repeating (magazine-cho-ko-nu): Chinese repeating crossbow usually made of bamboo that can fire up to 12 bolts in 15 seconds. Bolts are often poisoned. Magazine holds up to 12 bolts.
Sling (throwing lead bullet or stone): A simple device
 whereby a stone or
 metal bullet is flung. The sling consists of two straps and two long ends. The wielder attaches one end to the wrist and sets the stone in the strap and hurls it overhead. The gained momentum makes the missile far more accurate and deadly.
Sling, staff (throwing large missile, possibly incendiary): A four foot wooden staff or 3 foot rattan with a sling attached which can arc fistsize or somewhat larger stones, as well as incendiary missiles.

## WEAPONS, MISSLE HANDHURLED

Axe: See above, Weapons axe like.
Bolas: A cord or leather thong with stones attached, with to each end. A second cord with a stone on one end is attached to the center of the first, creating to create a threepronged weapon. The weapon is spun around the head and then thrown at the target's legs.
Boomerang: A wooden throwing stick, generally incapable of returning to the thrower. Can be thrown about 20 meters.
Club: See above, Weapons Club like.
Club, throwing: As above.
Dagger: See above, Weapons Dagger like.
Dart (c. 1'-length weighted missile): A sharpened projectile, usually small or hand held, that is hurled.
Harpoon: A barbed spear or javelin, about 7 feet in length, with a rope or chain attached
 to the shaft for recovery of the weapon.

Hatchet: See Weapons Axe-Like above.
Hurlbat: One-piece, small crescent-bladed throwing axe, sharpened on all points (axe head, pick, top and bottom of handle).
Javelin: A lighter spear-like weapon, used for throwing in combat. The blade of the javelin is often a third again as long as the haft.

Javelin, thonged (for rotation and speed): See Weapons, Spear Like above.


Javelin with launching stick (atlatl): See Weapons, Spear-Like above.


Knife: See Weapons, Knife-Like above.


Pilum: A weapon with a long, pyramidal iron head, the end of the handle flat like the tang of a sword. The pilum is generally thrown as a javelin. The base is intentionally built weaker than the head so as to allow the pilum to bend upon impact and weigh down an enemies shield or armor.

Rock (stone): A mineral projectile weapon. A child's deadliest toy.
Spear: See Weapons, Spear-Like above.
Throwing star (shuriken): Small star-shaped metal disks with sharpened edges used for throwing. The number of points and size of the throwing star varies widely.


Throwing Stick: Any number of forms of specially weighted and usually carved wooden billets used as missiles in warfare and also serving as a club in hand-tohand combat. The boomerang is, of course, a special sort of throwing stick.



## WEAPONS,MISSILE ENGINES

Ballista: The ballista projects bolts or arrows sized dependent on the size of the engine. The power of a ballista is derived from tightly twisted ropes or cords made of horse hair or the sinews of animal necks. The ballista operates on the same principle as the crossbow but is constructed with two or more independent arms, whereas the crossbow is made of only one. The ballista can fire a projectile with a tremendous amount of force and over great distances, up to 400 yards. It could be fired level across an open field at approaching enemy.
Catapult: Like the ballista the catapult derives its power from the tension created in twisting ropes or cords. The catapults range in size from very small to very large and can hurl stones, pots of oil or other objects over great distances, up to 350 yards. The catapult is ideal against fixed targets.
Mangonel (a type of catapult): The mangonel is a torsion engine, also called an Onager, named after a wild donkey but vaguely resembling a scorpion. Used as an anti-personnel weapon, but mostly as a siege engine. About 6 feet high, the "scorpion" would fire heavy stones or pots of burning oil hundreds of feet. Simple to construct in comparison to the Ballista, the mangonel is a common siege engine. It fires larges stones, requiring four men to operate. Once the arm is drawn down almost horizontal, the master artillery man causes a heavy hammer to strike a sharp blow, releasing the arm to project the boulder hard into its target.
Onager: As an Mangonel above.
Pneumatic catapult: An unusual siege engine, operating on the compressed air and piston principle. It is operated by either hammering in the piston or working a pair of lever arms that ratchet back the piston. Triggering releases the cylinder so that the compressed air propels it to strike the missile and send it towards the target. Only relatively small and/or light missiles can be propelled by these devices.
Scorpion: This weapon is referenced as both a ballista and as a catapult.
Trebuchet: The trebuchet differs from its predecessors, the catapult and ballista, in that it uses counterweights to achieve the desired force. The length of the casting arm is proportional to the weight of the counterpoise and range from small to very large. The counterpoise system allows the trebuchets to hurl larger, heavier objects at greater distances and more accurately. Stones recorded as large as 300 pounds up to 300 yards (this required a counter poise of 20,000 pounds and a 50 foot arm). The trebuchet is bulky and required skilled technicians to properly operate, but despite this it was commonly used in the middle ages and used to devastating effect.

## WEAPONS, SIEGE ENGINES

Belfry, movable (siege tower): The Belfry is designed to protect soldiery attacking a wall. Constructed on site these weapons took time to deploy and are generally built to the size of the castle. Some however, were ported from one location to the next. They are many variants, with pivoted roof protection, covered in shingles or hide, etc. They were pushed forward or pulled forward using pulleys and draft animals.
Crow: This device is attached to the castle walls and used by the defending soldiery. It consists of a long counterweighted pole which swings over the besieging troops, hooking them and jerking them off the ground. They are then in danger of being smashed into the wall.
Gallery: A long covered walkway built to give cover for attacking soldiery. Built on wheels for easy transport or carried by men. Like the siege tower it is often covered with wet hides to make it more resistant to fire.
Manopele: A large, mobile shield made of heavy lumber attached to a wheeled carriage that was rolled in front of the extension of a trench to a point beneath an enemy's fortifications, so as to cover the sappers from enemy fire. Easier to maneuver than the sap roller or stuffed gabion.
Mantlet: This large shield can be mounted on wheels or braced on legs. It is used as mobile cover for attacking soldiery. Wheeled forward on the field of battle it creates a covered position from which archers can fire or sappers can mine walls.
Pick (siege): Iron tipped battering ram, swung back and forth to drill a hole in stone and masonry of a fortification. It is an assault engine like the sow, differing in that it is larger, and designed to attack masonry as opposed to wooden doors.
Ram: This most basic siege engine is used to batter down doors or walls. A ram can be as simple as a log wielded by men or be crafted from iron or other metals. The ram is at times put in siege towers or galleries. Ram Catcher: A long pole with a hook or loop attached to it which is lowered from the castle walls in an attempt to disrupt or catch the ram. The ram is then lifted, and if mounted on supports it can be damaged.
Screw: The screw is a form of ram whereby a screwing mechanism replaces the ram. The attacking forces, usually from the cover of a gallery drive the ram into a door and turn the screw, driving the mechanism into the wood. This device takes plugs of wood out of a door, weakening it considerably.
Sow: See Screw above.
Table 1:4 d20 New Weapons
Simple Weapons-Melee


| Table 1:4 Continued |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Weapon | Cost | Damage | Critical | Range Inc. | Weight | Type** |
| Medium-size |  |  |  |  |  |  |
| Assyrian bronze axe | 6 gp | 1d6 | x3 | - | 5 lbs . | S |
| Axe, bearded | 40 gp | 2d6 | x3 | - | 5 lbs . | S |
| Axe, piercing | 15 gp | $1 \mathrm{~d} 8+1$ | x3 | - | 7 lbs . | S\&P |
| Basket hilt broad sword | 20 gp | 1d8 | 19-20/x2 | - | 8 lbs . | S |
| British cavalry sword | 15 gp | 1 d 8 | 19-20/x2 | - | 5 lbs . | S\&P |
| Celtic iron age sword | 10 gp | 1d8 | 19-20/x2 | - | 7 lbs . | S |
| Chinese broad sword | 15 gp | 1d6 | 18-20/x2 | - | 4 lbs . | S |
| Clay beg, Claymore | 100 gp | 3d4 | 19-20/x2 - | 6 lbs . |  |  |
| Crowbill | 10 gp | 1d6 | $\times 4$ | - | 6 lbs . | P |
| Egyptian bronze axe | 6 gp | 1d6 | x3 | - | 5 lbs . | S |
| Estoc | 30 gp | 1d10 | 19-20/x2 | - | 5 lbs . | P |
| Khanda | 18 gp | 1d8 | 19-20/x2 | - | 5 lbs . | S |
| Nine ring broad sword (2) | 18 gp | 1d6 | 18-20/x2 | - | 5 lbs . | S |
| Schiavona | 20 gp | 1 d 8 | 19-20/x2 | - | 5 lbs . | S |
| Sling staff | 5 gp | 1d8 | x 2 | 40 ft . | 2 lbs . | B |
| Large |  |  |  |  |  |  |
| Axe, Jedberg | 10 gp | 1d8+2 | x 2 | - | 7 lbs . | S\&P |
| Axe, Lochaber | 25 gp | 1d10 | x4 | - | 5 lbs . | S |
| Axe, pole | 25 gp | 1d12 | x3 | - | 6 lbs . | S |
| Bardiche | 8 gp | 1d10 | x3 | - | 7 lbs . | S |
| Bec de Corbin (3) | 60 gp | 1d10 | x3 | - | 3 lbs . | P |
| Bill, billhook | 10 gp | 1d6 | x4 | - | 6 lbs . | S |
| Demi-lune | 30 gp | 1d10 | x 2 | - | 5 lbs . | S |
| Fauchard | 5 gp | 1d8+1 | 19-20/x2 | - | 6 lbs . | S |
| Fauchard fork | 10 gp | 1d10 | 19-20/x2 | - | 6 lbs . | S |
| Fauchard-guisarme | 10 gp | 1d8 | x3 | - | 6 lbs . | S\&P |
| Fork, military $\dagger^{\text {a }}$ | 20 gp | 1d10 | x3 | 10 ft . | 7 lbs . | P |
| Glaive fork $\dagger$ | 10 gp | 1d10 | 19-20/x2 | - | 6 lbs . | S\&P |
| Glaive guisarme $\dagger$ | 12 gp | 1d10 | x3 | - | 8 lbs . |  |
| Guisarme fork $\dagger$ | 10 gp | 2 d 4 | x3 | - | 15 lbs . | S\&P |
| Gun stock club | 12 gp | 1d10 | x 2 | - | 10 lbs . | B |
| Hook-fauchard | 30 gp | 1d12 | x 2 | - | 6 lbs . | S |
| Knobkerrie | 10 gp | 1d10 | x2 | - | 9 lbs . | B |
| Korseke ${ }^{\text {a }}$ | 15 gp | 1d6 | x3 | - | 5 lbs . | P |
| Lucerne hammer | 60 gp | 1d12+1 | x4 | - | 8 lbs . | B\&P |
| Man-catcher (4) | 45 gp | Special | x 2 | - | 6 lbs . |  |
| Partizan (5) | 10 gp | 1d10 | x 2 | - | 5 lbs . | P |
| Parizan, ox-tongue | 15 gp | 1d12 | x 2 |  | 5 lbs . |  |
| Pike \& Awl pike $\dagger^{\text {a }}$ | 5 gp | 1d8 | x2 |  | 14 lbs . | P |
| Saber-axe | 10 gp | 1d10 | x3 | - | 6 lbs . | S |
| Scimitar, great | 60 gp | 2 d 6 | 19-20/x2 | - | 15 lbs . | S |
| Scorpion | 20 gp | 1d10 | x3 | - | 5 lbs . | S\&P |
| Spear-guisarme $\dagger$ | 12 gp | 1d10 | x 2 | - | 5 lbs . | P |
| Tetsubo | 8 gp | 1d10 | x2 | - | 10 lbs . | B |
| Voulge | 12 gp | 1d10 | x 2 | - | 6 lbs . | S\&P |
| Voulge fork | 10 gp | 1d10 | x2 | - | 6 lbs . | S\&P |
| Voulge guisarme | 14 gp | 1d10 | x 2 | - | 7 lbs . | S\&P |

## Table 1:4 Continued

## Exotic Weapons-Melee

| Weapon | Cost | Damage |
| :--- | :---: | :--- |
| Tiny |  |  |
| Garrote* (6) | 2 gp | 1 d 4 |
| Haladie: | 5 gp | $1 \mathrm{~d} 4 / 1 \mathrm{~d} 4$ |
| Hat pin | 1 gp | 1 d 2 |
|  |  |  |
| Small |  |  |
| Adz | 3 gp | 1 dd 4 |
| Butterfly knife | 8 gp | 1 d 6 |
| Cat-o-nine-tails (7) | 9 gp | 1 d 4 |
| Ghost head broad sw (8) | 12 gp | 16 d |
| Hanger | 15 gp | 1 d 6 |
| Hook sword (9) | 18 gp | 1 d 6 |
| Jo stick | 6 gp | $1 \mathrm{~d} 6+1$ |
| Kopesh | 35 gp | 2 d 4 |
| Meteor hammer | 8 gp | 1 d 4 |
| Monk cudgel (10) | 4 gp | 1 d 6 |
| Poniard (11) | 50 gp | $1 \mathrm{~d} 4 / 1 \mathrm{~d} 8$ |
| Sai | 20 gp | 1 d 6 |
| Sword breaker (12) | 15 gp | 1 d 6 |
| Tiger claws (13) | 30 gp | $1 \mathrm{~d} 4 / 1 \mathrm{~d} 8$ |
| Tonfa (14) | 8 gp | 1 d 4 |
|  |  |  |


| Critical | Range Inc. |
| :--- | :--- |
| x4 | - |
| x2 | - |
| x3 | - |

Type**

Adz
Butterfly knife
Cat-o-nine-tails (7)
$8 \mathrm{gp} \quad 1 \mathrm{~d} 6$
Ghost head broad sw (8)
Hanger
Hook sword (9)
Jo stick
Kopesh
Monk cudgel (10)
Poniard (11)
Sai
Sword breaker (12)
Tonfa (14)
Medium-size

| Assagai | 2 gp | 1 d 6 |
| :--- | :---: | :--- |
| Bo stick | 2 gp | 1 d 6 |
| Feather staff | 50 gp | 1 d 8 |
| Kiseru (iron pipe) | 3 gp | 1 d 6 |
| Lasso (15) | 1 gp | - |
| Manopele | 25 gp | 1 d 8 |
| Monk spade $\ddagger(16)$ | 15 gp | $1 \mathrm{~d} 4 / 1 \mathrm{~d} 6$ |
| Tachi | 50 gp | 1 d 10 |
| Tiger fork ${ }^{\text {a }}$ | 15 gp | 1 d 8 |
| Water parting shield | 12 gp | 1 d 6 |
| Wolf teeth | 20 gp | 1 d 8 |

spiked trident ${ }^{\text {a }}$
Large
Chinese double halberd
Kwan dao
Naginita ${ }^{\text {a }}$
No-dachi
O-dachi
Sleeve Tangler (17)

| 15 gp | 1 d 10 |
| :--- | :--- |
| 30 gp | 2 d 6 |
| 20 gp | $1 \mathrm{~d} 6+2$ |
| 100 gp | $1 \mathrm{~d} 8+2$ |
| 150 gp | $2 \mathrm{~d} 6+1$ |
| 100 gp | $2 \mathrm{~d} 4+2$ |


| x 3 | - |
| :--- | :--- |
| $19-20 / \mathrm{x} 2$ | - |
| $19-20 / \mathrm{x} 2$ | - |
| x 4 | - |
| x 3 | - |
| $18-20 /$ Special | - |


| 15 lbs. | $\mathrm{P} \& \mathrm{~S}$ |
| :--- | :--- |
| 15 lbs. | S |
| 5 lbs. | P |
| 9 lbs. | $\mathrm{S} \& \mathrm{P}$ |
| 10 lbs. | $\mathrm{S} \& \mathrm{P}$ |
| 7 lbs. | S |

Table 1:4 Continued
Exotic Weapons-Ranged

| Weapon | Cost | Damage | Critical | Range Inc. | Weight | Type** |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Small |  |  |  |  |  |  |
| Aclis | 1 gp | $1 \mathrm{~d} 4+1$ | x 2 | 20 ft . | 1 lb . | B \& P |
| Blowpipe | 1 gp | 1 | x 2 | 10 ft . | 1 lb . | P |
| Bolas | 5 gp | 1d3 | x 2 | 20 ft . | 2 lbs . | B |
| Boomerang | 5 sp | 1d4 | x 2 | 30 ft . | 1 lb . | B |
| Hurlbat | 5 gp | 1d6 | x 2 | 20 ft . | 2 lbs | S |
| Repeating hand crossbow | 350 gp | $2 \mathrm{~d} 4+1$ | 18-20/x2 | 200 ft . | 2 lbs . | P |
| Exotic Weapons (Early Firearms) - Ranged |  |  |  |  |  |  |
| Weapon Cost | Damage | Critical | Range Inc. | Weight | Type** |  |
| Small |  |  |  |  |  |  |
| Flint lock pistol | 200 gp | 1d10 | x3 | 50 ft . | 3 lbs . | P |
| Wheel lock pistol | 250 gp | 1d10 | x3 | 50 ft . | 3 lbs . | P |
| Medium-size |  |  |  |  |  |  |
| Hand cannon $\dagger \dagger$ | 300 gp | 1d10 | x3 | 100 ft . | 12 lbs . | P |
| Arquebus $\dagger \dagger$ | 400 gp | 1d12 | x3 | 150 ft . | 10 lbs . | P |
| Caliver | 450 gp | 1d12 | x3 | 150 ft . | 10 lbs . | P |
| Dog leg musket | 500 gp | 1d12 | x3 | 150 ft . | 10 lbs . | P |

** When two types are given, the weapon is both types.
${ }^{\text {a }}$ If you use a ready action to set this weapon against a charge, you deal double damage if you score a hit against a charging character. $\ddagger$ Double weapon.
$\dagger$ Reach weapon. $\dagger \dagger$ On a roll of one this weapon may backfire doing damage to the wielder.

1. Main gauche: When using the Two-Weapon Fighting feat, +1 to AC against medium sword attacks, and +2 AC against rapiers or other fencing weapons.
2. Nine ring broad sword: +3 bonus to parry and disarm opponents.
3. Bec de Corbin: +2 to hit versus plate armor.
4. Man-catcher: With a successful to hit roll the target must make a Reflex check or be caught, and is considered helpless. The DM may decide to allow no action other than to attempt an Escape Artist roll, or whatever he allows as a substitute. A failed escape inflicts 1d4 damage on the creature.
5. Partizan: +1 to AC against melee weapons when taking a full round action to fight defensively.
6. Garrote: On a successful strike, an opponent must make Reflex save or Escape Artist check or be considered helpless, and takes 1d4 damage each round until free. His attacker may attempt a coup de grace by the third round.
7. Cat-o-nine-tails: Deals actual damage and is not restricted in effectiveness by those having an armor bonus of +1 or better. Does not gain a +2 to disarm as does the whip.
8. Ghost head broad sword: +3 bonus to parry, trip and disarm.
9. Hook sword: +3 bonus to parry, trip and disarm and is often used in pairs. It may be considered a Monk weapon.
10. Monk cudgel: +3 bonus to parry and disarm opponents. It may be considered a Monk weapon.
11. Poniard: Does 1 d 8 damage on a threat role and 2 d 8 on a critical hit ( $20 \%$ breakage vs. metal armor).
12. Sword breaker: +3 bonus to disarm and damage to medium size and smaller melee weapons.
13. Tiger claws (bagh nakh): Does 1 d 8 versus unarmored or helpless foes.
14. Tonfa (Okinawan nightstick): +1 to a round spent in total defense.
15. Lasso: On a successful strike the target is may be entangled unless an Escape Artist or Strength roll is made. Only simple actions may be taken while holding a victim, and may make only one attempt to capture per round.
16. Monk spade: It may also be considered a Monk weapon.
17. Sleeve Tangler: A critical hit disarms an opponent.

## Table 1.5 LA New Weapons

| Striking Weapon | Harm <br> Base | Harm <br> Class | Range/ <br> Radius | Speed <br> Class | Precision <br> Bonus |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Axe, two handed | $9-20$ | penetration | 4 | 9 | 0 |
| Billet, light | $1-12$ | shock | 2 | 3 | 10 |
| Hand w/ <br> metal claws | $3-8$ | penetration | 1 | 1 | 10 |
| Mace, two handed | $11-20$ | shock | 3 | 9 | 0 |
| Man-catcher | $1-8$ | special $* *$ | 5 | 6 | 5 |
| Sleeve Tangler | $1-2$ | special $* *$ | 3 | 4 | 5 |
| Staff, feather $* * *$ | $3-20$ | penetration | 4 | 3 | 10 |
| Sword, gauntlet **** | $1-20$ | penetration | 2 | 3 | 5 |
| Sword, sickle-ended | $8-20$ | penetration | 3 | 8 | 0 |
| Sword, thin, | $1-20$ | penetration | 3 | 3 | 20 |

* Epee, foil, light rapier and dueling saber are in this class of swords.
** See weapon definition in text.
*** This weapon is concealed in a "gentleman's walking stick", a staff-like cane of some four foot length. When the head is twisted and the butt slammed down, a thin blade similar to a short thrusting sword shoots out of the top and locks into place. A pair of stiletto-like side blades also spring forth in a V-shape flanking the main one. It is a two-handed weapon, and a successful parry with it indicates the opponent's hand-held weapon has been caught and torn free, the opponent thus disarmed.
**** As with a feather staff, the gauntlet sword has a pair of side blades. A successful parry with it indicates that the opponents hand-held weapon has been caught and torn free, the opponent thus disarmed.

| Missile Weapon | Harm <br> Base | Harm <br> Class | Range/ <br> Radius | Speed <br> Penalty | Precision <br> Bonus |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Arrow/ bow, foot strong | $6-20$ | penetration | $160 / 480 / 960$ | 5 | $10 / 5 / 0$ |
| Club, spiked, <br> throwing | $3-20$ |  <br> shock | 30 | 3 | 0 |
| Missile, staff-sling * | $1-30$ | shock <br> pilum ** | $-/ 60 / 1808$ | $-/ 0 / 0$ |  |
| penetration \& | 30 | 4 | 0 |  |  |
| shock | $4-20$ |  |  |  |  |

* The staff is of some four foot length and the sling portion can hurl a large rock of up to five pound weight or a container of inflammable liquid (acid). For purposes of determining harm in the latter case, assume the volume of liquid thrown by this weapon is one quart. For acid, roll 1d4 and multiply the result by 9-12 for total Harm delivered to a target. For naphtha use the same system as for acid, with combustible apparel adding another 6-8 points to the total.
** This weapon is harpoon-like in that it is a soft-iron barbed shaft set in a wooden handle. The two pieces are hurled as one, but upon impact they separate, and the iron head bends. Thus it is not returnable as a missile. Note that if the iron portion of the weapon is buried in a shield, it both weighs down the latter and serves as a handle by which the opponent can get a hold on and then pull the shield aside.

Table 1:6 Identifying Name of Weapon Listed in the LA Game Core Rules

## Weapons, Axes \& Axe-like

Axe, bearded (battle axe)
Axe, broad (battle axe)
Axe, piercing (battle axe)
Cleaver, two-handed (great)
Tomahawk (belt axe)
Weapons, Clubs \& Club-like
Aclis (spiked club)
Belaying pin (billet, light)
Billy club (billet, light)
Bludgeon (club)
Bo Stick (staff)
Cudgel (club)
Godentag (club, spiked)
Jo stick (billet, light)
Morning star (club, spiked)
Sap (blackjack, cosh) (billet, light)
Tonfa (billet, light)
Warclub (club or spiked club)
Weapons, Daggers, Knives \& Like
Bottle, broken (knife)
Dirk (dagger, short)
Knife, bowie \& green river (knife, heavy)
Main gauche (dagger, long)
Poniard (dagger, long)
Stiletto (dagger, short)
Weapons, Flails \& Flail-like
Bullwhip (whip 14')
Cat-o-nine-tails (whip, 8')
Flail, two-handed (flail, long)
Nunchaku (flail, shock only)
Weapons, Miscellaneous
Brass Knuckles (hand w/ brass knuckles)
Cestus (hand w/ brass knuckles)
Tiger claws (bagh nakh) (hand w/ metal claws)
Weapons, Pick-like
Dagger-axe (fang) (hammer, Harm class penetration)
Pick (military pick)
Weapons, Pole Arms
Axe, Jedberg (two-handed axe)
Axe, Lochaber (two-handed axe)
Axe, pole (two-handed axe)
Bec de corbin (pole-arm, short)
Bill, bill hook, brown bill (pole-arm, short)
Bill-guisarme (pole-arm, short)
Bardiche (cleaver, great)
Demi-lune (crescent-like) (pole-arm, short)
Fauchard (sickle or scythe-like) (pole-arm, long)
Fauchard fork (pole-arm, long)

Fauchard-guisarme (pole-arm, long)
Fork, military (bident) (pole-arm, long)
Glaive (machete-like) (pole-arm, short)
Glaive-fork (pole-arm, long)
Glaive-guisarme (pole-arm, long)
Guisarme (pruning hook-like) (pole-arm, long)
Guisarme-fork (pole-arm, long)
Halberd (pole-arm, short)
Hook-fauchard (pole-arm, long)
Lucerne hammer (pole-arm, short)
Partizan \& Partizan, ox-tongue (pole-arm, long)
Pike, awl (pike)
Ranseur (bohemian ear spoon) (pole-arm long)
Saber-axe (curved glaive) (pole-arm, short)
Scorpion (bill-guisarme-like) (pole-arm, long)
Spear-guisarme (pole-arm, long)
Spetum (korseke) (pole-arm, long)
Spontoon (c. 5' - 7') (spear, short)
Voluge (cleaver-like) (pole-arm, short)
Voulge-fork (pole-arm, long)
Voulge-guisarme (pole-arm, long)
Weapons, Spears and Spear-like
Naginita (small glaive spear) (pole-arm, short)
Weapons, Swords \& Sword-like
Claybeg (sword, cut \& thrust)
Claymore (two-handed) (sword, cutting, heavy)
Epee (sword, thin, thrusting, above)
Foil (sword, thin, thrusting, above)
Gladius (sword, thrusting, short)
Katana (sword, cut \& thrust)
Kopesh (sword, sickle-ended, above)
Manopele (sword, gauntlet, above)
No-dachi (hand-and-a-half) (sword, cleaving)
O-dachi (two-hand) (sword, cutting, heavy)
Rapier (sword, thrusting)
Saber (sword, cutting)
Scimitar (sword, cutting)
Sword cane (sword, thrusting, short)
Tachi (medium sword) (sword, cut \& thrust)
Tulwar (sword, cutting)
Wakizashi (sword, thrusting, short)
Yatigan (sword, cutting)
Weapons, Missile
Crossbow, small, pellet (stone / rock-thrower)
Weapons, Missile Weapons
Boomerang (throwing stick-returning)
Bow, foot, composite (above)
Bow, foot, self (above)
Bow, self (bamboo or wood) (arrow, various bows)
Sling, staff (throwing large missile) (above)

## MEASUREMENTS

Barrels. Ells. Wagons and Boxes. How much containers hold and how much they weigh, indeed even what is in them can be an exasperating block for any world generation. On the other hand these seemingly simple things can add the touch of reality and even culture to your story. The region is much depressed and the merchants are hawking a peck of wheat for as much as a bushel in other lands. The cloak draped the noble dwarf in over an ell of the holy cloth. These are details which etch a tale in the audience's mind.

What follows are a gathering of some measurements, weight and capacities of certain things. These are followed by two random generating charts so that the laborious process of choosing what is in those old dust covered barrels stacked in the small room is all the more easy.

Measurements, Unusual
Barrel $\quad 10,752.1$ cubic inches (five bushels)
Bowshot 220 yards (660 feet)
Bushel $\quad 2150.42$ cubic inches
Bushel, heaped 2748 cubic inches
Cable length 240 yards ( 720 feet)
Chain 22 yards ( 66 feet)
Chain, square $\quad 16 \mathrm{sq}$ rods, $4,356 \mathrm{sq} \mathrm{ft} 1,$,452 sq yards
Caldron 36 bushels
Clove $\quad 7$ pounds (one-half stone)
Ell (of cloth) 27,45 , or 54 inches running yards
Gill $\quad 4$ ounces, $1 / 4$ pint
Imperial gallon 1.2 gallons (77 ounces opposed to 64)
Knot (speed)
League
Nautical mile
c. 1.15 miles per hour 3 nautical miles, or c. 3.55 land miles 6086 feet
Peck ( $1 / 4$ bushel) 537.605 cubic inches (about 23.5 inches square)

## Weight of Certain Goods

## Cotton bale

Cotton, sea island, sack
Hay, new, truss of
Hay, seasoned, truss of
Hay, wagon load of
Straw, truss of
Straw, wagon load of

400 pounds
300 pounds
60 pounds (rectangular bale)
50 pounds (rectangular bale)
36 trusses
40 pounds (rectangular bale)
36 trusses $=1,440$ pounds

One cubic yard of the following things weighs in lbs
Hay, clover, old
Hay, clover, new-mown
150
Hay, new in windrows
200
Hay, loaded from loft or stack into wagon 175
Hay, in loft or old haystack 250
Straw, average kind 100

## Wool weights

Sack 22 stone or 308 pounds
Pack (for horse) 17 stone and 2 pounds or 240 pounds
Tod 2 stone or 28 pounds
Wey $\quad 5.5$ tods; $1 / 2$ sack, 11 stone; 154 lbs.

## Volume of Things

Bricks, 27 ( 8 " $\times 4$ " $\times 2$ ") is equal tol cubic foot
Wood pile $8^{\prime} \times 4^{\prime} \times 4^{\prime}(128$ cubic ft$)$ is 1 cord Earth, 1 cubic yard ( 3,250 pounds weight) is 1 load Timber, logs ( 40 cubic feet at $2,000 \mathrm{lbs}$ ) is 1 load Timber, squared ( 50 cubic feet at $2,000 \mathrm{lbs}$ ) is 1 load Stone ( 24.75 cubic feet) is 1 perch
Ship tonnage volume ( 42 cubic feet) isl ton cargo See Ship's Cargo Tonnage Weights, above

## Container Capacity, Box or Wagon Box

To find the volume of a container multiply the length in inches by the width in inches by the depth in inches. If any of these measurements vary, use the largest and the smallest, added together and divided by two for the average of that dimension. This gives the total capacity in square inches.

To find the capacity in cubic feet, divide the number of square inches volume by 1728 ( $12 \times 12 \times 12$ ).

To find the capacity in bushels, divide the number of square inches volume by 2150.42 .

## Examples of Capacity

Box 16 " x $24 "$ x 28 "
Box $24 "$ x 24 " x 14 "
Box 12 " x $11.5 "$ x 3 "
Box $8 "$ x $8 "$ x $8.4 "$
Box $8 " \times 8 " \times 4.2 " \quad$ one gallon (dry measure)
Box 4" x 4" x 4.1" one quart (dry measure)
Wagon bed 12 ' x $3 L^{\prime}-4 R^{\prime}$ slope $\times 3$ '
126 cubic feet/ 101.25 bushels capacity
Wagon bed 10 ' $\mathrm{x} 4^{\prime} \mathrm{x} 2$ '
80 cubic feet/ 64.3 bushels capacity
Wagon bed $10^{\prime} \times 4^{\prime} \times 1.5^{\prime}$
60 cubic feet $/ 48.2$ bushels capacity
Wagon bed $8^{\prime} \times 3.5^{\prime} \times 1.25^{\prime}$
35 cubic feet $/ 28.1$ bushels capacity
Wagon bed $6^{\prime} \times 3.5^{\prime} \times 1.5^{\prime}$
31.5 cubic feet/ 25.3 bushels capacity

| Containers, Barrel-like |  |
| :--- | :---: |
| Barrel | 30 to 45 gallons |
| Butt | 175 to 190 gallons |
| Cask | very small to large |
| Cade | 10 to 15 gallons |
| Demijohn | 5 to 8 gallons |
| Firkin | 7.5 to 15 gallons |
| Hogshead | 100 to 140 gallons |
| Keg | 15 to 30 gallons |
| Kilderkin | 15 to 20 gallons |
| Pipe | 110 to 130 gallons |
| Pottle | 0.5 gallon |
| Puncheon | 70 to 85 gallons |
| Runlet | 12 to 18 gallons |
| Tierce | 40 to 45 gallons |
| Tun | 252 gallons |

## Random Generator for what goods may be found in a Container

| 1. | Acid |
| :--- | :--- |
| 2. | Ambergris |
| 3. | Armor |
| 4. | Armor, Head Coverings \& Helmets |
| 5. | Armor, Shields |
| 6. | Arms |
| 7. | Arrows |
| 8. | Bags |
| 9. | Bath \& Accessories |
| 10. | Beads |
| 11. | Bedding |
| 12. | Brass ware items |
| 13. | Bronze ware items |
| 14. | Brush |
| 15. | Bulbs (plants) |
| 16. | Camping gear |
| 17. | Candles, beeswax |
| 18. | Candles, tallow |
| 19. | Candles, wax |
| 20. | Candles, whale oil |
| 21. | Ceiling Decoration (small) |
| 22. | Charcoal |
| 23. | Cleaning Implements and Supplies, Household |
| 24. | Clinkers (burnt coal) |
| 25. | Clocks \& Watches |
| 26. | Cloth \& Clothing Material Types |
| 27. | Clothing |
| 28. | Coal |
| 29. | Coins |
| 30. | Containers, small |
| 31. | Copper ware items |
| 32. | Cord |
| 33. | Costume jewelry |
| 34. | Crystals |
| 35. | Curios |
| 36. | Darts, blowgun |



Phial. Baldric. Zucchetto. A host of goods, things of all shapes and sizes, litter the everyday lives of the high and low alike. From the most trivial to the most necessary these goods form the stock-in-trade of the lives of all those folk who pass through your setting or story. These are the items that bring a touch of the concrete to tale. What folk eat and wear, what strange items they may decorate their lives with.

Welcome to the Bazaar of Bazaars.

## GOODS

## Bottle

Canteen
Carafe
Decanter
Ewer
Flask
Gourd
Jar, narrow-mouthed
Jug
Phial
Pitcher
Pottle
Wine skin

## Box

Bread box
Can
Canister
Cash box
Cedar chest
Crate
Case
Filing box
Foot locker
Hatbox

## Jar

Hope chest
Lock box
Music box
Pillbox
Pot (small)
Powder box
Puzzle box
Sea chest
Strong box
Tinder box

Box, decorative
Caddy
Casket
Coffer
Jewelry
Music
Puzzle
Shadow

## Camping Gear

Axe, belt
Backpack
Bag
Bedroll
Belt pouch
Binoculars
Canteen
Compass
Cord
Cup
Fishhooks
Fishing line
Fishing pole
Flint \& steel
Gourd, drinking
Ground cloth
Hammock
Hatchet
Knife, sheath
Lantern
Machete
Pan
Pot
Rope
Rucksack
Sack
Shoulder pouch
Snare (cord, rope, string or wire)
Telescope
Tent, small
Tinder box
Trap, metal animal, large


Trap, metal animal, small
Walking staff
Wallet
Wineskin

Cleaning Implements and Supplies, Household
Basket (cleaning item portage)
Basket (trash removal)
Broom, floor
Broom, whisk
Brush, clothing
Brush, scrub
Brush, upholstery
Bucket
Cloth, chamois
Cloth, polishing
Dust cloth
Dust mop
Dust pan
Duster, feather
Holly stone
Lye
Mop, cloth (rag)
Mop, string
Oil, furniture
Pail
Polish, furniture
Rag, cleaning
Rug beater
Sand, clean
Soap
Sponge, cleaning
Vinegar
Wax, floor
Wax, furniture
Wax, stone
Wash board
Wash tub

## Clocks \& Watches

Carriage, clock (portable)
Carriage, clock (portable), striking and chiming quarter hours
Carriage, clock (portable), striking the hour
Mantle clock
Mantle clock, striking and chiming quarter hours
Mantle clock, striking the hour
Small clock


## Table 1:7 Cloth Patterns

Appliquéd: One material attached or fastened to another by sewing, etc.
Checked: A crisscross pattern, a pattern of squares.
Color spotted (tweed): A wool fabric with a rough surface, in a plain, twill, or herringbone twill weave of two or more colors or shades oft he same color.
Dots (tiny to large): A pattern of spots ranging from tiny to large and often containing a combination of sizes.
Embroidered: Fabric adorned with ornamental needlework or figures.
Latticed: Embroidery in imitation of a lattice, or resembling or suggesting such a network as in heraldry, a bearing of horizontal and vertical crossbars.
Lozenged (diamond): Divided by transverse diagonal lines into equal lozenges or squares of different tinctures.
Parti-colored: Having different colors indifferent parts of the fabric.
Plaid: Cloth with a checkered or crossbarred pattern
Plain: Not dyed, colored, variegated, or ornamented with a pattern or figure.
Printed*: Fabric printed with a design.
Stripes with faint checking in them: Self explanatory.
Stripes, diagonal (thin, narrow, medium, wide, mixed width): Self explanatory.
Stripes, horizontal (thin, narrow, medium, wide, mixed width): Self explanatory.
Stripes, vertical (thin, narrow, medium, wide, mixed width): Self explanatory.
*Motifs include: animals, birds, butterflies, flowers, fruits, geometrical shapes, leaves, leaves and flowers, mystical symbols, weapons.

Cap, soft
Cap, stocking
Cap, round (campaign/sailor)
Cap, round, billed (campaign/sailor)
Cap, tented (soldier's)
Cap, tented (soldier's), billed
Casque
Coif
Cowl (of other garment)
Crown
Fez
Hat, conical crown (short to high)
Hat, conical crown (short to high), brimmed (narrow to broad)
Hat, cylindrical crown
Hat, cylindrical crown, brimmed
Hat, flat crown, brimmed
Hat, hemispherical crown
Hat, hemispherical crown, brimmed
Hat, onion-like crown (short to high)
Hat, onion-like crown, brimmed
Hat, oval crown (short to high)
Hat, oval crown (short to high), brimmed
Hat, pagoda-style crown (short to high)
Hat, pagoda-style crown (short to high), brimmed
Hat, pyramidal crown (short to high)
Hat, pyramidal crown (short to high), brimmed
Hat, rectangular crown (short to high)
Hat, rectangular crown (short to high), brimmed
Hat, square crown (short to high)
Hat, square crown (short to high), brimmed
Hat, triangular crown (short to high)

Hat, triangular crown (short to high), brimmed Helm
Helmet
Hume
Hood
Kepi
Kerchief (babushka)
Scarf
Shako
Tarboosh
Tiara
Torque
Tricornered
Turban


## OUTER GARMENTS

Apron: A cloth or tunic wrapped around the front of the body and tied in the rear.
Bases: An embroidered mantle worn by knights on horseback, reaching from the middle to below the knees; a kind of ordnance.
Bib: A small piece of cloth worn by children.
Blouse: A loose upper garment, or shirt, worn by peasants. Usually long sleeved.
Breeches: Trousers which reach to the knee.
Burnoose: The outer cloak or garment worn in the Middle East and North Africa. It has a hood. The whole is usually made of one piece.
Caftan: This is a floor length garment with at least elbow length but usually wrist length sleeves.
Cannons: A style of decorating breeches in the $16^{\text {th }}$ and $17^{\text {th }}$ centuries. The hem is decorated with ornamentation. Cape (long, short): A garment without sleeves, fastened at the neck and hanging over the back and shoulders. Sometimes attachable to a coat.
Cloak (with, without cowl): The cloak is an outer garment. They range in size from knee to floor length. They are generally good in bad weather.
Coat: A sleeved outer garment opening down the front and extending to just below the hips.
Coat, frock coat: A double breasted coat and with long full skirts in front and back worn by men.
Coat, overcoat: As above, but covering other garmnents
Coat, tail coat: As above, with tails.
Coat, top coat: As above, but applies to suits or tuxedos.
Codpiece: An ornamented bag or flap appended to the front of the tight breeches worn by men.
Doublet: The doublet is a close fitting jacket worn by a man, it is made with or without sleeves.
Dress: That which is used for covering or ornament of the body, generally any clothing consisting of a skirt and waist, in one garment.
Dressing gown: A loose robe for wear when one is undressing or lounging.
Frock: A monks cowl or habit. Also, can be the principle outer garment for a girl, such as a dress or gown.
Gloves: Outer covering for the hands.
Gown: A long generally loose outer garment, specifically a women's dress, a man's dressing gown or night gown.
Hose: Formally a tight fitting outer garment covering the hips, legs and feet, attached to the doublet by cords or ribbons but only extended to the knees or ankles.
Jack: A rough, inexpensive medieval coat of defense, esp. one made of leather.
Jacket: A short coat, usually with sleeves.
Jerkin: A close-fitting hip-length usually sleeveless jacket.


Jersey: A soft elastic cloth knitted of wool, cotton or silk. Jupon: A sleeveless jacket worn over the armor.
Kilt: A short pleated skirt reaching to the knees.
Kirtle: A woman's under-dress. It can be worn without a gown indoors or while working. It is cut fairly close to the body, with long, tight sleeves. The most closely fitted styles are reserved for the wealthy, as they are more tailored and require help in dressing.
Lederhosen: Leather pants which extend to the knees, and are supported by suspenders. Generally associated with traditional German dress.
Leggings: A covering of canvass, leather, etc for protecting the legs.
Mantle: A long sleeveless cloak made of fine materials and worn over clothing. An integral part of noble court dress (as opposed to cape, a utilitarian garment worn to protect from cold and rain) it was usually fastened at the neck with ribbons or clasps.
Mittens: A muff or a thick glove.
Negligée: Evening wear for women.
Oilskin: A cloth made waterproof by treatment of oil.
Pantaloons: Trousers fastened below the calf or strapped below the boots, trousers and hose together.
Pants: An outer garment extending from the waist to the knees and ankles and separated to accommodate the legs. Partlet: A rectangular piece which fills in the square neckline of a low necked bodice.
Parka: A fur jacket or heavy long woolen shirt, often lined with pile or fleece with an attached hood for protecting the head from the cold.
Peignoir: A woman's dressing gown.
Pinafore: A sleeveless usually low-necked garment fastened in the back and worn as an apron or dress.
Poncho: A cloak-like a blanket with a hole in the middle for the head.
Puttees: A covering for the lower leg in the form of a cloth or leather gaiter, or a cloth strip wound spirally.
Robe (with, without cowl): An outer garment worn over other garments. They are generally short, being waist length. Though some are longer and have sleeves
Ruff: A high frilled or pleated collar of starched muslin worn by men and women in the $16^{\text {th }}$ and $17^{\text {th }}$ centuries.
Sari: A long cotton or silk garment worn by Hindu women to wrap around the body with one end over the head, usually the chief garment.
Sash (shoulder): A band or scarf worn around the waist or over the shoulder for ornament. Sometimes used as a symbol of distinction by men.
Scarf: A long broad piece of silk or other cloth worn about the neck, head or shoulders as an ornament or to give warmth and protection.
Shirt: Any of various cloth garments worn by men, often under a coat or jacket.
Skirt: That part of a garment as in a robe, dress etc. that hangs below the waist.
Smock: A coarse linen frock or shirt especially of the kind worn over the coat by European farm laborers.

Stole: A long, narrow decorated scarf with fringed extremities worn by officiating clergy. Rank is often determined by how the stole is worn.
Surcoat: An outer coat or gown. Also, a loose short cloak worn over armor.
Tabard: A name for the early garment (which existed even before Roman times) which evolved into the cote/ cotehardie/kirtle. Usually built on a "T" pattern, with various sleeves, fit, and embellishment depending on period. The most basic of garb.
Tights: A tightly fitting garment for the legs.
Trousers: See pants above.
Vest: A short tight fitting sleeveless garment worn under a suit coat by men, a waistcoat. Also an insert or trimming worn under the bodice by women.
Waistcoat (sleeved or sleeveless): Also called wescot. A sleeveless garment which extends just below the waist and fastens in front.
Wrapper: A woman's dressing gown.

## UNDERGARMENTS

Bustle: A pad that woman wear on the lower back in order to fill out the figure. Also, a large bow of material worn over the waist.
Chemise: A short slip or long undershirt, loose, worn by women under their garments or as bed clothes.
Diaper: A cotton or linen cloth woven in a pattern formed by repeating small diamond shapes.
Garters: An elastic band or tie that is worn about the thigh and suspended from the undergarment from which stockings are suspended.
Linen: Any garment made of flax. Generally all medieval under garments are made of some form of linen.
Loincloth: A cloth worn about the waist and loins, more associated with primitive societies.
Pantaloons: Tight trousers fastened below the calf or strapped under the boots. Sometimes refers to the combination of trousers and hose in one garment.
Petticoat: This garment is a skirt, but specifically a skirt worn under a gown or dress. Usually for young women and children.
Slip: A woman's undergarment, roughly the length of a full sized dress.
Slip, half: As above, but only waist long.
Stockings: A close knit garment made to cover the feet and legs. They are of cloth.
Undershirt: A shirt worn beneath the jacket or blouse. Usually loose fitting with front ties and full length sleeves.

## ECCLESIASTICAL

Alb: A white tunic or vestment that reaches to the feet. Amice: An oblong white linen cloth worn like a collar around the neck. It is pulled over the head, the upper edge attached under the $a l b$. The Amice can also be pulled up and worn as a hood.

Apron: A cloth or tunic wrapped around the front of the body and tied in the rear.
Berretta: Also Birretta, Biretta. A square cap with three projections on the top. The color often denotes the rank of the clergy. In the Roman Catholic Church a Cardinal wears a scarlet berretta, a Bishop a purple and a priest a black.
Black gown: See Gown below.
Buskins: A boot or shoe which covers the ankles, rising halfway to the knee. It is laced and or strapped to the ankle or leg. The toes are sometimes exposed.
Calotte: A small rimless, snug cap. A skull cap.
Cap: A type of head covering that fits snugly over the head and brow. The ecclesiastical cap is generally one that has ear flaps and ties under the chin.
Capuche: A type of cowl, with a long, pointed hood. It covers the head and shoulders. Associated with monks more than any other type of clergy.
Cassock: A long close fitting garment, generally dark, and worn as an outer garment or under the surplice or gown.
Chasuble: This hooded garment is a sleeveless, outer garment worn over the alb during religious ceremonies.
Chimer: Like the chasuble this garment is a long sleeveless tunic worn over the priest's garments.
Cloak: The priestly cloak is hooded and worn over all the other vestments. They range in length from knee length to floor length. Their color corresponds to the color of the priest's other garments.
Cope: Similar to a cap, wrapping around the shoulders and upper torso of the priest.
Cotta: A short surplice (see below).
Cowl (of other garment): A hood that ranges in length and complexity. A simple hood fits around the head, others have longer pointed tippets and so on.
Dalmatic: A floor length, wide sleeved garment with open sides. This vestment denotes rank and can be worn under the chasuble.
Fanon: A type of head dress. In some usage it is the same as the maniple.
Frock: An outer robe, made of wool and generally heavy and weather resistant. Worn by monks or nuns.
Gown: The official dress worn by clergy. Long, floor length and rather loose.
Hood: A type of head dress that covers the whole head, sometimes including the face. Worn in both ceremonial and everyday circumstances.


Table 1:8 Furs

| Fur Type | Where Available | Rarity* | Uses |
| :--- | :--- | :--- | :--- |
| Bear | arctic, subarctic, temperate | common | cloak, floor, wall, shelter |
| Beaver | temperate, lakes, waterways | plentiful | cape, jacket |
| Cheetah | subtropic, tropic, savanna | rare | clothing, floor covering, wall hanging |
| Chinchilla | mountain regions | extremely rare | cape, jacket, trimming (boots, clothing) |
| Cougar | See Mountain Lion. |  |  |
| Ermine | temperate | common | cape, jacket, trimming (boots, clothing) |
| Fox | temperate | common | cape, jacket, trimming (boots, clothing) |
| Jaguar | subtropic, tropic | rare | clothing, floor covering, wall hanging |
| Lamb | temperate, subtropic, tropic | plentiful | bedding, clothing |
| Leopard | temperate, subtropic, tropic | occasional | clothing, floor covering, wall hanging |
| Leopard, snow | arctic, subarctic | rare | clothing, floor covering, wall hanging |
| Lion | subtropic, tropic, savanna | occasional | clothing, floor covering, wall hanging |
| Lion, mountain | temperate, subtropic, tropic | scarce | clothing, floor covering, wall hanging |
| Lynx | subarctic, temperate | occasional | clothing, floor covering, wall hanging |
| Marmot | subarctic, temperate, lakes | scarce | trimming (cape, clothing, jacket) |
| Mink | temperate, lakes, waterways | rare | cape, jacket, trimming (boots, clothing) |
| Ocelot | temperate, subtropic, tropic | rare | clothing, floor covering, wall hanging |
| Otter | temperate, lakes, waterways | common | bedding, cloaks (boots, clothing) |
| Puma | See Mountain Lion. |  |  |
| Rabbit | subarctic, temperate | plentiful | bedding, cloaks, trim (boots, clothing) |
| Sable | subarctic, temperate | extremely rare | cape, jacket, trimming (boots, clothing) |
| Seal, fur | subarctic, temperate, oceans, seas | occasional | cape, jacket, trimming (boots, clothing) |
| Tiger | subarctic, temperate, subtropic | occasional | clothing, floor covering, wall hanging |
| Wolf | arctic, subarctic, temperate | common | bedding, cloak, trim (boots, clothing) |
|  |  |  |  |

Lawn sleeves: A term which refers to the sleeves of a higher clergyman, particularly a bishop. They are attached to the upper robes.
Maniple: The glorified handkerchief worn on the left wrist of the Priest. It is often attached with a pin to the cuff or sleeve of the alb.
Mantle: Any loose fitting garment that is worn over other cloths, usually shorter and lighter than a cloak.
Mitre: The mitre is a kind of folding-cap. It consists of two like parts, each stiffened by a lining and rising to a peak; these are sewn together on the sides, but are united above by a piece of material that can fold together. Two lappets trimmed on the ends with a fringe hanging down from the back. The Mitre comes in a variety of sizes, some being very large with high pointed peaks.
Phylactery: A small leather case containing holy scriptures. They are carried or attached to the body. In the Jewish faith one is fastened with leather thongs to the head the other to the wrist.
Robe: An outer garment worn over other vestments. They are generally short, being waist length. Though some are longer and have sleeves.

Sandals: Light shoes laced or tied around the ankle. Unless some form of stocking is worn the foot remains exposed to the elements.
Scapular: A sleeveless outer garment that hangs from the shoulders and sometimes has a cowl. It sometimes refers to a badge worn by affiliates of certain religious orders, consisting of two pieces of cloth joined by shoulder bands and worn under the clothing on the chest and back.
Scarf: A long embroidered rectangular cut of cloth that is worn about the neck or draped across the shoulders.
Shovel hat: A broad-brimmed hat, turned up at the sides and projecting in front like a shovel.
Skullcap: A tight fitting cap.
Stole: Also, orarium. A long band which the Priest wears around his neck and hanging down in front of him or in some cases it is worn over the left shoulder.
Surplice: A loose fitting, white ecclesiastical gown with wide sleeves, worn over a cassock. It is of plain white fabric with decorative work about the throat and hem.
Tiara: The triple pointed crown worn by higher clergy. The tiara is tall and white with embroidery around the edges and folds. Worn by the Pope in Roman Catholic tradition.
Tippet: The long hanging part of a hood or cowl.
Tunic: A loose, gown-like garment worn by men or women.
Zucchetto: The cap worn by clergy under the berretta.

CONTAINERS, LARGE
Bag
Bale
Barrel
Basket
Basket, bushel
Bin
Box
Cauldron
Chest
Crate
Hamper


Jar, large
Locker, foot
Pot, large (ceramic, metal, etc.)
Sack
Sack, tow
Trunk
Tub

CONTAINER, TRAVEL
Bag
Bag, carpet
Bag, duffel
Bag, shoulder
Basket
Box
Box, hat
Case
Hamper
Pack, back
Pannier
Portmanteau
Pouch
Sack
Sack, rucksack
Saddle bags
Suitcase
Satchel
Trunk
Valise
Wallet

SMOKING, TOBACCO PIPES ET AL.
Ashtray
Cigar
Cigar cutter
Cigarette
Cigarillo
Hookah
Humidor
Match
Narghile
Pipe, brass
Pipe, briar

Pipe, calabash
Pipe, clay
Pipe, corncob
Pipe, meerschaum
Pipe, stone
Pipe reamer
Smoking stand
Snuff
Snuff box
Tobacco, chewing
Tobacco (various kinds)
Tobacco pouch

## HANDICRAFT OBJECT

Basket/container, woven
Bone carving
Ivory carving
Jewelry, bone
Jewelry, claws/teeth
Jewelry, nut
Jewelry, shell
Mat, woven
Sandals
Stone carving
Wood carving
JEWELRY
Ankle chain
Anklet
Arm band
Armlet
Bangle
Belt
Bracelet
Broach
Buckle
Button
Choker
Collar
Earring(s)
Locket
Medal
Medallion
Navel jewel
Neck chain
Necklace
Pendant
Pin
Ring
Tiara
Toe ring
Torque
Waist chain


## MEDICINES

Aperitif: An alcoholic drink that is generally taken before meals in order to stimulate the apetite.
Balm: A fragrant or aromatic ointment which is used in healing or in anointing.
Bolus : A large pill, associated with veterinary medicine, though can refer to human medication.
Bracer: Something that binds or braces, as in something used to set bones. This could be things as simple as sticks or as elaborately designed supports.
Capsule: A small gelatinous shell or envelope containing a dose of medicine.
Cream: A cosmetic or emulsion made like a resin.
Curative: A thing which is used in the act of healing, curing a disease or any similar action.
Decoction: The act of boiling a substance in water in order to extract the flavor, essence etc. One of the many processes by which elixirs, potions, poultices etc are made. Digestive: Any substance which can aid digestion.
Elixir: A tincture or medicine consisting of a sweetened alcoholic solution of a small quantity of the drug or drugs thus compounded. It also refers to magical substances, such as a philosophers stone, magic potion, etc.
Emollient: A preparation or medicine that has a softening or soothing affect on surface tissues.
Essence: A substance that keeps intact, in a concentrated form, the fragrance, essence or any other property of the plant or body from which it was extracted.
Extracts: The concentrated matter which remains after any substance is treated and broken down. Also the chemical which was once believed to be the basis of all vegetable matter.
Fortifier: A substance which strengthens the potency of an existing medicine through longevity or additives.
Gel: A jellylike substance formed by a colloidal solution in its solid phase.
Herbal: Being the use of herbs, which is a collection of plants dried and preserved.
Infusion: The liquid extract that results when a substance is infused in water. Also, an admixture or tincture.
Liniment: An oil medicine, a type of liquid ointment, which is commonly used to treat ailments of the skin, particularly in case of muscular bruising.
Lotion: A preparation that is applied to the skin in order to clean it or to stimulate some kind of action, such as relieving pain and so forth.
Lozenge: A type of pellet or pill that is generally associated with curing ailments of the mouth or throat.
Mixture: A liquid medicine which contains insoluble matter suspended in some viscid substance.

Nostrum: A medicine whose ingredients are kept secret in order to protect its contents, usually for commercial reasons. Also associated with quack medicines.
Oil: Any of a host of greasy substances obtained from the extracts of minerals, animals or plants. Oils are liquid at room temperature but soluable in certain organic solvents such as ether or alcohol, but not in water.
Ointment: A fatty substance applied to the skin for healing or cosmetic purposes, salves and the like.
Panacea: A supposed cure for any hurt, disease or crippling ailment. A type of herb as well, called Allheal. Pastille: A pellet of aromatic paste used for burning. The fumes are associated with curative powers.
Philtre: A portion or type of charm used to bring about magical affects, cures and otherwise. Most commonly associated with love potions.
Pill: A small ball or pellet of medicine to take orally.
Plaster: A pasty preparation spread upon the body for curative reasons. Also can be used as an irritant.
Potion: A drink, most commonly referred as magical. Potions are also medicinal or poisonous.
Poultice: A mass of soft, usually warm, substance made from any number of sources (flour, pulp, resin, bran, etc) and applied to sores, ailments, etc.
Refresher: A lotion, poultice, potion or similar substance which refreshes strength, relieves exhaustion and so forth.
Represent: A lotion, poultice, potion or similar substance which numbs pain, slows the spread of disease .
Restorative: A lotion, poultice, potion or similar substance which restores bodily health, mental or physical.
Salve: Any medicinal ointment applied to wounds, irritated skin and the like.
Simple: A medicine obtained from the extracts of an herb. It refers to herbal lore's teaching that all vegetable matter possessed some type of medicinal quality.
Spirit: Any of certain substances which permeate the human body organs. Also referred to in alchemy as any number of chemical solutions such as sulfur.
Solution: To combine one or more substances together. Most commonly associated with liquids.
Stimulant: A lotion, poultice, potion or similar substance that, once applied, draws a reaction out of the subject.
Syrup: A thick liquid medicine that is generally sweetened with sugar in order to make it more palatable.
Tablet: A small flat piece of medicine that is taken orally.
Tincture: The medicinal substance within any given solution, particularly associated with alcohol.
Tonic: A lotion, poultice, potion or similar substance which is mentally or morally invigorating.
Wash: Wash, a medicinal liquid meant for broad external application on some portion or the whole of the patient's body.

## MUSICALINSTRUMENTS

Bagpipe: A wind instrument consisting of a bag, a doublereed melody pipe, and one or more drone pipes. No highlander can do without it's sweet sounds.
Balalaika: A string instrument consisting of a triangular body, a fretted neck, and three strings.
Bandor: A stringed instrument consisting of six to seven strings, a fretted neck, and a scalloped body. Related to the lute.
Banjo: A string instrument with a hollow circular body that is covered with a diaphragm of vellum.
Bass: A large string instrument that produces very low tones. The largest member of the violin family.
Basset Horn: A relative of the clarinet that is larger and creates a richer tone.
Bassoon: A long bodied wind instrument that produces low tones.
Bells: Cup shaped instruments that emit metallic sounds when struck.
Bombardon: A brass instrument that has nine to twelve woodwind like keys along its side that was designed to carry the lowest tone of the brass family of instruments. It has been replaced with the tuba.
Bugle: A brass instrument that resembles a trumpet without valves.
Calliope: An instrument that uses keys like a piano to play steam whistles.
Castanets: A rhythm instrument consisting of a pair of shells that are clapped between the fingers to play.
Celeste: A keyboard instrument that uses hammers that strike metal plates to make notes.
Cello: A string instrument that looks similar to the bass, but is slightly smaller and makes tones in a higher pitch.
Chimes: A set of bells specially tuned to the musical scale.
Cittern: A small-flat backed string instrument that is played by plucking the strings.
Clarion: A type of trumpet with a clear and shrill.
Claves: Short hardwood sticks that are tapped together to make sound.
Clavier: A small accordion with a hexagonal shape that uses buttons for keys.
Cornet: A brass instrument that resembles a trumpet. Cornets are typically slightly smaller than trumpets.
Diggery-do: A straight natural trumpet without its own mouthpiece. Traditionally made of a eucalyptus branch that is hollowed out by termites, stripped of its outer bark and beeswax is used to form a mouthpiece.
Double bass: A string instrument that resembles the bass. The double bass is larger and creates deeper tones than the bass.
Drum: A percussion instrument consisting of a hollow cylinder with membranes stretched tightly over one or both ends. Striking the membrane plays the drum.
Drum, bass: A large type of drum that gives loud, deep sounds when played.

Drums, kettle: A drum consisting of a copper pot with a membrane stretched across the top opening.
Drum, snare: A drum with wires stretched across the bottom that increase reverb.
Dulcimer: An instrument with varying length strings, stretched over a sound box. Dulcimers are played by either plucking the strings, or striking them with padded mallets.
Euphonium: A smaller and higher pitched version of the tuba. Often seen in military processions.
Fife: A small high-pitched flute. Fifes are most often seen accompanying drums in military processions.
Flageolet: Also known as the tin whistle due to its metal construction. A whistle with six finger holes that is a member of the recorder family.
Flute: A tubular wind instrument that produces highpitched sounds.
Gittern: A plucked string member of the guitar family. The gittern has four strings and the rounded back of a lute. Glass harmonica: Invented by Ben Franklin. The glass harmonica is based on the principle of vibrating wine glasses. It consists of a series of glass bowls without stems that rotate in a tray of water. The musician touches the rims of the bowls, causing them to vibrate and make sound.
Glockenspiel: A percussion instrument consisting of a series of metal bars that is played with a pair of light mallets.
Gong: A percussion instrument consisting of a large metal disk.
Harmonica: A small rectangular instrument made of metal and wood played by inhaling or exhaling through its row of reeds.
Harmonicon: A Scottish instrument consisting of 65 pieces of slate, cut to different sizes. These pieces form a musical scale and are played by striking the stones with wooden mallets. The sheer size of this instrument requires three performers to operate it.
Harmonium: A keyboard instrument that resembles an organ that uses metal reeds to create sounds.
Harp: A string instrument consisting of an upright frame with strings. The strings are plucked to create sounds.
Harpsichord: A keyboard instrument that utilizes quills to pluck the strings to make sound.
Hautboy: Also known as the oboe. A woodwind instrument with a double reed.
Horn: An ancient wind instrument originally made from wood or animal horn. The horn evolved into a spiral shape to reduce its length making it easier to use during hunting. Horn, alpine: A horn made from wooden strips bound with birch bark. It can be straight or bent and is usually around three to ten foot in length. Most often used as a signal, it can also play simple melodies.
Horn, English: Neither English, or a horn, this instrument is a large oboe with a bulb shaped bell.

Horn, French: A horn with keys that change the length of the tubing, thus changing the sound allowing for multiple notes to be played.
Kanteel: An ancestor of the dulcimer. The kanteel consists of a music box with various strings stretched across the top. Lute: A plucked string instrument from the guitar family. It consists of a short fretted neck, a round back, and a body with a shape something like a pear.
Lyre: Related to the harp. The lyre consists of a sound box with strings strung perpendicularly to it. Two arms connect the soundbox to the yoke. The yoke supports the strings opposite of the soundbox.
Mandolin: A plucked string instrument that has four strings that are tuned like a violin. The fingerboard is fretted and played with a pick like a guitar. The instrument has the rounded back of a lute.
Marimbas: A percussion instrument, similar to a xylophone, only with a mellower sound.
Mellophone: A wind instrument similar to a trumpet except for its large bell and larger piping. Most commonly seen in marching bands.
Mouth harp: A bow shaped instrument that is placed against the cheek and plucked causing the vibrations to travel through the performer's mouth. To change the tone of the instrument, the performer simply changes the shape of his mouth.
Musette: A simple small bagpipe. Musette can also refer to an ancient form of oboe.
Oboe: A woodwind instrument with a double reed. The oboe creates a mellow, reedy sound.
Organ, pipe: A large keyboard instrument that uses air passing through various lengths and combinations of pipe to make sound.
Organ, reed: Much like the pipe organ except that the pipes are replaced with reeds that make sound much like a clarinet.
Panpipes: An instrument consisting of a series of small pipes bound together from smallest to largest and stopped at the bottom. Blowing across the ends of the pipes plays the instrument.
Piccolo: A smaller flute that creates much higher tones than the standard flute.
Plectrum: A piece of ivory or other material used to pluck stringed instruments.
Psaltery: An ancestor of the dulcimer. A soundbox with various strings stretched across the top that are plucked or bowed.
Rattle: A percussion instrument consisting of a shell filled with beans or other similar items that makes a rattling sound when shaken.
Rebab: A small lyre shaped instrument formed from a single piece of metal with a small metal strip that forms a

Tom-tom: A small drum with two heads. Commonly used in jazz music. A favorite of beatniks.
Triangle: A percussion instrument consisting of a metal bar bent into the form of a triangle. The triangle produces a high-pitched sound when struck.
Trumpet: A brass instrument with three valves and a cup mouthpiece.
Tuba: A large member of the brass family, the tuba produces very low tones.
Tympani: Also known as a kettledrum. A membrane is stretched over a large copper kettle. This drum creates loud, low tones.
Vielle: Also known as a hurdy-gurdy. An ancestor of the violin. Most often used by the upper class of the middle ages.
Viol: The ancestor of the double bass. This six-string instrument had a sweeter sound than today's violin family. Viola: Similar to a violin, only larger. The viola is the second highest pitched instrument of the violin family.
Violin: A bow stringed instrument. The violin has four strings and is played with a bow or can be plucked. The body of the instrument has sound holes and is slightly bulged. The body is longer than the neck.
Virginal: A keyboard instrument similar to the harpsichord. It has a set of strings that run parallel to the keyboard.
Weiro: A percussion instrument made from a dried gourd with a serrated edge. Scraping the edge with a stick creates a rasping sound.
Whistle: A basic wind instrument with few if any finger holes and a simple mouthpiece.
Xylophone: A percussion instrument with a row of wooden bars arranged in the manner of a piano keyboard. The bars are supported with a metal frame over resonator tubes. The blocks are struck with hammers to produce sound.
Zitar: A plucked string instrument of Indian origin. The zitar is constructed of a long fretted neck with a round body made of teak wood. Its main resonator is made of a pumpkin.
Zither: A string instrument consisting of a wooden frame over which two sets of strings are stretched. Five of the strings are used for melody while the rest are used for harmony.


## SADDLE, TACK, \& HARNESS

Bit: The mouthpiece of a bridle, which is used to control the speed of the horse, determine the direction the horse is traveling and to stop the horse, while keeping the horses head in its natural position.
Bridle: The bridle is made up of the following piece: Reins - which are held by the rider to guide the horse, Crownpiece - which fits over the horses ears and helps to hold the bridle on, Browband - which sets on the horses forehead and helps hold the bridle on, Noseband - fitting around the horses nose helping to hold the bridle on, Cheekpiece - which attaches to the bit and the crownpiece and holds the bit to the bridle, Throatlatch - going under the horses jaw and attaches to the crownpiece helping hold the bridle on, and Bit - which attaches to the reins and the cheekpiece.
Collar: The section of the harness that fits across the withers and over the shoulders of a draft animal that is used for the purpose of restraint.
Halter: A rope or strap with a noose or a headstall for leading or restraining horses or cattle. The halter fits around the horse's neck, and when tied, runs behind the ears, down the head and forms a nose band.
Harness: The combination of straps and bands which make up the working gear of a draft animal. The pieces of the harness are as follows: Crownpiece (see Bridle), Front - which runs in front of the ears and helps to keep the harness on, Blinker - the horse's blinder, one on each side of the harness, Cheek Strap, Noseband (see Bridle), Bit (see Bridle), Sidecheck - connects to the bit, and runs back along the body attaching to the harness, Throatlatch - a strap that runs under the horse's throat and helps hold the bridle in place, Reins (see Bridle), Hame - One of two pieces lying on the collar that are attached to the traces, Collar (see above), Martingale - a strap that fastens to the girth, runs between the forelegs, through a loop in the hame fastening to the noseband, which is used to steady and hold the horse's head down, Hame Tug - a short leather strap attaching the trace to the hame, Bellyband, Breeching passes around the horse's haunches, Trace - one of the two ropes, chains or straps that wagon, cart, etc. is drawn by a harnessed draft animal, Crupper - a leather strap used to keep the harness from slipping forward, Hip Straps, Saddle - a leather strap that runs across the draft animal's back and attaches to the bellyband, Terret - a round loop attached to the saddle of a harness and the reins pass through these.
Lance Rest (or Socket): A leather sleeve or wooden socket into which a rider may rest a lance. The weapon is still in an upright position and has only to be pulled up and out to be removed.

Lariat: A long rope ending in a noose used to catch horses and other livestock. Also referred to as a lasso. A lariat is also a rope used to picket animals.
Quirt: A riding whip with a short, stout stock, usually made of wood, and extended from the stock is a short lash of braided leather.
Saddle (riding): A seat for a rider on the back of a horse or other animal. The riding saddle consists of the following: Pommel - the front part of saddle, sometimes having a knob, Seat, Cantle - the back part of the saddle which usually curves upwards, Panel - the part that runs under the seat, Skirt - a leather flap on each side of the saddle covering the metal bar where the stirrups hang, Girth - a strap that runs underneath the horse that keeps the saddle in place, Stirrup Leather - a leather strap that is secured under the skirt and hangs down holding a stirrup, Stirrup - the place where the rider places his foot to mount the horse and during riding.
Saddle bags: A large pair of bags, normally made of leather, used to carry the rider's possessions. these bags are either hung from or laid over the saddle.
Saddle blanket: A cloth pad placed beneath the saddle which is used to protect the horse's back from the abrasiveness of the saddle.
Saddle pad: See blanket above.
Saddle, roping/working: More than a seat for the casual ride, this saddle is made tougher for more endurance. This one has a wider seat to be able to stay in the saddle better,
as herding. The skirt is more pronounced, and the cantle rises a little higher for more stability. The working saddle also contains the following: Back Jockey - a thick piece of leather that runs under the seat for more support, Saddle Strings - to tie equipment to the saddle (rope or tools), Flaps - these run down the side of the saddle covering and protecting the stirrup leathers.
Saddle, sidesaddle: This saddle is made specifically for women. When using a side saddle, the woman would sit facing forward with both feet on the left side of the horse. Saddle, war (high back): This saddle is made more for staying on your mount than for simple comfort. The area of the pommel and the cantle both flare up, and the seat is placed lower than in a normal saddle in order to keep the rider mounted whether from reaching out to attack another horseman or footman, or absorbing an attack himself and trying to stay mounted. The stirrup leathers are thicker as well as longer. This will allow for the extra weight and these can be extended to allow for balance and stability for swinging weapons from a mount. A scabbard for the warriors blade is usually attached, as well as a lance rest (see above).
Traces: See Harness above.
Whip: See Quirt above.
Yoke: The yoke is used for joining together draft animals, normally a pair of oxen consisting of a crosspiece, and two bow-shaped pieces, each for holding the head of an animal. A yoke can also refer to a pair of draft animals fastened together with a yoke.

Shovel
Sickle
Spade
Straight edge
Tongs
Vise, metal
Vise, Wood
Wedge, splitting
Whetstone
Zax (slate axe)

## Fasteners

Banding
Bolt \& nut
Nail
Peg
Pin
Pin, cotter
Rivet
Screw
Strapping
Washer

Special Tools for Construction
Block \& tackle
Crane
Crane, skewing
Gantry
Inclined plane
Lever
Pulley

Tools, Burglars, Thieves
Awl, straight
Bolt/chain cutters
Brace \& bits (metal and wood)
Chisel, metal
Clamp(s)
Crowbar, large
Crowbar, small
Files, metal (flat, round, triangular)
Glass cutter
Grappling hook \& fine, strong rope
Hammer
Jack (screw, small and up)
Jimmy, large
Jimmy, small
Knives (small, medium, and large)
Lantern, hooded
Lantern, hooded bullseye
Lock picks (assorted, two or more instruments)


| Meal | Poor | Common | Good | Extravagant |
| :---: | :---: | :---: | :---: | :---: |
| Breakfast | 5 cp | 1sp | 3sp | 11sp |
| Dinner | 1 sp | 3sp | 10sp | 2gp |
| Supper | 5 cp | 2sp | 6sp | 18 gp |
| Lodging Costs/Person |  |  |  |  |
| Time | Poor | Common | Good | Extravagant |
| One Night | 3sp | 6sp | 11 sp | 2 gp |
| One Week | 11sp | 1 p | 6gp | 9 gp |
| One Month | 2gp | 4 gp | 9 gp | 18gp |
| Rental Costs/Month, Furnished, City |  |  |  |  |
| Room | Poor | Common | Good | Extravagant |
| One Room | 1 gp | 2gp | 5gp | 10 gp |
| Two Room | 2 gp | 3 gp | 7 pp | 12 gp |
| Three Room | 3 gp | 7 g | 9gp | 14 gp |
| Five Room | 7 gp | 12 gp | 15 gp | 20gp |
| Eight Room | 12 gp | 15 gp | 20 gp | 28 gp |
| Small Villa: Same as Fiver room. |  |  |  | $\mathrm{d} 2 \mathrm{l}$ |

Metal saw, large
Metal saw, small
Nippers, small
Pole, cap for, with blade
Pole, cap for, with hook
Pole, cap for, with spring clamp
Pole, metal telescoping

## Razor

Saw, wire blade with wooden handles

## Screw driver

Skeleton key(s)
Treble hook, small, and cord
Wedge(s)

## TOYS

Balls and jacks
Balls, foot
Balls, large
Balls, small
Blocks, wooden
Boats, wooden
Castle, miniature
Chalk \& slate
Dollhouses
Dollhouse furniture
Dolls
Figures, animal, wooden
Figures, human, wooden
Hoop \& stick
Horses, rocking
Jack-in-a-boxes
Kites
Marbles, agate
Marbles. clay
Marbles, glass
Puppets
Ships, miniature, wooden, floating
Ships, miniature, wooden, wheeled bottom
Soldiers, toy, wooden (various kinds,
mounted and afoot)
Swords, wooden
Vehicles, miniature, wooden
Wagons, toy

## TAVERN

Mead. Cheese. Poultry. Long table boards filled with comrades in arms drinking stout beer, feasting on wheels of gouda cheese, slow-roasted chicken basted in sweet ale, baked cinnamon apples, steaming loaves of hot, crusty bread, fresh from the oven. Mounds of fresh-churned butter, creme, mint sauce and pastries. All finished off with the finest port gold can buy.

Talking, conversation, sitting around "jawing," gives you the opportunity to give personality to your tale's characters, to cloth them in more than linen and cloth. Food and drink are essential to setting the atmosphere for your audience and more than any other tool draws them to the table and the realities of the tale.

BEVERAGES, ALCOHOLIC

## Beer

Ale
Ale, bitter
Ale, brown
Ale, pale
Beer
Beer, bock
Beer. dark
Beer, lager
Beer, red
Beer, pilsener
Beer, porter
Beer, white
Malt liquor
Mead
Stout (beer)
Liquor and Liqueurs
Absinthe
Aqua vita
Brandy (sparkling wine)
Brandy (wine)
Brandy, armagnac
Brandy, cognac

Brandy, fruit (any, wine-brandy)
Brandy, ginger (wine-brandy based)
Calvados (apple brandy)
Cider, hard
Gin
Gin, aromatic
Gin, flavored (lemon, mint, orange)
Gin, golden
Gin, sweetened
Kirsh wasser
Kumiss
Mescal
Pernod
Pulque
Raki
Rum, dark
Rum, dark, sweet
Rum, dark, sweet, spiced
Rum, golden
Rum, golden, sweet
Rum, light
Slivovitz
Tequila, golden
Tequila, white
Vodka
Vodka, flavored (grape, lemon, etc.)
Vodka, herbed
Whiskey, barley and malt (scotch)
Whiskey, barley and malt (scotch), sweetened
Whiskey, barley and malt (scotch), sweetened and herbed
Whiskey, barley, malt, grain spirits
Whiskey, blended, barley, corn, rye
Whiskey, blended, straight whiskeys
Whiskey, blended, straight whiskeys and neutral spirits
Whiskey, straight corn (bourbon)
Whiskey, straight corn (bourbon), herbed and spiced
Whiskey, straight rye
Whiskey, straight, barley
Whiskey, straight, rye, fruited
Whiskey, straight, wheat

## Cordial*

Crème de cacao
Crème de cassis
Crème de menthe
Crème de yvette
Kummel
Liqueur, almond
Liqueur, banana
Liqueur, cherry
Liqueur, chocolate
Liqueur, coffee

Liqueur, herbed, bitter
Liqueur, herbed, sweet
Liqueur, orange
Liqueur, peach
Liqueur, pecan
Liqueur, pineapple
Liqueur, tea
Liqueur, walnut (nocha del strege)
Peppermint schnapps
Sloe gin
*Actually the same as a liqueur, grain or other neutral spirits, or redistilled wine or liquor of some sort mixed with an infusion of a sweetener and one or more of the following flavoring agents: fruit, flower, herb, nut, plant, root, seed, spice.

## Wine

Grappa
Port (fortified)
Red (grape), dry
Red (grape), herbed
Red (grape), dry, resined
Red (grape), semi-sweet
Red (grape), semi-sweet, spiced
Red (grape), sweet
Rose (grape), dry
Rose (grape), dry, resined
Rose (grape), semi-sweet
Rose (grape), semi-sweet, spiced
Rose (grape), sweet
Sangria
Sherry (fortified)
Sparkling (grape), dry
Sparkling (grape), semi-sweet
Sparkling (grape), sweet
Vermouth, red, dry
Vermouth, red, sweet
Vermouth, white, dry
Vermouth, white, sweet
White (grape), dry
White (grape), dry, herbed
White (grape), dry, resined
White (grape), semi-sweet
White (grape), semi-sweet, herbed
White (grape), sweet
Wine, beet
Wine, berry, sweet (various kinds)
Wine, flower, sweet (various kinds)
Wine, fruit, semi-sweet
Wine, fruit, sweet (various kinds)



| Walleyed pike | Seeds | Peppermint | Squash，butternut |  |
| :---: | :---: | :---: | :---: | :---: |
| Whitefish | Caraway | Rose hip | Squash，zucchini |  |
| Whitebait | Poppy | Rosemary | Sweet potato |  |
|  | Pumpkin | Sassafras | Tomato |  |
| Ocean | Sesame | Savory | Turnip |  |
| Amberjack | Squash | Spearmint | Turnip green |  |
| Anchovy | Sunflower | Thyme | Watercress |  |
| Bass，sea |  |  | Yam |  |
| Blow fish | Soup，Stew，et al． | Vegetables \＆Legumes | Zucchini |  |
| Blue fish | Aspic |  |  |  |
| Bonita | Bisque | Vegetables | Legumes |  |
| Cod | Borscht | Artichoke | Bean，black |  |
| Dolphin（fish） | Bouillon | Asparagus | Bean，butter |  |
| Flounder | Broth | Bamboo shoot | Bean，chili |  |
| Grouper | Chowder | Bean，green | Bean，kidney |  |
| Hake | Consume | Bean，wax | Bean，lima |  |
| Halibut | Fruit soup | Bean sprout | Bean，navy |  |
| Herring | Goulash | Beet，green | Bean，pinto |  |
| Mackerel | Grits | Beet，red | Bean，red |  |
| Mullet | Gumbo | Beet，sugar | Bean curd，soy |  |
| Ocean perch | Matelote | Broccoli | Garbonzo（chick pea） |  |
| Octopus | Mush | Cabbage | Pea，black－eyed |  |
| Pilchard | Oatmeal | Carrot | Pea，yellow－eyed |  |
| Red snapper | Pease porridge | Cauliflower |  |  |
| Rockfish | Poisson | Celery | Foodstuffs，Sweeteners |  |
| Roughy | Porridge | Chard | Honey |  |
| Shark | Potpourri | Chard，red | Marzipan |  |
| Squid | Pottage | Collard green | Molasses（treacle） |  |
| Swordfish | Puree | Corn（maize） | Sugar，beet | ＊ |
| Tuna | Ragout | Cress | Sugar，cane |  |
| Turbot | Slumgullion | Cucumber | Sugar，maple |  |
| Tunny | Stew | Eggplant | Syrup，corn（maize） |  |
|  | Stock | Endive | Syrup，maple |  |
| Caviar | Vichyssoise | Garlic |  |  |
| Lumpfish |  | Kale | Herbs \＆Spices：See Book | － |
| Salmon | Tea \＆Herbal Tea | Kohlrabi | Two Geographics |  |
| Sturgeon | Black tea | Leek |  | 洨这 |
|  | Green tea | Lettuce，head | Spices | 8 |
| Crustaceans | Oolong tea | Lettuce，leaf | Allspice |  |
| Crab | Tea，flowered | Mustard green | Angelica | ＋ |
| Crayfish | Tea，fuited | Okra | Cinnamon |  |
| Lobster | Tea，minted | Onion | Cinnamon，oil of |  |
| Prawn | Tea，spiced | Parsnip | Clove |  |
| Shrimp |  | Pepper，hot | Clove，oil of |  |
|  | Herbal Tea | Pepper，sweet，green | Cumin | ， |
| Miscellaneous | Anise | Pepper，sweet，purple | Ginger |  |
| Sea cucumber | Anise－hyssop | Pepper，sweet，red | Licorice root | n |
| Sea urchin | Bee balm | Pepper，sweet，yellow | Licorice，oil of |  |
| Turtle | Calendula flower | Potato | Mace |  |
|  | Catnip | Pumpkin | Nutmeg |  |
| Shellfish | Chamomile | Radish，black | Paprika |  |
| Abalone | Cinnamon－basil | Radish，red or white | Pepper，black | 新 |
| Clam | Hyssop | Rutabaga | Pepper，red | 令 |
| Cockle | Lemon balm | Salsify（oyster plant） | Pepper，white | ， |
| Conch | Lemon thyme | Scallion | ＊ |  |
| Mussel | Lemon verbena | Spinach | 1 mog | M |
| Oyster | Marigold | Squash，acorn | （ a m |  |
| 59 |  |  | Abs－0． |  |

## TRANSPORT

Rickshaw. Trawler. Longship. Movement is as vital measurement in any setting. How goods, packed in boxes, or sacks, loaded in barrels or carted in baskets are transported can set the level of technology of your setting or story. If they ply the waters in an old skiff or a lumbering cog, or thunder through the ocean's waves on the long, sleek, shield-rimmed longship, these modes of transportation are vital to knowing your world.

The following short catalogs address first land born transport and a listing of barges, boats and ships.

## VEHICLES

| Buckboard | Phaeton |
| :--- | :--- |
| Buggy | Rickshaw |
| Carriage | Sedan chair |
| Cart | Shay |
| Cart, dog | Sled |
| Cart, goat | Sledge |
| Chariot | Sleigh |
| Coach | Sulky |
| Dray | Surrey |
| Hackney | Trap, pony |
| Landau | Wagon |

## VESSELS, WATER

## BOATS

Barge: A large flat bottomed freight boat used on inland waters. Also a pleasure boat, used for state ceremonies and pagents.
Barge, canal: As above.
Barge, commercial: As above.
Barge, sailing: As above.
Bull boat: A shallow saucer skin boat used especially by plains Indians for transport of persons and possessions.
Bumboat: A small boat used to pedal provisions to ships anchored off shore.
Canal boat: A boat used on canals for carrying freight and is usually long and narrow.
Canoe: Any light boat narrow in the beam and compelled by paddles.
Canoe, double: As above, for two people.
Canoe, dugout: As above, but fashioned by hollowing out a $\log$.


Canoe, outrigger: Any of a variety of frameworks extending beyond the rail of the canoe for balance or other purpose.
Catboat: A one masted sail boat with its mast placed far forward.
Cockboat: A small row as Bumboat above.
Curragh: This boat is constructed of animal skins attached to a wicker frame, often a circular shape and operated by paddles.
Cutter boat: A term which embraces a variety of vessels, has a mainsail and two foresails. It refers to old fashioned rigs with vessels with a long bowsprit.
Dingy: A ships small boat used as a tender, the smallest boat on a ship of war.
Dory: A small narrow, flat bottom fishing boat with high sides and a sharp prow.
Ferryboat: A boat used to transport passengers or goods across a body of water.
Flyboat: A swift flying sailboat.
Gaiassa (Nile): A wall-sided canal barge in build, with a lofty and pretentious-looking stem, and a disproportionately vast rudder. Of Asiatic origin, and Arab build and rig with splendid lateen sails.
Gigboat: A small boat from which fisherman trawl for fish with gigs, long lines with attached hooks.
Gondola: A long, narrow canal boat with a cabin in the middle and a high pointed prow and stern. It is propelled by a pole or oar at the stern.
Hoy: A small sloop rigged coasting ship.
Jolly boat: A small ship's boat, hoisted at the stern. Used for rough work or minor tasks.
Kayak: A boat made by covering a wooden framework with seal skin with a hole in the center top of the boat.
Launch: A large ship's boat.
Life boat: Any of a number of small boats carried by larger ships.
Long boat: The longest boat carried by a sailing ship, especially a merchant ship.
Muletta : A double ended fishing craft, concave bottom giving it more stability and adjustable for achieving control over the hull when fishing.
Nuggar (Nile): The traditional sailing vessel of the lower Nile, they are two masted with a very large lateen sail on the mainmast and a smaller one on the mizen.
Pinnace: A small vessel navigated with oars and sails and having generally two masts which are rigged as is a schooner.
Punt: A flat bottomed boat whose floor resembles a platform of a floating stage and used either in repairing the bottom of ship.
Raft: A number of logs, boards, barrels etc fastened together into a platform.
Rowboat: A small boat propelled by oars. Usually holds one to four people.
Sampan: An Asian skiff, usually propelled by oars.
Scow: A large, flat bottomed boat, with square ends used for transport.

Shallop: A large, heavy boat with two masts and carrying 'fore and 'aft or lug sails. A small open boat fitted with oars or sails or both used in shallow waters.
Skiff: A long, narrow rowboat especially one with a center deck, outrigger and a small sail.
Smack: A fishing boat sailing under various rigs and often having a well, used to transport the fish catch to market.
Stern boat: A boat set to the stern of a larger ship.
Trawler: A vessel used for trawling, dragging long fishing lines on the ocean floor or through the water.
Umiak: See Kayak.
Wherry: A decked, sailing vessel of shallow draught used for the transport of small quantities of freight.
Zarrook: A small settee rig cargo carrier or fishing vessel. The rudder operated by a rope fastened to its lower part, later replaced by a tiler.

## SHIPS

Baggala: A large craft between 100 and 400 tons used as a cargo carrier or a man of war mounting 20 guns. Uses two masts, the mainmast set forward.
Barque: A sailing vessel with three masts, square rigged on the fore and main and fore and aft rigged on the mizen.
Barquentine: A vessel resembling a Barque but square rigged on the fore mast only.
Brig: A two masted sailing ship, square rigged on both masts.
Brigantine: A two masted vessel with square rigged sail on the fore mast and fore and aft rigged on the main mast.
Caique: A small, sailing vessel used in the eastern Mediterranean. Also, as a row boat in the Middle East.
Caracora (double-outrigged on one side): A long, narrow sailing boat or canoe.
Caravel: Any of several types of small, light sailing ships, especially one with two or three masts and lateen sails used by Spanish in the $15^{\text {th }}$ and $16^{\text {th }}$ centuries.
Carrack: A larger type of trading vessel developed as a compromise between the typical square rig of the northern European nations and a lateen rig of the Mediterranean.
Coaster: A vessel employed in sailing or in trading from port to port along a coast.
Cog: A small sailing craft used for local commerce, mostly rivers.


Corvette: A sailing warship, smaller than a frigate usually armed with one tier of guns.
Cutter: A sailing vessel with a main sail and two fore sails and have a long bowsprit.
Dhow: A trading vessel of 150 to 200 tons, lateen rigged on a single mast.
Dragonship: See long ship.
Felucca: A small sailing vessel used for coastal transport of trading, propelled by oars and/or lateen sails.
Frigate: A high speed, medium sized sailing war vessel with two or more tiers of guns.
Galleass: A three masted galley with guns on either side with sails and oars.
Galleon: A large three masted sailing ship, with a square rig. It has two or more decks. Used for mercantile or war purposes.
Galley: A large, single decked medieval ship of shallow draft, propelled by sail and oars. Used for mercantile or war purposes.
Galliot: A light swift galley or light, flat bottomed singled masted merchant ship.
Junk (barge): A flat bottomed ship with flattened sails. It has a high stern and square bows with two or three masts carrying lugsails often made of matting stiffened with horizontal battens.
Ketch: A two masted, fore and aft rigged, sailing vessel with a mizen mast stepped aft of a taller mainmast but forward of the rudder.
Longship: A double ended, single sailed vessel, with an open hold. Its low draft allows it access to rivers. Used extensively for long distance travel, raiding and transport.
Lorcha: A type of junk built on western lines.
Lugger: A sailing vessel with a lugsail rig normally two masted except when used for smuggling or as privateers, when a mizen was stepped right aft.
Merchantman: Any type of galley.
Packet: A boat that travels a regular route between ports as along a coast or river.
Polacre: A ship or brig with three masts that are usually lateen rigged on the fore and mizen and square rigged on the main.
Prahu mayang (cargo): A swift Malayan sail boat with a triangular sail and a single outrigger.
Prahu, flying: As above.
Sambuk: A fast, narrow gutted craft, close relation of the caravel. Two masted, the huge main was hoisted on a foward mast. Used as a man-of-war and slaver. A small carrying capacity.
Schooner: A fore and aft rigged sailing vessel having at least with a fore mast that is usually smaller than the other

Sloop: A sailing vessel with a single mast fore and aft cag rigged with a single head sail.


Snow: Generally the largest of all two masted vessels. The sails and the rigging of the mainmast and foremast are similar to that of a ship except that there is a final mast behind the mainmast which carries a sail resembling the mizan of a ship.
Sperona: A small, open boat with a single mast fitted forward and setting a spirit rigged sail.
Tartane: A small coasting vessel, a development of the terrette with a single mast and a lateen mainsale and a small foresail on the bowsprit and carried by about 30 men.
Tchektirme: A cargo carrier with a rig draws on at least two traditions, being a mixture of easily handled sails and complex sails.
Vinco: A three masted vessel but setting a large lateen mainsail amidships, a smaller mizen aft with square sail on her foremast.
Whaler: Any of the large two or three masted vessel with large carrying capacities, used for long distance travel and whaling.

Xebec (chebek): A small three masted vessel with both square and lateen sails.
Yacht: Relatively small sailing vessels with smart, graceful lines used for cruises or raising.
Yawl: A two masted fore and aft sailing vessel similar to the ketch with a smaller mizen mast stepped abaft the rudder.


## BOOK TWO GEOGRAPHICS

He stood thus for a great while, until the earth rumbled and exploded. In the great column of fire which rose above the land he saw the beauty of his creation: the rivers, the mountains, the skies. $\sim \sim$ The Codex of Erde

## GEOGRAPHY

Torrential downpours. Dome Mountains. Groves and arroyos. In order to construct a setting that is both fantastic and believable it is necessary to conceive the setting itself. Whether your heroes tread through sylvan glades or live upon a mountain's rocky slopes the tone is set by the terrain you describe and the language you use to describe it. Geography is the root of your setting, the building block of all that comes after.

What follows is an examination of clouds and storms, terrain and other useful items that play into the creation of the physical setting for your fantasy adventure or soon to be written novel.

## ATMOSPHERE, SKY \& WEATHER

## Clouds

Black: These dark clouds often form as a result of upper layers blocking the sun and making lower clouds appear black. This is often a sign of rain.
Brown: This cloud color is seen mostly in windy areas, where dust is coloring the clouds after being blown up from the earth.
Cirro-cumulus: This cloud formation is a high altitude formation usually in the shape of ripples or grains. Also called mackerel sky.
Cirro-stratus: High altitude covering of clouds that is thin, hazy and often produces a halo effect.
Cirrus: This is the most elevated of all the cloud formations. It often appears like thin bands and has been called both mare tails and cat-tails.
Cloud bank: Name given to a large layer of clouds viewed from a distance.
Cumulus: These are the large clouds, often appearing hemispherical on top and level on the bottom. These clouds often layer over each other and carry rain.
Cumulo-nimbus: Large cloud formations often consisting of great towers or pillars formed in the bank.
Golden: This cloud color often occurs in early to late morning, as the low sun shines through clouds, giving them a golden appearance.
Gray: This cloud color forms when the top layer of the cloud is blocking sunlight from the lower layers, often giving the clouds a gray color on bottom and a white color on top. Often called leaden clouds.
Leaden clouds: Clouds of a gray color, often covering the entire sky and close to the ground.

Lowering clouds: Dark clouds seen as being pushed closer to the earth, often a sign of storm.
Mares tails: Name given to Cirrus clouds by farmers and landsmen. Also named cat-tails by sailors.
Nimbus: This form of cloud is generally gray in tint and found in areas with prolonged rain. This is also used to describe a raining cumulus or cumulo-stratus clouds.
Pink: This cloud color is often observed in early evening as the sun is just beginning to set.
Puffy: Name often given to cumulus clouds for their large, cotton look.
Purple: This cloud color is seen in evening often resulting from gray or black clouds reflecting the setting sun's rays.
Red: This cloud color is seen in late evening, usually when the sun has already set and the last rays are striking the clouds at an angle.
Rolling: Clouds being pushed along by the wind, usually rapidly. These clouds appear to be rolling over each other. Strato-cumulus: A form of clouds between cumulus and stratus, turning a black or bluish tint at the horizon.
Stratus: Clouds formed in horizontal layers or bands.
Thundercloud: A cloud charged with electricity, often producing lightning and thunder. These are most often cumulo-nimbus clouds.
Thunderhead: This is the swollen upper part of a thundercloud; often this is accompanied by a thunderstorm.
White: This color of cloud is most common, often seen when there is only a single layer of clouds which will most likely not produce rain.

## Table 2:1a Type of Rain \& Visibility*

| Roll d10 for variable affect. <br> Roll <br> Rainfall | Vis/max. miles |  |
| :--- | :--- | :---: |
| 1 |  |  |
| 2 | Intermittent | 5 |
| 3 | Sprinkle | 3 |
| 4 | Drizzle | 3 |
| 5 | Mist | 2 |
| 6 | Cloudburst | $11 / 2$ |
| 7 | Sower | 1 |
| 8 | Rainstorm | $7 / 8$ |
| 9 | Thunderstorm | $1 / 2$ |
| 10 | Torrential | $1 / 4$ |
|  |  | $1 / 16$ |



Rainfall by hour 2:1b

| Type | mm/in Description and Effects |  |
| :--- | :--- | :--- |
| None | $0 / 0$ | No rain; doesn't preclude suspended moisture such as mist, fog, = or <br> low cloud |
| Trace | $0.1-1 / 0.004-0.040$ | Usually spitting, small droplets; dampens rather $=$ than wets things, like <br> heavy fog or light drizzle. <br> Typical of a summer sun-shower; wets in half an hour. Puts out candles, <br> campfires burn with much smoke. <br> 'Normal' rain, medium droplets; wets in a quarter hour, soaks in a half <br> hour. Puts out campfires. |
| Light | $1.1-2 / 0.044-0.080$ | Causes roaring noise on roofs, misty spray on roads; wets in minutes. <br> Puts out bonfires. |
| Moderate | $2.1-4 / 0.084-0.160$ | Large droplets; drowns out speech; wets in seconds, soaks in minutes. <br> Heavy |
| Downpour | $8.1-8 / 0.164-0.320$ | Puts out scrub fires. <br> Flattens vegetation; drowns out shouting; soaks to $=$ the skin in <br> seconds. Puts out forest fires. |
| Torrential | $16.1+/ 0.644+$ |  |

Wetting applies to the rained-on landscape in general as well as a normally = dressed man. The notes on fires assume an hour of average rain (e.g. $6 \mathrm{~mm} / \mathrm{h}=$ for heavy rain). The intensities of rain by day and by hour (trace, light, = and so on) are different things. Moderate rain for a day might fall either as continuous trace rain or as a single torrential storm.

| Type | $\mathbf{m m} / \mathbf{i n}$ |
| :--- | :--- |
|  |  |
| None | $0 / 0$ |
| Trace | $1-3 / 0.04-0.12$ |
| Light | $4-12 / 0.16-0.48$ |
| Moderate | $13-20 / 0.52-0.80$ |
| Heavy | $21-40 / 0.82-1.60$ |
| Downpour | $41-100 / 1.62-3.98$ |
| Torrential | $101-304 / 4.00-11.98$ |
| Cataclysmic | $305+/ 12.00+$ |

Rain with an intensity above $60 \mathrm{~mm} / \mathrm{hr}(2.4 \mathrm{in} / \mathrm{hr})$ for at least 5 minutes is = known as a cloudburst: this is like standing under a small waterfall. Earth = heaviest recorded rainfall in a day is $1880 \mathrm{~mm}(74 \mathrm{in})$. The heaviest rainfall = in an hour is 285 mm ( 11.2 in ).

Fog, etc.
Dust: Clouds of dirt and other particles blown into the air by a strong wind.
Fog: A mass of clouds lying close to the ground and often limiting vision.
Fogbank: A large mass of fog seen from a distance, often on the sea.
Haze: Moisture or dust in the atmosphere that diminishes visibility.
Miasma: Unhealthy or poisonous particles in the atmosphere, often in the form of vapor.
Mist: A mass of water vapor lying low in the air or in contact with the ground.

Smog: Fog that has been polluted with smoke.
Smoke: A vapor composed of small particles such as ash, often created through the burning of organic materials such as wood.
Vapors: Barely visible mass of small particles such as smoke, water, or dust.

## Storms

Cyclone: A storm resulting from the rapid movement of air around a lowpressure center. Often accompanied by destruc-
tive weather of other sorts. Cyclones move clockwise in the northern hemisphere, and counter clockwise in the southern.
Gale: A strong wind with speeds from around thirty to sixty miles an hour.
Hailstorm: Any storm which produces hail, a particle of ice, which can range in size from microscopic to inches in diameter.
Hurricane: A severe tropical storm often in the form of a cyclone traveling over the ocean. This classification is also used for winds greater than seventy five miles an hour.
Ice storm: Storms in which the rain or snow falling will freeze on contact forming layers of ice wherever it touches. Lightning storm: An electrical storm, which produces much lightning and may or may not produce other effects such as rain.
Monsoon: A seasonal wind, which blows one direction part of the year, and the opposite direction the latter part of the year. Often one direction of wind will bring nearly constant rain.
Rainstorm: Any storm producing rain, which may be accompanied by other effects as well.
Sleet storm: Any storm producing sleet, a form of partially frozen rain or rain mixed with snow.
Snow storm: A storm which produces snow, ice crystals which collect wherever they land and remain frozen.
Tempest: A violent windstorm, which may be accompanied by other effects such as rain, snow, or hail.
Thunder \& lightning storm: A storm which produces lightning and thunder regularly, often associated with rainstorms as well.
Thunderstorm: A storm that produces thunder but may not necessarily produce visible lightning.
Tornado: A violent windstorm that can be seen as a downward spike of cloud that may or may not touch the ground. Twister: An informal name for a cyclone or tornado.
Typhoon: A violent whirlwind or cyclone often found in the sea, characterized by uprising winds.
Windstorm: Any storm that produces unusually strong wind, may be accompanied by other storms. For the effects of wind and wind speed consult Tables 2:4 and 2:5.

Table 2:3 Type of Snow \& Visibility* Roll d6 for variable affect.
Roll Snowfall

## Vis/max. miles

| 1 | Flurry/Flurries | 4 |
| :--- | :--- | :--- |
| 2 | Showers | $23 / 4$ |
| 3 | Sleet | $11 / 4$ |
| 4 | Storm | 1 |
| 5 | Blizzard | $5 / 8$ |
| 6 | Whiteout | $1 / 20$ |

Note: 4" inches of melted snow produce 1 " water.

* Visibility assumes flat terrain.

Table 2:4 Wind Pressure per Square Foot of Exposed Surface Area

|  | Movement in <br> ft per Minute | Pressure in |
| :---: | :--- | :--- |
| Pind Speed | 88.005 |  |
| 1 | 176 | .020 |
| 2 | 264 | .045 |
| 3 | 352 | .080 |
| 4 | 440 | .125 |
| 5 | 528 | .180 |
| 6 | 704 | .320 |
| 8 | 880 | .500 |
| 10 | 1320 | 1.125 |
| 15 | 1760 | 2.000 |
| 20 | 2200 | 3.125 |
| 25 | 2640 | 4.500 |
| 30 | 3080 | 6.125 |
| 35 | 3520 | 8.000 |
| 40 | 3960 | 10.125 |
| 45 | 4400 | 12.500 |
| 50 | 5280 | 18.000 |
| 60 | 7040 | 32.000 |
| 80 | 8800 | 50.000 |
| 100 |  |  |

## Table 2:2 Ice Strength in Ibs.

Ice of $2 "$ thickness supports per square foot
Ice of 3 " thickness supports per square foot Ice of $4 "$ thickness supports per square foot Ice of 6 " thickness supports per square foot Ice of $8 "$ thickness supports per square foot Ice of 10 " thickness supports per square foot (1,000\#

## Table 2:5a Wind: Beaufort Wind Force Scale

In order to determine the variable windspeed roll a percentile dice and consult the following table.

| \% | Description | mph | Observations <br> Smoke rises vertically <br> $1-10$ |
| :--- | :--- | :--- | :--- |
| Calm | $0-1$ | Smoke drifts |  |
| $11-25$ | Light Air | $1-3$ | Wind felt on face; leaves rust |
| $26-39$ | Slight Breeze | $4-7$ | Leaves and twigs in motion |
| $40-50$ | Gentle Breeze | $8-12$ | Loose paper raised; flags flap |
| $50-56$ | Moderate Breeze | $13-18$ | Small trees sway |
| $57-62$ | Strong Breeze | $19-24$ | Large tree branches bend |
| $63-69$ | Strong Breeze | $25-31$ | Whole trees bend; walking into wind difficult |
| $70-78$ | High Wind | $32-38$ | $39-46$ |
| $79-84$ | Gale | $47-54$ | Twigs break off trees |
| $85-89$ | Strong Gale | $55-63$ | Signs blown down |
| $90-94$ | Whole Gale | $64-74$ | Trees uprooted; structural damage |
| $95-98$ | Storm | $75+$ | Widespread damage |
| $99-100$ | Hurricane |  | Severe and extensive damage |

Table 2:5b Wind: Beaufort Wind Force on Sea

| Beaufort scale | Effects at sea | knots | mph |
| :--- | :--- | :--- | :--- |
| 0 Calm | Sea like a mirror | $0-1$ | $0-1$ |
| 1 Light air | Ripples on sea | $2-3$ | $2-3$ |
| 2 Light breeze | 1' wavelets, glassy crests | $4-5$ | $4-7$ |
| 3 Gentle breeze | 3' breaking wavelets, few whitecaps | $6-9$ | $8-12$ |
| 4 Moderate breeze | 5' waves, whitecaps | $10-14$ | $13-18$ |
| 5 Fresh breeze | 8' waves, many whitecaps | $15-18$ | $19-24$ |
| 6 Strong breeze | 13' waves, white foam, and spray | $19-24$ | $25-31$ |
| 7 Near gale | Heaped sea, some blown foam | $25-30$ | $32-38$ |
| 8 Gale | 25' waves, streaks of blown foam | $31-37$ | $39-46$ |
| 9 Strong gale | 30' waves, visibility gets worse | $38-44$ | $47-54$ |
| 10 Storm | Heavy rolling sea, white with foam | $45-51$ | $55-63$ |
| 11 Violent storm | 50' waves, crests blown to froth | $52-59$ | $64-73$ |
| 12 Hurricane | Sea white, air full of foam and spray $60+$ | $74+$ |  |



$-$

## TERRAIN

Placement notes for the Neophyte Cartographer

## Depression

Arroyo: A deep, dry gully produced by flash-flooding streams, often in arid or semiarid environments. Much more shallow and gentle than a canyon. Also refers to the stream found within such a gully.
Basin: A bowl-shaped depression of land, partly or wholly surrounded by higher elevations.
Canyon: A narrow cleft in the earth with steep cliff sides, created by running water.
Chasm: A deep crack or fissure in the ground.
Crevasse: A fissure of great depth in the surface of the earth or in a glacier, with very steep, almost vertical sides. Often formed after earthquakes.
Crevice: A narrow split in the earth.
Cut: A crack or slash in the earth, appearing as if formed at the point of a knife or sword. Often more shallow than a crevasse or chasm.
Dale: Avalley.
Defile: A very narrow, steep-sided pass through hills or mountains. Often an entrance to a larger pass.
Dingle: A small wooded valley.
Dry Wash: A waterless streambed, as in an arroyo or canyon. A wash suffers from occasional flash floods.
Gap: A deep opening in or between mountains or hills, sometimes serving as a pass.
Glen: A narrow and secluded valley in mountains or large hills.
Gorge: A narrow passage with steep, rocky sides, also a defile.
Gulch: A small gorge, often containing a torrential river.
Hollow: A small valley amidst mountains.
Ravine: A deep, narrow and steep-sided valley or defile, especially one cut by running water.
Rift: A narrow crack in rock.
Vale: A valley, especially one traversed by a river or stream. Valley: A broad, relatively flat area of land surrounded by mountains or hills, often containing a river or stream.

## Deserts

Deserts are regions that have a high or low average temperature, less than 10 inches of annual rainfall, and the evaporation rate exceeds precipitation. In the daytime temperatures can reach $131^{\circ} \mathrm{F}$ in the shade. After the sun sets, the earth radiates heat back up into the atmosphere, the air dropping to near freezing temperatures. In arctic deserts, temperatures are almost always numbingly cold.

Desert regions are formed by cooler, high-pressure airmasses that descend into subtropical zones. When air rises, it cools and looses moisture. When air descends, it warms, picks up moisture, and dries out the land. Desert areas in the interiors of some continents may form due to the prevailing winds being too far removed from the ocean or lakes, thus receiving little moisture.

Coastal Deserts: Air currents cool as they move across cold water, bringing mist and fog but little precipitation. Shrouded in mist, these coasts are deserts.
Rain Shadows: Desert regions created by moisture-laden winds flowing up and over the windward slope of a mountain range, causing a loss of moisture in the form of snow and rain. The resultant dry air descends over the leeward slopes, evaporating moisture from the soil.
Salt Flats: A region of salt-encrusted land, usually a former lake, its waters long since evaporated.
Semi-Desert (semi-arid): The range of temperature in this region is extreme. Summer temperatures often are in lower $100^{\circ} \mathrm{S}$, while during the winter the temperature can drop as low as $30^{\circ} \mathrm{F}$. Annual rainfall is from 10 to 20 inches, which is not enough to support a forest cover, but can support grasses. With irrigation, the land can support crops, but problems such as salt buildup and waterlogging do occur. Rainfall in the semiarid climate is unpredictable and sparse.

## Foothills \& Mountains

Mountains are formed by the slow collision of tectonic plates; the pressure folding, faulting, or arching up soaring layers of rock. Sometimes, massive blocks of crustal earth will sink, forcing land formations to tower above them due to the rifting of plates. Violent volcanic eruptions can obviously speed this process considerably. Some low mountains are sculpted from the earth by a non-tectonics process, most powerful of which are rivers, or other forms of erosion that wear away softer rock, leaving the harder rock.

## Foothills

Crag: A steep, rugged cliff or area of rock, especially one projecting sharply from its surroundings.
Downs: An area of grassy, undulating, treeless upland, often used for grazing.
Foothill: A relatively low hill at the base of higher hills or mountains.
Hill: A well-defined elevated area of land smaller than a mountain.
Knob: A conspicuous rounded hill or mountain.
Knoll: A small hill, especially one rounded in shape; a small knob.
Mesa: A broad, flat-topped hill with a steep cliff forming at least one side.
Mound: A small heap or pile of earth; a small hill; a knoll. Outcropping: A rock formation thrusting out from surrounding land or features.


## Marsh/Swamp

Bayou: A sluggish or stagnant creek, commonly an offshoot of a lake or river in some lowland region that frequently flows through swampy terrain.
Bogs: Spongy, wet ground, characterized by decaying mosses that form peat. Bogs receive water only from rain and have acidic, and poorly mineralized water, particularly if sphagnum mosses (highly absorbent, spongelike, grayish peat mosses) are abundant.
Fens: The groundwater sources in these areas of low, flat marshy land is often more mineralized, and dominated by
and low trees. The steppe occupies vast regions of semidesert. Cattle, sheep, and angora goats are adaptable to the steppe, where they graze over vast acres of open range.
Tangle: A twisted and tangled area of vegetation, difficult to penetrate.
Temperate grasslands: These develop in regions characterized by an annual rainfall between 10 and 30 in, with seasonal and/or annual droughts and a high rate of evaporation.
Tropical grasslands: These regions have marked wet and dry seasons. Fire is important in maintaining grasslands by preventing the encroachment of forests in moist regions and desert shrubs in semiarid regions.
Tundra: A vast plain in arctic regions with permanently frozen subsoil. The ground supports only small plants such as moss, lichens, and certain hardy herbs and flowers. Veldt: An elevated, open grassland often used for grazing. Frequently associated with dry climates.
Wastelands (barrens): Land that is without vegetation, uncultivated, or barren.

## Rolling Hills and Tablelands

Escarpment: A steep cliff or slope formed by erosion, or less frequently, by faulting.
Foothills: Low hills located at or near the foot of a mountain or mountain range.
Mesa: A small, high plateau or flat tableland with steep sides.
Plateau: An elevated tract of more or less level land. Tableland: A high, broad, and level region.


Example: A farmer has 40 acres of land.
1 acre used for buildings and non-productive purposes (yield 0 ) 4 acres are used to support poultry (yield 1) 4 acres are used to support 3 goats and 6 sheep (yield 1) 5 acres are used to support a plow horse (yield 0 ) 8 acres are used to support 2 milk cows (yield 4) 12 acres are used to support 6 pigs (yield 3) 6 acres are used to grow food crops (yield 6)

## Total food value yield 15. taxation and expenses: 7.5 nutritional support of family: 6 remainder usable for cash: 1.5 units of c. $\$ 5,000$ value (after cash expenses and savings for livestock replacement assume c. $\$ 2,500$ could be saved... unless disaster strikes)

In the above example, if pigs were reduced to only 2 , a boar and a sow (instead of 5 sows), thus releasing 8 acres for food crops, yield would rise to 25 units. Taxation and expenses would rise to about 9 units, but the excess of the yield available for cash rises to 10 , but cash value would drop (animal products are more valuable than vegetable ones) to around $\$ 1,000$ per unit. That still gives a cash remainder of $\$ 10,000$ rather than $\$ 7,500$, so an annual savings of $\$ 5,000$ could be had.

GEOGRAPHICAL FEATURES REGARDING WATER

Water, Body of Bay: A body of water partially enclosed by land but with a wide access mouth often leading to the sea.
Bight: A bend or curve in the shoreline, or a wide bow formed by this bend.


Cape: A point or extension of land jutting
out into water as a peninsula or a projecting point.
Cenote: A water filled sinkhole, often created by mining or quarries.
Channel: The deepest part of a stream or harbor, often the best place for large boats.
Cove: A small sheltered bay in the shoreline of a sea, lake or river.
Gulf: A large area of sea partially enclosed by land.
Gulph: See Gulf.
Harbor: A sheltered part of a body of water deep enough to provide anchoring of ships.
Headland: A point of highland jutting out into the water.
Isthmus: A narrow strip of land connected to a larger land area; usually such a strip of land connecting two larger areas of land.
Lagoon: A shallow body of water often separated from the sea by sand bars or coral reefs.
Lake: A large inland body of water.
Loch: A lake or an arm of a sea similar to a fjord.
Lough: A lake or inlet of the sea.
Mere: A small lake, pond, or marsh.
Oasis: A fertile place in the desert usually consisting of a small body of water.
Ocean: The great expanse of water that often covers most of a planets surface.
Peninsula: A portion of land nearly surrounded by water and connected with a large body of land by an isthmus.
Pond: A still body of water smaller than a lake.
Pool: A small, still body of water or a still place in a stream.
Puddle: A small pool of water, usually rainwater, which often becomes completely dry.
Sea: A continuous body of salt water covering a large portion of a planets surface, or a large body of salt water partially or completely enclosed by land.
Sound: A long, broad inlet of an ocean or sea that is generally parallel to the coast; also a long body of water connecting two larger bodies of water passing between the mainland and an island.

Table 2:7 Water Spring Production

Steady Drip
Slow Trickle
Trickle
Rivulet
Brooklet
Brook
Small Stream
Fountain
Artesian Fountain
Fountainhead

1 pint per hour, 3 gallons per day
1 quart per hour, 6 gallons per day
1 gallon per hour
1 pint per minute, 7.5 gallons per hour, 180 gallons per day
1 quart per minute, 15 gallons per hour, 360 gallons per day
1 gallon per minute, 60 gallons per hour, 1,440 gallons per day
10 quarts per minute, 150 gallons per hour, 3,600 gallons per day 10 gallons per minute, 600 gallons per hour, 14,400 gallons per day
30 gallons per minute, 1,800 gallons per hour, 43,200 gallons per day
90 gallons per minute, 5,400 gallons per hour, 129,600 gallons per day

Rivulet will make a tiny trickle of that sort or maintain in soil a small natural pool of about three foot diameter and perhaps twice that depth.
Brooklet will make a trickle of the sort named or maintain in soil a small natural pool of about six foot diameter and about that depth.
Brook will make a flow the sort named or maintain in soil a natural pool of about nine foot diameter and about that depth.
Small Stream will make a flow the sort named or maintain in soil a little pond of about 12 to 14 foot diameter and likely something like half that depth, or it will make a small oasis the size of a small natural pool (above).
Fountain will make a stream or maintain in soil a small pond of about 18 to 20 foot diameter and likely something less than half that depth, or it will make a tiny oasis the size of a natural pool (above).
Artesian Fountain will make a large stream or maintain in soil a pond of about 30 to 32 foot diameter and likely something less than half that depth, or it will make a small oasis the size of a little pond (above).
Fountainhead will make a large stream or maintain in soil a large pond of about 50 to 55 foot or diameter and likely about one third that depth, or it will make an oasis the size of a small pond (above).
Note: Several fountainheads will make a very large or even great pond (over 150 foot diameter) or large oasis ( 60 or more feet in diameter). Many fountainheads will make a spring-fed lake of several square miles in area or very large oasis.
by continental divides, usually mountain ranges. The most common type of drainage pattern looks like the veins of a leaf. Large boulders may cover the bed of a river as it passes through many rapids in the steep, narrow canyons of the headwater zone, but as the landscape changes from mountains to plains its rocky material becomes progressively smaller, changing from boulders to cobbles to gravel. The floodplain that borders a river, formed from sediment deposited by floods, will also widen. As the land becomes less steep, the rocky material becomes mostly clay, sand, and silt. The mouth of a river is where its waters empty into an ocean or lake.

A river may form a triangular tract of flat land called a delta, formed by deposits of soil and sand at the mouth. A delta splits off into new channels called distributaries before feeding into the lake or sea. If no delta forms, the river may meet the sea in an estuary, where the salty tide meets the freshwater current.

## Wetland

Bog: Waterlogged, spongy ground choked with decaying moss, peat, and other vegetable matter.
Fen: Low land partially or fully submerged, supporting
coarse grasses and other characteristic vegetation.
Marsh: Soft, low-lying land covered partly or wholly by water, characterized by the growth of certain grasses and often serving as a transition between an area of water and an area of dry land.
Mire: Wet, muddy earth.
Morass: A tract of soft, wet ground.
Moss: An area of wetland containing peat; a bog; a morass. Often used in the plural (e.g. the mosses of Inzae). Plash: A small, usually transient pool or pond of standing water, often produced by a flood, heavy rainfall, or snowmelt.
Quagmire: An area of soft, wet ground that sinks.
Slough: A deep depression or hollow containing stagnant water and/or deep, sucking mud. Often part of a larger area of wetland, such as a marsh or bayou.
Sump: A hole or deep hollow in which dirty water or sewage has collected.
Swamp: An area of flat land saturated with water, having larger, more woody plants than a marsh and better drainage than a bog.

## Wetland-Woodland

Bayou: A swampy, sluggish area of a stream or river. Everglade: A completely submerged area of flatland, dotted with small, sometimes dry islands or hillocks and stands of tall grasses.
Mangrove Swamp: An area of marshland in tropical and subtropical climes characterized by large numbers of mangrove trees. Usually found on seacoasts.
Taiga (cold forest-marsh): A subarctic evergreen forest. Tamarack (cold forest, marsh): A deciduous tree having needlelike leaves and heavy, durable wood.

## Woodlands

Coppice: A small cluster of trees and brush, especially one artificially maintained.
Copse: A small collection of trees and brush; a coppice. Deciduous Monsoon Forests: This region receives heavy daily rainfall, relieved seasonally by dry periods during which the trees shed their leaves.
Deciduous Temperate Forests: A region of warm to hot summers and mild to cold winters. All the trees but the evergreens shed their leaves to herald the snowy season, after the annual fall pageantry. Trees common to the regions are Ash, Beech, Birch, Cedar, Elm, Maple, Oak, Sycamore, Walnut, Willow and Yew.
Forest: A large area of land covered with dense trees and undergrowth.
Grove: A small group of trees bereft of undergrowth.
Jungle: An area of land densely overgrown with tropical trees and other vegetation.
Northern Coniferous Forests: The northern tree line and mountaintops are dominated by gnarled scrub trees. Fir and spruce trees are common to the northerly forests; larch, pine, and hemlock dominate further south. These forests occur in association with rivers, lakes, bogs, and usually occupy formerly glaciated regions.
Orchard: An area of land containing many fruit or nut trees, often artificially planted and cultivated.
Stand: A small group of tall plants or trees.
Temperate Evergreen Forests: These are subtropical regions with a warm maritime climate. The most common trees are oak, magnolia, palms, and bromeliads.
Temperate Rain Forests: Dominated by broad-leaved evergreen trees, such as hemlock, cedar, spruce, fir and redwood, these forests are common on Mediterranean coasts. Fogs are frequent due to the moist, ocean-cooled air, though rainfall may be low.
Timberland: An area of forest; often, such an area used for the harvesting of timber.
Tropical Rain Forests: In this region the plant growth is profuse, its tree species wildly diverse, with smooth straight trunks and large, simple leaves. Big vines are common,
and the growth can become quite tangled, forming a jungle at the edge of rivers.
Tropical Savanna Forests: This region is dominated by grasses and sedges, with widely spaced trees that are frequently thorny, and is often considered as intermediate between forests and steppes. Fire or grazing and browsing mammals create some savannas.
Tropical Scrub Forests: A thicket of evergreen oaks, thorny bushes and shrubs that occur in regions of slight rainfall, bordering wetter forests (known as chaparral).
Wood: A tract of land covered by dense trees and undergrowth, usually small in area.

## STONES \& ROCKS

There are three basic types of rock; igneous, sedimentary, and metamorphic.

Igneous rocks are formed from melted rocks which have cooled. The heating occurs deep in the earth and the cooling near the surface. They are generally course grained though quickly cooled rocks. Those, such as obsidian, are not. Most have crystalline structure in them. These are created during the molten stage. Examples: Obsidian (volcanic glass), granite, basalt, and andesite porphyry.

Sedimentary rocks are formed at the surface of the Earth, either in water or on land. They are layered accumulations of sediments, fragments of rocks, minerals, or animal or plant material.

They are held together by minerals, chemicals or electrical actions. They generally form parallel to the earth's surface and only change their orientation due to tectonic or volcanic activities. The degree of compaction nature of the parent material indicates the hardness of the rock.
Examples: Sandstone, limestone, shale.
Metamorphic rocks are sedimentary or igneous rocks which have changed due to high pressures or intense heat. This generally occurs deep under the earth's surface. The process transforms the rocks into denser and more compact rock. The process can also separate the fine mineral grains found in many sedimentary and igneous rocks to form pure minerals.

Rock Hardness scale and representative samples. Many rocks have varying strengths depending on parent material and formation processes.

Very weak: Weakly compacted and weathered sedimentary rocks; sandstones, shale.
Weak: Weakly cemented sedimentary rocks; schist sandstones, shale, slate, limestone.
Medium: Competent sedimentary rocks; some low-density coarse-grained igneous rocks, sandstones, slate, limestone.

Strong: Competent igneous rocks; some metamorphic rocks and fine-grained sandstones, granite, basalt, marble, slate, limestone.
Very strong: Quartzites; dense fine-grained igneous rocks, diorite, basalt, marble, slate, steel, limestone.

## Types of Stone

Alabaster: Smooth white translucent stone with a band. Basalt: A dark gray to black dense stone.
Chert: Usually a dark flint, of fine grained igneous rock.
Conglomerate: A rock composed of compacted stones.
Gneiss: A hard-core foliated metamorphic rock similar to granite.
Granite: A very hard crystalline metemorphic rock ranging in colors from pink to black.
Greenstone: A fine-grained, hard metamorphosed rock of various shades of green.
Limestone: A soft sedimentary rock ususally formed on the sea floor.
Marble: A very hard crystalline limestone.
Obsidian: A very fine-grained, quickly cooled metemorphic rock, similar to basalt in structure.
Phyllite: A shiny, corrugated rock that slate turns into under heat and pressure.
Pumice: A very light, cavity filled volcanic rock.
Quartzite: A crystalline mineral with hexegonal forma-
tion with cloudy to transparent coloration.
Sandstone: A common sedimentary rock of various densities and colors.
Slate: A hard metamorphic rock that fractures into rather thin slices.
Tuff: A rock made of volcanic ash that can be extremely strong or very weak.

## GEMSTONES

This is a compilation of actual gemstones, but it is not meant to reflect actuality. That is, it is aimed at use in a fantasy world environment, not as a treatise on gemology.

## Suggested Values

The variables involved in setting anything like a "real" worth for gemstones are: hardness, durability (not necessarily linked to hardness), rarity of the stone, color, clarity (or other factor in translucent, opaque, or various special gems such as opals, pearls), weight, cut (or "skin" of a pearl), and demand-the popularity of the gemstone material in a particular culture and society. Thus, in a fantasy environment the make-believe worth of any gemstone is not fixed by actual market values.

If you are not relying on gemstone values given in a roleplaying game, then this chart might be used as a base for establishing the worth of the various sorts of stones. Assume all values are for fine specimens of their type. All stones are not listed, but the examples given should suffice for the individual to place any non-named stone into a grouping. Remember that rare and desired stones will have a commensurately higher value than similar ones that are easily available and/or not popular.

All values assume retail cost. "Trade" cost is about 50\% retail worth. "Wholesale" value is about $25 \%$ retail worth. Unique stones, such as huge jewels and the like have no "trade" or "wholesale value" at all. They are always worth from about $70 \%$ to $120 \%$ of their retail value, the percent-

## Table 2:8 MOH's Hardness Scale

## Hardness Material

1
2
3
4

5

6

7

8
9
10
5

Tale: Easily scratched by the fingernail; equal to a pencil "lead" 1-2 or plaster of paris.
Gypsum: Just scratched by the fingernail, 2.5; equal to limestone or a seashell.
Calcite: Scratches and is scratched by a copper coin of 3.5; gold or silver in the 2.5 to 3 .
Fluorite: Not scratched by a copper coin and does not scratch glass; equal to brass at 4, platinum at 4 to 4.5 is a bit harder.

Orthoclase: Easily scratches glass and is just
7 Quartz: Not scratched by a file unless of hardened steel alloy at 7.5.
Topaz: N/A.
Corundum: N/A.
Diamond: N/A.

The following is alist of common items and the related hardness
2.2 Your Fingernail
3.2 Copper Penny
5.0 Steel Nail
5.5 Glass
7.0 Steak Plate
age depending on total worth, the greater the worth, the higher the percentage applicable.

Uncut/rough material is assumed to be at $10 \%$ to $15 \%$ of the price stated for finished material. Exceptions to this are very large crystals, mineral-masses, and substances where finishing does not dramatically reduce the weight of the material. In such cases the worth of the uncut/rough material is from $20 \%$ to $30 \%$ of the finished work.

Jewels: Diamond, emerald, ruby (blood red), sapphire (blue)—also any very rare stones; $\$ 3,500$ to $\$ 5,000$ for a one-carat well-cut stone. For all stones in this category add $10 \%$ cumulative to the per carat value for each full carat above one.

Diamonds that are "flawless", have a color-blue, green, bright yellow-and are above 10 carats in weight add an additional $10 \%$ cumulative per carat value above 10 carats due to their rarity, color, brilliance, and general demand.

Rubies that are "flawless", are of pigeon's blood hue, and are above 10 carats in weight add $15 \%$ cumulative per carat value due to their rarity, color, brilliance, and general demand.

Black (precious) opal that is in cut form and above five carats in weight is a jewel, and so has a value of $\$ 3,500$ to $\$ 5,000$ per carat; any carat weight above 10 carats add an additional $10 \%$ cumulative per carat value above 10 because of their rarity, color, and general demand.

Precious Stones: Alexandrite chrysoberyl (green showing red in artificial light), black (precious) opal, jade (emerald green), sapphire (other than blue), spinel (red); \$1,500 to $\$ 2,500$ for a one-carat well-cut stone. For all stones in this category add $10 \%$ cumulative to the per carat value for each full carat above one.

Semi-Precious Stones: Beryl, chrysoberyl, fire opal, green garnet, precious opal (not black), spinel (other than red), spodumene (both types), tanzanite (best blue), topaz, tourmaline; $\$ 500$ to $\$ 1,000$ for a one-carat well-cut stone. For all stones in this category add $5 \%$ cumulative to the per carat value for each full carat above one.

Fancy Stones: Cornelian, jadeite (pure green or violet), moonstone (whitish), nephrite (pure emerald green), opal (common), pearl (rare colors, spherical or pear-shaped and fine), peridot, spinel (red), zircon; $\$ 100$ to $\$ 350$ for a onecarat well-cut stone. For all stones in this category add $5 \%$ cumulative to the per carat value for each full carat above one.

Ornamental Stones: Amber, amethyst and other quartz stones (not otherwise noted above), coral, garnet (not otherwise noted), ivory, jadeite (other), lapis lazuli, malachite, moonstone (non-whitish), nephrite (other), pearl (other than noted above), turquoise; $\$ 1$ to $\$ 50$ for a one-carat wellcut stone.

A carat weighs 200 milligrams. There are 2,835 milligrams to an ounce, and one pound (16 ounces) avoirdu-

Table 2:9 Birth Stones, Lucky \& Planetary Stones by Astrological Sign

| Astrological Sign | Birth Stone | Lucky Stone | Planetary Stone |
| :--- | :--- | :--- | :--- |
| Capricorn (Dec 22-Jan 19) | Agate, Garnet, Ruby | Ruby | Lapis Lazuli |
| Aquarius (Jan 20-Feb 18) | Amethyst, Moss Agate | Turquoise | Amethyst, Garnet |
| Pisces (Feb 19-Mar 20) | Bloodstone,Sapphire | Amethyst | Aquamarine |
| Aries (Mar 21-Apr 19) | Bloodstone, Diamond | Bloodstone, Diamond | Jasper |
| Taurus (Apr 20-May 20) | Amber, Coral, Turquoise | Diamond | Quartz, Emerald |
| Gemini (May 21-Jun 20) | Chrysoprase, Pearl | Agate, Emerald | Tigereye |
| Cancer (Jun 21-Jul 22) | Emerald, Moonstone | Chalcedony | Moonstone |
| Leo (Jul 23-Aug 22) | Onyx, Sardonyx | Amber, Onyx, Peidot | Rock Crystal |
| Virgo (Aug 23-Sep 22) | Cornelian, Jade, Jasper | Cornelian, Sardonyx | Citrine |
| Libra (Sep 23-Oct 22) | Lapis Lazuli, Opal | Chrysolite Opal, Sardonyx Sapphire |  |
| Scorpio (Oct 23-Nov 21) | Aquamarine, Topaz | Aquamarine, Beryl | Garnet, Ruby |
| Sagittarius (Nov 22-Dec 21) | Topaz, Turquoise | Topaz, Pearl | Topaz |

pois is thus 45,360 milligrams. A one-carat gemstone, 200 milligrams, thus weighs about 0.07 of an ounce, a 10-carat stone weighs about 0.705 ounces, while a massive 100carat stone comes in at 7.05 ounces. If one came upon a 1,000 carat gemstone, it wold weigh 70.54 ounces (4.41
pounds), while a massive, 10,000 carat stone (or that many one-carat ones...) would top out at 705.4 ounces ( 44.1 pounds). So now you know why precious gemstones have been the means of carrying large amounts of wealth for a long, long time!

For a complete list of gems, their wieght and properties see Appendix G, on page 163-169.

Table 2.10 Birth Stones

Month
January:
February:
March:
April:
May:
June:
July:
August:
September:
October:
November:
December:

## Arcane

Emerald or Rose Quartz
Onyx or Moonstone Jade or Rock Crystal Quartz or White Sapphire Chrysoprase or Golden Beryl Moonstone or Common Opal Cornelian Jade
Diamond or Chrysoberyl
Pink Tourmaline, Aquamarine Citrine or Pearl
Lapis Lazuli or Onyx

Western
Agate or Garnet
Amethyst
Bloodstone
Diamond
Emerald
Alexandrite or Moonstone
Ruby
Peridot or Sardonyx
Sapphire, Lapis Lazuli or Agate
October: Tourmaline or Jasper
Citrine Topaz
Zircon or Turquoise

Eastern
Garnet
Amethyst
Bloodstone
Diamond
Agate
Pearl
Ruby
Sapphire
Moonstone
Opal, precious
Topaz Jade


Table 2:11 Metal/Stone/Gems, d20 Spells, Magic Items, and General Game Effects
In the core rules of the d20 game system dealing with magic, magic items cost money to create. It stands to reason that expensive components would likely be rare objects, such as rare flora, elements of rare fauna, or rare minerals. The stone's table provides you with suggestions to consider when developing magic items. For example, a sunsword would probably have one or more topaz gems embedded in its pommel, or perhaps powdered into the metal used to create it.

The gems could be used as optional power components, if you use that variant rule to replace XP loss with the consumption of a costly item, but this depends on your campaign and note that XP loss is a better form of limiting power for PCs than material loss.

Another option would be a variant rule to allow spellcasters to use gems for a little extra help or power. You could use the gems as a sort of focus to boost spells-with the focus being consumed after the spell is cast. Depending on the value of the stone and the spell being cast, it might provide one of the following effects:

Anywhere from $\mathrm{a}+1$ to +4 increase in the DC to resist, if the spell has a saving throw.
Anywhere from $\mathrm{a}+1$ to +4 bonus to overcome spell resistance.
The effects of the feats Extend Spell, Expand Spell, or Empower Spell for the spell being cast, without requiring a higher-level spell slot.
The effects of the Heighten Spell feat, limited to an increase of 1-2 levels, without requiring a higher-level spell slot.
Use your best judgment based on the rarity, the cost, and the properties of the gem, as well as game balance needs.

Agate
Agate, Amethystine
Agate, Blue Laced
Agate, Botswana
Agate, Geode
Agate, Moss
Agate, with fossils
Amber
Amethyst
Apatite
Apatite, Blue
Aquamarine
Aventurine Quartz, Blue
Beryl
Bloodstone
Chalcedony, Chrysoprase
Citrine Quartz
Coral
Cornelean
Diamond
Diopside
Emerald
Flint
Garnet
Hematite
Iolite
Iron pyrite
Jade, Green
Jade, Yellow
Jasper, Green
Jasper, Red

> Read Alignment, Zone of Truth, Tongues, Detect Thoughts
> Detect Chaos, Protection from Chaos, Dispel Chaos, Word of Chaos
> Bestow Curse, Charm Person, Emotion, Dominate Person
> Minor Creation, Secret Chest, Major Creation, Fabricate, Mind Fog
> All psionic powers; all enchantment spells
> Bless, Divine Favor, Remove Fear, Restoration
> Locate Object, Major Creation, Fabricate, Legend Lore, Vision, Discern Location
> Any spell or magic item that resists negative emotions
> Wisdom-enhancing magics, removal/protection from intoxicants
> Comphrehend languages, Tongues, any language-dependent spell
> Any psionic power
> Any spell that wards or dispells fear, Water breathing, Restoration, Greater restoration.
> Intellegence-ehancing magics, Dispel magic, Anti-magic field, Disjunction, Wounding weapons,
> Periapt of wound closure, anything that protects one from gas attacks
> Intellegence boosting magic, anything that increases skill checks, items that can help detect secret doors and traps, items that help rogues skills
> Lower level creation (healing) Cure spells, Remove disease
> Any item that increases Wisdom, Charm Monster, Charm Person
> Any evocation that deals with energies, Ethereal Jaunt, Astral Projection, Plane Shift, Gate, any magic item dealing with other planes/dimensions
> Emotion, Resistance, Protection from Evil, Calm Emotions
> Divine Favor, Invisibility to Undead, Remove Fear, Endurance, Augury
> See Invisibility, Undetectable Alignment; True Seeing
> Effects that improve ability scores as with Bulls Strength, Cats Grace etc.
> Foresight, Find the Path, Animal Friendship, Detect Animals or Plants, Invisibility to
> Animals, Charm Person or Animal
> Dictum, Command, Shout, Dominate Person
> Neutralize Poison, Aid, Sanctuary
> Entropic Shield, Break Enchantment, Spell Turning
> Magic Circle against Evil, Healing Circle
> Mislead, Suggestion, Clone, Alter Self, Any item or spell that is of the illusion school
> Any item or spell that directly boosts saving throws
> Any item or spell that directly boosts saving throws
> Any spell or item of the Healing domain or the Emotion spell
> Any spell or item of the Protection domain

Kunzite
Labradorite Feldspar
Lapis Lazuli
Malachite
Moldavite
Moonstone
Moonstone, Blue-White
Moonstone, Golden
Moonstone, Gray
Moss Agate
Mother of Pearl
Obsidian
Obsidian, Black
Obsidian, Reddish
Octahedron
Onyx, Black
Onyx, White
Opal, Black

Opal, fire
Opal, Precious
Pearl
Peridot
Petrified Wood
Quartz, Blue
Quartz, Clear Crystal
Quartz, Rose
Quartz, Rutilated
Quartz, Smoky
Rhodocrosite
Rhodonite
Ruby
Sapphire, Blue
Sapphire, White
Silver
Soapstone
Sodalite
Sulfur
Sunstone
Tanzanite
Tektite
Tiger's eye
Topaz
Tourmaline (any)
Tourmaline, Green
Tourmaline, Pink
Tourmaline, Rubellite
Turquoise

## Passwall, Phase Door

Various Divination Spells; restoration of Wisdom or Intelligence points
Mind Blank, Ring of Mind Shielding,Ring of X-ray Vision,Gem of Seeing, Blindness, Remove
Blindness, any spell that is part of the Conjuration (healing) school
Change Self, Alter Self, Polymorph Self, Shape Change,Sleep and sleep based effects
True Seeing, Gem of Seeing, Zone of Truth, Discern Lies
Sancutary, Tiny Hut, Control Weather, Discern Location
N/A
N/A
N/A
Various spells affecting nature, most Druid spells, Plant and Animal Cleric domains Any item or spell of the Aburation school or Protection Domain
Dispel Evil, Restoration, Greater Restoration
Anything that increases Wisdom or wisdom-based skills
Augury, Divination, Death Ward
Mending, Fabricate, Creation (minor \& major)
Death Ward, virtually any spell or magic item dealing with the Necromancy or Evocation schools that cause damage/destruction
Enhances Creation (healing) and virtually any spell with the "good" descriptor Mind Blank, Ring of Mind Sheilding,general psionic powers, general magic items that use spells from the Evocation school. Various Illusions (Figments and Glamours), anything that protects from scrying or detection (Misdirection, Screen, Secret page, Illusionary Script)
Endure Elements (Fire), Resist Elements (Fire), Fire Shield (Warm), Ring of Fire Resistance, Armor of Fire Resistance, Shield of Fire Resistance
Emotion (hope), See Invisibility, True Seeing, Scrying (across planes)
Anything that enhances Charisma based attributes or skills
Anything that enhances Strength or Constitution
Protection from Chaos, Order's Wrath, Shield of Law
Anything that enhances Wisdom or Will saves, protection/immunity to fear, divination magic that points in the direction of a solution like Commune, Augury, Find the Path, etc. N/A
Divinations dealing with the future, all Charm spells, Bless, and Aid
Any item or spell of the Conjuration school
Emotion, any fear causing spell/item
Any item or spell providing protection from surprise
Any item or spell serving as protection versus fear or insanity
Expeditious Retreat, Detect Secret Doors, Freedom, Freedom of Movement
Spells that protect against enchantments, divination, that compels truth or detects lies
Virtually all abjuration effects, Wall of Force, Forcecage, other force-based protections,
Prismatic Wall, Prismatic Sphere, Sanctuary, Protection against ingested poisons
Protection from Elements, Secure Shelter
Effects that improve ability scores. (Bulls Strength, Cats Grace)
Enhances any Enchantment spell that is sonic or language dependent. Abjuration spells vs. evil
Virtually any psionic effect, any Enchantment spell (including charms and compulsions), pro tection from diseases, Periapt of Wound Closure
Any spell or item of the Healing or Good domain, or any positive Necromantic spell
Any spell that affects NPC reactions to reduce hostility
Banishment, magic circles
Healing and Knowledge domains; Clairvoyance
Color Spray, Glitterdust,Daylight, Continual Flame
Cat's Grace, Endurance, Haste, Mnemonic Enhancer
Mass Haste
Demand, Irresistible Dance
Transformation, Iron Body
Any spell or item of the Healing and Good Domains, or beneficial Adjuration spells

420
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## Table 2:12 Magical Affects of Metal and Stone for the Lejendary Adventure Game

## Metal/Stone

Agate
Agate, Amethystine
Agate, Blue laced
Agate, Botswana
Agate, Geode
Agate, Moss
Agate, with Fossils
Amazonite Feldspar
Amber
Amethyst
Apatite
Apatite, Blue
Aquamarine
Aventurine Quartz, Blue
Aventurine Quartz, Green Decisiveness, Internal Health and Healing
Beryl Understanding of Problems and Puzzles
$\begin{array}{ll}\text { Beryl } & \text { Understanding of Problems and Puzzles } \\ \text { Bloodstone } & \text { Healing of Wounds, Fighting Internal Parasites }\end{array}$
Chalcedony, Chrysoprase Compassion, Wisdom
Citrine Quartz
Coral
Cornelean
Diamond
Diopside
Emerald
Flint
Flourite
Garnet
Hematite
Iolite
Iron Pyrite
Jade, Green
Jade, Yellow
Jasper, Green
Jasper, Red
Kunzite
Labradorite Feldspar
Lapis Lazuli
Malachite
Moldavite
Moonstone
Moonstone, Blue-White
Moonstone, Golden
Moonstone, gray
Moss agate
Mother of Pearl
Obsidian
Obsidian, Black
Obsidian, Reddish

## Legendary Effects

Discernment, Understanding of Others and Circumstances.
Moving, Change, Chaos
Femininity, Emotion, Precognition
Gifts, Small Pleasures, Complacency
Psionic Powers
Peace of mind, Purifying
Treasure, Lost Lore, and Relics
Guards and Strengthens the Heart, Self Worth and Confidence
Brighten Mood, Bring Happiness
Peace, Increase of Spirituality, Sobriety, Intuition, Psychic Awareness
Clear Speech
Psychic Invigoration and Power
Creativity, Cleansing and Balance of Energy, Blood and Breathing

Physical Energy, Access to the Non-Corporeal Realms
Mental \& Emotional Strength
Wards Against Deadly Sins, Intellect and Creativity, Courage, Strength
Mental Power and Insight, Energy
Muscular Fitness, Mental Fitness
Rational thinking, Conviction, Determination
Common Sense, Impartiality, Internal Organs
Contentment, Protection from Poisons, Robust Health
Cheerfulness, Hope
Inner peace, Meditation and Spirituality, Anti-Toxin
Deception and Misunderstanding
Good fortune, Beauty
Good luck
Happiness, Protection, Healing
Attainment of Goals, Wards Against the Negative, Calmness
Removes obstacles, Mental balance and calm emotion
Balance Between the Mind and Spirit, Psychic Insight

Discerning, Falsehoods
Serenity, Balance of Energy, Internal Health, Mental Healing
Enhances Powers of Other Clear-White to Blue Minerals, Cools
Enhances Powers of Other Yellow to Red Minerals
Enhances Powers of Other Dark Minerals
Attunement to Nature, Flora and Fauna
Warding and Protection, Wealth
Dispel Negative Energy
Common Sense
Decisiveness, Clearing Confusion

Courage, Harmony, Protection from Drowning, Soothing of Mind, Lessening Grief

Fertility and Rebirth, Mental and Physical Strength and Healing, Spring, Love

Strength of Will \& Clarity of Thought and Awareness, Eyesight, healing, Children
Transformation of Self, Balanced Judgement, Concord with Others, Promotes sleep

Octahedron
Onyx, Black
Onyx, White
Opal, Black
Opal, Fire
Opal. Precious
Pearl
Peridot
Petrified Wood
Quartz, Blue
Quartz, Clear Crystal
Quartz, Rose
Quartz, Rutilated
Quartz, Smoky
Rhodocrosite
Rhodonite
Ruby
Sapphire, Blue
Sapphire, White
Silver
Soapstone
Sodalite
Sulfur
Sunstone
Tanzanite
Tektite
Tiger's Eye
Topaz
Tourmaline (any)
Tourmaline, Green
Tourmaline, Pink
Tourmaline, Rubellite
Turquoise

Channels Energy into Work
Resistance to Negativity, Focus and Control of Destructive/Negative Energy
Increase of Positive Energy, Focus and Control of Constructive Energy
Mystery, Power of Mind, Power Direction
Action, Protection from Fire
Hope, Observation and Sight into the Spiritual Realms
Love, Personal Influence
Energy, Strength.
Law, Cognitive Clarity
Moral strength, Resolution, Wards Against Fears
Amplify Other Personal or Mineral Energy
Compassion, Love, Positive Mental Attitude and Sensing Opportunity
Creativity
Mental Control of Emotions
Capacity to Deal with the Unexpected
Love, Blood and Courage
Love, Passion, Persistence, Freedom and Mobility
Divinity, Mental Clarity and Cleansing of Thoughts, Sincerity
Protection
Survival \& Impoverishmen
Adaptability, Daring
Oration, Speech, Wards Against Evil and the Negative
Mental power, Wards Against Infections and Disease
Healing, Health, and Vigor, Warms
Disposition and Cheerfulness
Banishing, Wards Against Infernal Creatures
Seeing and Sensing, Clear Thought, Increases Vision, Heals Bones
Sight, Fire and Warmth, the Sun, Courage
Energy, Activity
Vigor and Virility
Vigor and Femininity
Strength of Will and Determination
Good health,Wards Against Disease and Evil



Gooseberry
Gorse
Greasewood
Guava
Guayule
Haw Heather
Hemp Tree
Hibiscus
Holly
Hop Tree
Huckleberry
Hydrangea
Indigo
Juneberry
Juniper
Jute
Kalmia
Laurel
Leatherleaf
Lilac
Locust
Magnolia
Maguey
Manzanita
Mescal
Mesquite
Milkwort
Misletoe
Mock Orange
Shrubs, thorny (Thorns also and
Thistles shall it bring forth to thee)
Acanthopanax (shrub with thorns)
Barberry
Blackberry
Bramble (any prickly shrub or vine)
Broom (flowering shrubs)
Burr (a weed or other plant with burrs)
Cleomes (bee plant)
Dewberry
Echinops (prickly like thistles)
Eryngium (sea holly)
Gooseberry, Fuschia Flowered
Holly, English
Natal Plum
Nettle Plant (perennial weeds of the nettle family with stinging hairs)
Pampas Grass
Poppy, Prickly
Prickly Currant
Raspberry
Rose, Dog
Rose, Little Wild
Rose, Nootka
Rose, Pearhip

Salmonberry (a spineless raspberry, having reddish, edible fruit)
Teasel (prickly, cylindrical heads of yellowish or purplish flowers)
Thistle (prickly leaves and heads of purple, white or yellow flowers)
Thistles, "Firethorn"

## Vines

Bittersweet
Clematis
Creeper
Dewberry
Grape
Greenrier
Honeysuckle
Hop
Ivy (various)
Jasmine
Liana
Mistletoe
Morning Glory
Poison Ivy
Poison Oak
Trumpet Vine
Wisteria

## Weeds

Arrowhead
Barberry
Begger ticks
Bindweed
Bindweed, field (creeping jenny)
Brake
Burdock
Burr
Cat's Ear
Cheeseweed Mallow
Chickweed
Crabgrass
Creeping Buttercup
Dandelion
Devil's Thorn
Dock
Fireweed
Goatsrue
Goldenrod
Horsetail
Jimson Weed
Knawel
Knotweed
Lady's Thumb
Locoweed
Mallow
May Weed
Mesquite
Milkweed

Mullein, Foxglove
Mullein, Nightshade
Mustard
Nettle
Onionweed
Pigweed
Plantain
Poison Ivy
Poison Oak
Poison Sumac
Pokeweed
Prickly Lettuce
Purslane
Quack Grass
Ragweed
Sandbur
Scarlet Pimpernel
Sheep's Sorrel
Shepherd's Purse
Skunk Cabbage
Smartweed
Speedwell
Spotted Spurge
Spurry
Stinkweed
Tarweed
Thistle
Tumbleweed
Wiregrass
Witchgrass






## HERBS/FLORA, POISONOUS

Aconite: Also called wolfsbane. Made from dried monks hood. The whole of this plant is poisonous, particularly the leaves and roots. When dried their aroma causes dizziness and nausea.
Apple (balsam): Plant of the gourd family. The skin and seeds of the ripe fruit can cause headaches, stomach pains, weakness and diarrhea.
Apple (bitter): As above.
Baneberry: Also known as Bugbane or Toadroot. Any of a number of related plants with poisonous berries colored white, red or purplish-black with clusters of small white flowers. Berries and roots can be toxic in large quantities or in small doses cause stomach cramps, burning throat and nausea.
Bloodroot: Also known as Sweet Slumber or Tetterroot. A plant of the poppy family, so named for its red root and sap. Causes nausea, faintness and heart failure.
Bryony, Black: Also known as Blackeye Root. Any number of vines from the gourd family. Death when the large fleshy roots are consumed.
Bryony: As above.
Calabar Bean: Also known as Chop Nut. Brown seed of a climbing vine. When the bean is consumed it causes depression, frothing at the mouth, twitching and paralysis. Cherry Laurel: Also known as Cherry Bay. A type of evergreen shrub. A potion derived from the leaves produces a toxic form of cyanide.
Clematis: Also known as Upright Virgin's Bower. A woody climbing plant of the crowfoot family. When any part of the plant is consumed causes burning in the mouth and throat, causing ulceres.
Dropwort (Water Hemlock): Also known as Horse Bane and Dead Tongue. A tall plant of the rose family with fern like leaves and white or reddish flowers. Causes red spots to appear on flesh followed by confusion, violent convulsions and delirium.
Foxglove: Also known as Dead Man's Bells or Fairy's Glove. Any of a number of plants of the figwart family. The flowers and seeds cause headaches, unusual color visions or can be fatal.
Gelsemium: Also known as Wild Woodbine. A type of evergreen climbing shrub. Causes muscle cramps, hyperventilation and death due to respiratory paralysis.
Hellebore, Black: Also known as Christmas Rose. Any of a group of plants in the lily family. Any part of the plant causes nercousness and depression.
Hellebore, False: Also known as Pheasants Eye. Any of a group of plants in the lily family. Skin can be irritated after contact with sap.
Hellebore, Green: Also known as Itch Weed or Indian Poke. Any of a group of plants in the lily family. Sap used on arrows, causes muscle cramps and convulsions.
Hellebore, White: Another name for False Hellebore.

Hemlock: Also known as Spotted Corobane. Any of a group of poisonous weeds of the carrot family. It can be a powerful sedative, causes muscle weakness, paralysis, death.
Ignatius Beans: When the leaves are eaten it can cause muscular writhing, spasms and asphyxia.
Lovage, Water: An European herb known cultivated for a variety of medicines. Generally works as a sedative.
Mother-in-Law's Tongue: The leaves of this plant cause headaches, confusion, erratic behavior and eventually mausea and vommiting. Victims die, choking on their own vommit.
Mountain Laurel: A small evergreen shrub with pink and white flowers. The leaves are poisonous causing nausea, vomiting and blurred vision.
Nightshade, Black: Also known as Petty Morel. Any of a number of plants related to the potato. A type of narcotic that causes hallucinations, but is fatal in large doses. Nightshade, Deadly (nux vomica): Also known as Dwell, Belladona or Devil's Cherries. Causes lose of voice, movement in fingers and hands and bending of the back. Death in large doses.
Oleander: Also known as Dog Bane or Rose Laurel. An evergreen shrub. Every part of the plant is poisonous. Causes slowed pulse, irregular heartbeat and death in large doses.
Poison Ivy: Also known as Poison Vine. Any of several American sumacs. Causes skin irritation.
Poison Oak: Any of several American sumacs. Causes skin irritation.
Poison Sumac: Any of several American sumacs. Causes skin irritation.
Poppy, White: Also known as Common Poppy. Any of the genus papaver with pink and white flowers. Can cause shallow breathing, a stupor and a coma in large doses.
Saffron, Meadow: Also known as Naked Ladies. When any part of the plant is eaten it causes high blood pressure and respiratory failure.
Spurge (all): Any plant of the genus euphorbia with a milky juice and shrubby growth. Generally the hairs on the stem and leaves cause a severe skin irritation for a few hours.
Stavesacre: Also known as Lousewort. A lark spur with poisonous leaves having emetic and cathartic properties which lead to respiratory failure, bloat and death.
Strophanthus: A genus of tropical plants. Serves as a cardiac stimulant and can cause heart palpitations and death. Thornapple: Also known as the Devil's Apple and Devil's Trumpet. A hawthorn or its apple like fruit. It is used as a narcotic causing hallucinations.
Wake Robin: Also known as Dragon Root. Any of a number of plants with leaves grouped in three. Causes irritation, swelling of lips, tongue and throat.
Yew: Also known as Ground Hemlock. Any of what evergreen tree.
Nervousness
and trembling.


## HERBS

The following details the common magical folklore of herbs. Some of the magic effects would be quite potent if used exactly as written, potentially unbalancing for a role-playing game that utilizes a class-and-level system. The GM may wish to assign rarity, increasing price for certain herbs with powerful magical effects if he intends to allow herbal magic to work as strictly indicated. One recommendation is to use the chart as a guide to creating new spells, with these herbs used as the components. Or the GM can allow the herbs to substitute for components used in existing spells with effects similar to those listed in the chart. Or perhaps the herbs, when magically "activated", could serve as magic items, granting saving throw bonuses or having charges with spell effects similar to each description. It should be at the GM's discretion to determine whether the preparation of an herb for magical activation will be as described, or will be more complicated than described.

## Animal Magic

Catnip: Cat mint. Nepeta cataria. Parts used: fresh leaves. Crush a handful of fresh leaves before giving to a cat. You will develop a bond with the cat, and the cat may willingly become your familiar.
Cloth-of-Gold: Crocus augustifloia. Parts used: fresh sprig. As a brooch, grants ability to communicate with animals. Holly: Bat's Wings, Tinne. Ilex aquifolium or I opaca. Parts used: fresh sprig of leaves and berries. Throw a fresh sprig of holly towards a wild animal and it will quietly lie down to let you safely pass.
Juniper: Gin Berry. Juniperus communis. Part used: fresh sprig. Wear a sprig of fresh Juniper to be protected against attacks from wild animals.
Marigold: Calendula. Calendula officinalis. Part used: fresh flowers. Place a fresh marigold in your shoe (next to the skin) to be able to understand the languages of wild birds.

## Anti-theft

Cumin: Cumimum Cyminum. Part used: seeds. Hide a few cumin seeds in or with any item to prevent it from being stolen from you.
Garlic: Stinkweed. Allium sativum. Part used: fresh or dried bulbs. Hang over the door of your dwelling to protect your possessions against theft.
Juniper: Gin Berry. Juniperus communis. Part used: sprig or berries, fresh or dried. Store a sprig of juniper, or a few juniper berries with your possessions and they will not be stolen from you.
Rosemary: Sea Dew. Rosemarinus officinalis. Part used: fresh branches. Hang fresh branches of rosemary on the door of your dwelling to protect the possessions therein from thieves.
Vetivert: Khus Khus. Vetiveria zizanioides. Part used: dried root, oil. To prevent an item from being stolen from you, pass it through the smoke of burning vetivert.

## Beauty

Avocado: Persea. Persea americana. Part used: dried pit. Carry whole pit as a charm to keep you beautiful.
Fern: Polypodiaceae spp. Part used: fresh sap. A spoonful of fresh fern sap brings eternal youth when ingested.
Myrtle: Myrtus communis. Part used: fresh leaves. Drink a tea brewed from fresh myrtle leaves every three days and you will remain youthfully beautiful.

## Chastity

Camphor: Cinnamoтит camphora. Part used: fresh gum or oil. Inhale to guard against seduction.
Coconut: Cocos nucifera. Part used: milk. Drink coconut milk to protect against seduction.
Cucumber: Cucumis sativus. Part used: juice. Drink fresh cucumber juice to guard against seduction.
Sunflower: Helianthus annus. Part used: fresh juice. Anointing the forehead with fresh Sunflower juice will guard against seduction.
Vervain: Simpler's Joy. Verbena officinalis. Part used: fresh juice. Fresh vervain juice, when ingested, is a very potent potion for protection against seduction.

## Courage

Cohosh, Black: Bugbane. Cimicifuga racemosa. Part used: rootstock. Carry a piece of fresh rootstock in a red cloth or wear a piece of dried rootstock on a red cord to promote courage.

Columbine: Lion's Herb. Aquilegia Canadensis. Part used: fresh flower, with stem and leaves. Worn as a brooch, this gives courage.
Mullein: Graveyard Dust. Verbascum thapus. Part used: fresh flowers. Wear a eorsage of fresh mullein flowers to gain courage.

Nettle: Stinging Nettle. Urtica dioica. Part used: fresh leaves. Mixed with fresh Yarrow flowers and carried wrapped in red cloth, Nettle leaves protect against fear.
Yarrow: Staunch Weed. Achillea millefolium. Part used: fresh flowers. Worn against the skin, fresh yarrow flowers protect their bearer from fear.

## Divination \& Prophecy

Angelica: Masterwort. Angelica archangelica. Part used: dried leaves. Smoke the dried leaves to see the future.
Ash: Nion. Fraxinus excetsior or F. americana. Part used: wood. Fresh leaves under your pillow will give you dreams of things to come.
Belladonna: Banewort. Atropa belladonna. Part used: dried leaves. A tea made from belladonna will bring visions of the future, particularly those pertaining to the outcome of a battle or war. Be warned, though, since it is poisonous, it may also kill the user.
Bistort: Dragon Wort. Polygonum bistorta. Part used: dried root. Burned with Frankincense resin, assists in divination. Bleeding Heart: Dicentra spectabilis. Part used: fresh flower. To know if someone loves you, crush one of these flowers. If the juice is red, they do. If it is white, they do not.
Bracken: Pteridium aquilinium. Part used: dried root. Place dried bracken root under your pillow to dream of the answer to a problem.
Buchu: Bookoo. Agathosma betulina. Part used: dried leaves. Drink a tea of buchu leaves and to see the future.
Coltsfoot: Bull's Foot. Tussilago farfara. Part used: fresh or dried leaves. Burn as an incense. Inhale the smoke to receive visions of the future.
Crocus: Crocus vernus. Part used: dried bulb. Burn with alum powder to see in the smoke the face of one who has stolen from you.
Cypress: Death Tree. Cupressus sempervirens. Part used: wood. A Mallet made of cypress wood can be used to locate a thief. The person who was stolen from should hit the suspects with the mallet. The innocent will not bruise from the strike.
Damiana: Turnera diffusa. Part used: fresh or dried leaves. Burn to provide visions pertaining to any problem the user focus on.
Deadly Nightshade: Dwayberry. Solanum nigrum. Part used: dried leaves. Sprinkle a powder made from dried deadly nightshade leaves into the wind to receive a vision of the true motive at work in any situation.
Goldenrod: Wound Wort. Solidago odora. Part used: fresh flowers. Wear a piece to gain vision of the future, especially in matters of love or betrayal of the heart.
Ground Ivy: Cat's foot. Nepeta glechoma. Part used: fresh stalks. Tie a fresh stalk around the base of a yellow candle to discover the identity of an evil mage who is plotting against you.
Heliotrope: Turnsole. Heliotropium europaeum. Part used: fresh flowers. Place a stalk of fresh flowers under your pillow to have prophetic dreams (excellent for finding a thief).
Hibiscus: Hibiscus spp. Part used: fresh flowers. Add a few fresh flowers to water in a dark-colored wooden bowl to use in divination. The answers you seek will appear on the surface of the water.
Jasmine: Jasminum officinale. Part used: dried flowers. Burn immediately prior to sleeping to dream of the future.
Kava-Kava: Ava Root. Piper methysticum. Part used: fresh leaves. A strong brew from fresh kava kava leaves, when ingested, will enhance psychic abilities and give useful visions.
Marigold: Calendula. Calendula officinalis. Part used: fresh flowers. Place a bouquet of fresh marigolds under your bed before sleeping to have prophetic dreams or to learn the identity of a thief who has stolen from you.
Meadowsweet: Bridewort. Spiraea filipendula. Part used: fresh sprig. To determine the gender of one who has stolen from you, place a fresh sprig of meadowsweet on the surface of a calm water. If it floats, the perpetrator is a woman. If it sinks, a man.
Mugwort: Artemisia. Artemisia vulgaris. Part used: fresh or dried leaves, oil. Drink a tea brewed from fresh mugwort leaves to assist in Divination spells.
Orange: Citrus sinesis. Part used: fresh fruit. A yes or no question can be answered by counting the number of seeds in an o range you are eating. An odd number means yes, and an even number means no.
Peppermint: Brandy Mint. Schinus molle. Part used: fresh leaves. Place beneath your pillow before going to sleep and you may dream of the future.
Saffron: Crocus sativa. Part used: fresh flowers. Drink a brew of fresh saffron to be able to foretell the future.
Stillengia: Yaw Root. Stillingia sylvatica. Part used: dried root. To locate a lost object, burn the dried root of stillengia. The location of the item will appear in the smoke.
Tea: Camellia spp. Part used: dried leaves. A handful of dried tealeaves, dropped onto a flat surface or into still water will show the future.

## Eloquence

Cinquefoil: Five-finger. Potentilla canadensis. Part used: dried leaves. Worn, a sprig of cinquefoil will provide increased eloquence in dealings with nobility and legal officials.
Joe-Pye Weed: Boneset, Gravelroot. Eupatorium spp. Part used: fresh leaves. To gain respect and eloquence, carry with you three fresh leaves of Joe-Pye weed.
Sweetpea: Lathyrus odoratus. Part used: fresh flowers. When worn, fresh sweetpea flowers enhance the social graces and popularity of the wearer.

Fidelity
Basil: Witches' Herb. Ocimum basilicum. Part used: dried leaves. Crumble on pinch of dried leaves and wrap in red cloth. Wear over the heart as an amulet to ensure the fidelity of a loved one.
Chickweed: Stitchwort. Stellaria media. Part used: dried sprig. A dried sprig of chickweed, when carried, will ensure that your lover remains true to you.
Chickweed: Stitchwort. Stellaria media. Part used: fresh or dried leaves and stems. Place a dried sprig in a locket and give to a loved one to ensure their fidelity.
Chili Pepper: Capsicum spp. Part used: dried fruit. Tie two dried peppers together in a cross-shape with red ribbon and place under your pillow to ensure the fidelity of a loved one. If they come untied, your lover has been untrue.

Flying
Basil: Witches' Herb. Ocimum basilicum. Part used: fresh juice. Drink $1 / 2$ cup of fresh basil juice to aid flight.

## Healing

Adder's Tongue: Serpent's Tongue. Erythronium americanum. Part used: stalk and flower. To quickly cure a wound, soak whole herb in water and apply as a wet poultice. Bury when cured, or the wound will return.
Aloe: Burn Plant. Aloe vera or A. spp. Part used: fresh leaves. The leaf sap applied to a cut or burn speeds healing.
Balm, Lemon: Melissa. Melissa officianalis. Part used: fresh sprig of leaves and flowers. It you've receive a sword wound, attach a fresh sprig of lemon balm to the hilt of the weapon that pierced you, and your wound will heal.
Blackberry: Bramble. Rubus villosus. Part used: Fresh Leaves. Nine fresh blackberry leaves, soaked in water from a natural spring and placed on a burn will speed healing.
Burdock: Beggar's Buttons. Arctium lappa. Part used: fresh rootstock. Place a slice of fresh burdock root on a cut or scratch to speed healing.
Chrysanthemum: Mum. Chrysanthemum spp. Part used: flowers. Boil the flowers in water and drink to against drunkenness, hang-overs, etc.
Cucumber: Cucumis sativus. Part used: fruit. Fresh cucumber juice is a very mild healing potion.
Eucalyptus: Eucalyptus globulus. Part used: fresh leaves, stems. Hang over the bed of one who is ill to speed healing.
Gardenia: Gardenia spp. Part used: fresh flowers. Place next to a sick bed to speed the healing of the ill.
Hyacinth: Hyacinthus orientalis. Part used: fresh flowers. To cure someone who is under the influence of a glamouryhave him or her smell a fresh hyacinth bloom.

## Hex-Breaking

Bay: Laurel. Laurus nobilus. Part used: dried leaves. Burn mixture of dried leaves and sandalwood power to remove hexes and evil spells.
Elder: Lady Ellhorn. Sambucus canadensis. Part used: wood. Touch an evil mage with a stick of elder and evil spells that he has cast on you will be lifted.
Huckleberry: Gaylussacia spp. Part used: fresh berries and leaves. Carry one week to break any spells that have been cast upon you. Bury the charm at the end of that time.
Leek: Allium spp. Part used: fresh bulbs. Bite into a fresh Leek and spit it out to be rid of curses, and evil presences.

## Hunting and Fishing

Fuzzy Weed: Tarragon. Artemisia dracunculus. Part used: dried leaves. Carry a fresh spring for luck when hunting. Hawthorn: Hagthorn. Cratagus oxacantha. Part used: fresh or dried berries. Carried ensures a good catch of fish.

Parosela: Desert Rue. Parosela spp. Part used: fresh or dried flowers. Wear a stalk of parosela flowers while hunting to ensure a successful hunt.
Yellow Primrose: War Poison. Oenothera biennis. Part used: fresh flowers. Rub the soles of your shoes with fresh yellow evening primrose flowers to zensure a bountiful hunt.

## Invisibility

Aconite: Monk's Hood. Aconitum napellus. Part used: fresh leaves. A chaplet of fresh Aconite, when worn, grants its wearer invisibility.
Amaranth: Velvet Flower. Amaranthus hypochondriacus. Part used: fresh flowers. Wear a circle of amaranth blossoms on your person to become invisible.
Chicory: Succory. Cichorium intybus. Part used: rootstock. A sprig of chicory that was harvested with a gold knife can be dried and worn as a charm to induce invisibility.
Clover: Honeystalks. Trifolium spp. Part used: dried four-leaved clover. Placed in a locket with seven grains of wheat, this gives the ability to see faeries and invisible creatures and spirits.
Edelweiss: Leontopodium alpinum. Part used: fresh flowers. Wear a wreath of edelweiss to gain invisibility.
Hazel: Corylus spp. Part used: wood. A crown of hazel twigs when worn grants invisibility.
Heliotrope: Turnsole. Heliotropium europaeum. Part used: fresh flowers. Carry a bull's horn filled with heliotrope flowers confers invisibility.
Mistletoe: All Heal.Viscum album. Part used: fresh sprig. Wear on a silver cord around your neck to become Invisible. Poppy: Blind Buff. Popaver spp. Part used: seeds. Steep seeds in wine to produce a potion for invisibility.

## Locks and Bonds

Celandine: Swallow-wort. Chelidonium majus. Part used: fresh leaves and stems. Worn next to the skin, celandine assists in escaping from bonds and unwarranted imprisonment.
Lotus: Nymphaea lotus. Part used: root. Place a piece of lotus root in your mouth and speak the phrase "Sign, Argis" to make a locked door open.
Moonwort: Botrychium spp. Part used: fresh sprig. Place a sprig of fresh moonwort in a lock and it will open. Touch it to a chain, and the chain will break.

## Love

Adam and Eve Roots: Orchis spp. Part used: dried rootstocks. Carry both roots in a small bag as a charm.
Aster: Starwort. Callistephus chinensus. Part used: seeds. To make someone love you, speak his or her name while planting a seed. They will fall in love with you before the first flower blooms.
Balm, Lemon: Melissa. Melissa officianalis. Part used: fresh leaves. Brew in white wine for a mild love potion.
Barley: Hordeum spp. Part used: Grain. Add a grain to a love potion to increase its potency.
Cardamom: Elattario cardamomum. Part used: seeds, oil. Grind seeds and add to warm wine for a love potion.
Cherry: Prunus avium. Part used: whole plant. To find love, tie a strand of your hair around the branch of a blossoming cherry tree. To attract the love of someone in particular, tie a strand of his or her hair around the branch.
Clove: Syzygium aromaticum. Part used: dried buds. Wrap a few whole cloves in red cloth and carry in the pocket to attract the opposite sex.
Copal: Bursera odorata, B. spp. Part used: dried resin. Place a chunk in a poppet (magical doll signifying the person on whom your spell is being cast) stuffed with rose petals to attract the love of a particular person.
Coriander: Cilantro. Coriandrum sativum. Part used: seeds. Add powdered seeds to warm wine to create an aphrodisiac potion.
Fig: Ficus carica. Part used: fruit. To win someone's heart, give him or her a fig fruit as a gift. If they eat it, they will fall in love with you.
Ginger: Zingiber officinalis. Part used: fresh root. Eat fresh ginger root prior to casting a love spell and your spell is sure to succeed.
Lavendar: Lavendula officinale. Part used: fresh flowers. Rub the fresh flowers over your clothing to find love.
Rose: Rosa damascena. Part used: fresh flowers. For a potent love potion, make a strong brew from fresh rose flowers.
Violet: Viola odorata. Part used: fresh flowers. Mix with lavendar in a sachet and carry to attract love.
Wormwood: Absinthe. Artemisia absinthium. Part used: dried leaves. Wormwood is the main ingredient in the famed love potion Absinthe.

## Luck

Be-Still Seeds: Lucky Beans. Thevetia nereifolia. Part used: seeds. String on a cord to wear as a necklace. Brings the wearer luck.
Elder: Lady Ellhorn. Sambucus canadensis. Part used: fresh leaves and berries. To grant luck to another either speak their name and scatter fresh elder berries and leaves in the wind or throw fresh elder and leaves over them.

Lucky Hand: Hand Root. Orchis spp. Part used: dried rootstock. The hand-shaped root of the orchid plant is a potent good luck charm when carried.
Oak: Duir. Quercus alba. Part used: acorn. An Acorn brings luck to one who carries it.
Rose: Rosa amascene. Part used: dried fruit (rose hips). Dried rose hips bring luck and good fortune to their bearer.

## Magical Power

Aloes, Wood: Lignum. Aquilaria agallocha. Part used: dried sprig. Add to magical incenses or brews to strengthen their power.
Briony: Ladies' Seal. Briony spp. Part used: dried sprig. Burn as an incense to assist in illusion spells.
Cinnamon: Sweet Wood. Cinnamomum zeylanicum. Part used: dried bark. When burned as incense, cinnamon will add power to any magical spell.
Gentian: Bitter Root. Gentiana lutea. Part used: dried root. Add a pinch to boost the power of any sachet or incense.
Lemon Verbena: Cedron. Lippia citriodora. Part used: dried leaves. Add a pinch of verbena to any sachet or incense to boost its power.
Mastic: Pistacia lentiscus. Part used: gum. Add a pinch of mastic gum to any incense to enhance its power.
Vervain: Simpler's Joy. Verbena officinalis. Part used: dried leaves. Use as an ingredient in Love and Protection spells to give them added strength.

## Magical Tool- and Item-Crafting

Almond: Prunus Dulcis. Part used: wood. The wood of an almond tree makes a powerful magic wand, particularly for use in magic related to air orsSpirit.
Apple: Silver Bough. Pyrus malus, $P$. spp. Part used: wood. The wood of an apple tree makes a powerful magic wand, particularly for use in magic related to love or wisdom.
Ash: Nion. Fraxinus excetsior. Part used: wood. The wood of an ash tree makes a powerful magic wand, particularly for use in magic related to healing or water.
Cypress: Death Tree. Cupressus sempervirens. Part used: wood. The wood from a cypress tree makes a powerful wand for healing magic.
Ebony: Diospryos lotus. Part used: wood. Ebony wood makes for a powerful, all purpose magical wand.
Hazel: Corylus spp. Part used: wood. Hazel wood makes a good all-purpose magic wand, especially good for dowsing.
Hemlock : Beaver Poison. Conium maculatum. Part used: fresh juice (sap). Strengthen any magic blade by rubbing a bit of fresh hemlock juice onto it.
Licorice: Sweet Root. Glycyrrhiza glabra. Part used: rootstock. A large piece of dried licorice root makes a good magic wand, especially for spells pertaining to love.
Mandrake: Gallows, Ladykins. Mandragora officinale. Part used: dried rootstock. A whole mandrake root makes a powerful poppet (magical doll signifying the person on whom your spell is cast) for use in healing or protective magic. Myrrh: Commiphora myrrha. Part used: resin. Pass items through the smoke from burning myrrh gum before infusing them with magical energy to ensure success.
Pear: Pyrus communis. Part used: wood. The wood from a Pear Tree makes a good all-purpose magic wand.
Poke: Crowberry. Phytolacca americana. Part used: fresh juice. Use fresh pokeberry juice as ink in magical workings.
Rose: Rosa damascena. Part used: wood. Rose wood is excellent for making magic wands, particularly those for use in love magic.
Rowan: Quickbane, Witchwood. Sorbus acuparia. Part used: wood. The wood from a rowan tree makes an excellent all-purpose magic wand.
Willow: Saille, Osier. Salix alba. Part used: wood. Willow wood makes a potent magic wand, especially for protection against magic.
Witch Hazel: Winterbloom. Hamamelis virginica. Part used: wood. The wood from a witch hazel tree makes a powerful divining rod.

## Mental Awareness

Eyebright: Euphrasia officinalis. Part used: fresh or dried leaves and flowers. Drink a brew of eyebright for mental clarity and improved memory.

Horehound: Haran. Marrubium vulgare. Part used: fresh leaves. A tea made from fresh horehound, when ingested, gives heightened mental awareness and clarity.
Periwinkle: Blue Buttons. Vinca minor. Part used: live plant. Gazing upon a periwinkle plant that is growing naturally in the wild will cause you to
remember things that have been forgotten.

Spearmint: Yerba Buena. Mentha spicata. Part used: fresh leaves. To gain enhanced concentration and mental faculties, smell the fresh leaves of a spearmint plant.
Vanilla: Vanilla aromatica. Part used: dried, cured beans. To remember things forgotten and improve mental capacities, carry a vanilla bean.

## Money

Almond: Prunus Dulcis. Part used: nuts. Carry 5 almonds in your pocket and you will find treasure.
Angelica: Masterwort. Angelica archangelica. Part used: dried root. Carry a piece for luck in gambling.
Basil: Witch's Herb. Ocimum basilicum. Part used: dried leaves. Dried basil leaves in your pocket attracts money. Placed in a cash register, it draws customers to your business.
Benzoin: Benjamin. Styrax benzoin. Part used: gum. An incense of basil, benzoin and cinnamon will attract customers to a business.
Bergamot: Orange Mint. Citrus bergamia. Part used: fresh leaves. A fresh leaf in your wallet will attract money.
Bladderwrack: Kelp, Seaweed. Fucus visiculosus. Part used: fresh leaves. To attract money into your home or business, place fresh kelp in a jar of whiskey.
Chamomile: Ground Apple. Anthemis nobilius. Part used: brew of fresh flowers. Rub chamomile brew on hands before gambling to ensure good winnings.
Cowslip: Fairy Cup, Peggle. Primula veris. Part used: fresh flowers. Carry a bouquet of flowers to ensure success when searching for treasure.
Devils Shoestring: Viburnum alnifolium. Part used: dried root. Carry in pocket for luck in gambling.
Flax: Linseed. Linum usitatissimum. Part used: dried flower. Place in the shoe to ensure enduring prosperity.
Galangal: Chewing John. Alpina officinalis. Part used: dried root. Wrap in a piece of leather with a silver coin for a charm that attracts money.
Goldenrod: Wound Wort. Solidago odora. Part used: fresh flowers. Hold a fresh goldenrod flower upright in your hand and it will bend in the direction of hidden treasure or lost objects, like a dowsing rod.
Patchouly: Puchapot. Pogostemon patchouli. Part used: fresh leaves or juice. Place a fresh patchouly leaf in your wallet to attract money. Rub money with patchouly Juice before spending to ensure its return to you.
Pomegranate: Pound Garnet. Punica granatum. Part used: wood. A branch of pomegranate wood, when carried, will lead its bearer to wealth.
Vetivert: Khus Khus. Vetiveria zizanioides. Part used: dried root, oil. Place in a cash register to attract customers to your place of business.

## Night-vision

Rowan: Quickbane, Witchwood. Sorbus acuparia. Part used: wood. A walking stick of rowan wood gives safe passage to nighttime forest travelers by allowing them to see in dim light.

## Protection

Acacia: Egyptian Thorn. Acacia senegal. Part used: fresh sprig. Hang over bed to keep evil at bay while you sleep. African Violet: Saintpaulia ionantha. Part used: whole plant. Sleep in a naturally forming circle of these and you will be protected from harm.
Agrimony: Sticklewort. Agrimonia eupatoria. Part used: fresh leaves. Three fresh leaves carried on your person will keep you protected from goblins and poison. It will also send any spells evil spells cast upon you back upon the caster. Alyssum: Madwort. Alyssum spp. Part used: dried stalk. Carried as an amulet, protects the bearer against being charmed. Amaranth: Velvet Flower. Amaranthus. Part used: whole plant. A whole amaranth plant wrapped in white cloth and worn against the breast gives protection from missile weapons (arrows, bullets, etc.)
Arbutus: Arbutus unede. Part used: fresh sprig. A child wearing a fresh sprig of arbutus will be protected from harm. Ash: Nion. Fraxinus excetsior. Part used: twigs. A necklace of ash twigs will protect you from snakebites. A circlet of fresh, green bark protects against sorcery.
Avens: Bennet. Geum urbanum. Part used: dried flower. Carry as an amulet to protect against poison or venom.
Betony, Wood: Bishopwort. Betonica officianalis. Part used: dried leaves and stems. Carry in the pocket as an amulet to prevent intoxication or wear as a talisman to protect your soul as well your body.
Birch: Beth. Betula alba. Part used: wood. A walking stick of birch wood will protect its owner from lightning. With a red ribbon tied around it, it will also provide protection from foul magic.
Bladderwrack: Kelp, Seaweed. Fucus visiculosus. Part used: dried leaves. Wrap in a cloth and carry with you while traveling over water for a safe journey. This will also prevent insanity.
|

Blueberry: Vaccinum frondosum. Part used: fresh fruit. Eat a handful of fresh blueberries to fend off psychic attacks. Buckthorn: Rhamnus spp. Part used: fresh branches. Fresh branches placed at doors and windows will protect from magic spells.
Burdock: Cockleburr. Arctium lappa. Part used: dried rootstock. Cut into chunks and string on red thread. Wear as a necklace to protect yourself from evil.
Caraway: Carum carvi. Part used: seeds. A few seeds carried in a red cloth will protect their bearer from evil sprits.
Cascara Sagrada: Rhamnus purshiana. Part used: bark. Wear as an amulet to guard against hexes and malign magic.
Castor: Palma Christi. Ricinus communis. Part used: dried beans. Carry as a talisman to absorb any evil spells that are directed at you.
Cedar: Cedrus libani or C. spp., Juniperus virginiana. Part used: wood. An upright three-pronged staff of cedar wood will ward off evil.
Chrysanthemum: Mum. Chrysanthemum spp. Part used: flowers. A fresh flower protects against vengeful deities.
Club Moss: Foxtail. Lycopodium clavatum. Part used: fresh foliage. Harvested with a silver blade, club moss can be carried to provide protection and good favor from deities.
Datura: Sorcerers' Herb. Datura stramonium. Part used: dried leaves. Sprinkle dry, powered leaves around home to protect versus evil spirits.
Devil's Bit: Scabiosa succisa. Part used: flower. Wear on a necklace as amulet to protect against evil spirits.
Devils Shoestring: Viburnum alnifolium. Part used: dried leaves and stems. Wear on a necklace against poisoning.
Dill: Dilly. Anethum graveolens. Part used: seeds. Used as an amulet to protect children.
Dragon's Blood: Daemonorops draco. Part used: dried or liquid resin. A warrior should smear fresh dragon's blood resin over his chest to protect against sword wounds.
Edelweiss: Leontopodium alpinum. Part used: root. An amulet made from edelweiss harvested during the full moon protects against daggers and missile weapons.
Elm: Elven Tree. Ulmus campestris. Part used: wood. Protects against lighting strikes.
Eryngo: Sea Holly. Eryngium spp. Part used: dried leaves and stems. Carry for safety during traveling.
Euphorbia: Spurge. Euphorbia spp. Part used: milk (sap). Worn in a vial around the neck, euphorbia is a very powerful protective amulet.
Fennel: Foeniculum vulgare. Part used: seeds, oil. Fennel hung up at windows and doors wards off evil spirits.
Figwort: Scrophularia nodosa. Part used: dried leaves and stems. Wear in a sachet around the neck for protection against the "evil eye".
Flax: Linseed. Linum usitatissimum. Part used: fresh flowers. Wear to be protected against sorcery.
Foxglove: Fairy Fingers. Digitalis purpurea. Part used: fresh flowers. Grind the fresh flowers into a liquid. A line painted on the floor with this liquid cannot be crossed by evil.
Garlic: Stinkweed. Allium sativum. Part used: fresh or dried bulbs. Carry to protect against shipwrecks. Wear to protect against foul weather and monsters (including vampires).
Geranium: Pelargonium graveolens. Part used: fresh flowers. Rub the windowsills and doorknobs of your dwelling and you'll be safe within.
Hawthorn: Hagthorn. Cratagus oxacantha. Part used: fresh or dried berries. Protects against lightning and evil spirits when grown indoors.
Hazel: Corylus spp. Part used: wood. 3 twigs of Hazel placed in a window sill guard against lightning, and nailed into the window it protects against fire.
Heather: Heath. Calluna spp. Part used: fresh or dried Flowers. Carry as a talisman to protect against violent crime.
Hickory: Carya spp. Part used: burnt wood (ashes). Add the ashes of a piece of burnt hickory to an equal part of cinquefoil. Place over the door of your dwelling, and you will be free of trouble with the law.
Holly: Bat's Wings, Tinne. Ilex aquifolium or I opaca. Part used: fresh sprig of leaves and berries. Wear a fresh sprig of holly with three berries on it to be protected from lightning, poison and malign spirits.
Horehound: Haran. Marrubium vulgare. Part used: dried leaves. Wrapped in a white cloth and carried, dried horehound leaves protect against sorcery, seduction and illusion.
Irish Moss: Pearl Moss. Chondrus crispus. Part used: whole plant, fresh or dried. Carry a bit of irish moss in your pocket while traveling to ensure a safe journey.
Lime: Citrus aurantifolia. Part used: wood. Carry a few twigs from a lime tree to be guarded from hexes and evil spells, including the evil eye.
Lieden: Tilia eoropaea. Part used: dried flowers and leaves. Hang a branch from a linden tree over the door to your dwelling and you will be safe within. Carry a piece of linden bark with you to be protected from the effects of poison or intoxication.
Mistletoe: All Heal. Viscum album. Part used: fresh sprig. Wear as a brooch, or hang over your door to be safe from lightning and fire.

Mugwort: Artemisia. Artemisia vulgaris. Part used: fresh or dried leaves, oil. Carry a sachet stuffed with fresh mugwort leaves to be safe from poison.
Nettle: Stinging Nettle. Urtica dioica. Part used: fresh or dried stalk. Throw a stalk of nettle into a fire and that fire will not burn you.
Periwinkle: Blue Buttons. Vinca minor. Part used: fresh sprig. Carry a fresh sprig of periwinkle to be protected from poison, venom, wild animals and fear.
Pimpernel: Poorman's Weatherglass. Pimpinella spp. Part used: fresh or dried sprig. Carried, a sprig of pimpernel is a potent charm to protect against deception.
Purslane: Pigweed. Portulaca sativa. Part used: fresh sprig. Carry when going into battle for protection from harm.
Raspberry: Rubus idaeus. Part used: wood. Hang branches of raspberry wood over the doors and windows of your dwelling to protect it from the intrusion of unwanted spirits.
Rowan: Quickbane, Witchwood. Sorbus acuparia. Part used: wood. Two twigs of rowan, tied together in a cross formation with red string make a good amulet for protection.
Sandalwood: Santalum album. Part used: wood. A necklace made of Sandalwood beads provides protection from all manner of harm and evil to its wearer.
Tormentil: Shepherd's Knot. Potentilla tormentilla. Part used: dried root. A brew made from tormentil, when ingested, protects against possession.
Wormwood: Absinthe. Artemisia absinthium. Part used: dried leaves. A sprig of wormwood, when carried, protects its bearer from all manner of enchantment.

## Psychic Power

Acacia: Egyptian Thorn. Acacia senegal. Part used: powdered gum. Mix with sandalwood powder for an incense to enhance psychic abilities.
Bay: Laurel. Laurus nobilus. Part used: dried leaves. Drink a strong tea of dried leaves to gain clairvoyance. Burn dried leaves to see visions of the future.
Borage: Bugloss. Borago officianalis. Part used: fresh, young leaves. To strengthen psychic powers, drink a tea made from fresh young borage leaves.
Dandelion: Cankerwort. Taraxacum officinale. Part used: freshly-picked seed-head. To communicate with someone, think of your message and blow the seeds of the dandelion toward them.
Deerstongue: Wild Vanilla. Frasera speciosa. Part used: dried leaves. Wear a fresh spring of deerstongue to increase psychic abilities.
Elecampane: Elf Dock. Inula helenium. Part used: dried root. Smolder as an aid in casting the scry spell.
Eyebright: Euphrasia officinalis. Part used: fresh or dried leaves and flowers. Rub a brew of eyebright over the eyelids for clairvoyance or true-seeing spells.
Galangal: Chewing John. Alpina officinalis. Part used: dried root. Aids in psychic development when worn over a long period of time.
Honeysuckle: Woodbine. Lonicera caprifolium. Part used: fresh flowers. Fresh honeysuckle flowers, gently crushed, will strengthen psychic abilities when rubbed over the forehead.
Star Anise: Illicum verum. Part used: seeds. An incense of star anise seeds, when burned, improves psychic abilities.

## Purification and Exorcism

Asafoetida: Devil's Dung. Ferula foetida. Part used: gum. Throw a little asafoetida gum into an open flame to send a spirit back to its own world, but do not use much, because it smells bad - really bad.
Broom: Besom. Cytisus scoparius. Part used: dried flowers. To chase away spirits, make a tea of broom flowers and sprinkle it around the affected area.
Fern: Polypodiaceae spp. Part used: dried fronds (leaves). Burn indoors to chase away evil spirits.
Frankincense: Boswellia carterii. Part used: gum. Burn to hallow and purify against evil spirits and negativity.
Gum Arabic: Indian Gum. Acacia vera. Part used: powdered gum. Burn over open flame to purify an area of evil.
Hyssop: Hyssopus officinalis. Part used: fresh leaves. To banish negative energies from a place or object, sprinkle it with a brew made from fresh hyssop leaves.
Lemon: Citrus limon. Part used: fresh juice. To banish negative energies from a place or object, sprinkle it with a mixture of fresh lemon juice and water.
Mallow: Malva sylvestris, M. spp. Part used: fresh leaves. An ointment made with fresh mallow leaves will dispel spirits when rubbed onto the skin of one who is possessed.
Thyme: Thymus vulgaris. Part used: fresh or dried leaves, oil. Make a brew from fresh thyme leaves. Sprinkle it around in an area that you wish to cleanse of negative spirits and energies.

## Sleep

Agrimony: Sticklewort. Agrimonia eupatoria. Part used: fresh sprig. To make one sleep like the dead, place a fresh sprig of agrimony under their head. They sleep until it is removed.
Celery: Apium graveolens. Part used: seeds. A handful of seeds placed in a person's pillow renders them sound sleep.

## Snake-Repelling

Fern: Polypodiaceae spp. Part used: dried fronds (leaves). Smoke from burning fern drives away snakes or protects from snakes.
Geranium: Pelargonium graveolens. Part used: fresh flower. Wear a fresh geranium flower to be protected against snakes.
Lemongrass: Cymbopogon citratus. Part used: fresh leaves. Spread fresh lemongrass in a circle and stand within to be safe from the attack of a snake that would bite you.
Southernwood: Lad's Love. Artemisia abrotanum. Part used: dried leaves. The smoke of burning southernwood repels snakes.
Yellow Evening Primrose: Oenothera biennis. Part used: fresh flowers. Carry a fresh yellow evening primrose flower to be protected against snakes that would bite you.

## Spirit-Calling

Balm of Gilead: Balsam. Commiphora. Part used: dried buds. Burn as incense when calling spirits to a séance.
Bamboo: Bambusa vulgaris. Part used: wood. A flute carved from bamboo will call good spirits when played. To call a specific spirit, carve his or her name into the wood.
Bladderwrack: Kelp, Seaweed. Fucus visiculosus. Part used: fresh leaves. Throw into a natural body of water when summoning water elementals and spirits. They will come.
Dandelion: Cankerwort. Taraxacum officinale. Part used: dried root. Make a tea from the dried and powdered root. The steam will call spirits.
Elder: Lady Ellhorn. Sambucus canadensis. Part used: wood. A flute made from elder wood when played will call forth spirits.
Pipsissewa: Ground Holly. Chimaphila umbellata. Part used: dried leaves. Mix with rose hips and dried violet flowers for incense that is burned to call beneficial spirits.
Thistle: Carduus spp. Part used: fresh plant. To ask a question of a spirit, boil a whole fresh thistle plant. While looking into the steam, call the spirit you wish to contact and ask your question. Your answer will come.
Wormwood: Absinthe, Artemisia absinthium. Part used: dried leaves. Burn in a moonlit graveyard to raise the spirits therein.
Willow: Saille, Osier. Salix alba. Part used: wood or bark. Powder and mix with sandalwood powder and burn outdoors to call spirits for aid.

## Strength

Masterwort: Imperiatoria ostruthium. Part used: fresh sprig. Wear a fresh sprig of masterwort to physical strength.

## Weather Magic

Bracken: Pteridium aquilinium. Part used: dried leaves. Burn dried leaves on a bonfire to cause rain to fall.
Bladderwrack: Kelp, Seaweed. Fucus visiculosusrs. Part used: fresh leaves. To raise the winds, swing a strand of fresh seaweed in a clockwise circle over your head while whistling. This works best when looking out over water.
Broom: Besom. Cytisus scoparius. Part used: fresh flowers. Throw into the air while calling on air elementals. To make the wind cease, burn the flowers and bury the ashes.
Cotton: Gossypium barbadense. Part used: whole plant. Burn to make rain fall.
Fern: Polypodiaceae spp. Part used: fresh leaves. Burn outside to cause rain to fall.
Ginger: Zingiber officinalis.Part used: fresh root. A sailor faced with an oncoming storm can chew fresh ginger root and spit it out toward the storm to make it dissipate.
Heather: Heath. Calluna spp. Part used:fresh or dried flowers. Burn with fern fronds to bring rain.
Lobelia: Pukeweed. Lobelia inflata. Part used: dried leaves and stems. Throw this powder made from dried lobelia into the wind of an approaching storm to change its course.

Saffron: Crocus sativa. Part used: dried flowers. Burn dried saffron flowers to raise the winds.

Table 2:13 Herbs/Flora, d20 Magical Properties

| Name | Usage | Magical Property |
| :---: | :---: | :---: |
| Angelica | Antispasmodic, digestive, tonic | Self restraint, +1 Will Save. |
| Anise | sedative for insomnia, stimulant, tonic | +1 to DC spells (1x). |
| Balm | Skin purifier, digestive, sedative | Extra \% roll to stop bleeding if at death's door. |
| Basil | Anti-inflammatory, antiseptic, aromatic | 1d4gp gained in 1 week if down on luck. |
| Burdock | Antiseptic, diuretic, purgative | Acts as the spell Calm Emotions. |
| Chamomile | Wounds, open sores, sedative | +1 to Spellcraft roll. |
| Elecampane | Skin itch, breathing problems | +1 to Diplomacy checks. |
| Foxglove | Cardiac, sedative, narcotic | +1 to any Alchemy check. |
| Garlic | Purifier, antiseptic, digestive | +1 to Will saves vs. vampire's gaze. |
| Hawthorn | Blood pressure and the skin. | +1 to Heal checks. |
| Hellebore | Heart stimulation, depression | Extra save vs. severing silver cord while Astral. |
| Henbane | Narcotic, sedative (poisonous) | +1 caster level, Clairaudience. |
| Jimson Weed | Narcotic, hypnotic | +1 caster level, Divination. |
| Laurel | Tonic, soothing, purifying, digestion | +1 caster level, Control Weather. |
| Mallow | Swelling of eyes, inflammation of lungs | Prevents Rage for 1 hr , unless Will save is made. |
| Mandrake | Love, cough, asthma, hay fever | +1 to Skill check. |
| Mugwort | Sedative | +1 to Intuit Direction checks |
| Nettle | Purifying, anti-inflammatory | +1 to Diplomacy \& Sense Motive checks for 1 hr . |
| Nightshade | Narcotic, skin problems, fever, pain | Adds one question to Augury spell. |
| Rosemary | Stimulant, antiseptic, and anti-spasmodic | +1 to Diplomacy check. |
| Rue | Purifying | +1 to Sense Motive checks. |
| Sage | Astringent, antiseptic, anti-inflammatory | +1 to Charisma-related skill checks. |
| Skullcap | Spasms, restlessness, convulsions | +1 to Concentration checks. |
| Thyme | Antiseptic, tonic | +1 versus fear effects. |
| Valerian | Hypnotic, sedative, is calming | +1 to Spellcraft checks. |
| Vervain | Purifying, diuretic, digestive, astringent. | Druid add +2 to DC vs. Charm Person or Animal. |
| Witch Hazel | Purifying, skin exfoliant | +1 to Diplomacy checks. |
| Wormwood | Gallbladder, appetite, liver, vitality |  |

## Were-creatures

Arnica: Wolf's Bane. Arnica montana. Part used: fresh or dried flowers. Carry as a charm to repel were-creatures, or brew into a potion to cure lycanthropy.
Rue: Herbygrass. Ruta graveolens. Part used: fresh sprig. Carry fresh rue to be protected from poison and werecreatures.

## Wishes

Beech: Bok. Fagus sylvatica. Part used: wood. Write a wish on the wood and bury it. Your wish will come true.
Buckthorn: Rhamnus spp. Part used: powdered bark. Sprinkle in a circle beneath a full moon to conjure an elven spirit.
Dogwood: Cornus florida. Part used: sap. Place on a handkerchief at midsummer while speaking a wish. You will have your wish by midwinter if you carry the handkerchief constantly until then.
Ginseng: Panax quinquefolius. Part used: fresh or dried root. Carve a wish into a fresh ginseng root and toss into moving water; your wish may come true.
Grains of Paradise: Guinea Grains. Aframomum melequeta. Part used: seeds. Hold four grains of paradise (seeds), make a wish, and throw 1 seed as far as you can to each of the cardinal points of the compass.
Job's Tears: Tear Grass. Coix lachryma. Part used: seeds. Hold seven job's tears (seeds) in your hand and make a wish. Immediately throw the seeds into running water and your wish will come true.
Sage: Salvia officinalis. Part used: fresh leaves. A wish written on fresh sage leaf and placed beneath your pillow for three nights will come true.


Flower
Wild Hyacinth
Cupid's Dart
Lady Tulip
Hardy Gladiolus
Tulip
sun
Frikart's Aster
Cup Plan
Rodgersia
Persicaria
Light of Loddon
Perennial Sunflower
Atropurpureum
Delphinium
Kamchatka Bugbane
Globe Centaurea
Lamium
Bergenia
Bugleweed
European Columbine Daylily
Goat's Beard
Bellflower
Goat's Beard
Peony
Double Buttercup
Self-Heal
Goldsturm
Monkshood
Hosta
Giant Lily
Snowdrop
Trout Lily
Double Bloodroot
Daffodil
False Anemone Lily-of-The-Valley
False Bleeding Heart
Maderian Orchid
Deinanthe
Hacquetia
Summer Snowflake
Glaucidium
Brimeura
Nodding Trillium
Jack-in-the-Pulpit
Lily Leek
Toadshade
Great Merrybells
Bear's Breech
SeaLavender
Wandflower
Globe Thistle
Sea Holly
Torch Lily
Tree Mallow
Toadflax


| Soil Type | Type |
| :--- | :--- |
| Dry, in sun | Bulb |
| Dry, in sun | Perennia |
| Dry, in sun | Bulb |
| Dry, in sun | Bulb |
| 6in/4in | Dry, in |

Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
Heavy clay Perennial
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Heavy clay Perennial
Moist, in shade Bulb
Moist, in shade Bulb
Moist, in shade Bulb
Moist, in shade Perennial
Moist, in shade Bulb
Moist, in shade Perennial
Moist, in shade Perennial
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Moist, in shade Perennial
Moist, in shade Bulb
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Moist, in shade Bulb
Moist, in shade Perennial
Moist, in shade Bulb
Moist, in shade Bulb
Moist, in shade Perennial
Moist, in shade Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial
Sandy/drained Perennial



## Table 2:14 The Horse

Work, Miscellaneous Information Average weight
Best speed for prolonged movement
Life expectancy
Maturity
Stall length
Stall width, minimum
Strength
Deprivation and life expectancy with food, no water with water, no food without food or water

1,000 pounds
2.5 mph and a working time of 11.5 hours

16-25 years of age (camel 35 to 40, ox 15-20)
5 years of age (camel 8, ox 4)
10 feet.
4.5 feet, 8 feet average; foaling stall 10 feet x 16 feet.

5 men

5 days
25 days
17 days

Horse, average speed walk 400 yards in 4.5 minutes trot 400 yards in 2 minutes canter 400 yards in 1.5 minutes gallop 400 yards in 1 minute

## Carrying/Draught Capacity \& Movement

Horse, average, draught:
Horse, average, draught:
Horse, average, draught:
Horse, average, pack:
Horse, average, riding:
draws 1,600 pounds over typical good roads 20 miles per eight hours draws 12,800 pounds using steel railway tracks 20 miles per eight hours draws 58,000 pounds towing a barge 20 miles per eight hours carries 250 pounds over level ground 25 miles per day per eight hours carries 250 pounds over level ground 30 miles per eight hours

## Horse Colors

Bay: A dark brown horse with a black mane.
Black: Dark, usually white socks with black mane.
Buckskin: A light brown, tan horse with a black mane.
Chestnut: A reddish brown with a black mane.
Dapple Gray: White to light grary horse, mottled with darker gray.
Gray: Gray, light or dark, with white mane.
Palomino: A dark blond with a lighter blonde mane.
Paint (a kind of splotched pinto): A horse with patches of different colors, browns, blacks or whites.
Piebald: Black and white spotted.
Pinto: A spotted calico.
Roan: Chestnut, bay or sorrel thickly sprinkled with white or gray.
Sorrel: A brownish orange to light brown, reddish brown or dark mane.
White: White horse with light colored mane.

Table 2:15 Other Common Draft Animals

| Animal | Weight in lbs. | Distance over level ground <br> in 8 hours |
| :--- | :--- | :---: |
| Camel, Bactrian | 350 | 15 |
| Camel, Dromedary | 300 | 20 |
| Dog, Average Work | 20 | 25 |
| Elephant | 1,500 | 25 |
| Llama | 80 | 20 |
| Mule | 300 | 20 |
| Ox | 300 | 10 |
| Reindeer | 40 | 20 |
| Yak | 300 | 12 |

## BOOK THREE DWELLINGS

In the days of the first Kingdoms there was peace. The Dwarves called themselves the "Folk" and with an ever increasing' population, the Folk spread througout the lands building towns and villages, halls and castles.
~~The Codex of Erde

## MATERIALS \& CONSTRUCTION

Stone. Timber. Wrought iron. Where men live, they build. What they build can be as important to your setting as where they live. Whether they build squat, sod houses in the prairie where the bulrush grass grows or under the eves of the Larch trees upon the slopes of the Vorelberg Mountains you must determine the type of habitation and what materials were used in its construction.

Below you find terms laid out and defined and lists from which you can cull your own material and design the habitation that best suits your setting.

## MATERIALS

Adobe: A sun dried brick derived from a yellow silt or clay deposited by rivers.
Brick: A block of clay hardened by drying in the sun or burning in a kiln. Bricks come in numerous shapes and sizes. Bricks come in numerous densities and hardness depending on the baking process, parent material and the material mixed with it for hardening (pebbles, hay, grass, twigs ect).
Brick \& Timber: Mud brick is different than normal bricks in that it is made from puddled mud which is later gathered, molded and sun dried. It is durable enough for light load bearing and can be carved fairly easily after drying. All external walls using this material are covered with linseed oil to help prevent weathering. This makes a poor brick in areas with extreme weather.
Cloth and Poles (pavilion, tent): Canvas, cotton and even silk are placed on poles to form makeshift or temporary structures. Shape and size are limited only to the weight of the material, strength of the supporting poles and the innovation of the builder. These do not hold up well in extreme weather conditions.
Earth, Rammed: Soils with high clay contents are pulverized moistened and dumped into frames or formed into walls. Compaction is created by ramming. These buildings are allowed to sun dry. Structurally sound and weather resistant, these buildings survive for several hundred years or more.
Felt (yurt): Similar to cloth and pole constructions, yurts use hides from animals instead of cloth. These are generally heavier and more durable constructions. Framing devices can be wood, iron or bone and come in
many shapes including circular, square, and hexagonal. They include tepees and all related constructions.
Grass and Poles/Sticks (hogan, hut, shack, wickiup): Popular in very dry areas, these constructions consist of poles and sticks interwoven with grasses and branches to form small structures. Often times these structures are recessed into the ground several feet or more.
Metal Sheet: Thin sheets of metal including gold, copper, bronze, steel and aluminum or others, used for siding or roofing in architecture. This includes corrugated metal. Sheet metal is used to protect exposed surfaces or for aesthetic reasons, rather than load bearing.
Matting: A course fabric of rushes, grass, straw, hemp, or the like used for wrapping, covering floors, etc.
Plaster \& Board/Timber: Wooden structures are covered in a moistened mud, clay or soil for added protection and insolation. Mud and clay plasters are only use in drier climates.
Sod: A square or rectangular section cut or torn from the surface of grassland containing the matted roots of grass. Used in regions where there is little or no tree growth. Sod houses tend to be squat but solid constructions.
Stone: Limestone, marble, granite, sandstone and other durable rocks are used for construction. These rocks are altered and polished for specific needs and come in almost any shape imaginable. They are load bearing and durable often lasting thousands of years or more. Stone is used as facing, for internal support and augments or is augmented by brick and timber constructions.
Timber: The most widely used material for building. It is light, durable, strong and easily managed. Woods range widely in density and durability.
Wattle: Rods or stakes interwoven with twigs or tree branches. Wattle is used for making fences, walls etc. Also refers to basket manufacturing, the interweave. These are not very durable nor are they strong.
Wattle \& Daub: The employment of Wattle, mud and clay for the construction of buildings. The mud is smeared into the wattle. Depending on the parent material, drying conditions and density of the wattle, these can be long lasting and fairly durable constructions.


## METALS

Aluminum: A silvery metal, remarkable for its light weight and malleability and resistance to oxidation. It is found abundantly in clay.
Antimony: A silvery white brittle metal used in alloys with other metals to harden them and increase their resistance to chemical action.
Bismuth: A greyish-white, red tinted, brittle metal that is often found in a crystalized state in other metals, particularly cobalt. Chiefly used in making alloys of low melting points.
Brass: A yellowish metal that is an alloy of copper and zinc. Known for its hardness and durability.
Bronze: See following page.
Copper: See following page.
Electrum: See following page.
Gold: See following page.
Iron: A white metal that is malleable and ductile. It is the most common and useful of all the metals.
Iron, Cast: A hard, rigid and strong, nonmalleable ironcarbon alloy made by casting.
Iron, Magnetic (Lodestone): A strong magnetic variety of the mineral magnetite.
Iron, Meteoric: Iron usually alloyed with nickel and cobalt. Found in meteorites.
Iron, Wrought: A soft, ductile, malleable iron containing some slag and some carbon. It cannot be tempered or easily fused.
Latten: Brass or a brass-like alloy hammered into thin sheets.
Lead: A heavy, soft malleable bluish-gray metal used in piping an in numerous alloys.
Lodestone: See Iron, Magnetic above.
Magnesium: A light silver white metal, that is malleable and ductile used in making several alloys.

Table 3:1 Tensile Strength per Square Inch
The number of \# of pressure required to break metal.

| Metal | \# of pressure |
| :--- | :--- |
| Brass | 42,000 |
| Copper wire | 61,200 |
| Copper, cast | 19,000 |
| Copper, wrought | 34,000 |
| Gold, cast | 20,000 |
| Iron wire | 103,000 |
| Iron, bar | 72,000 |
| Iron, cast | 27,000 |
| Lead | 880 |
| Platinum wire | 53,000 |
| Silver, cast | 40,000 |
| Steel | 120,000 |
| Tin | 5,000 |
| Zinc | 3,500 |
|  |  |

Table 3:2 Melting Points, Temperature in Degrees Fahrenheit

Note: The heat of a common fire is 790 degrees $F$. The heat of an alcohol fire is 1700 degrees F . The heat of a coal gas fire augmented by a blowpipe is 2200 degrees $F$. The heat of an oxygen-hydrogen gas fire augmented by a blowpipe is 2400 degrees $F$.

| Aluminum | 1220 |
| :--- | :--- |
| Antimony | 1166 |
| Bismuth | 176 |
| Brass | 1900 |
| Bronze | 1922 |
| Copper | 2160 |
| Gold | 1983 |
| Iron | 2795 |
| Lead | 594 |
| Magnesium | 1202 |
| Mercury | -38 |
| Nickel | 2647 |
| Platinum | 3221 |
| Silver | 1763 |
| Steel | 2800 |
| Tin | 421 |
| Tin-bismuth alloy | 283 |
| Titanium | 3020 |
| Zinc | 787 |

Mercury: A heavy silver, white metal liquid at ordinary temperatures, quick silver.
Nickel: See following page.
Nickel Silver (Nickel and Copper): See following page.
Nickel Steel: A steel alloy made harder than ordinary steel by adding small amounts of nickel.
Pewter (Lead and Zinc): An alloy of tin with lead, brass or copper that takes on a grayish luster when polished.
Platinum: See following page.
Silver: See following page.
Steel: A hard metal composed of iron alloy with carbon added. Steel made be alloyed with other metals to make specific properties such as resistance to rust.
Tin: A soft silver white metallic element, malleable at room temperatures. Capable of a high polish and used as an alloy.
Titanium: A dark gray lustrous metal found in rutile and other minerals, used as cleaning agent in molten steel.
Zinc: Bluish white in color it is used as a protective coating for iron and as a constituent for various alloys.

## Metals, The Complete Precious Metalsmith

Pure metal is 24 carat, or .999 fine in regards to silver, and alloys of it are indicated by the number in carats, or percentage of silver, of the main metal in the alloy. They are cataloged in order of value.

Platinum: The hardest of precious metals. It is worth c. $125 \%$ to $250 \%$ its weight in gold, even more if the smelting process employed in the fantasy milieu demands magical heat. It does not tarnish. It is a silvery metal with a soft and lustrous sheen. Platinum is very seldom alloyed with other metals.
Gold: The softest of precious metals. It does not tarnish. Usually in an alloy with other metals to increase its hardness. There are three general sorts of gold used in jewelry:

Yellow gold ( 18 carat): $75 \%$ gold, $15 \%$ silver, $10 \%$ copper. Value c. $77 \%$ pure gold.

Red gold (18 carat): 75\% gold, 20\% copper, 5\% silver. Value c. 76\% pure gold.

White gold (18 carat): $75 \%$ gold, $25 \%$ silver. Value c. $78 \%$ pure gold.
Electrum: A fairly hard alloy when compared to gold. An alloy of 24 carat gold and .999 fine silver, usually in equal proportions. It has a value of about $55 \%$ pure gold when
alloyed in equal proportions. It tarnishes somewhat because of the silver content of the alloy. Electrum looks much like pale white gold.
Silver: A moderately soft metal worth about $1 / 60$ to $1 /$ 100th its weight in gold. Silver tarnishes from exposure to air and other substances.
Nickel: A moderately hard metal that is the next to the least valuable of the pure ores of the group. It is worth around $20 \%$ its weight in .999 fine silver. Nickel tarnishes only slowly and to little extent, and polishing restores its shine. It has a soft silver-gray luster.
Nickel Silver: A moderately hard metal because of the combined metals used. An alloy of 50\% copper and 50\% nickel for increased hardness and little tarnishing. Value c. $17 \% .999$ fine silver.
Copper: A moderately soft metal that is the least valuable of the group. It is worth around $9 \%$ to $12 \%$ its weight in silver. Copper tarnishes (corrodes) when exposed to air, but polishing restores its shine.
Bronze: A moderately hard metal because of the combined metals used. An alloy of 50\% copper and 50\% tin for increased hardness. Tarnishing is common, with verdigris apparent when oxidation of the metal occurs. Value c. 70\% pure copper when used in equal proportions. Bronze had a copper-brown, or sometimes golden-brown hue when more copper is used (c.60\%).

| Metal | Bonus | Hardness |
| :---: | :---: | :---: |
| Adamantite | +4 | 20 |
| Mithril | +3 | 15 |
| Oracalcum* | +5 | 25 |
| Tilferium | +3 | 14 |
| Xagium* | +4 | 18 |

Hit Points
40/inch of thickness
30/inch of thickness
45/inch of thickness
30/inch of thickness
35/inch of thickness

| Weight ft. cubic | Melts at F |
| :--- | :---: |
| 125\# | 3000 |
| 300\# | 3500 |
| 225\# | 4500 |
| $700 \#$ | 3700 |
| 100\# | 3850 |

Adamantite: Gives a +4 bonus to magical arms and armor made from this metal. If wearing armor made from this meta any electrical-based magical attacks do only half damage with no save, and no damage with a successful saving throw.
Mithril: Gives a +3 bonus to magical arms and armor made from this metal.
Oracalcum: Gives a +5 bonus to magical arms and armor made from this metal. If wearing armor made from this metal any electrical-based magical attacks do only half damage with no save, and no damage with a successful saving throw. Any cold or fire-based spells do half damage with no save, and one quarter damage with a successful saving throw.
Tilferium: Gives $a+3$ bonus to armor made from this metal. If wearing armor or using another magic item of this meta it gives the user a Spell Resistance of $12+$ caster level (up to 20 , if the character is a spell caster).
Xagium: Gives $\mathbf{a}+4$ bonus to arms and armor made fro this metal. If wearing armor made from this metal, any electrical-based magical attacks do only half damage with no save, and no damage with a successful saving throw. Also, If wearing armor or using another magic item of this metal, it gives the user a Spell Resistance of $15+$ caster level (up to 25 , if the character is a spell caster).

* Items other than arms and armor, such as rings, rods, staves, wands, etc. can be made from these metals
d20 with the same bonuses and resistances.


## FANTASTIC METALS

Adamantite/Adamantium: If not the hardest, certainly one of the hardest of fantastic metals. It accepts magical enchantments, and it is worth at least five times its weight in platinum. Its weight is about $25 \%$ that of steel. It does not rust and is not a conductor of electricity. It holds an edge. It is a deep indigo metal with a soft and lustrous sheen. Adamantite is sometimes alloyed with other metals, mainly steel in armor and weapons.
Mithril: A very hard fantastic precious metal. It accepts magical enchantments, and it is worth at least three times its weight in platinum. Its weight is about $60 \%$ that of steel. It does not rust or tarnish. It holds an edge. It is a bright, silver metal near to chrome in its appearance. Mithral is sometimes alloyed with other metals, silver for ornamentation, steel for armor and weapons.
Oracalc/Oracalcum: A very rare, hard and flexible fantastic metal with utmost tensile strength. It is worth at least 10 times its weight in platinum. Its weight is about $50 \%$ that of steel. It does not rust or tarnish, and it is a non-conductor of electricity. It holds an edge. Although extremely difficult to work, it can be forged as flexible or unyielding. It is a glowing, golden-copper color metal near to chrome it its appearance. Oracalcum is sometimes alloyed with other metals, silver for ornamentation, steel for strength etc.
Tilferium: A rare and exceptionally hard fantastic metal with great tensile strength and the capacity to "store" magical force. It is worth at around two times its weight in platinum. Its weight is about $20 \%$ that of steel. It corrodes very slowly when exposed to strong alkaline substances. It does not hold an edge well.

It is a dull gray-green in node form. One ounce of the metal contains, and can contain, sufficient magical energy to power one spell of middling sort. Tilferium is always alloyed with other metals, the maximum part of any sucmix being one-tenth. This is done to strengthen the alloy and

| able 3:4a Value of Certain Metals per Ounce |  |
| :--- | :---: |
| (gold \& silver) for the d20 system |  |
|  |  |
| Metal | Value (approx) |
| Platinum | 50 gp |
| Gold | 25 gp |
| Electrum | 135 sp |
| Silver | 5 sp |
| Nickel | 1 sp |
| Nickel-Silver | 25 cp |
| Copper | 5 cp |
| Bronze | $4-5 \mathrm{cp}$ |
| Adamantite | 250 gp |
| Mithril | 150 gp |
| Oracalcum | 500 gp |
| Tilferium | 100 gp |
| Xagium | 200 gp |

Table 3:5 Workmanship value addition
To determine the value of such an item, use the following formula: Take the Value of the weight of the precious metal from Tables 3:3 and 3:4 and multiply it by the workmanship quality.

| Workmanship Quality and Value Multiplier |  |
| :--- | :---: |
| Crude | 0 |
| Average | 2 |
| High average | 3 |
| Good | 4 |
| Very good | 5 |
| Fine | 8 |
| Very fine | 12 |
| Superb | 15 |
| Masterwork | 20 |

to allow the containment of magical energy placed within such objects as are ten forged from the alloy.
Xagium: A very rare and very hard fantastic metal with incredible tensile strength and the capacity to "store" magical force. It is worth at around four times its weight in platinum. Its weight is about $50 \%$ that of steel. It does not rust or tarnish, and it is a non-conductor of electricity. It holds an edge of great keenness very well. Although difficult to work, it can be forged as flexible or unyielding. The metal has a dark metallic blue color that tints other metals with which it is alloyed. One ounce of the metal contains, and can contain, sufficient magical energy to power one spell of highest sort, or about $150 \%$ the energy of tilferium (see above). Xagium is always alloyed with other metals, the maximum part of any such mix being one-eighth, thus giving that much blue color to the mixture. This is done to strengthen the alloy, give flexibility and durability to it, and

Table 3:4b Value of Certain Metals per Ounce Lejendary Adventure RPG

to allow the containment of magical energy placed within such objects forged from the alloy.

Table 3:6 Hardness Scale (extended from Table 2:5 MOH's Hardness Scale)
This scale represents a continuation of the scale in Book II above, expanding it to include magical metals.

| Hardness | Material |
| :--- | :--- |
| 0 | Liquid |
| $1-6$ | As indicated on the chart above |
| 7 | Vitreous pure silica-not scratched by a file unless of hardened steel at 7.5 |
| 8 | Quartz-just scratched by magic-enhanced steel |
| 9 | Topaz-just scratched by powerfully magic-enhanced steel |
| 10 | Garnet-just scratched by mithril |
| 11 | Fuzed zirconia-just scratched by adamantite |
| 12 | Fuzed alumina-just scratched by tilferium |
| 13 | Silicon carbide-just scratched by magic-enhanced mithril |
| 14 | Boron carbide-just scratched by magic-enhanced adamantite |
| 15 | Diamond-just scratched by magic-enhanced tilferium |

## WOOD

Alder: A tree which grows in moist land whose bark is used in dyeing and tanning. The wood is used for bridges and piles because it is resistant to underwater rot.
Ash, White: Tough elastic wood with a straight, close grain.
Ash, European: See above.
Balsa: A very light, strong wood, used for raft construction.
Basswood: A light soft durable wood.
Beech: A large-sized tree that produces hard woods. The smooth bark of a beech tree was used for writing upon.
Birch: A hard, smoot-grained wood whose bark strips off in layers. Birch wood is most valued in furniture construction.
Brazilwood: A reddish wood that is capable of yielding a red dye.
Cedar: Used for the durability of the wood. Associated with a fragrant building material as well.
Cherry: A hard, durable wood that is most commonly used in the construction of furniture, handles, toys, etc.
Cocobolo: A hardwood tree that is used in cabinet work and tool making.
Elm, Dutch \& English: Tall, hardy shade trees whose wood makes a hard, heavy wood. The wood is finegrained and valuable for its resistance to splitting.
Elm, Ebony: See above.
Hickory, White: A tough wood used for construction of houses, fences and the like.
Kingwood: A Brazilian wood used much in cabinet work because of its streaks of violet tints.
Lime: See Basswood above.

Mahogany: A hardwood that is commonly used in furniture, it varies in color from reddish-brown to yellow.
Maple: A hard, close-grained wood used for furniture making and flooring. Colors range from reddish to yellow. Maple, Hard: See above.
Oak: The wood is hard, tough, relatively flexible, resistant to water and not too heavy. It bares weather changes far more than most other woods. It is valued in all manner of construction from flooring, furniture, millwork, cross ties, mine timbers, fenceposts, houses and ships. The bark is used in tannin.
White Plane: As sycamore.
Poplar, European: These trees are tall and fast growing with soft wood. A hybrid poplar tree which produces a superior type of timber.
Brazilian Rosewood: A hard, reddish-black streaked wood with a rose-like odor. Used for making furniture.
Sycamore: A tree common in the middle east, growing large and to a great height. It is used in almost all facets of building construction.
Sycamore, Indian: See above.
Teak: A large tree with a yellowish-brown wood highly prized in ship building.
Walnut, Black: A large hardwood, whose wood is highly prized and used for furniture, gunstocks and vaneer.
Yellow Boxwood: A yellowish, fine, close-grained wood used in engraving, instrument making and in fine woodwork.


Table 3:7 Common uses for wood
Though each wood discussed highlights what it is most commonly used for, here for quick reference are some of the more common items and the wood generally used to fashion them.

| Product | Wood <br> Brazilwood, an east Indian tree for <br> crimson and purple |
| :--- | :--- |
| Paper | Mulberry, Bamboo <br> Blassworks <br> Beechwood (used to create wood <br> ash) |
| Ship Building | Elm for capstans and mastheads. <br> Larch and fir for internal planking, <br> masts and spars. Oak for hulls. |
|  | Walnut for rudders <br> Ash for spear shafts. Hickory for <br> weapon hafts. Yew for long bows |

## OTHERMATERIALS

Bamboo: A tropical plant which reaches heights in excess of 100 feet. The mature plant is used to build house frames, furniture, ships masts and so forth. Smaller stalks are used for poles, instruments etc.
Bone: A firm, hard substance, dull white in color. Used to build small furniture and or decorative items.
Ceramic: Of pottery, earthenware, tile, porcelain etc.
Cloth: A woven, knitted or pressed fabric of fibrous material, such as wool, hair, cotton, flax, hemp. Used for garments or household furnishings.
Horn: An animal by-product, used to create weapons, drinking cups, beakers, flasks or decorative items.
Ivory: An animal by product from tusks or horns. Used to make any number of items from teeth to combs, and handles for weapons.
Leather: Material consisting of animal skin after tanning. Used to make armor, clothing, tack etc.
Rattan: A form of palm tree used to make wicker work, walking sticks, thongs, ropes, etc.
Wicker: A small pliant twig. When woven together it makes basket work, furniture and like items.

## GENERAL INFORMATION OF THE PERIOD

Bate: The liquid for softening rawhide was called bate. It was a mixture of water and dog feces.
Cement: Cement was made by heating chalk or limestone in a furnace or oven. Then by mixing it with water and sand in proper proportions a concretion was made.
Daub: The plaster-like material called daub is made from clay, dung, and horsehair, water added for pliability.

Fleece Wash: Because sheep fleece is full of lanolin (greasy oil), they were washed before being dried, rolled, and stored for later disposal. The mixture used was water and urine.
Grammercy: An isolated farm house; a farmstead attached to a monastery
Lime Wash: Powdered lime for cement was mixed with water to make a white wash that sealed and protected daub and stone alike.
Multure: Payment for milling grain was known as multure. The payment was in kind, from $1 / 12^{\text {th }}$ to $1 / 24^{\text {th }}$ of the flour produced by milling paid to the owner of the mill.
Rive: The method of cutting timber with an axe, producing stronger beams this way than could be done by sawing, is called riving.
Wattle: The latticework of woven reeds such as cat-tails and/or twigs and branches was typically from hazel or willow laced onto poles.

## Table 3:8 Materials' Resistance to Crushing

Material is crushed by the number of tons indicated.

| Material | Tons |
| :--- | :--- |
| Ash Wood |  |
| Beech Wood, Seasoned | 4.3 |
| Birch Wood, Seasoned | 5.5 |
| Brass | 5.8 |
| Brick | 0.1 |
| Brick, Fire | 0.9 |
| Brickwork | 0.3 |
| Cedar Wood | 2.9 |
| Elder Wood | 4.9 |
| Elm Wood, Seasoned | 5.1 |
| Fir wood, Spruce | 3.4 |
| Granite | 5.5 |
| Iron, Cast | 49.0 |
| Iron, Plate | 16.0 |
| Mahogany Wood | 4.0 |
| Oak Wood | 2.9 |
| Oak Wood, Seasoned | 3.7 |
| Pine Wood, Yellow | 2.7 |
| Pine Wood, Pitch | 3.3 |
| Stone, Ashlar Block | 5.3 |
| Sycamore Wood, Seasoned | 6.0 |
| Walnut Wood | 3.6 |

## CONSTRUCTION

How various materials are used is as germ to your setting as what those materials are. What follows is a catalog of a buildings, walls, roofs, floors, windows and so forth and the materials or shapes they generally take.

Door (or Gate) Form
Double large, with small door inset Double, double horizontal separation
Double, horizontal separation
Double, vertical separation
Hatch
Single
Single large, with small door inset Trapdoor


## Door Composition

Brass bars
Brass grating
Brass, solid
Bronze bars
Bronze grating
Bronze, solid
Iron bars Iron grating
Iron, solid
Steel bars
Steel grating
Steel, solid
Stone
Wood bars
Wood grating
Wood, solid

## Door Additions

Bar (locking)
Binding, metal (brass, bronze, copper, iron, steel)
Bolt, horizontal
Bolt, vertical, downwards fastening
Bolt, vertical, upwards fastening
Bracing, wood
Catch, hidden

Chain
Handle
Knob
Knocker
Latch
Latch, hidden
Lever


Lock
Lock plate
Lock, hidden
Loophole
Ring, pull
Sheathing, metal (choose)
Spy hole
Spy hole, barred outside and shuttered
Spy hole, shuttered
Stripping, metal (choose)
Studding, metal pieces (choose)
Studding, metal points (choose)
Studding, metal spikes (choose)

## Portal Coverings \& Doors

Covering (simple cloth)
Curtain, arras (an elaborate tapestry) Curtain, bead


Curtain, cloth
Curtain, drape, cloth (heavy)
Curtain, drape, leather
Curtain, draw
Curtain, jalousie (wood, metal, glass)
Curtain, lambrequin
Curtain, mini-blind(s)
Curtain, pleated shade
Curtain, portiere
Curtain, purdah (East Indian)
Curtain, roller shade
Curtain, shutter
Curtain, valance (wood or metal)
Curtain, Venetian blind(s)
Form of Opening (determine inwards or outwards if applicable)
Folding, multiple folds
Folding, single fold
Parting in the middle, top half going
up, bottom half going down
Pivoting (middle)
Sliding downwards
Sliding sideways
Sliding upwards
Swinging from left side
Swinging from right side
Swinging upwards
Swinging/lowering downwards
Trapdoor, lifting up
Trapdoor, swinging down

Building, Roof Type
Conical
Curbed
Curved
Domed
Domed, onion
Dormered
Flat
Flat, sloping
Gable windowed Gambreled
Hip


Lean-to
Mansard
Pagoda
Parapeted
Peaked (various shapes)
Pavilion (pyramid-like)
Sloping front to back

## Roof Additions

Bartizan
Battlement
Belfry
Belfry \& widow's
walk
Catwalk
Dove Cot Mews
Observatory
Penthouse
Tower
Turret
Widow's walk
Roof Covering Type
Bark
Board
Brush
Cloth
Copper sheeting
Hide
Lead sheeting
Leaf
Shingle, slate
Shingle, wood (shake)
Sod
Tarred
Thatching
Tile
Tin sheeting


Building, Fence or Wall

## Hedge Plants Commonly Used for Hedgerows

It is said that if one marks a spot, walks 10 yards along the hedge from it, counting the number of tree species (not common hedge shrubbery) passed, that number is the age of the hedge in hundreds of years.

Osage Orange
Honey Locust
Buckthorn
Hawthorn
Privet
Poplar
Arbor Vitae, Evergreen

Norway Spruce, Evergreen
Hemlock, Evergreen

## Fence

Barred, metal
Barred, metal, spiked top
Board
Brick
Brick, mud
Hedge
Hedge, thorn
Picket
Rail, split
Stone, hard*
Stone, field*
Stone, soft*


Wire
*General type: field, hard, soft; see
Stone for detailed kinds.

## Wall or Fence

Brick
Brick, mud
Ditch
Earth rampart/embankment
Earth rampart/embankment, palisade
Earthrampart/embankment, ditch and
palisade
Fence, board/plank
Fence, metal picket
Fence, wood picket
Firebrick
Moat
Stone, field*
Stone, hard*
Stone, soft*
Stone, field*, unmortered
Stone, hard*, unmortered
Stone, soft*, unmortered
Palisade, timber
Wall, thorn (bomba)
Wall, withes
Wall, wattle \& daub
*General type: See Stone on page 100 for details.

## Building, Walls, Interior

Bamboo
Board
Brick
Brick, glazed
Brick, mud
Cloth drapery
Frame and paper Lath and plaster


## TRAPS, TYPICAL (FOUND SINGLY OR IN COMBINATION)

Roll a d6 to determine which chart, 1,2 or 3 to consult. Then, roll a d20 to determine the actual trap. Affects of each individual trap are not given as these are cataloged in vast quantities in other volumes readily availabe to the public.

## Roll

| 1-2 | Chart 1 |
| :--- | :--- |
| $3-4$ | Chart 2 |
| $5-6$ | Chart 3 |

## Trap Chart 1

1. Apertures in which limbs or digits must be thrust, harming/trapping them when so done
2. Area is cold or hot to cause weakening
3. Area is filled with noxious gas/stench to cause weakening and debility
4. Ball or cylindrical object rolling to cause injury/death by crushing
5. Blade scything from anywhere (ceiling, floor, object, wall, etc.)
6. Bridge sways and/or portions break to as to cause fall
7. Catwalk, ledge, walkway, etc. breaks underfoot and/or collapses behind
8. Ceiling collapses to cause injury or death
9. Ceiling moves/presses down to cause death from crushing
10. Chains, levers, pulls, ropes, etc. operate both escape means and trap activation
11. Door (heavy) falling outwards to crush those before it
12. Door disappears behind dropping or sliding stone panel
13. Door is barred/locked so it can't be re-opened
14. Door is sealed by dropping/sliding metal panel
15. Door springs open with crushing, "mousetraplike" effect
16. Floor collapses to cause fall into pit below*
17. Floor tilts/drops sideways to precipitate into a space revealed to the side*
18. Floor moves/presses up to cause death from crushing
19. Floor tilts down suddenly to cause precipitation of those on it to a place lower down
20. Fountain/pool overflows to fill room and drown victims

## Trap Chart 2

1. Gravity reversal (magical) causes fall upwards, trapping victims in ceiling "well"
2. Heavy object (usually spiked) swinging down from above
3. Ladder rungs break or pull free to cause fall
4. Magical effects causes persons in area to become larger and thus trapped
5. Magical effects causes persons in area to become non-corporeal and thus trapped
6. Magical effects causes persons in area to quarrel and fight each other
7. Magical effects causes persons in area to become smaller and thus endangered or trapped
8. Magnetic object pins all ferrous metals to it
9. Maze with moving wall panels to change its form continually
10. Metal panel drops or slides to trap victims in an area**
11. Net (heavily weighted) falls from above to trap
12. Object in space causes insanity if consumed/ examined/touched
13. Object in space causes morphing to a creature if consumed/examined/touched
14. Object in space causes petrifaction if consumed/touched
15. Object*** seemingly innocuous slams shut with guillotine effect
16. Object**** seemingly inanimate animates and attacks
17. Poison gas released from hole(s) anywhere (ceiling, floor, object, wall, etc.)
18. Pressure plate in floor precipitates victim upwards to impact ceiling, sharp objects
19. Projectile***** shooting from anywhere (ceiling, floor, object, wall, etc.)
20. Razor edges where hands grasp (handles, rungs)

## Trap Chart 3

1. Room portion or thing therein is a monster (ceiling, door, fire, floor, stairs, wall, etc.)
2. Room (or floor thereof) sinks to lower level
3. Magical effects causes persons in area to become larger and thus trapped
4. Snare closes on lower limb hosting victim upwards, head down
5. Snare closes on neck hosting victim upwards and strangling it thus
6. Space covered with adhesive to cause sticking to one or more surfaces
7. Space is filled with webs to trap all within
8. Space is suddenly filled magical darkness
9. Spear-like object thrusting out from anywhere (ceiling, floor, object, wall, etc.)
10. Spiked grillwork door(s) drop down to kill or trap
11. Spiked grillwork falls from above to kill by crushing and piercing
12. Stair steps break to cause fall
13. Stairs flattening to cause slide down their length
14. Stone block drops or slides to trap victims in an area**
15. Stone block falls from above to cause death from crushing
16. Surface underfoot slippery to slow movement, cause falls, etc.
17. Trapdoor opening to cause fall into pit below*
18. Traps (like bear traps) concealed in floor, snap shut to injure and entrap
19. Wall(s) pressing in to cause death from crushing
20. Wind blows so as to cause victim to move to trapped place
*Into or onto acid, creatures, fire, lava, spikes, water
**Possibly to be attacked by various means, suffocate, be buried in sand, etc.
***Door (including those of furniture), lid, shutter, trapdoor, window, etc.
**** Chain, furniture, floor covering, rope, statue, wall holder for torch, etc.
*****Arrow, bolt, bullet, dart, javelin, spear, stone, etc. Also acid, burning coals, electricity, flame, molten metal,


Table 3:12 Rope Strengths
Practical breaking weight might be as little c. $75 \%$ of the figures shown, with stretching from $15 \%$ to $20 \%$, diminution of diameter thus c. $10 \%$ to $15 \%$. This depends on the quality of the rope.

| Hemp of 1" diameter | 200\# |
| :---: | :---: |
| Hemp of 1.5" diameter | 450\# |
| Hemp of 2" diameter | 800\# |
| Hemp of 2.5" diameter | 1,250\# |
| Hemp of 3" diameter | 1,800\# |
| Hemp of 4" diameter | 3,200\# |
| Hemp of 5" diameter | 5,000\# |
| Hemp of 8" diameter | 7,200\# |
| Hemp of 7" diameter | 9,800\# |
| Hemp of 8" diameter | 12,800\# |
| Horsehair of .75 " diameter | 375\# |
| Horsehair of 1" diameter | 500\# |
| Horsehair of 1.25 " diameter | 650\# |
| Manila of 1" diameter | 110\# |
| Manila of 1.5 " diameter | 225\# |
| Manila of 2" diameter | 450\# |
| Manila of 2.5" diameter | 700\# |
| Manila of 3" diameter | 950\# |
| Manila of 4" diameter | 1,700\# |
| Manila of 5" diameter | 2,650\# |
| Manila of 8" diameter | 3,800\# |
| Manila of 7" diameter | 5,100\# |
| Manila of 8" diameter | 6,600\# |
| White of 1" diameter | 300\# |
| White of 1.5 " diameter | 600\# |
| White of 2" diameter | 1,100\# |
| White of 2.5" diameter | 1,900\# |
| White of 3" diameter | 2,400\# |
| White of 4" diameter | 4,200\# |
| White of 5" diameter | 7,500\# |
| White of 8" diameter | 9,600\# |
| White of 7" diameter | 13,000\# |
| White of 8" diameter | 17,000\# |
| Silk of .5 " diameter | 350\# |
| Silk of .75 " diameter | 550\# |
| Silk of 1" diameter | 900\# |
| Silk of 1.25 " diameter | 1,250\# |
| Silk of 1.5 " diameter | 2,000\# |



## COSTOF CONSTRUCTION

(For Rates of Exchange see page Editors Note, page 6)
Use the following ranges for per-foot cost to find the overall cost for a completed structure without interior furnishings. Variables include cost of labor, but are mainly based on type of construction and building materials, the height of walls from floor to ceiling.

Fortification Costs: All costs given hereafter assume no labor or transportation costs are involved as the builder will be owed or given the service necessary. Additionally, it is assumed that the land belongs to the one constructing the castle. Although manual labor is discounted, the following minimum experts will be required to construct a fortification:

Architect @ $\$ 25,000$ per month
Engineer @ \$15,000 per month
Master mason @ \$10,000 per month
12 masons @ \$60,000 per month
4 carpenters @ $\$ 20,000$ per month
2 plumbers @ $\$ 10,000$ per month
2 construction foremen @ $\$ 10,000$ per month

A 10-foot by 10-foot square section of mortared stone that is of 1 -foot thickness costs $\$ 250$, this cost not including transportation to the construction site. Thus, the outer and inner walls for a 10-foot-thick curtain wall would have a base cost of $\$ 1,500$ for six layers of stone per 10 -foot height of the wall. Cost of interior fill, including transportation to the site, is $\$ 1.25$ per square foot, so $\$ 500$ for material sufficient to fill a 10 -foot length of 10 foot high double wall to achieve a 10 -foot thickness. This gives a total materials cost of $\$ 2,000$ for the section noted.

Wall foundation to a depth of 10 feet costs the same as actual curtain wall above it. This is unnecessary where the construction is built upon solid rock.

Splaying an outer wall base adds $\$ 750$ to the cost per 10foot section.

An Upper gallery in a wall section with two loopholes in it is $200 \%$ ( $\$ 3,000$ per 10 -foot length of gallery) of basic curtain wall cost, as flooring and arching the ceiling above adds expense.

A round or part round wall or tower or turret section costs

A drawbridge costs the same as a portcullis, including the mechanism used to raise and lower it.

There is no cost for a window or door opening, or a murder hole, in a construction section. Bars for such openings cost $\$ 20$ per square foot. Embrasure shutter, window shutter, and door cost is $\$ 10$ per 1 square foot of one-inchthick seasoned, iron-bound oak, loophole piercing not adding any cost. Gate costs can be arrived at by using
$200 \%$ of basic curtain wall cost, omitting fill cost where applicable, splaying cost at $\$ 75$ per foot of splay added to the base additional. The cost includes one loophole per 10 -foot section.

A multi-sided tower or turret, or a beaked tower costs $150 \%$ of curtain wall cost, splaying cost at $\$ 75$ per foot of splay added to the base additional. The base cost includes one loophole per 10 -foot section.

Battlements of 3-foot height and thickness, topped by two merlons of 2.5 -foot width and of 3 -foot height and thickness cost $\$ 500$. If the merlons are pierced by loopholes add $\$ 200$. If the battlement is machicolated, the cost is $500 \%$ base cost, or $\$ 2,500$, the same as a normal wall section, but $\$ 2,700$ with pierced merlons.

Stairways of stone cost $\$ 30$ per riser.

Stairways of wood cost $\$ 20$ per riser.
Internal floors cost $\$ 10$ per square foot of heavy wooden construction or paves laid atop a solid foundation.

Bartizans of 10 -foot outer diameter, 10 -foot total height, 2.5-foot wall thickness, pierced with an entryway and three loopholes are $\$ 3,500$.

A portcullis costs $\$ 50$ per square foot, plus $\$ 50$ per square foot of the construction for the mechanism used to raise and lower it, thus total cost of $\$ 100$ per square foot of opening protected thus.

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$$

Table 3:13 Costs of Construction per Square Foot
Basement: $\quad \$ 5$ to $\$ 15$ per square foot; $\$ 5,000$ to $\$ 15,000$ for $1,000 \mathrm{sq} . \mathrm{ft}$. Ground Floor: $\quad \$ 20$ to $\$ 200$ per square foot; $\$ 20,000$ to $\$ 200,000$ for $1,200 \mathrm{sq} . \mathrm{ft}$. Upper Floor: $\quad \$ 15$ to $\$ 150$ per square foot; $\$ 15,000$ to $\$ 150,000$ for $1,000 \mathrm{sq}$. ft. Attic/Loft: $\quad \$ 10$ to $\$ 50$ per square foot; $\$ 10,000$ to $\$ 50,000$ for $1,000 \mathrm{sq} . \mathrm{ft}$. Roof: $\quad \$ 15$ to $\$ 75$ per square foot; $\$ 15,000$ to $\$ 75,000$ for $1,000 \mathrm{sq} . \mathrm{ft}$.

Additional costs would include fortifications, indoor plumbing, rare interior woods, ornamental stone interiors, etc.

Table 3:14 Computations

1. Basement and sub-basement each at (most expensive) $\$ 15 / \mathrm{sq} . \mathrm{ft} .=\$ 54,000$.
2. Ground floor at (least expensive) $\$ 20 /$ sq. ft. $=\$ 72,000$
3. Ground floor 2 ft . thick stone walls with barred and shuttered windows at (most expensive) $\$ 200 / \mathrm{sq}$. ft . $=\$ 720,000$
4. First floor at (least expensive) $\$ 15 / \mathrm{sq} . \mathrm{ft} .=\$ 54,000$
5. First floor at (most expensive) $\$ 150 /$ sq. ft. $=\$ 540,000$
6. Loft story at (least expensive) $\$ 15 /$ sq. ft. $=\$ 19,000$ (rounded up to nearest 1,000 )
7. Loft story at (most expensive) $\$ 150 /$ sq. ft . $=\$ 188,000$ (rounded up to nearest 1,000 )
8. Roof of main building and loft ( $2,800 \mathrm{sq} . \mathrm{ft}$.) at (most expensive) $\$ 75 / \mathrm{sq} . \mathrm{ft} .=\$ 210,000$
9. Battlement atop main building roof ( 55 ft . in length by 40 ft . in depth $=190 \mathrm{ft}$. total length at an average height of 4.5 ft . (parapet of 3 ft . height and merlons of 3 ft . height spaced between crenels) for 855 sq . ft . at (most expensive roof cost) $\$ 75=\$ 64,000$ (rounded down to nearest 1,000 )
10. Battlement atop loft story ( 50 ft . in length by 25 ft . in depth $=150 \mathrm{ft}$. total length at an average height of 4.5 ft . (parapet of 3 ft . height and merlons of 3 ft . height spaced between crenels) for $675 \mathrm{sq} . \mathrm{ft}$. at (most expensive roof cost) $\$ 75=\$ 51,000$ (rounded up to nearest 1,000 )
11. Second floor of towers ( 800 sq . ft.) at (least expensive) $\$ 15 / \mathrm{sq}$. ft. $=\$ 12,000$
12. Second floor of towers ( 800 sq. ft.) at (most expensive) $\$ 150 / \mathrm{sq} . \mathrm{ft} .=\$ 120,000$
13. Battlements atop towers $=160 \mathrm{ft}$. total length at an average height of 4.5 ft . (parapet of 3 ft . height and merlons of 3 ft . height spaced between crenels) for 720 sq . ft . at (most expensive roof cost) $\$ 75=\$ 54,000$
14. Tower roofs of 800 sq . ft. at (most expensive cost) $\$ 75=\$ 60,000$

Total Cost: \$2,218,000
The fortified manor house has three-foot-thick stone walls, heavy, iron-banded doors, window barring and interior shutters on the basement (metal shutters here) and ground floors (iron-bound wood shutters pierced with loopholes here), and loopholes as well as such window in the turret's ground floors (where the basement is windowless), plus shutters on upper stories, for the indicated cost.
One can assume the height of the basement is four feet above ground level, that the ground story is 14 feet above that, the first story 12 feet in height, and the loft story likewise 10 feet in height, so the rooftop of the main portion is 30 feet above the ground. If desired, the second floor of the towers can be limited to eight feet, so as to allow some command of those places from atop the loft roof. Alternately, the upper stories of the towers might be 14 feet high, or one only eight feet, the other 14 feet height. This sort of thing is simply a matter of common sense.
door costs. Example: A gate door of 12 -foot height by 6foot width is 72 feet square. Assuming this valve is of 10 inch thickness, the cost if then $72 \times \$ 100=\$ 7,200$. This includes all hardware for hanging and securing the gate door.

Doors of solid iron plate cost $\$ 25$ per square foot of $.25-$ inch thickness, $\$ 100$ per square foot of one-inch thickness. Because of weight, such doors usually cannot exceed a total of one cubic foot of iron, 12 square feet of one-inchthick plate, 48 square feet of .25 -inch thickness plate.

Structures built within the fortified place will cost one-half the prices noted above for civilian buildings. This includes the construction of cellars beneath the interior buildings.

The cost for roofs atop towers or turrets is at the maximum cost for civilian construction roofs, but the basis for
computing it is the square footage of the top of the structure it is built upon, circular or oblong structures computed as being fully square to account for the high cone-like roof used.

Hoarding to be assembled and placed outside curtain wall lacking machicolation is at a cost of $\$ 1,000$ per 10 -foot section. This cost excludes green hides needed to protect the wood against fire, but included the two shuttered openings and steeply pitched roofing above it.

## Adding Fortifications

Here is a simple example of a building that has added to it sufficient fortification so as to make it a fortified manor house.

Basic size of interior 75 feet in length by 40 feet in breadth is $3,000 \mathrm{sq}$. ft .

Two towers, front left and rear right with one-quarter built into main plan from sub-basement to first floor, standing separate from the main structures smaller loft story: each 20 feet square $=$ adding 600 sq. ft .

Loft story 50 feet length by 25 feet breadth is $1,250 \mathrm{sq} . \mathrm{ft}$.

## BUILDINGS

Yurt. Haberdashery. Acropolis. Like the fauna you choose for your setting, the type of buildings you choose set the tone you wish to convey. Whether they live in yurts in the wild steppes or rule a far flung land from a citadel high atop a sea bound precipice, buildings convey the time and place of your setting. If you take your reader into the wild steppe lands where proud nomads live, then yurts or wickiups must suffice, but when building a city it is necessary to house its populace with structures for employment and government.

Below are all you'll need to build a society of simple constructions or one which includes the whole vast armada of urban life.

## RESIDENTIAL, TENT/TEMPORARY

Hogan: A conical, hexagonal, or octagonal dwelling (characteristic of the Navaho Indian) made with a door traditionally facing east and constructed of logs and sticks covered with mud, sods, or adobe or sometimes made of stones.
Igloo: A small house usually made of sod, wood, or stone when permanent or of snow blocks in the shape of a dome when built for temporary purposes.
Lodge: A small or temporary dwellin; a rude shelter or abode (as a hut, cabin, tent).
Pavilion: A large tent with a tall, pointed, often conical roof.
Teepee (tipi): An American Indian conical tent used especially by the Plains tribes and consisting of a covering usually of skins spread over a frame of poles; a kind of lodge.
Tent: A collapsible shelter of canvas or other material stretched and sustained by poles, usually made fast by ropes attached to pegs hammered into the ground.
Wickiup: A hut used by the nomadic Indians of the arid regions of the western and southwestern United States that is typically elliptical in form and has a rough frame covered with reed mats or grass or brushwood.
Wigwam: A hut of the Indians of the region of the Great Lakes and eastward having typically an arched top and

consisting of a framework of poles overlaid with bark, rush mats, or hides.
Yurt: A circular domed tent consisting of skins or felt stretched over a collapsible lattice framework and used by the Kirghiz and other Mongol nomads of Siberia; yurts are frequently set atop broad wagons.

## RESIDENCE

Apartment: A room or a set of rooms used as a dwelling and located in a private house, an inn, or a building containing only such rooms or suites with necessary passages and hallways.
Boarding house: A private residence in which persons can pay a fee for lodging and board.
Bungalow: A lightly built cottage or single-story house (originally of the Far East) that is usually thatched or tiled and surrounded by a veranda, this usually a roofed, open gallery or portico attached to the exterior of a building and used for sitting out of doors.
Bunkhouse: A rough simple building providing sleeping quarters with bunk beds such as provided for construction workers, farm harvesters, logging crews, and ranch hands.
Cabin: A structure of stakes with withes woven between them and a roof of thatch; a structure of horizontal logs with clay and moss chinking between them and a roof of various crude sorts.
Chalet: A cottage or house characterized by unconcealed structural members that are often emphasized by decorative carving, it having a roof with a wide overhang at the front and sides, and balconies and an exterior staircase under the eaves.
Cot: A small house; a cottage or hut.
Cote: The holding of a cotter consisting typically of a house or hut and five acres of land, or less land and a shed or coop for small domestic animals.
Cottage: The dwelling of a rural laborer, small farmer, or miner; a small hut or shack built as a temporary or occasional shelter typically for shepherds or hunters.
Dugout: A shelter or primitive dwelling excavated in a hillside or dug in the ground, sometimes with outside wooden piles to raise its roof higher, and roofed with sod. Hall: The largest room in a castle or the house of a medieval aristocrat.
Hotel: A house licensed by the community to provide lodging and usually meals, entertainment, and various personal services for the public.
Hostel: A house for lodging that is usually maintained by a public or private organization or institution; a hotel.
House: A structure intended or used for human habitation; a building that serves as a residence or domicile especially as contrasted with a place of businds


Manse: The house of the holder of a homestead, or the residence of a clergyman.
Mansion: The house (manor house) of the owner of a manor; a large imposing residence serving as a dwelling or lodging place.
Moat house: A fortified residence of manor house sort that is surrounded by a moat containing water.
Palace: The official residence of a sovereign, great noble, or of a high ecclesiastic.
Penny-rent: A public house for the lodging of workers or travelers at a nominal rent.
Pension: Accommodations at a hotel or boardinghouse; a regular sum of money
Rooming house: A house where rooms are provided, often somewhat arbitrarily defined for the purpose of regulation under a particular statute or ordinance, and usually with provision for board at an extra charge.
Shack: A small roughly built and often crudely furnished single-story house.
Shanty: A small poorly built dwelling usually made of wood.

Book shop: An establishment where books and similar things are the chief stock in trade.
Bowyer: An establishment where the person that makes bows and/or crossbows sells his wares.
Brass smith: An establishment of one who works in brass fashions and sells his wares.
Brewery: A building in which ale, beer, malt liquor, and stout are brewed, aged, and sold, the person owning it usually a master brewer.
Bronze founder: The place where bronze is alloyed and cast into objects for sale.
Butcher (shop): An establishment where the flesh of animals is prepared for sale to customers.
Button maker: An establishment in which buttons made from various substances (bone, ivory, leather, shell, wood, etc.) are made and sold.
Carpenter (shop): The place where those persons whose occupation is to construct buildings and rough articles of wood is or are housed.
Carpenter (joiner, shop): The place where those persons whose occupation is to construct fine articles by shaping and joining pieces of wood for the finishing of buildings or for fine furniture work and sell their goods.
Carriage maker: The establishment where persons construct horse-drawn vehicles of comfort and elegance are designed, built and sold, the owner an artisan.
Carter: The establishment of one that drives a cart that can be hired for transport of goods.
Cartographer: The establishment of one that makes and sells maps, charts, etc.
Cartwright: The establishment of one that makes and sells carts.
Chandler: The establishment of one of the maker and seller of tallow and/or wax candles as well as soap.
Cobbler shop: The establishment of one that is a repairer of shoes and other leather goods.
Coffee house: A place where coffee and other refreshments are sold; sometimes an establishment similar to a club that is a center for the dissemination of news and for informal discussion of such things as literature, politics and/or religion.
Cook house: A building for cooking food brought in for such service, the customer paying for the process.


Cooper: The shop in which barrels of all sizes are made.
Copper Smith: An establishment of one that works in copper fashions and sells his wares.
Cutler: An establishment of one that makes, sells, and repairs edged or cutting implements such as scissors, shears, knives, and eating utensils.
Dairy: An establishment where milk, cream, butter, and cheese is sold.
Dance hall: A public hall offering for a fee facilities for dancing.
Dentist: An establishment of one whose profession it is to treat diseases of the teeth and gums and to make and insert replacements for lost or damaged parts.
Distillery: A building in which alcoholic liquor is distilled from fermented mash.
Doctor: The establishment of one that one skilled or specializing in healing arts.
Draper: An establishment of one that deals in cloth and sometimes also in clothing and dry goods.
Dress maker: An establishment of one that that is involved in the trade of designing, making, and selling fashionable, custom-made women's clothing.
Dry goods store: A place where one may purchase textiles, ready-to-wear clothing, and notions as distinguished from hardware, jewelry, groceries, etc.
Exporter: The establishment of one that that exports at wholesale to merchants and similar customers in foreign countries.
Ferrier: The shop in which horses hooves are cared for, horseshoes fitted and fixed in place.
Fish monger: An establishment of one that sells fish and seafood.
Falconer: An establishment of one that breeds and/or trains hunting hawks for sale or for a fee.
Fletcher: The establishment of maker and seller of arrows and/or bolts and quarrels.
Fortune teller: The establishment of a person who for payment uses various forms of divination to predict (claimed) future events and/or influences in the life of the customer.
Fruitier: The establishment of one who sells fruits.
Fuller: The establishment of one that fulls (shrinks and thickens) cloth.
Furrier: The establishment of one that buys and sells furs and fur products.
Gambling house: A business place where gambling is carried on.
Gaming house: As gambling house in which individual games for pairs or quartets of players are featured.
Gemner: The establishment of one who cuts precious stones to be sold as jewelry or for use in precious ornamentations, relics, etc.

General store: A business which carries a wide variety convenience goods and provisions.
Glass blower: The establishment of one that is skilled in the art of shaping a mass of molten glass by inflating it by blowing through a tube.
Glasser/glazier: The establishment of one that makes and/or

Table 3:15 Person-based measurements

| Cubit | 18 inches (elbow to fingertip) |
| :--- | :--- |
| Fathom | 72 inches (six feet, the length from one outstretched arm to the other) |
| Finger | $3 / 4$ inch |
| Hand | 4 inches |
| Palm | 3 inches |
| Pace | 1 yard (a long stride) |
| Span | 9 inches (spread hand, thumb to little finger) |
| Pistol Shot | c. 20 yards (10 paces per combatant) |
| Rod | 5.5 yards (16.5 feet) |
| Rood | 40 square rods, $1 / 4$ of an acre, 10,890 square feet, 3,630 square yards |
| Stone | 14 pounds | does glasswork.

Glover: The establishment of one that makes and sells gloves.
Goldsmith: The establishment of an artisan who makes jewelry, vessels, and other articles of gold and gold alloy.
Grocer: The establishment of a dealer in staple foodstuffs (dried and preserved food, flour, sugar, etc.) and household supplies.
Haberdashery: The establishment of one who deals in buttons or in men's furnishings.
Hair dresser: The establishment of one whose occupation is the dressing of women's hair and giving beauty treatments.
Harness maker: The establishment of one that makes harnesses and tack for draft and riding animals.
Hatter: The establishment of one that makes, sells, cleans and repairs hats
Herbalist: The establishment of one that collects and grows various medicinal and like herbs and prepares them by various means for sale to customers.
Horse trader: The establishment of one who engages in buying, selling and trading horses and mules.
Hosier: The establishment of one who makes and sells hosiery (hose, stockings, tights).
Hostel: A public house for entertaining and lodging travelers and is provided for a fee.
Importer: The establishment of one whose business is the wholesale importation and sale of goods from foreign countries.
Inn: A usually large public house for the lodging of travelers for compensation; this establishment offering many services including food, drink, business meeting rooms, banking and notary services, goods storage, and stabling.
Iron foundry: The establishment where iron is refined in blast furnaces.
Ironmonger: One who deals in iron and hardware made
from iron.
Kennel: The establishment that breeds, trains, and houses dogs and/or hounds for sale.
Laundry: A commercial establishment where laundering is done (usually by laundresses).
Lawyer: The establishment of a specialist in and practitioner of law.
Leather shop: An establishment that sells items made of the hides and/or skins of animals, or some part of such hides or skins, that have been tanned, tawed (tanned by immersion in alum or salt), or otherwise dressed for use to render it resistant to putrefaction and relatively soft and flexible when dry.
Limner: The establishment of one that paints signs and similar work depicting drawings.
Locksmith: The establishment of a craftsman who makes and repairs locks.
Mason: The establishment of a skilled workman who builds with stone or brick.
Money changer: The establishment of one whose occupation is the exchanging of kinds or denominations of money for a fee based on the amount of coinage changed. Notary: The establishment of one appointed a public officer appointed so as to acknowledge or otherwise attest or certify deeds and other writings or copies of them, this usually under official seal to make them authentic and to take affidavits, depositions, and protests of negotiable paper.
Occultist: The establishment of one that sells materials (material), instruments, and tools integral to occult practices.
Painter: The establishment of one who paints on commission portraits or scenes or trains aspiring artists.
Pawn broker: The establishment of one that loans money on the security of personal property given over as security for the loan and retained in his keeping until the loan is repaid.
Perfumery: The establishment of one that (sometimes) makes and sells perfumes, colognes, and toilet waters.

Pewter smith: An establishment of one that alloys the metals that combine to form pewter and works in this metal to fashion wares and purvey them.
Playhouse: A building used for commercial dramatic exhibitions. i.e. stage plays.
Plumber: The establishment of a tradesman who makes pipes and other plumbing equipment, installs and repairs such things.
Potter shop: An establishment wherein pottery is made and sold.
Poulterer: The establishment of one that deals in poultry (chickens, ducks, geese, etc.).
Public house: A saloon or bar that is licensed by community authority to conduct such business.
Rat-killing arena: Usually a small structure that contains a central place, the pit, in which small dogs are set loose to kill rats placed therein, this enclosure being surrounded by places where the spectators can stand or sit. (The dog that kills the most rats in the time set being the winner of the contest.)
Rope walk: A manufactory this is comprised of a long narrow building containing a long path down which the workers carry and lay the strands of fiber that form the rope made thus.
Saddler: The establishment of one that makes, repairs, or sells saddles and other furnishings (tack) for saddle horses.
Sawyer: The establishment of one that saws logs or timber (as in lumbering or in a sawmill).
Scrivener: The establishment of one who is a professional or public copyist or writer.
Seamstress: The establishment of a woman who sews by hand and whose occupation is making, altering, and/or repairing garments, curtains, and household linens.
Shoemaker: The establishment of one that makes shoes, boots, and like leather footwear.
Silversmith: The establishment of an artisan who alloys and makes vessels, jewelry, or other articles of silver.
Slater: The establishment of one who works with slate, usually making it into thin flat slabs for roof shingles and siding.
Stable: The establishment of in a building, or part of a building, in which domestic animals are lodged and fed in stalls.
Stable \& livery: A stable where one can also rent horses and vehicles that are are kept for hire therein.
Surgeon: The establishment of one who is a medical specialist practicing medicine concerned with diseases and conditions requiring or amenable to operative or manual procedures.
Swordsmith: The establishment of an artisan who forges swords and similar weapons with a long blade for cutting or thrusting.
Tailor: The establishment of one whose trade is making or altering outer garments.
Tanner: The establishment of one that converts hides and skins into leather by treatment with an infusion of tannin-
rich bark or other agent (such as alum or salt) of similar effect.
Tavern: An establishment where alcoholic beverages are sold to be drunk on the premises; such places generally serving food and likely to have rooms above for sleeping. Tea house: A public house where tea and light refreshments are sold.
Tiler: The establishment of one who specializes in a flat or curved piece of fired clay (tiles) used especially for roofs, floors, or walls and often for ornamental work.
Tinker: The establishment of one that is unspecialized in a craft where the mending of household furniture and utensils is done; a place where one can have edges sharpened, items repaired, adjusted, or worked upon.
Tin smith: The establishment of one who makes and repairs things of tin metal.
Thatcher: The establishment of one who covers rooftops with thatch, straw supported by a fabrication of poles interwoven with slender branches, withes, or reeds.
Trader: The establishment of a person who stocks, buys, sells, and trades various forms of personal and similar goods, new and used, ordinary or exotic.
Wagoner: The establishment of a person who drives and transports goods by wagon.
Wainwright: The establishment of one who makes and repairs wagons.
Weapon smith: The establishment of one who manufactures various items such as axes, maces, pole-arms, etc.
Weaver: The establishment of one who forms cloth by interlacing strands of thread or yarn on a loom by interlacing warp and filling threads.
Wheelwright: The shop in which new wheels are made and broken wheels are mended.
Wine merchant: The establishment of one that sells wine (mainly from grapes) in bottles and larger containers, whether domestic or imported.
Wire drawer: The establishment of one who manufactures metal wire by heating and drawing it through successively smaller openings.

## RELIGIOUS

Abbey: The buildings that comprise a monastery and governed by an abbot.
Bishop's palace: A majestic abode, official residence of a bishop of archbishop-in a fantasy milieu this would be a high priest or archpriest.
Cathedral: The church of a bishop-in a fantasy milieu this would be a grand temple.
Chapel: A small religious structure temple-like sort for worship services; also a room in a larger structure or a recess in a church (temple) separately dedicated to a particular holy entity devoted to meditation and prayer.


Parsonage: A parish church (area fane) and the income attached to it (as from rights, glebes, and tithes); the house, or the house and land, provided by a parish or congregation for its pastor's (priest's) use.
Priory: The buildings that comprise a place of religious association, one not secluded from the world, for persons under religious vows to teach and preach. In general a priory has no income from rights, lands, and rents and relies upon tithes and donations for its support. (In the Christian faith one ranks immediately below an abbey.)
Pyramid: A structure with a square base and four triangular sides. One of the oldest constructs and generally built as a temple or tomb.
Rectory: An estate granted to an ecclesiastic for life only and held on the mere good pleasure of the donor, usually held by a rector.
Sacellum: A small monumental chapel in a church (temple), or an unroofed space in a building consecrated to a deity.

Clerestory: The wall of a church rising above the roofs of the flanking isles and containing windows for lighting the central part of the structue.
Cloister (and garden): An arcade or collonade around an open court; an arched way or covered walk along the walls of certain portions of ecclesiastical and monastic buildings.
Colonnade: An series or range of columns placed at certain intervals.
Court, inner: An area somewhat like an outer court, but within a castle or other large building and normally containing a skylight.
Court, outer: An uncovered area wholly or partly surrounded by buildings or walls adjoining a castle.
Crypt: That part of a basilica or cathedral below the floor. Set apart for burial purposes, sometimes used as a chapel.


Diastyle: An area supported by columns that are spaced wide apart.
Dome: A roof surrounded by a series of arches or vaults, on a round or many-sided base, a cupola. These are usually found on stately or majestic buildings such as cathedrals or temples.
Hall: A large public or semi-public room for gatherings, entertainments, dancing, eating, etc.
Hypostyle: An area supported by columns.
Library: A room or building where a collection of books, etc. are kept for reading or reference.
Minaret: A high slender tower attached to a temple, with one or more projecting balconies.
Narthex: An area at the west end of the church for penitents and others not admitted to the church itself, and later a vestibule within the church for the same purpose. Also, any church vestibule leading to the nave.
Nave: The middle part of the body of a church, extending from the baluster or rail, of the choir to the main entrance. Oratory: A small chapel, one especially for private prayer. Peristyle: A row of columns forming a enclosure or supporting a roof, or any place or enclosure, as a court, so formed.
Porch: A covered entrance to a building, usually projecting from the wall and having a separate roof.
Refectory: A room of refreshment, a hall or apartment in a convent or monastery, which serves as a dining hall.
Reliquary chamber: A place within a temple, which serves as a shrine, where relics are kept and shown.
Sanctuary: A place within a church or temple set aside for the worship of a god or gods, and also referred to as the holy area around the altar.

Sacrarium: A shrine or sanctuary in a temple or building that holds a sacred object or objects; a building such as a shrine or fane erected for the performance of religious rites by a sacred person.
Shrine: A small place of worship, either a separate structure or an area within a larger religious structure or private building that serves as a place for the performance of religious services.
Sanctum: A sacred or private place such as a study or private room where one is not to be disturbed.
Study: A room designed for study, writing, reading, etc., usually with books, a desk and similar furnishings.
Vestibule: A small entrance to a hall or room, either to a building or a room within a building.
Vestry: A room in a church, where the clergy put on their vestments, and the sacred vessels are kept, a sacristy.
Zita: Zita: A small parlor with a stove in it, a withdrawing room, the living quarters of a church sexton.


GOVERNMENTAL_AND MILITARY
Acropolis: The upper fortified part of a (historically an ancient Greek) city (such as Athens).
Alcazar: A (Spanish) fortress or palace.
Basilica: An oblong, often religiously dedicated, building typically with a broad nave flanked by colonnaded aisles or porticoes and ending in a semicircular apse (as used in ancient Rome especially for a court of justice and place of public assembly).
Casbah: A castle or fortress of Arabic sort.
Castle: A large walled and fortified building or set of buildings.
Citadel: A fortress that commands a city or that lies within a castle.
Donjon: A massive inner tower in a medieval castle; the keep or citadel.


Aisle: The side of an interior space separated by piers or columns of other sort from the main space proper.
Alcove: A recessed part of a chamber or room or a smaller room opening into a larger one.
Anteroom: A room that is before or forms an entrance to another room or chamber; typically such a place is used as a waiting room.
Arcade: An arched or vaulted place roofed above and open on one side; otherwise an arched building or gallery of some size, also an arched passageway or avenue, or a covered passageway or way along which rows of shops are located.
Atrium: An open court having a covered way on three or all sides, these leading to covered spaces (chambers and rooms, halls and passageways).
Bartizan: A small turret overhanging or projecting from a wall or building structure, often near an entrance for lookout and defense.
Bay: A compartment of the walls, roof, or other part of a building or of the whole building that projects from the main room; where Gothic arches are found, and the transverse ones and adjacent piers form an arcade to divide the building into bays.
Belvedere: A structure such as a copula that is built upon
a roof so as to have a good view; sometimes a summerhouse.
Buttery: The room in which butts and like containers of ale, beer, wine, etc. are kept.
Chancel: The part of a religious structure in which is located the altar/table and the lectern or pulpit. It is usually reserved for the clergy and serving laity such as a choir during religious services, and it is usually on a higher level than areas in which worshipers gather.
Chandlery: A candle storage room; also a place where tallow and wax are made into candles.
Cistern: A well-like space for the collection of rain water, this usually in the ground below a structure.
Cistern, wall: A cistern built into a wall rather than sunk into the ground.
Cloak room: A place for outer garments to be taken off and hung; also sometimes a room with lavatory and toilet. Cloister: A covered passage or ambulatory, such as an arcade, on the side of an open courtyard, typically having one side walled and the other an open arcade or colonnade; a cloister typically connects different buildings of a group or runs round an open court in a monastery or collegiate structure.
Coal room: A room for the storage of coal, it being in effect a large bin.
Cold room: A room in which a low temperature is maintained through being below ground or heavily insulated and filled with ice or else magically kept cold.
Conservatory: A building or enclosed chamber with many windows and possibly a glass roof in which plants are grown.
Corridor: Typically a covered passageway or narrow hall that connects or opens into compartments, rooms, and chambers.
Dove cot (roof): A small building of shed-like sort on the roof of a larger structure with roosts in which doves or pigeons are kept.

Table 3:16 Cistern, Cylindrical, Capacity in Gallons of Water per 10 inches Depth

| Diameter in <br> Feet | Gal./per <br> 10" Depth |
| :--- | :--- |
| 1 | 4.9 |
| 1.5 | 11.0 |
| 2 | 19.6 |
| 2.5 | 30.5 |
| 3 | 44.0 |
| 3.5 | 60.0 |
| 4 | 78.3 |
| 4.5 | 99.1 |
| 5 | 122.4 |
| 7.5 | 271.0 |
| 10 | 490.0 |
| 15 | 1102.0 |
| 20 | 1958.4 |
| 25 | 3060.0 |



Drying room: A large and airy space in which are hung various foodstuffs or laundry so as these things will dry.
Forecourt: The outer or front court of a fortification or a building or group of buildings.
Foyer: The initial anteroom, entrance hall, lobby, or vestibule, sometimes with a staircase, and leading to the interior rooms.
Gallery: A long, hall-like chamber; a covered space more or less open at the sides for walking; a roofed promenade structure; a platform or passageway above ground level resembling a corridor inside of or projecting from an outside wall, and in the latter case opens at the outer edge or having there only a rail or balustrade.
Garderobe: Typically a privy; also a wardrobe, or a private room..
Garret: A generally unfinished part of a house immediately under or within the roof, as an attic without perpendicular walls.
Lavatory: A place for washing the hands and face.
Loggia: A roofed open gallery or arcade in the side of a building that forms an integral part of it, generally facing an open court.
Lumber room: A room in which wood for building is stored; also any storage place in which unused furniture and other discarded articles are kept.
Mezzanine: A low-ceilinged story between the ground floor and the first story; an intermediate or fractional story that projects in the form of a balcony over the ground story; also the floor beneath the performing stage of a theater from which trapdoors and other pieces of stage machinery are worked.
Natatorium: An enclosed swimming pool, or a chamber in a larger structure for an indoor swimming pool.
Oriel: A large, windowed bay that is semi-square or semihexagonal in construction that projects from the face of a wall and is supported by brackets or a corbel.
Oubliette: A dungeon shaft of well-like sort with an opening only at the top and typically having a concealed pit below the floor.

Pantry: The room in which bread and like foodstuffs are stored.
Parlor: A sitting room principally used for the reception of guests, conversation, and light refreshment service.
Penthouse: A smaller dwelling structure atop a larger one; a shed or roof attached to and sloping from a wall or building that shelters equipment or a passage, door, or window; sometimes an annex.
Plumbing shop: The place where pipes and other plumbing devices are made.
Portico: A covered ambulatory such as a colonnade that forms the way to the main entrance of a building.
Privy: A small compartment or detached building with a bench-like seat with one or more round or oval holes through which defecation and urination can take place.
Refectory: A dining hall in a fortress, or scholastic or religious complex.
Rotunda: A round building with a like central chamber covered by a dome; also an interior space of round sort, usually covered by a dome.
Salon: A spacious and elegant chamber; a like apartment or living room.
Scullery: A chamber of a household in which the dishes and kitchen utensils are cleansed.
Servery: A service alcove with a buffet, counter, or serving table that is between the dining room and the kitchen.
Solar: An upper room or apartment with many windows through which sunshine enters (for family use in a superior medieval residence); an upper chamber, loft, or a garret that has many windows.
Solarium: An apartment with many windows that are exposed to the sun; a like apartment on the roof of a large dwelling.
Strong room: A room for money and other valuables that is specially constructed to be fireproof and burglarproof.
Veranda: A open gallery or roofer portico attached to the exterior of a building and used for sitting out of doors.
Vestibule: An open entrance court; a passage, hall, or chamber between the outer door and the interior of a building; the entrance room leading into a house.
Water closet: A closet, compartment, or room for defecation and urination, the receptacle for such waste having means for flushing it away with water.
Widow's walk (roof): A balustraded or railed observation platform built above the roof of a dwelling for an unobstructed view.
Withdrawing room: A parlor, salon, or solar into which ladies withdraw while men drink and smoke.
Wood room: A chamber or room in which firewood and logs are kept dry for burning in fireplaces.

## APPURTENANT STRUCTURES \& PLACES

Arbor: A shaded retreat formed by arches and latticework upon which vines or climbing shrubs grow, also a natural bower of braches.
Aviary: A house, enclosure, or large cage for confining live birds other than poultry.
Bartizan: See above.
Barn: An outer building for housing agricultural equipment, domestic animals, and feed.
Catwalk: A narrow walkway, usually of wood, giving access to places otherwise inaccessible, or else affording passage over or around areas not otherwise traversable.
Cistern, roof: A reservoir or tank for holding rainwater.
Coach house: An outbuilding for coaches and carriages, above which there are usually apartments for the coachmen, footmen, and others concerned with these vehicles.
Coup: A small structure for keeping poultry.
Grotto: An artificial recess or structure that is made of rock and stones and arched so as to resemble a natural grotto (cave).
Hutch: A small cage for keeping hares and rabbits; these often clustered together to form a sort of shed or hut.
Mews: A small structure that contains within it cages for hawks; also a range of stables usually with carriage houses and living quarters above that is built around a courtyard.
Pergola (arbor, trellis): An openwork series of arches or other coverings for a walk or passageway over which climbing plants are trained.
Shed: A small structure, often with one side open, in which equipment is stored, or domestic animals such as sheep, are sheltered.
Smoke house: A small building that is windowless and so constructed as to be nearly airtight. Inside it contains a fireplace from which woodsmoke will fill the interior when the fire is lit, and this smoke then curing and preserving meat hung inside the place.


## ROOMS \& <br> Pewter <br> Pottery

 FURNISHINGSTaverns. Laboratories. Torture chambers. Wheresoever your tale begins you'll need to furnish the great halls, throne rooms, the corridors and commons. These are the intimate details which bring the setting to life. Like the blue sea holly growing beneath the terrace, the tankard, soft white spread or codex lying on the table imbibe your setting with a depth which gives it life. The core of world building is detail.

Below are several types of rooms and what one might find in them. That is followed by a great catalog of furnishings.

CONSTRUCTION MATERIALS, ITEM

The following lists catalog the most common materials used for specific indoor items.

## Cooking Items

Ceramic
Copper
Iron
Hide/leather (hot stones dropped into)
Tin
Steel

Drinking \&
Eating Items
Bone
China
Copper
Crystal
Crystal, Rock
Electrum
Glass
Gold
Gourd


Horn
Leather (mainly drinking)
Nickel Silver

Shell, Sea
Silver
Stone
Tin
Tortoise Shell
Wood
Wood, lacquered

## General

Bone
China
Cloth
Cloth, felt
Copper
Cord
Crystal (glass)
Crystal, rock
Electrum
Flax
Fur
Glass
Gold
Gourd (dried)
Hair
Hemp
Hide
Hide, Raw
Horn
Iron
Ivory
Jute
Leather (mainly drinking)
Pewter
Pottery
Rope
Shell, Sea
Silver
Silver, Nickel
Skin, reptile
Steel
Stone
String
Tin
Tortoise Shell
Wicker
Wire
Wood, hard
Wood, lacquered
Wood, soft
Wool


## ROOMS

## Common Room, Inn or Tavern

(Select some, not all.)
Bar (never with stools near it)
Barrel, ale
Barrel, beer
Barrel, stout
Beakers
Benches
Bottles,
liqueur
Bowls


Candles \& holders
Cash box
Chairs
Cups
Darts and dartboard(s)
Dry sink
Fireplace
Firkins, liquor
Flagons
Forks
Games
Jacks (drinking)
Keg, wine
Kegs (empty, as stools)
Lamps
Lanterns
Mugs
Napkins
Pitchers
Plates
Platters
Pottles, liquor
Rack, coat, free-standing
Rack, coat, wall (peg rack or pegs)
Rags
Room decoration-General, Table or
Surface, Wall
Sideboard
Spoons
Stand
Stools
Table cloths
Tables (matching or
varied)
Tankards


Weapon(s) (out of sight)


Book, ancient lore
Book, astrological
Book, arcana
Book, grimoire
Book, magical tome
Book, metal bound and locked
Book, notebook
Book, occult secrets
Book, record book
Book, work book
Boots
Bottle*
Bottle, dropper, glass
Bowl*
Box
Brazier
Burner
Burette, w/stand
Cabinet
Candle in holder
Carboy
Cauldron (bronze or iron)
Censer
Centrifuge
Chair
Chart, alchemical
Chart, astrological
Circle
Circle, with a hexagram within, points
touching it, a hexacle**
Circle, with a octogram within, points
touching it, a octacle**
Circle, with a pentagram within, points
touching it, a pentacle**
Circle, with a septagram within, points
touching it, a septacle**
Circle, with a square within, points
touching it, a square of incantation**
Circle, with a triangle within, points
touching it, a thaumaturgic triangle**
Circle, within a circle, runes and
symbols between, a magic circle**
Cloth
Coat
Crucible
Dagger, magician's
Demijohn
Desk
Divination device
Dish*
Filters
Fireplace
Flask*
Funnel (ceramic, glass, metal)
Glass, magnifying
Gloves

Herbs-see separate heading, Herbs
also Facts Section for same
Hour glass
Ice chest
Ink (various colors)
Ink, lampblack
Ink, invisible, lemon juice or milk
Ink, squid's
Jar*
Jar, apothecary's
Jug
Kettle (bronze, copper, or iron)
Knife
Lamp, alcohol
Lamp, magical
Matches (tinderbox with flint \&
steel)
Materia
Minute Glass
Mirror (crystal, glass, silver)
Mirror, cloudy
Mortar
Pan (brass, bronze, copper, iron, tin)
Parchment
Pen, quill
Pestle
Pipettes
Pitcher
Quern
Rack
Rags
Retort
Ring stand
Sand glass
Sand shaker
Shelf
Spatulas
Spoons, measuring
Spoons, stirring
Stand
Stool
Sword, magician's
Tank, liquid
Trivet
Tube
Tubing, glass
Tubing, metal
Urobouros
Vat
Wand, double-terminated crystal
Wand, carved wood
Water clock

Work bench
Material construction of ceramic, crystal, glass, metal, or stone.
Additional figures-characters, glyphs, hieroglyphs, pictograms, runes, sigils, symbols- and also objects (such as candles, incense and offerings) can also appear in spaces other than the central-most one of the figure.


Library Items and Furniture
Blotter
Book
Book rack
Bookcase
Bookcase, built in
Candelabrum
Candle
Catalog
Cellar, sand
Chair
Chair, arm
Chair, arm, upholstered
Chair, upholstered
Chandelier
Charcoal stick
Chart
Chart, navigational
Codex
Compendium
Couch
Cyclopedia
Desk
Diary
Dictionary
Encyclopedia
Folio
Gazetteer
Glass, magnifying
Globe, world
Grimoire
Hassock
Ink
Journal
Knife, paper
Knife, pen
Ladder



Dish
Driftwood
Ewer
Figurine
Flagon
Flowers
Fruit
Handicraft object
Painting
Pet, bird, caged
Pet, bird, perched
Pet, fish, aquarium
Pet, fish, bowl
Pillow
Plant, potted
Statuette
Terrarium
Trophy
Vase

Room Decoration, Light Source, Artificial
Brazier
Candelabra with multiple candles
Candle, beeswax
Candle, tallow
Candle, parafin
Candle, wax
Candle stick with candle
Chandelier
Cresset, burning fat
Cresset, burning oil
Fire pit
Fireplace
Lamp with chimney, candle
Lamp with chimney, oil
Lamp, fat
Lamp, oil
Lantern, candle
Lantern, candle, dark (or hooded)
Lantern, oil
Lantern, oil, dark (or hooded)
Light, burning, magical*
Light, glowing, magical*
Rush light
Taper (thin wax candle)
Torch
Torchere
Wall sconce with multiple candles
Wall sconce with single candle Basically in the form of another ordinary listed sort.
A thing or area that sheds illumination, such as a globe of crystal or a portion of the ceiling or a wall.

## Room Decoration, Macabre/Odd

Ashes (human)
Bone
Death mask
Ear, dried
Eyeballs preserved in a jar
Finger, dried
Human head preserved in a jar
Live poisonous amphibian in a container
Live poisonous insect/arachnid in a container
Live poisonous reptile in a container
Mummified animal
Mummy
Petrified body
Shrunken head
Skeleton
Skull
Teeth
Torture instrument Whip

Room Decoration, Table or Surface
Therein
Aquarium
Ashtray
Basin
Basket
Bell, hand
Bottle
Book
Bowl
Box
Box, music
Cloth
Coffer
Decanter
Dish
Doily
Driftwood
Egg*
Ewer
Figurine
Flowers, in container
Fruit, in container
Geode
Gong, striker, and stand, small
Insect in amber
Jar
Nuts, in container
Object d'art
Plate
Platter
Statuette

Terrarium
Trophy
Urn
Vase
Composition: actual egg (blown out), ceramic, glass, metal, polished stone, wood
See Trophy hereafter, page 135.

## Room Decoration, Wall

Basin, wall
Column, half
Bell, pull
Fresco
Gilding
Inlay, ivory
Inlay, metal
Inlay, stone
Inlay, tile
Inlay, wood
Mirror, inset
Molding, plaster
Molding, wood
Molding, wood, carved
Mosaic
Mosaic, inlaid tile
Niche
Mural
Paint
Paneling
Paneling, half
Pilaster
Rail, chair
Sheathing, metal
Sheathing, stone
Tile


Trophy
Wall, cloth
covering
Wallpaper
Whitewash
See Trophy hereafter, page 135.
Room Decoration, Wall, Hung
Arass
Armorial bearings
Bird cage
Candelabrum
Cloth
Cresset
Cross-stitch cloth
Drawing
Flag
Fur



Sheet, linen
Sheet, rough
Sheet, silk
Spread
Ceiling Decoration, Including Hung
Sort
Beam
Chandelier
Cloth (covering)
Dome
Gilt
Inlay, mineral
Inlay, tile
Inlay, wood
Mirror
Mural
Paint
Painting (pictorial)
Paper
Relief, molded
Relief, sculpted
Tented cloth
Tile

## Curios

Bird, mechanical, singing
Bottle, building therein
Bottle, ship therein
Bottle, woodland scene therein
Drake's or similar creature's scale
Fly whisk, exotic
Gem, carved
Gem-crystals formation
Headdress, exotic
Idol, small, exotic deity
Insect, carved wooden
Insect in amber
Kaleidoscope
Mask, animal
Mask, demonic
Mask, exotic
Mask, feather
Meteorite, small
Miniature figurine, animal
Miniature figurine, creature
Miniature figurine, human
Miniature building
Miniature painting
Miniature scene in a nutshell
Miniature weapon
Musical instrument, small, exotic
Necklace, claws or teeth
Nut, carved or engraved
Ordinary small object with concealed weapon
Pottery, exotic

Puzzle box
Puzzle object (interlocking pieces)
Rattle, exotic
Religious object, exotic
Ring with secret compartment
Shrunken head
Skull of unidentified, strange
creature
Statuette, grotesque
Stuffed animal, exotic
Tablet, ancient, inscribed
Stuffed bird, exotic
Tooth or tusk, carved or engraved
Toy, mechanical

## Drinking Vessels

Beaker
Bottle
Bumper
Chalice
Cup
Flagon
Flask
Glass
Goblet
Horn
Jack (drinking)
Jar
Jigger
Jug
Mug
Nipperkin


Noggin
Pipkin
Pitcher
Pot
Schooner
Snifter
Stein
Stoup
Tankard
Tumbler
Eggs, Decorative
China, painted
Cinnabar
Cloisonné
Crystal, rock
Glass (plain or crystal, clear, tinted,
or colored)
Metal, cast (hollow-brass, copper, electrum, gold, silver)
Stone, polished, ordinary (alabaster, granite, marble, obsidian, onyx, serpentine, etc.)
Stone, polished, ornamental (agate,
jasper, lapis lazuli, malachite, etc.)
Wood, polished, ordinary
Wood, polished, rare

## Fireplace Implements and Accesso-

 riesAndirons
Bed-warming pan
Bellows
Brush, ashes
Cauldron
Coal shovel
Curtain, metal mesh screening


Foot warmer
Grate
Hooks, iron hanging
Kettle
Log rack
Log tongs
Oven (inset)
Poker
Poker, coal-mover
Pot
Screen, free standing, metal*
Shovel, ashes
Spit, inset
typically brass, copper, or tin.

## Floor Coverings

Carpet, burlap
Carpet, cotton
Carpet, wool
Cloth, canvas
Fur
Grass
Hide
Mat, felt

Mat, woven, grass
Mat, woven, hemp
Mat, woven rush
Rug, braided
Rug, cotton
Rug, oriental
Rug, rag
Rug, silk
Rug, wool
Rushes
Skin
Furniture
Armoire
Armor stand
Bar (long sideboard, front usually
solid, shelves in back, a top section
possibly lifting up)
Barrel
Bed
Bed, bunk
Bed, canopied
Bed, curtained
Bed, curtained \& canopied
Bed, enclosed
Bed, trundle
Bench
Bench with back
Bench with back, upholstered
Bench, armed and backed
Bench, armed and backed, padded
Bench, backed
Bench, backed, padded
Bench, padded
Bench, upholstered
Bench, work
Bin
Book stand
Bookcase
Box
Box, firewood
Brazier
Buffet table


Table (oval-large, medium, small)
Table (rectangular-large, medium, small)
Table (round-large, medium, small)
Table (square-large, medium, small)
Table, banquet
Table, buffet
Table, drop leaf
Table, folding
Table, game (various sorts)
Table, half
Table, side
Table, trestle
Table, vanity
Table, wall
Table, wall, half oval
Table, wall, half round
Taboret
Torchere
Tree, hall
Trunk
Trunk, upright
Urn (stand)
Vanity
Wash stand
Weapons rack

## Furniture, Business Type

Armor stand
Bar (long sideboard, front usually
solid, shelves in back, a top section
possibly lifting up)
Barrel
Bench
Bench with back
Bench, work
Bin, goods
Book stand
Bookcase
Box
Box, firewood
Brazier
Buffet table
Buffet with mirror
Butcher's block
Cabinet
Cabinet, china
Cabinet, glass front
Cabinet, merchandising
Cabinet, spice
Cabinet, wall
Candelabrum, floor
Candle stand
Case
Case, display
Case, standing, shelved
Cashier's cage

Cashier's desk
Chair
Chair, barrel
Chest (trunk-like)
Chest, upright
Cloak stand
Clothes rack, free standing
Clothes rack, wall hung
Coal scuttle
Counter
Counter, display
Desk
Desk, break-front, cabinet above
Desk, break-front, drawers above
Desk, drop-front
Desk, table
Desk, wall
Display case
Display rack
Dressing mirror
Hamper, merchandising
Mirror, framed, free-standing
Pastry table (marble top)
Pedestal
Rack
Rack, bakers
Rack, clothing, free-standing
Rack, coat, free-standing
Rack, coat, wall (peg rack or pegs)
Rack, free-standing
Rack, wall
Screen
Screen, folding
Serving cart
Shelf
Shelf, wall
Sideboard
Stand
Stand, candle
Stool
Stool, step
Stove
Table
Table, game
Table, merchandise
Table, trestle
Torchere
Trunk, upright
Weapons rack

Trophy
Head
Alligator/crocodile
Antelope
Bear (black, brown, polar, etc.)
Bison (buffalo)
Boar
Caribou
Cat
Creature/monster (fantasy)
Deer
Eland
Elk (wapiti)
Gazelle
Giraffe
Gnu
Hippopotamus
Hyena
Moose (elk)
Musk ox
Okapi
Rhinoceros
Walrus
Water buffalo
Wolf
Wolverine
Yak
Zebra

Fully Mounted
Badger
Bear
Beaver
Bird
Creature/monster (fantasy)
Ermine/weasel
Fish
Fisher

Fox
Martin
Mink
Panda, giant
Porcupine
Raccoon
Reptile
Skunk
Snake
Squirrel
Wolverine

## Hide/Pelt/Skin

Alligator/crocodile
Antelope
Bear (black, brown, polar, etc.)
Bison (buffalo)
Boar
Caribou
Cat
Cattle
Creature/monster (fantasy)
Deer
Eland
Elk (wapiti)
Gazelle
Giraffe
Gnu
Hippopotamus
Hyena
Moose (elk)
Musk ox
Okapi
Rhinoceros
Snake
Water buffalo
Wolf
Yak
Zebra



Bowl, soup
Bowl, soup, cream with cover and
saucer
Bowl, soup, cream with saucer
Bowl, soup, lug
Candelabrum
Candelabrum with bobaches
Candlestick
Candlestick with bobache
Charger, plate (11.5" - 12.5")
Chocolate pot
Chocolate pot, large
Coffee pot
Coffee pot, large
Compote
Creamer
Cruet, large
Cruet, small
Cup
Cup, tea, with saucer
Dish, individual condiment, (2.5")
Dish, lemon
Gravy boat
Mug
Mug, covered
Pepper cellar
Pepper shaker
Pitcher
Pitcher, small
Plate, butter, individual (2")
Plate, butter, master (with or without cover)
Plate (4"-30")
Plate, dinner (10"-11")
Plate, individual salt (2")
Plate, luncheon (8"-9")
Plate, other (bread, desert, salad-6"
-7")
Plate, relish, oval (8")
Pot, honey
Pot, mustard
Salt cellar
Sauce boat
Saucer
Spooner
Sugar bowl (with or without cover)
Sugar shaker
Tankard
Teapot
Tray, serving, rectangular (16"-30")
Tureen, large
Tureen, large, covered
Tureen, small
Tureen, small, covered

## Silverware

Cheese cleaver
Cheese plane
Cheese serving knife
Cheese scoop
Fork, carving, large
Fork, carving, small
Fork, cold meat
Fork, desert
Fork, fish
Fork, grill
Fork, ice cream
Fork, lemon
Fork, lobster
Fork, olive
Fork, pickle
Fork, salad
Fork, seafood
Fork, serving
Fork, strawberry
Fork, table
Jelly slicer
Knife, butter, individual
Knife, butter, master
Knife, carving, large
Knife, carving, small
Knife, desert
Knife, fish
Knife, fruit
Knife, grill
Knife, serving, cake
Knife, serving, fish
Knife, slicing, bread, master
Knife, steak
Knife, table
Ladle, gravy
Ladle, punch
Ladle, sauce
Ladle, soup
Ladle, tureen
Lobster cracker
Nut cracker
Nut pick
Scoop, cracker
Scoop, ice cream
Server, cake
Server, cranberry
Server, meat
Server, pasta
Server, pastry
Server, pie
Server, salad, fork
Server, salad, spoon
Server, sardine
Server, tomato, pierced

Shears, grape
Shears, poultry
Spoon, berry
Spoon, coffee
Spoon, demitasse
Spoon, desert
Spoon, fruit
Spoon, ice cream
Spoon, iced tea
Spoon, jelly
Spoon, preserve (deep)
Spoon, salt
Spoon, salt, master
Spoon, service/table
Spoon, serving
Spoon, serving, bonbon
Spoon, serving, ice
Spoon, serving, dressing/stuffing
Spoon, serving, large
Spoon, serving, pierced
Spoon, serving, rice
Spoon, soup
Spoon, soup, bouillon
Spoon, sugar
Spoon, sugar (shell)
Spoon, tea
Skewer
Strainer, tea
Tongs, asparagus, individual
Tongs, asparagus, serving
Tongs, ice
Tongs, pastry
Tongs, sugar
Table Linen
Napkin
Table cloth
Table runner


## HERBALIST'S LORE \& REMEDIES

Bee Keeping: If you keep bees you should always keep them informed - very politely, they value that - about everything that goes on in and around your house. Like, if you want to move plants around in the garden, change the use of a field, and even things you might not imagine that they'd care about like telling them that someone in the house has died. Your address should begin "Honored bees, your majesties, I have come to inform you that..."
Dancing Madness: The cause of this is a fungus by the name of Claviceps purpurea, or 'ergot', which infests grain. It is small enough to infiltrate unnoticeably into the ear of the grain (wheat or rye) and gets ground up when you make flour with it. Then you bake bread, and eat the stuff which causes temporary derangement - the cause of many cases of village-wide 'dancing madness' attacks. If you wander through a field of wheat that has been infested, you can see - if you look very closely - that some of the grains have turned a deep purplish-black rather than the
golden color you'd expect. Damp weather during mid-late stages of the growing period can enhance the little devil's growth. [True botanical fact.] We also suspect that evil spells duplicate this effect.
Head Cold: For a head cold, eat a clove of garlic - whole \& raw.
Honey: Consuming local honey will alleviate most pollen allergies. Honey is antiseptic, and bacteria and mold will not grow on it.
Hemp: A hedge of hemp planted around a garden keeps away many insect pests. The hemp can thereafter be harvested for making string, cord, and rope,
Stinging Nettle: If stung by stinging nettles, slice an onion and rub over the afflicted area. Stinging nettle planted near herbs gives them a stronger and more aromatic and flavorful.
Warts: If you have warts, rub a piece of beef fat on the afflicted spot then hang it up outside. As the beef fat melts away, so will the wart.

## POPULACE

Government. Occupations. Names. Peopling your setting is as important as geography, plants and animals, structures and technology. In order to anchor your tale in a setting where there are societies you must determine what those societies and who rules them. Beyond that it is important to note what secondary characters are to weave in and out of the setting's plot. To make them believable it is necessary to give them substance. Choosing an occupation is part of that substance.

What follows are catalogs of government types, occupations, secular and temporal, occupations for the everyday folk and a sampling of nicknames.

## GOVERNMENTS

Anarchy: Society without formal government
Aristocracy: Government by a class of people who have attained power due to birth or wealth. Aristocrats are people who have social position as well as political power.
Autocracy: Government by one person who possesses unlimited power. There are two forms of Autocracy: Autocratic Monarchies and Autocratic Dictatorships. The former is commonly accepted as the legitimate rule of a King, whereas the latter is one of seized or assumed power.
Clan: See Tribal hereafter.
Colonial: Government set up to rule a foreign territory by a "parent" state. Though these governments may reflect the parent government, they usually assume some form of oligarchy or dictatorship.
Confederacy: These refer to the grouping of two or more states with legitimate governments under a singular leader or governing concept.
Democracy (pure): Government whereby all eligible citizens gather on common grounds to vote on matters of state, finance, etc.
Despotism: A form of Autocracy whereby an individual has seized power illegitimately.
Dictatorship: A form of Autocracy whereby an individual has seized power illegitimately.
Feudal: There are no feudal governments but rather a society or region wherein feudalism is the dominate social, political, economic and military organization. It implies a complicated arrangement that governs the personal relations of lords, vassals and peasants. It entails a plethora of rights and duties between "superiors" and "inferiors," where social rank is determined by one's land rights, and military service and duty to the lord's demesne replaced monetary payments. In theory it is a simple form of government whereby the one who owns land farms sections of his land out to others for payment in services.

However, feudal societies are generally horribly entangled in hereditary rights, land ownership, war, vassalage to two or more lords and so forth.
Magocracy: Government my those able to employ magic, a form of Aristocracy.
Manorialism: An outcropping of feudalism, which concerns the local feudal arrangements, generally around a town, village, monastery, manor or any other small form of settlement which possesses a lord. The economic arrangement between the lord and vassals is not a military one but rather one of service only. Peasants are required to tend the lords crops, bring wood etc for his protection and for their right to live on the land. As with feudalsim, manorialism becomes complicated with hereditary rights, ownership, etc.
Matriarchy: Generally speaking this is an oligarchy whereby females rule the state.
Monarchy: A form of government whereby rule is held by one man or woman, a hereditary or elected king or emperor. Generally associated with autocracy, however, monarchial governments often share power with oligarches, aristocrats and the people.
Oligarchy: The rule by a group of persons, families or commercial groups. Generally these achieve power through heredity or wealth.
Patriarchy: Generally speaking this is an oligarchy whereby males rule the state.
Plutocracy: When a state's wealth is concentrated in the hands of a few and these few form an Oligarch, their rule is generally referred to as a plutocracy.
Republic: A form of democratic rule, whereby the people lay aside direct rule and empower chosen or elected representative citizens to rule.
Theocracy: Government by a priesthood, a form of oligarchy, whereby the church or religious leaders control the state.
Tribal: Government of primitive sort acting under a chief. These range widely from the autocratic to democratic.



Table 3:17 Noble Coronets
Duke: 12 points with acorns, balls, leaves, or the like. Marquis: 10 points with acorns, balls, leaves, or the like. Count/Earl: 8 points with acorns, balls, leaves, or the like. Viscount: 6 points with acorns, balls, leaves, or the like. Baron: 4 points with acorns, balls, leaves, or the like. Lord: $\quad 2$ points with acorns, balls, leaves, or the like. Baronet: A plain circlet only.

## Jewelry, of State

Typical items used by nobles as heirlooms or regalia.
Belt
Coronet
Crown
Dagger
Girdle
Mace
Medal
Medallion
Neck chain
Orb
Scepter
Sword


## OFFICES, ROYAL

Accountant: A person trained in inspecting, keeping and adjusting accounts.
Admiral: A naval officer of the highest rank or a specified high rank that is the commander of a navy or fleet.
Agistor: An officer of the king's forest who has the care, to feed and pature, of agisted cattle and collected the money for the same.
Auditor: A person appointed and authorized to audit accounts. Also, a judicial hearer in an audience court.
Auditor General: A person appointed to organize and oversee the actions of other auditors.
Bailiff: An administrative official of a district, with power to collect taxes, serve as a magistrate, etc. The duties may entail collecting fines, summoning juries, attending assizes, executing writs and processes, directing husbandry and collecting rents.
Baker: One whose occupation is making bread, biscuits, pastry, etc.
Brewer: One whose occupation is to brew malt liquors such as ale, beer, etc.
Butler: an officer attached to a royal court, usually entrusted with the wine cellar, tableware and dining-room arrangements and to supervise the other servants.

Captain: An organizer, overseer, superintendent or one having authority over persons acting in concert.
Captain of the Guard: The commander of all guards within an area.
Carver: One who cuts meat at the table.
Castellan: A person appointed to be governor or constable of a castle.
Chamberlain: A person charged with the direction and management of the household of a ruler or lord, a steward.
Chancellor: A high official invested with judicial powers, and particularly with the superintendence of all letters and other official writings of a monarch.
Chaplin: A clergyman or layman appointed to perform religious functions in an institution, as a royal court, club, prison, etc.
Chef: A head cook.
Chief clerk: A person appointed to oversee the duties of the clerks.
Clerk: A clergyman, ecclesiastic, or other who can read and write, and performs certain duties in church, government or both.
Cofferer: A person appointed as treasurer. Also, an important officer of the king's household.
Constable: The highest ranking official of a royal household, court, etc. Also, the warden of a fortress or castle.
Counselor: A person appointed to examine facts, opinions or circumstances, and render advise or counsel on the subject.
Cup-bearer: A person who fills and serves the wine cups.


Dispenser: One who deals out or dispenses provisions, supplies, etc.
Forester (chief): A person in charge of a forest, a bailiff. Gamekeeper: A person who takes care of birds and animals on public lands or private estates.
General: The senior or highest rank of a military's army.
Herald: An official whose duty it was to proclaim war, to challenge to battle, to proclaim peace, bear messages, etc. Also, the officer would marshal, order, and conduct cavalcades, coronations, royal marriages, creation of new noble offices, etc.
Horn-bearer: An honorary position
Hornblower: A person who sounds the fanfare within the court of a noble, etc.
Huntsman (chief): The man whose office it is to manage the chase and take charge of the hounds.
Jester: A professional fool employed to amuse with antics, tricks and jokes.
Judge: An official invested with authority to hear and decide civil and criminal cases within his appointed jurisdiction.
Justiciar (Justiciary): The chief political and judicial officer.
Justicer: See judge above.
Keeper of the: An official that oversees the maintenance and upkeep of certain items of importance such as: Keeper of the Keys, Keeper of the Mews, Keeper of the Royal Seal Keeper of the Stables, Keeper of the Wardrobe.
Knight (royal order): A man, usually of high birth, that has served as a page and squire, then is raised to the honorable military rank of knight by a king or other qualified lord that holds land on promise that he serve his superior when needed.
Magistrate: A minor official who is empowered to administer and enforce the law with certain limited judicial and executive powers.
Majordomo: A man in charge of a great, royal, or noble household, a chief steward.
Marshal: A high official of a royal household or court in charge of military affairs, ceremonies, etc. This office is equivalent to, and sometimes of higher rank, than a general.

Minister: A person appointed to act for another and carry out his orders or designs. This type of office sometimes requires being sent to a foreign land as a representative, and in this case the officer would be under an ambassador. Notary: A person employed to take notes of contracts, trials, and proceeding in the courts.
Pantler: An employee in a great household that has charge of the bread and pantry.
Parker: A person whose job is the overseeing of an enclosed area of land held by prescription, stocked and preserved for hunting.
Porter: One who has charge of a door or gate, a doorkeeper or gatekeeper.
Reeve: The chief officer of a town or district. Also overseer of a manor, a bailiff or steward.
Regarder: An officer whose job is to inspect the forest.
Secretary: See clerk above.
Seneschal: A powerful official in the household of a noble who is in charge of administering justice and managing the domestic affairs of the estate, and he represents his lord in court.
Sergeant: A servant who serves his master in battle.
Sheriff: The chief administrative and judicial officer of a shire.
Steward: An officer appointed to oversee lands belonging to the king.
Treasurer: An officer who has charge of all funds and finances.
Usher: A person whose official duty is to precede someone of rank, as in a procession, or to make introductions between those unacquainted with one another.
Verderer: See forester, bailiff.

## SERVANTS/STAFF

Butler: The chief servant, one in charge of the wine cellar, the kitchens and dining room and assigns duties to other servants. A butler is in charge of all the household's servants.
Chef: The individual or individuals who run and operate the kitchens.
Coachman: The one responsible for maintenance and upkeep of the coach(es) and who drives it. Usually possesses a good command of the region.
Cook: One who works in the kitchens.
Footman: A servant who waits on tables, opens the doors, attends guests in the common areas, etc.
Gamekeeper: The individual who protects the hunting grounds of any demesne. He is generally involved in any hunt. Usually works with huntsmen or carries that title as well.


## OFFICES, RELIGIOUS INSTITUTIONS

Abbot (Abbess): A superior or governor of a monastery. Arch-Bishop: A chief bishop who presides over an archbishopric or arch-diocese.
Bishop: A prelate superior to the priesthood, consecrated for the spiritual government and direction of a diocese, bishopric or see.
Cardinal: An ecclesiastical prince in a church who has a voice in the conclave at the election of a pope, pontiff or arch-bishop.
Cellarer: An official in a monastery who has the care of the cellar, or the charge of procuring and keeping the provisions.
Chancellor: See Government Officials.
Chaplin: A clergyman attached to a chapel, or a clergyman appointed to carry out religious functions.
Curate: A clergyman who gives assistant to another, as in a deacon.
Dean (schools): A subordinate to the bishop. A presiding official of a cathedral or collegiate church.
Deacon (deaconess): A layman appointed to help the minister, particularly in secular matters.
Elder: Any of certain leaders in a church organization..
Friar: A member of any number of religious orders.
High Priest: See priest.
Metropolitan: As an arch-bishop, having authority over the bishops of a certain region.
Monk: A man who joins a religious order living in retirement according to a rule and under vows of poverty, obedience and chastity.
Patriarch: A bishop in a church who holds the highest rank after a pope or pontiff.
Prelate: A high ranking ecclesiastic having authority over the lower clergy as an arch-bishop.
Priest: A clergymen ranking beneath a bishop or high priest and authorized to minster sacraments or religious offices.
Precentor (music): A choir director.
Provost (grounds): One who is the head of a cathedral chapter or church.
Reliquarian (relics): One who attends, as in storing and cleaning, to a church's or temple's relics.
Reverend: A title of respect for a clergyman.
Sexton: A church official who is required to attend to the church's business as in taking care of the vestments, the grounds etc.
Treasurer (treasure): See Royal Offices page 140.


Verger: A lower ranking clergyman who is appointed the task of carrying the verge, the staff of office. Usually walks in front of the ranking priest or bishop.
Vestry clerk: The clerk appointed to keep the church's books and accounts.
Vicar: An office held by a lower clergy, one who assists in the church services.

## OCCUPATIONS AND PERSONS, UNUSUAL NAMES FOR

Armiger: The assistant warrior in charge of armor and weapons of the knight.
Atilliator: A maker of crossbows.
Badge: A noble's servant wearing the arms of the master on the sleeve; servant.
Barber monger: A fop.
Beebe or Beeby: One who is a bee keeper.
Blowse: A ruddy, fat-faced wench.
Boggler: An inconstant woman.
Botcher: A mender of old clothes.
Butler: The servant in charge of the buttery where butts of ale and wine were kept.
Callet: A woman of bad character.
Catiff: A wretch.
Cellerer: The keeper of the wine cellar.
Chamberer: An effeminate man.
Chapman: A pedlar of merchandise, via backpack, pack animal, or cart or wagon.
Chuff: A low-born miser.
Cockney: An assistant to a cook; a kitchen servant.
Collier: A man selling and delivering coal.
Conner: The one in charge of testing ale by touch and taste.
Cooper: A maker of barrels.
Cordwainer: A shoe maker.
Costermonger: An apple or fruit seller; a small-time peddler.
Coxcomb: A fool's or jester's cap.
Cutter: A sculptor.
Cuttle: A cutpurse.
Feodary: One holding land from another in return for service to that superior.
Fuller: A cleaner of cloth.
Gong Farmer: The privy emptier, a "Gold Finder" or "Tom-turd-man".
Groom: Any sort of a servant, not merely one caring for horses.
Harbinger: A royal officer going ahead to secure lodgings for the night.
Jack: A low-born man.
Keech: A butcher's boy.
Lackey: A footboy; a mean servant.
Lazar: A leper; one with an incurable disease.
Lynk: Also linkboy, one who is a torchbearer.
Malkin: A kitchen wench.

Milliner: A dealer in fancy articles for adornment of clothing and person, all perfumed.
Monger: A peddler of goods.
Nuncio: A messenger of important sort.
Nuncle: Term or address used by a fool when speaking to a superior.
Ouph: An elf.
Palmer: A pilgrim.
Pantler: The servant in charge of the pantry where bread was kept.
Pedant: A schoolmaster.
Poltroon: A coward.
Post: A messenger
Poulter: A poulterer, a keeper and seller of poultry.
Publican: The keeper of a public house.
Pursuivant: A lesser herald; a royal messenger.
Purveyor: A royal officer going ahead to secure food for the night.
Quean: A contemptible wench; a hussy.
Questant: One on a quest; a seeker.
Runagate: A vagabond; a masterless man.
Scrivener: A professional scribe.
Scutifer: The assistant warrior in charge of the shields of the knight.
Sewer: The food taster used to show dishes were not poisoned.
Sutler: One selling provisions and drink to a military camp.
Swasher: A bully.
Tercel: A male hawk used for hunting.
Whitster: A person who bleaches linen and other cloth.
Yeoman: A freeman not of gentle birth.
Zany: A subordinate buffoon aping the main clown; an assistant fool.





## APPENDIX A: RANDOM CHARTS

Although the focus of this book is for the careful selection based on logic and common sense, sometimes the beleaguered DM will find it useful randomly determine material for an imminent game. Use the charts below for quick determination of weapons, spells, traps, or room contents, with the authors' caution not to rely on such charts if a consistent world with a sense of verisimilitude is the desired goal.

## ARMOR

## Basic Types

01-06 Banded Chain
07-12 Banded Mail
13-19 Brigandine
20-25 Chain mail
26-31 Cuir bouille (leather)
32-37 Laminar armor
38-43 Leather armor
44-49 Leather armor, studded
50-56 Padded/quilted armor
57-62 Plate Armor, suit
63-68 Plate Armor
69-74 Plate Armor, 3/4 suit
75-80 Plate Mail, suit
81-87 Ring Mail
88-94 Scale Mail
95-00 Splinted Armor
Armor, Shields
01-05 Adaga
06-25 Buckler/targe
26-30 Bull-hide
31-35 Figure-eight (Grecian)
36-56 Heater
57-69 Kite (small to large)
70-75 Oval (Roman, Zulu)
76-93 Round (small to large)
94-00 Tower (small to large)

## Weapons

01-08 Weapons, Axe/Axe-like
09-16 Weapons, Clubs/Club-like
17-25 Weapons, Knife/Knife like
26-33 Weaons, Flails/Flail-like
34-41 Weapons, Miscellaneous
42-50 Weapons, Pick-like
51-58 Weapons, Pole Arms
59-67 Weapons, Spears

68-76 Weapons, Swords
77-84 Weapons, Missile
85-92 Weapons, Missile Hurled
93-00 Weapons, Engines of War

## Weapons, Axe \& Axe-like

01-09 Axe
10-18 Axe, battle
19-27 Axe, bearded
28-37 Axe, broad
38-46 Axe, light (belt)
47-55 Axe, piercing
56-64 Axe, two-handed
65-73 Cleaver
74-82 Cleaver, two-handed
83-91 Hatchet
92-00 Tomahawk

Weapons, Clubs \& Club-like
01-05 Aclis
06-10 Belaying pin
11-15 Billy club
16-20 Bludgeon
21-25 Bo Stick
26-30 Club
31-35 Club, spiked
36-40 Club, spiked, throwing
41-45 Cudgel
46-50 Hammer
51-55 Hammer, Maul
56-60 Jo stick
61-65 Knobkerrie
66-70 Mace
71-75 Mace, two-handed
76-80 Morning Star
81-85 Sap (blackjack, cosh)
86-90 Staff
91-95 Tonfa
96-00 Warclub

Weapons, Knives/Knife like
01-07 Bottle, broken
08-14 Dagger
15-21 Dirk
22-28 Hook
29-35 Ice pick
36-42 Knife
43-49 Knife, bowie
50-56 Knife, green river
57-63 Main gauche
64-70 Poniard
71-77 Razor
78-84 Sais (punching daggers)
85-92 Sickle
93-00 Stiletto

Weapons, Flails \& Flail-like
01-14 Bullwhip
15-28 Cat-o-nine-tails
29-42 Chain
43-57 Flail
58-71 Flail, two-handed
72-86 Nunchaku
87-00 Whip
Weapons, Miscellaneous
01-11 Brass Knuckles
12-22 Cestus
23-33 Garrote
34-44 Hook, hafted
45-55 Lasso
56-66 Net
67-78 Scythe
79-89 Sleeve tangler
90-00 Tiger claws (bagh nakh)
Weapons, Pick-like
01-25 Dagger-axe (fang)
26-50 Pick
51-75 Military hammer
76-00 Military pick
Weapons, Pole Arms
01-03 Axe, Jedberg
04-05 Axe, Lochaber
06-08 Axe, pole
09-11 Bec de corbin
12-14 Bill, bill hook, brown bill
15-16 Bardiche
17-18 Chinese Double Halberd
19-21 Demi-lune (crescent-like)
22-23 Fauchard
24-26 Fauchard fork
27-29 Fauchard-guisarme
30-32 Feather staff
33-35 Fork, military (bident)
36-38 Glaive (machete-like)
39-41 Glaive-fork
42-44 Glaive-guisarme
45-47 Guisarme
48-50 Guisarme-fork
51-52 Halberd
53-55 Hook-fauchard
56-58 Korseke (spetum-like)
59-61 Kwandoa
62-64 Lucern Hammer
65-67 Man Catcher
68-70 Monk Spade
71-73 Partizan
74-76 Partizan, ox-tongue


## Spell Types Generator

In creating creatures of a mythic or magical nature it is necessary to imbue them with powers that are peculiar, wondrous, crafty or altogether deadly. You will find yourself forced to create creatures that are beyond the pale and not held by the standards or norms and because of this must have powers above and beyond those available to others.

What follows is a series of charts which allows you to randomly roll the spell like powers of any creature, dwarf, elf, man or beast. Some hold true to spells that may or may not be commonly used, others are simple strange and require definition. Of if you truly wish to leave an impression, they defy definition.

| $01-20$ | Table 1 |
| :--- | :--- |
| $21-40$ | Table 2 |
| $41-60$ | Table 3 |
| $61-80$ | Table 4 |
| $81-00$ | Table 5 |

Table 1
01-02 Air creation
03-04 Air destruction
05-06 Air/cloud becoming like ground for a person or persons
07-08 Alteration of self or another person to another person
09-10 Alteration of self or another person to look like another person
11-12 Alteration of self or another person to some animal form
13-15 Alteration of self or another person to some monster form
16-17 Animate a corpse/a creature's remains by touch
18-19 Animate an inanimate non-living object by touch
20-21 Animate an inanimate non-living object in a specified area
22-24 Animate corpse(s)/creature's(s')-remains in a specified area
25-26 Animate flora by touch
27-29 Animate flora in a specified area
30-31 Assumption of attack form of a dangerous animal for self or another person or creature
32-33 Assumption of attack form of a monster for self or another person or creature

41-42 Become gaseous in form, retain physical coherency, and travel at the speed of the wind
43-45 Bring cold to a specific area
46-47 Bring darkness to cover a specific area
48-49 Bring heat to a specific area
50-51 Bring light to fill a specific area
52-53 Cause a wound by touch to a subject
54-55 Cause a wound in all subjects in specified area
56-57 Cause aging/decay/rotting in a living thing at a distance
58-59 Cause aging/decay/rotting in a living thing by touch
60-61 Cause aging/decay/rotting in a non-living thing at a distance
62-64 Cause aging/decay/rotting in a non-living thing by touch
65-66 Cause aging/decay/rotting in a once-living thing at a distance
67-68 Cause aging/decay/rotting in a once-living thing by touch
69-71 Cause combustion in a specified area
72-73 Cause combustion in an object
74-75 Cause death by touch to a subject
76-77 Cause death in a single subject at a distance by some magical link
78-80 Cause death to all subjects in specified area
81-83 Cause disease in specified area
84-85 Cause disease in subject
86-87 Cause disharmony/quarrelsomeness in specified area
88-89 Cause disharmony/quarrelsomeness in subject
90-91 Cause fear to overwhelm a specific subject
92-93 Cause fear to overwhelm all creatures in a specific area
94-95 Cause immediate hail in specified area
96-98 Cause immediate ice in specified area
99-00 Cause immediate rain in specified area

## Table 2

01-03 Cause immediate rock-rain in specified area
04-05 Cause immediate wind in specified area
06-07 Cause mental instability/insanity in another by touch
08-09 Cause mental instability/insanity in one or more others in a specified area
10-11 Cause pain in another by touch
12-13 Cause pain in one or more others in a specified area


Table 3
01-02 Detect magical force in operation
03-04 Detect magical object
05-06 Detect magical person
07-08 Detect mundane non-living traps
09-11 Diminution of a creature or creatures

12-13
14-1
16-1
18-19
20-21 Dismiss a spirit or spirits of dead beings
22-23 Dismiss a visible creature/monster
24-26
27-28
29-30 Dismiss the remains of a dead being or beings
31-33 Earth/soil becoming like air for a person(s)
34-35 Empower two magical events at one time
36-38 Enable hearing at a distance (clairaudience)
39-40 Enable hearing and seeing at a distance
41-42 Enable hearing at a distance and sending a magical effect to the area
43-44 Enable seeing at a distance (clairvoyance)
45-46 Enable seeing at a distance and sending a magical effect to the area
47-48 Engender bravery in all creatures in a area
49-50 Engender bravery to fill a specific subject
51-53 Engender climbing ability for self /others
54-55 Engender a desire to comply/cooperate (charm)
56-58 Engender greater movement speed by touch
59-60 Engender greater movement speed in self or another person by touch
61-62 Engender greater physical health by touch
63-64 Engender greater physical health in self or another person by touch
65-66 Engender magical armor
67-68 Engender magical shielding
69-70 Engender magical weapon
71-72 Engender premonition (sixth sense) capacity in self or other
73-74 Engender superior audial sensory capacity in self or other
75-76 Engender superior olfactory sensory capacity in self or other
77-78 Engender superior sense of taste in self or other
79-80 Engender superior tactile sensory capacity in self or other
81-83 Engender superior visual sensory capacity in self or other
84-85 Engender the ability to see infrared spectrum energy in self or other
86-88 Engender the ability to see untraviolent spectrum energy in self or other
89-90 Enlargement of a creature or creatures
91-92 Enlargement of a non-living thing or things
93-94 Enlargement of flora (one or more specimens)
95-97 Enlargement of self and/or another person(s)
98-00 Fire/flame becoming like air for a person(s)
Table 4
01-02 Flying ability for an otherwise inanimate object
03-04 Flying ability for self and/or another person(s)
05-07 Force compliance/cooperation (by geas)
08-09 Generate a blast of wind (air missile)

10-11 Generate a bolt of electricity to a distance
12-13 Generate a bolt of magical energy to a distancea
14-16 Generate a fiery explosion at a distance
17-19 Generate missile(s) of fire
20-22 Generate missile(s) of ice
23-24 Generate missile(s) of stone
25-27 Generate poisoning by breath, expectoration, or touch
28-30 Generate poisonous gas in a specified area
31-33 Grant a considerable wish
34-35 Grant a small wish
36-38 Guard of person, absorbing harm
39-41 Guard of person, delivering harm
42-44 Guard of person, reflecting/returning harm
45-46 Guard of person, warning
47-48 Illuminate a person/creature/object by a glowing outline at a distance
49-51 Illuminate an area with a soft glow
52-53 Invisibility for an object or objects in area
54-55 Invisibility for all persons in an area
56-57 Invisibility for self and/or other
58-60 Jumping ability for self and/or other
61-62 Levitation ability for self and/or other
63-64 Make all invisible creatures and/or things within a specified area visible
65-66 Make an invisible creature visible
67-69 Make an invisible thing visible
70-72 Make marks of passage over an area invisible
73-75 Make normal armor magical
76-78 Make normal weapon magical
79-80 Move objects (small-light to large-heavy) by force of will
81-83 Open a "portal" to a distant place so that one or more can enter and be there
84-85 Open a "portal" to a special space so that one or more can enter and be there
86-87 Prevent a creature from attacking
88-89 Prevent a magical event from occurring
90-92 Rapid movement of self and/or others
93-94 Read another's thoughts
95-96 Read kind/meaning of magical force
97-98 Receive thoughts from another
99-00 Remove a curse/hex on a person/creature/thing/ place by ritual

Table 5
01-02 Remove a curse/hex on a person/creature/thing/ place by touch
03-04 Remove a magical force to self or other
05-06 Remove poison from a creature or object
07-08 Remove poison from self or another person
09-10 Restore a quality of a creature lost
11-12 Restore a quality of a object lost
13-14 Restore a quality of a person lost
15-16 Restore mental health in self or other by touch
17-18 Restore physical health in self or other by touch

19-20 Send a demon or similar entity to a specified person or locale
21-22 Send a spirit or spirits of dead beings to a specified person or locale
23-24 Send a visible creature/monster to a specified person or locale
25-26 Send an animal or animals to a specified person or locale
27-28 Send an invisible creature/monster to a speci fied person or locale
29-30 Receive thoughts to and from another
31-32 Send messages by magical voice
33-34 Send the remains of a dead being or beings to a specified person or locale
35-36 Send thoughts to another
37-38 Servant force obeying mental command
39-40 Slow movement brought upon one or more other volitant creatures
41-42 Stone/mineral becoming like air a for person or persons
43-44 Summon a demon or similar entity
45-46 Summon a spirit or spirits of dead beings
47-48 Summon a visible creature/monster
49-50 Summon an animal or animals
51-52 Summon an invisible creature/monster
53-54 Summon hailstorm to area
55-56 Summon lightning storm to area
57-58 Summon rainstorm to area
59-60 Summon snowstorm to area
61-62 Summon the remains of a dead being or beings
63-64 Summon windstorm to area
65-66 Transfer by thought an object or objects to or from your location to another one
67-68 Transfer by thought another creature to some other location
69-70 Transfer by thought self or another person to some other location
71-72 Turn flesh to stone
73-74 Turn stone to flesh
75-76 Understand unknown spoken language(s)
77-78 Understand unknown written language(s)
79-80 Ward against a demon or demons or similar entity or entities
81-82 Ward against a spirit or spirits of dead beings
83-84 Ward against the remains of a dead being(s)
85-86 Ward of object, absorbing harm
87-88 Ward of object, delivering harm
89-90 Ward of object, reflecting/returning harm
91-92 Ward of object, warning owner
93-94 Water becoming like air for a person or persons
95-96 Water becoming like air for person or persons
97-98 Water breathing ability for self and/or other
99-00 Water-walking ability for self and/or other


| $92-94$ | Trophy (See Trophy listing <br> for final result) |
| :--- | :--- |
| $95-97$ | Urn |
| $98-00$ | Vase |

Room Decoration, Wall
01-04 Basin, wall
05-07 Column, half
08-11 Bell, pull
12-14 Fresco
15-17 Gilding
18-21 Inlay, ivory
22-24 Inlay, metal
25-27 Inlay, stone
28-30 Inlay, tile
31-33 Inlay, wood
34-37 Mirror, inset
38-41 Molding, plaster
42-44 Molding, wood
45-47 Molding, wood, carved
48-50 Mosaic
51-53 Mosaic, inlaid tile
54-57 Niche
58-60 Mural
61-63 Paint
64-67 Paneling
68-70 Paneling, half
71-74 Pilaster
75-77 Rail, chair
78-80 Sheathing, metal
81-84 Sheathing, stone
85-87 Tile
88-90 Trophy (see below)
91-93 Wall, cloth covering
94-96 Wallpaper
97-00 Whitewash

## Room Decoration, Wall, Hung

01-05 Arass
06-10 Armorial bearings
11-14 Bird cage
15-18 Candelabrum
19-23 Cloth
24-27 Cresset
28-31 Cross-stitch cloth
32-35 Drawing
36-39 Flag
40-44 Fur
45-49 Hide
50-54 Mirror
55-58 Мар
59-63 Painting
64-68 Plant
69-73 Sconce
74-78 Shield (see belowt)
79-82 Skin, animal
83-86 Tapestry


|  | 75-79 | Reptile | 27-32 | Domestic, long hair | 86-87 | Java temple bird |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 80-85 | Skunk | 33-37 | Domestic, short hair | 88-90 | Jay |
|  | 86-90 | Snake | 38-43 | Domestic, tailless | 91-92 | Kingfisher |
|  | 91-95 | Squirrel | 44-48 | Domestic, wild (feral) | 93-95 | Kinglet |
|  | 96-00 | Wolverine | 49-53 | Jaguar | 96-98 | Loon |
|  |  |  | 54-58 | Jaguarundi | 99-00 | Lovebird |
|  | Hide/P | It/Skin | 59-64 | Leopard |  |  |
|  | 01-03 | Alligator/crocodile | 65-69 | Leopard, snow | Gener |  |
|  | 04-07 | Antelope | 70-74 | Lion | 01-02 | Magpie |
|  | 08-11 | Bear | 75-79 | Lynx | 03-04 | Macaw |
|  | 12-15 | Bison (buffalo) | 80-84 | Ocelot | 05-06 | Mocking bird |
|  | 16-19 | Boar | 85-89 | Puma (cougar, mountain) | 07-08 | Mourning dove |
|  | 20-23 | Caribou | 90-95 | Tiger, northern (Siberian) | 09-10 | Mud hen |
|  | 24-27 | Cat (see below) | 96-00 | Tiger, southern (Bengal) | 11-12 | Night hawk |
|  | 28-31 | Cattle |  |  | 13-15 | Nightingale |
|  | 32-34 | Creature/monster (fantasy) | Birds |  | 16-17 | Nuthatch |
|  | 35-37 | Deer | 01-20 | General 1 | 18-19 | Oriole |
|  | 38-41 | Eland | 21-40 | General 2 | 20-22 | Parakeet |
|  | 42-45 | Elk (wapiti) | 41-60 | Flightless | 23-24 | Parrot |
|  | 46-49 | Gazelle | 61-80 | Owls \& Raptors | 25-26 | Partridge |
|  | 50-53 | Giraffe | 81-00 | Scavengers | 27-29 | Passenger pigeon |
|  | 54-57 | Gnu |  |  | 30-32 | Petrel |
|  | 58-61 | Hippopotamus | Gener | 1 | 33-35 | Pheasant |
|  | 62-65 | Hyena | 01-02 | Albatross | 36-37 | Pigeon |
|  | 66-69 | Moose (elk) | 03-05 | Auk | 38-39 | Plover |
|  | 70-73 | Musk ox | 06-08 | Bird of paradise | 40-41 | Prairie chicken |
|  | 74-77 | Okapi | 09-11 | Bittern | 42-43 | Ptarmigan |
| * | 78-81 | Rhinoceros | 12-13 | Blackbird | 44-45 | Puffin |
|  | 82-85 | Snake | 14-15 | Bluebird | 46-48 | Quail |
|  | 86-89 | Water buffalo | 16-17 | Bluejay | 49-50 | Rail |
|  | 90-92 | Wolf | 18-20 | Bustard | 51-52 | Raven |
|  | 93-96 | Yak | 21-23 | Canary | 53-54 | Robin |
|  | 97-00 | Zebra | 24-25 | Cardinal | 55-56 | Sandpiper |
|  |  |  | 26-27 | Catbird | 57-58 | Shrike |
|  | Other |  | 28-29 | Chickadee | 59-60 | Snipe |
| 2ky | 01-14 | Horns (including cattle | 30-32 | Cockateel | 61-62 | Sparrow |
|  |  | horns) | 33-35 | Cockatoo | 63-64 | Spoonbill |
|  | 15-28 | Antlers | 36-37 | Coot | 65-67 | Stork |
|  | 29-43 | Claws | 38-40 | Cowbird | 68-69 | Swallow |
| 10 | 44-57 | Jawbones with teeth | 41-42 | Crane | 70-72 | Swan |
| ) | 58-72 | Teeth | 43-44 | Creeper | 73-74 | Swift |
| 4 . | 73-86 | Tusks (elephant, walrus) | 45-47 | Crow | 75-77 | Tern |
|  | 87-00 | Foot | 48-50 | Cuckoo | 78-79 | Thrasher |
|  |  |  | 51-52 | Dove | 80-81 | Thrush |
| 1 | Sub-ta | les 2 | 53-55 | Duck | 82-84 | Titmouse |
| 41 |  |  | 56-58 | Finch | 85-86 | Turkey |
| 11 絾 | Cats |  | 59-60 | Flamingo | 87-88 | Vireo |
| Wer | 01-06 | Bobcat | 61-62 | Flicker | 89-90 | Warbler |
| 140, | 07-11 | Cervil | 63-65 | Flycatcher | 91-92 | Widgeon |
|  | 12-16 | Cheetah | 66-68 | Goose | 93-95 | Woodcock |
| $10.4{ }^{\text {a }}$ | 17-21 | Domestic | 69-70 | Grackle | 96-97 | Woodpecker |
|  | 22-26 | Domestic, curly hair | 71-72 | Grebe | 98-00 | Wren |
|  |  |  | 73-74 | Grouse |  |  |
|  |  |  | 75-77 | Gull | Flight | ss |
|  |  |  | 78-80 | Heron | 01-11 | Cassowary |
| (1) |  |  | 81-83 | Hummingbird | 12-22 | Dodo |
|  | - | amom ${ }^{\text {and }}$ | 84-85 | Ibis | 23-34 | Emu |


| $35-45$ | Moa |
| :--- | :--- |
| $46-56$ | Ostrich |
| $57-67$ | Penguin |
| $68-78$ | Rhea |
| $79-89$ | Road runner |
| $90-00$ | Secretary bird |
|  |  |
| Owls \& Raptors |  |
| $01-06$ | Eagle |
| $07-11$ | Eagle, bald |
| $12-17$ | Eagle, golden |
| $18-23$ | Eagle, harpy |
| $24-28$ | Falcon |
| $29-34$ | Falcon, peregrine |
| $35-39$ | Goshawk |
| $40-45$ | Gyrfalcon |
| $46-51$ | Hawk |
| $52-56$ | Kite |
| $57-62$ | Osprey |
| $63-68$ | Owl |
| $69-74$ | Owl, snowy |
| $75-79$ | Owl, barn |
| $80-85$ | Owl, burrowing |
| $86-90$ | Owl, great gray |
| $91-95$ | Owl, great horned |
| $96-00$ | Owl. screech |

## Scavengers

| $01-25$ | Buzzard |
| :--- | :--- |
| $26-50$ | Caracara |
| $51-75$ | Condor |
| $76-00$ | Vulture |

## APPENDIX B: HUMAN PHYSICAL TRAITS

Although the focus of this book is for careful selection based on logic and common sense, sometimes the beleaguered DM will find it useful to randomly determine material for an imminent game. Use the charts below to form a complete physical description for humans, elves, dwarfs etc.

NOTE: It is recommend that the DM use minimal rolls to reach maximum descriptive effect. Too much of a good thing is distracting to players.

## Body Areas

01-10 Overall body type
11-20 Skin/Complexion
21-30 Head
31-40 Neck
41-50 Torso, upper back
51-60 Torso, upper front
61-70 Arms
71-80 Torso, lower back
81-90 Torso, lower front
91-00 Legs
Overall Body Type
Height

| $01-14$ | Average |
| :--- | :--- |
| $15-28$ | Diminutive |
| $29-42$ | Miniscule |
| $43-57$ | Short |
| $58-71$ | Short, very |
| $72-85$ | Tall |
| $86-00$ | Tall, very |

## Musculature

| 01-33 | Ectomorph |
| :--- | :--- |
| 34-67 | Endomorph |
| 68-00 | Mesomorph |

Ectomorph: Light body build;
01-11 Average
12-22 Frail
23-33 Gawky
34-44 Lanky
45-55 Scrawny
56-66 Slender
67-78 Slender, wiry
79-89 Thin
90-00 Willowy

Endomorph: Heavy rounded body build; tendency to become fat
01-12 Average
13-25 Corpulent
26-37 Fat
38-50 Obese
51-62 Plump
63-75 Stocky
76-88 Stocky, muscular
89-00 Stocky, very muscular
Mesomorph: Husky, muscular body build
01-10 Average
11-20 Buff
21-30 Built
31-40 Cut
41-50 Muscular
51-60 Muscular slender
61-70 Muscular, corded
71-80 Muscular, heavy
81-90 Ripped
91-00 Toned

## Body Shape

01-08 Ape-like (no ectomorphs)
09-16 Average
17-24 Heavy-hipped
25-32 Heavy-legged
33-39 Pear-shaped
40-47 Rail-like (ectomorphs only)
48-55 Rotund (endomorphs only)
56-62 Slab-like (no ectomorphs)
63-69 Spare (ectomorphs only)
70-77 Stick-like
78-85 Squat (no ectomorphs)
86-92 Square (no ectomorphs)
93-00 V-shaped (mesomorphs)

## Skin/Complexion

## Skin <br> 01-05 Chapped <br> 06-10 Coarse <br> 11-15 Creased <br> 16-20 Fine <br> 21-25 Firm <br> 26-30 Flaky <br> 31-35 Furry <br> 36-40 Gnarled <br> 41-45 Hairy <br> 46-50 Leathery <br> 51-55 Loose <br> 56-60 Lumpy <br> 61-65 Oily <br> Pocked

| 71-75 | Scaly | Head |  |
| :---: | :---: | :---: | :---: |
| 76-80 | Scarred |  |  |
| 81-85 | Smooth | Head |  |
| 86-90 | Splotchy | 01-14 | Size |
| 91-95 | Warty | 15-29 | Shape |
| 96-00 | Wrinkled | 30-43 | Head Hair |
|  |  | 44-57 | Face Shape |
| Complexion |  | 58-72 | Facial Features |
| 01-12 | Dark | 73-86 | Facial Expression/Look |
| 13-23 | Fair | 87-00 | Ears |
| 24-34 | Freckled |  |  |
| 35-45 | Ghostly | Size |  |
| 46-56 | Grayish | 01-34 | Average |
| 57-67 | Pallid | 35-67 | Small |
| 68-78 | Porcelain | 68-00 | Large |
| 79-89 | Rosy |  |  |
| 90-00 | Tanned | Shape |  |
|  |  | 01-09 | Bullet-shaped |
| Complexion Color |  | 10-18 | Egg-shaped |
| 01-03 | Black, coal | 19-27 | Flat-skulled |
| 04-06 | Black, ebony | 28-36 | Irregular |
| 07-09 | Brown, bronze | 37-46 | Long |
| 10-12 | Brown, cinnamon | 47-55 | Lumpy |
| 13-15 | Brown, light | 56-64 | Oval, long |
| 16-18 | Brown, mahogany | 65-73 | Oval, wide |
| 19-21 | Brown, muddy | 74-82 | Pointed |
| 22-24 | Brown, olive | 83-91 | Round |
| 25-27 | Brown, tawny | 92-00 | Square |
| 28-30 | Red, blush |  |  |
| 31-33 | Red, brownish | Head Hair |  |
| 34-36 | Red, coppery | 01-34 | Bald |
| 37-39 | Red, crimson | 35-67 | Shaved |
| 40-41 | Red, ruby | 68-00 | Ear-back fringe |
| 42-44 | Red, sun kissed |  |  |
| 45-47 | Red, yellowish | Hair Color |  |
| 48-50 | Tan, dark | 01-02 | Black, brown |
| 51-53 | Tan, golden | 03-05 | Black, dull |
| 54-56 | Tan, light | 06-07 | Black, ebony |
| 57-59 | Tan, olive | 08-09 | Black, raven |
| 60-62 | White, albino | 10-12 | Blond, brassy |
| 63-65 | White, florrid | 13-15 | Blonde |
| 66-68 | White, olive cast | 16-17 | Blonde, ash |
| 69-71 | White, pale | 18-19 | Blonde, dull (dirty) |
| 72-73 | White, pink cast | 20-21 | Blonde, flaxen |
| 74-76 | White, ruddy | 22-23 | Blonde, golden |
| 77-79 | White, tan | 24-25 | Blonde, honey-colored |
| 80-82 | White, tanned dark | 26-27 | Blonde, platinum |
| 83-85 | White, yellow cast (sallow) | 28-30 | Blonde, straw |
| 86-88 | Yellow, dark | 31-32 | Blonde, titian (strawberry) |
| 89-91 | Yellow, golden | 33-35 | Blonde, towheaded |
| 92-94 | Yellow, ivory | 36-37 | Blue-Black |
| 95-97 | Yellow, muddy | 38-39 | Brown |
| 28-00 | Yellow, pale | 40-42 | Brown, chestnut |
|  |  | 43-44 | Brown, chocolate |
|  |  | 45-46 | Brown, dark |
|  |  | 47-48 | Brown, dun |
| Tinitu | $\cdots \mathrm{m}$ | 49-50 | Brown, golden |

Head
$\begin{array}{ll}\text { Head } \\ 01-14 & \text { Size }\end{array}$

## 15-29 Shape

30-43 Head Hair
44-57 Face Shape
58-72 Facial Features
73-86 Facial Expression/Look
87-00 Ears

## Size

$\begin{array}{ll}\text { Shape } & \\ 01-09 & \text { Bullet-shaped }\end{array}$
10-18 Egg-shaped
19-27 Flat-skulled
28-36 Irregular
37-46 Long
47-55 Lumpy
56-64 Oval, long
65-73 Oval, wide
74-82 Pointed
83-91 Round
92-00 Square

## Head Hair <br> 01-34 Bald <br> 35-67 Shaved <br> 68-00 Ear-back fringe

## Hair Color

01-02 Black, brown
03-05 Black, dull
06-07 Black, ebony
08-09 Black, raven
10-12 Blond, brassy
13-15 Blonde
16-17 Blonde, ash
18-19 Blonde, dull (dirty)
20-21 Blonde, flaxen
22-23 Blonde, golden
24-25 Blonde, honey-colored
26-27 Blonde, platinum
28-30 Blonde, straw
31-32 Blonde, titian (strawberry)
33-35 Blonde, towheaded
36-37 Blue-Black
38-39 Brown
40-42 Brown, chestnut
43-44 Brown, chocolate
45-46 Brown, dark
47-48 Brown, dun Brown, golden

| 51-53 | Brown, honey |
| :---: | :---: |
| 54-56 | Brown, light |
| 57-59 | Brown, mouse-colored |
| 60-61 | Brown, red |
| 62-64 | Brown, rusty |
| 65-66 | Brown, sandy |
| 67-68 | Brown, tan |
| 69-71 | Gray |
| 72-74 | Gray, iron |
| 75-76 | Red |
| 77-79 | Red, auburn |
| 80-81 | Red, brick |
| 82-84 | Red, carrot |
| 85-86 | Red, coppery |
| 87-89 | Red, rusty |
| 90-91 | Red-henna dyed |
| 92-93 | Salt \& pepper |
| 94-96 | Silver |
| 97-98 | Streaked (find colors) |
| 99-00 | White |
| Texture/Growth |  |
| 01-16 | Average |
| 17-33 | Coarse |
| 34-50 | Fine |
| 51-67 | Thick |
| 68-84 | Thin |
| 85-00 | Wiry |
| Hair Types |  |
| 01-08 | Bushy |
| 09-16 | Cowlicked |
| 17-24 | Curly |
| 25-33 | Downy |
| 34-41 | Feathery |
| 42-50 | Kinky |
| 51-58 | Pepper-corned |
| 59-66 | Poker Straight |
| 67-75 | Ringleted |
| 76-83 | Spiky |
| 84-91 | Straight |
| 92-00 | Wavy |
| Length |  |
| 01-12 | Average |
| 13-24 | Bobbed |
| 25-37 | Clipped (burr cut) |
| 38-50 | Long |
| 51-62 | Medium |
| 63-75 | Short |
| 76-87 | Shoulder length |
| 88-00 | Waist-length |
| Hair Style |  |
| 01-03 | Bald, Shaven |
| 04-06 | Bangs |
| 07-09 | Bouffonted |

51-53 Brown, honey
54-56 Brown, light
57-59 Brown, mouse-colored
60-61 Brown, red
62-64 Brown, rusty
65-66 Brown, sandy
67-68 Brown, tan
69-71 Gray
72-74 Gray, iron
75-76 Red
77-79 Red, auburn
80-81 Red, brick
82-84 Red, carrot
85-86 Red, coppery
Red, rusty
92-93 Salt \& pepper
94-96 Silver
97-98 Streaked (find colors)
99-00 White
Texture/Growth
01-16 Average
17-33 Coarse
34-50 Fine
51-67 Thick
-84 Thin

Hair Types
01-08 Bushy
09-16 Cowlicked
17-24 Curly
25-33 Downy
34-41 Feathery
42-50 Kinky
51-58 Pepper-corned
59-66 Poker Straight
7-75 Ringleted
84-91 Spiky
92-00 Wavy

## Length

01-12 Average
13-24 Bobbed
25-37 Clipped (burr cut)
38-50 Long
51-62 Medium
63-75 Short
76-87 Shoulder length
88-00 Waist-length

## Hair Style

01-03 Bald, Shaven
07-09 Bouffonted


| 87-93 | Turning upwards |
| :--- | :--- |
| 94-00 | Upward-curved |

## Eyes

## Descriptors

| $01-12$ | Almond-shaped |
| :--- | :--- |
| $13-25$ | Down-slanted |
| $26-38$ | Hooded |
| $39-50$ | Long |
| $51-63$ | Round |
| $64-76$ | Slanted |
| $77-88$ | Slitted |
| $89-00$ | Squarish |

## Optional Descriptors

01-07 Blind
08-15 Blind, one eye
16-22 Bug-eyed
23-29 Cross-eyed
30-37 Glaring
38-45 Goggling (pop-eyed)
46-53 Saucer-like
54-61 Squinting
62-69 Staring
70-76 Unblinking
77-84 Wall-eyed
85-92 Wandering eyed (left or right)
93-00 Wild-eyed
Eye Setting
01-14 Average
15-28 Bulging
29-42 Close
43-56 Deep
57-71 Sunken
72-86 Uneven
87-00 Wide

## Eye Size

01-16 Average
17-33 Beady
34-50 Big
51-67 Large
68-84 Small
85-00 Uneven

| Eye Color |  |
| :---: | :---: |
| 01-02 | Black |
| 03-04 | Blue |
| 05-06 | Blue to gray |
| 07-08 | Blue, bright |
| 09-10 | Blue, dark |
| 11-12 | Blue, ice |
| 13-14 | Blue, midnight |
| 15-16 | Blue, periwinkle |
| 17-18 | Blue, sky |
| 19-20 | Blue-green |
| 21-22 | Blue, watery |
| 23-24 | Blue-lilac |
| 25-26 | Blue-violet |
| 27-28 | Brown |
| 29-31 | Brown to hazel |
| 32-33 | Brown to yellow |
| 34-35 | Brown, bright |
| 36-37 | Brown, dark |
| 38-39 | Brown, golden |
| 40-41 | Brown, light |
| 42-43 | Brown, pale |
| 44-45 | Brown, reddish |
| 46-47 | Gray |
| 48-49 | Gray to blue |
| 50-51 | Gray, blue tint |
| 52-53 | Gray, green tint |
| 54-55 | Gray, ice |
| 56-57 | Gray, iron |
| 58-59 | Gray, pale |
| 60-61 | Green |
| 62-63 | Green to hazel |
| 64-65 | Green, bright |
| 66-67 | Green, Kelly |
| 68-69 | Green, pale |
| 70-71 | Green, pea |
| 72-73 | Green, Seafoam |
| 74-75 | Hazel |
| 76-77 | Hazel to brown |
| 78-80 | Hazel to green |
| 81-82 | Hazel, gold flecks |
| 83-84 | Irises different colors |
| 85-86 | Irises ringed with different color (find color) |
| 87-88 | Milky (blind) |
| 89-90 | One iris split (find colors) |
| 91-92 | Pink |
| 93-94 | White |
| 95-96 | Yellow |
| 97-98 | Yellow to brown |
| 99-00 | Yellow, golden |

Eye Pupils
01-14 Average
15-29 Large
30-44 Lightless
45-58 Oval, high
59-72 Oval, long
73-86 Slit (cat-like or reptilian)
87-00 Small

Eyeball (White of the Eye)
01-20 Blood-shot
21-40 Bright
41-60 Nearly absent
61-80 Surrounds iris widely (staring effect)
81-00 Yellowish

## Eye Lids

01-12 Average
13-23 Creased
24-34 Drooping
35-45 Drooping, one only
46-56 Folds at ends
57-67 Folds at inner sides
68-78 Heavy
79-89 Painted
90-00 Wide open

## Eye Lashes

| 01-13 | Average |
| :--- | :--- |
| $14-25$ | Curly |
| $26-38$ | False |
| $39-50$ | Long |
| $51-62$ | Mascara-coated |
| $63-74$ | Short |
| $75-87$ | Thick |
| $88-00$ | Thin |

Cheekbones
01-25 Average
26-50 High
51-75 Protruding
76-00 Wide

## Cheeks

| 01-09 | Average |
| :--- | :--- |
| $10-18$ | Cherub |
| $19-27$ | Chubby |
| $28-36$ | Dimpled |
| $37-45$ | Drooping |
| $46-54$ | Fat |
| $55-63$ | Flat |
| $64-72$ | Hollow |
| $73-82$ | Puffy |
| $83-91$ | Round |
| $92-00$ | Sunken |




|  | 83-87 | Sexy | Legs |  | Descri |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 88-91 | Skinny |  |  | 01-09 | Bony |
|  | 92-95 | Small | Length |  | 10-18 | Bulbous |
|  | 96-00 | Steatopygic | 01-33 | Average | 19-27 | Callused |
|  |  |  | 34-66 | Long | 28-36 | Clawed |
|  | Tors | lower front | 67-00 | Short | 37-45 | Delicate |
|  |  |  |  |  | 46-54 | Fat |
|  | Lengt |  | Descrip |  | 55-64 | Hammer-like |
|  | 01-34 | Average | 01-09 | Average | 65-73 | Hard |
|  | 35-67 | Long | 10-18 | Bony | 74-82 | Spatulate |
|  | 68-00 | Short | 19-26 | Bulging | 83-91 | Thick |
|  |  |  | 27-34 | Curvaceous | 92-00 | Thin |
|  | Abdo | en/Loins | 35-42 | Fat |  |  |
|  | 01-14 | Average | 43-50 | Hairy | Toena |  |
|  | 15-29 | Fat-rolled | 51-58 | Muscular | 01-12 | Claw-like |
|  | 30-43 | Muscular | 59-67 | Potato-like | 13-24 | Discolored |
|  | 44-58 | Plump | 68-75 | Scrawny | 25-37 | Horny |
|  | 59-72 | Scrawny | 76-83 | Shapely | 38-49 | Manicured |
|  | 73-86 | Smooth | 84-91 | Thick | 50-62 | Ragged |
|  | 87-00 | Thin | 92-00 | Thin | 63-74 | Sharp |
|  |  |  |  |  | 75-87 | Thick |
|  | Legs |  | Feet |  | 88-00 | Yellowed |
|  | Optio | al Descriptors | Size |  | Opti | nal Adjustments |
|  | 01-20 | Bandy legged | 01-33 | Average |  |  |
|  | 21-40 | Bent-kneed | 34-67 | Large | Missin | Part |
|  | 41-60 | Bowlegged | 68-00 | Small |  |  |
| 楼 | 61-80 | Knock-kneed |  |  | 01-11 | Arm |
|  | 81-00 | Pigeon-toed | Descrip |  | 12-22 | Ear |
| \%** |  |  | 01-17 | Broad | 23-33 | Eye |
|  | Thig |  | 18-34 | Delicate | 34-44 | Finger |
|  |  |  | 35-50 | Hairy | 45-55 | Foot |
|  | Lengt |  | 51-66 | Hard | 56-66 | Forearm |
|  | 01-33 | Average | 67-83 | Slender | 67-77 | Hand |
| \% $4 \times$ | 34-66 | Long | 84-00 | Thick-ankled | 78-88 | Leg |
|  | 67-00 | Short |  |  | 89-00 | Toe |
|  |  |  | Feet, so |  |  |  |
|  |  |  | 01-20 | Calloused | Other |  |
| *) | Descri |  | 21-40 | Delicate | 01-20 | Birth-marked |
|  | 01-10 | Average | 41-60 | Flat | 21-40 | Burn-marked |
|  | 11-19 | Bony | 61-80 | Hard | 41-60 | Mutilated |
| \% | 20-28 | Bulging | 81-00 | Soft | 61-80 | Scarred |
|  | 29-37 | Curvaceous |  |  | 81-00 | Tattooed |
| 4 | 38-46 | Fat | Toes |  |  |  |
| 4. | 47-55 | Muscular |  |  |  |  |
| 10 | 56-64 | Plump | Size |  |  |  |
| 犋, | 65-73 | Thick | 01-33 | Average |  |  |
| Has | 74-82 | Thin | 34-66 | Long |  |  |
| 14, | 83-91 | Scrawny | 67-00 | Short |  |  |
| MWK | 92-00 | Shapely |  |  |  |  |



| Hunter | Lilac | Rust | Glittering |
| :---: | :---: | :---: | :---: |
| Kelly | Magenta | Sorrel | Glossy |
| Leaf-green | Mauve |  | Metallic |
| Lime | Plum | White | Shining |
| Malachite | Puce | Alabaster |  |
| Moss-green | Purpure (heraldric) | Argent (heraldric) | Dark |
| Olive | Violet | Chalk | Dull |
| Pea-green |  | Ivory | Dusty |
| Pine-green | Red | Lily | Muddy |
| Reseda | Beet-red | Milk | Muted |
| Sage | Blood-red | Paper | Pale |
| Sea-green | Brick-red | Platinum | Shade |
| Spinach-green | Burgundy | Silver | Tint |
| Slime-green | Carbuncle-red | Snow | Undertone |
| Turquoise | Cardinal |  | Watery |
| Verd | Carmine | Yellow |  |
| Verdigris | Carnation | Amber | Blotched |
| Vert (heraldric) | Cerise | Banana | Mottled |
|  | Cherry | Beige | Spattered |
| Opalescence-Color | Cinnabar | Buff | Stained |
| Play | Claret | Chartreuse | Streaked |
| Iridescence | Cochineal | Chrome yellow |  |
| Luminous | Crimson | Citrine |  |
| Pearlesent | Damask | Crocus |  |
| Phosphorescent | Fuchsia | Cream-colored |  |
| Radiant | Gules (heraldric) | Fallow |  |
| Sheen <br> Striated <br> Rainbow Variegated | Lake | Fawny |  |
|  | Madder | Flaxen |  |
|  | Magenta | Gamboge |  |
|  | Mulberry | Gilt |  |
|  | Murrey | Gold |  |
|  | Pink | Golden |  |
| 敨紱 Orange | Raspberry | Honey |  |
| \% | Red ochre | Lemon |  |
|  | Rose | Or (heraldric) |  |
|  | Rouge | Primrose |  |
|  | Ruby | Saffron |  |
|  | Ruddy | Sallow |  |
| 5x. | Rust-red | Sandy |  |
| W1) Peach | Sanguine | Straw-yellow |  |
| 14 Red-yellow | Scarlet | Sulfur |  |
| 41 Salmon | Strawberry | Topaz |  |
| \% Tangerine | Terra cotta | Yellow ocher |  |
| 1 ¢ Tenne (heraldric) | Vermilion |  |  |
|  | Wine-red | Descriptive \& Modifying |  |
| 14 Purple |  | Terms for Color |  |
| 17 4 Amethyst | Red-Brown | Bright |  |
| Her ${ }^{\text {a }}$ Blue-red | Bronze | Brilliant |  |
| 14, Eggplant | Copper | Clear |  |
| VWV's, Heliotrope | Henna | Deep |  |
| W, Wheky kig Lavender | Khaki | Intense |  |
| W: | Maroon | Pure |  |
|  | Roan | Sharp |  |
|  | Russet | Vibrant |  |
|  |  | Vivid |  |

## APPENDIX E: LIGHT FROM A FLAME

This short appendix is not designed to establish how far one can see with a given source, but rather explains the quanitity of light that certain sources may produce. In other words the value of the light itself. Without further ado, prepare to be enlightened.

## Terminology

Lumen: The basic unit of measurement used for light. A dinner candle produces approximately 12 lumens. A 60watt Soft White bulb is much more powerful producing 855 lumens.

Reflectance: Reflectance is the ratio of luminous flux (lumens) reflected from a surface in relation to luminous flux (lumens) incident onto the surface. Types of surface reflectance range from specular (mirror like) to the diffuse (lambertian), with many objects exhibiting combinations. Reflectances are important when calculating illuminances.

Task Height: The plane at which the work is performed (readings taken). Unless it is otherwise specified the work plane used is $3^{\prime}$ ( $36^{\prime \prime}$ ).

Foot-candle (fc): One Foot Candle equals the total intensity of light that falls upon a one square foot surface that is placed 1 foot away from a point source of light that equals 1 candle power.

All of the examples of lighting included in this essay are in foot-candles. It was determined that .5 foot-candles are the minimal amount of light needed to read hand- written words on a piece of paper without any difficulty. The sentences on the paper were one-quarter inch in height and were written with a hand-dipped calligraphic pen. At 2 foot candles the sentences were readable but with great difficulty and many mistakes made. At .1 foot-candle it could be determined that there was writing on the page and that's all.
.1 foot-candles allows you to tell the difference between light and dark colors, and distinguish writing on a page. The dark colors would be indiscernible from one another and the writing on the page would be unreadable.
.2 foot-candles allows you to tell the difference between light and dark colors, and distinguish writing on a page. The dark colors would be almost indiscernible from one another and the writing on the page would be readable, but with great difficulty.
.5 foot-candles allows you to tell the difference between light and dark colors, and distinguish writing on a page. The dark colors would distinguishable from one another and the writing on the page would be easily readable.

Projecting Illumination from other Light Sources:
Campfire, small: 25 candlepower on average.
Campfire, large: 60 candlepower on average.
Cresset: 20 candlepower on average.
Fireplace Fire: 30 candlepower on average.
Lantern. Candle, with Reflector: 3 candlepower directed in a beam.
Lantern, Oil: 2 to 6 candlepower depending on wick height.
Lantern, Oil, with reflector: 6 to 15 candlepower directed in a beam.
Torch: 15 candlepower on average.

## APPENDIX F NAMES, UNUSUAL/ARCHAIC NAMES FOR THINGS (WITH DEFINITIONS)

Antre: A cavern or large cave.
Arass: A fine, heavy tapestry, usually hung a short distance away from the wall.
Argosy: A large merchant ship.
Ban-Dog: A fierce and vicious guard dog held fast by bands or a chain.
Barbed: Armed and armored (harnessed) for warfare.
Bases: Embroidered knee-length skirt worn by a knight in full-dress and mounted.
Bat-Fowling: Netting birds at dusk; a thieves' trick to distract victims in the evening.
Bating: To cause a falcon to flutter or flap its wings.
Battle: A division of an army.
Bauble: The fool's or jester's stick or "rod of office."
Bavin: Light wood and brush that burns away quickly.
Beaver: The lower part of the helmet.
Bilbo: A fetter used to confine a prisoner aboard a ship, Bodkin: A dagger.
Bolter: A sieve for sifting and straining meal.
Bolter-House: A meal-straining outbuilding.
Bombard: A leather vessel to hold and carry liquor.
Bombast: Cotton stuffing for lining of garments.
Bot: A small worm.
Brace: Armor worn on the arm.
Brach: A female hound.
Brook: To loose a falcon to hunt.
Brusing iron: A heavy mace.
Buckram: Coarse linen cloth stiffened with glue.
Bulk: The protruding part of a shop upon which goods are displayed.
Buskin: A high-heeled boot worn mainly for hunting.
Cambric: Fine white linen cloth.
Camlet: Light and fine cloth made from camel's hair.
Cater-Cousin: A distant relative or a close friend.

Cheap: A market.
Cheveril: Kidskin.
Chine: A joint of beef.
Clout: The center of the target, the bull's eye.
Cock-Shut: Evening time; a net set to snare woodcock.
Consort: A company of musicians.
Coranto: A quick and lively dance.
Crare: A small ship with both fore- and sterncastle.
Curtle-Axe: A cutlass.
Cuttle: The knife used by a cutpurse; a cutpurse.
Daubery: The art or practice of impersonation.
Dancing Rapier: A decorative sword.
Demi-Wolf: A cross between a wolf and a dog.
Dibble: A pointed stick to make holes for seed planting.
Distaff: A spinning wheel.
Doit: A small coin (originally half of a farthing); a trifle.
Domestic Offices: Buttery, cellars, kitchen, and pantry.
Draff: Food scraps fed to swine.
Drench: A mixture of bran and water.
Drollery: A puppet show.
Durance: The strong material from which prison uniforms were made.
Fardel: A backpack or similar bundle.
Farthingale: A hoop.
Fast and Loose: A cheating game of Gypsies based on a knot, it being fast or loose.
Fitchew: The polecat.
Foison: A rich harvest; plenty.
Fosset: A tap to drain liquid from a container.
Frippery: An old-clothes shop.
Furred Pack: A leather container with the hair side outwards.
Galligaskins: Loose breeches.
Gest: A stage of a royal journey; the time of stay at a place by a royal party.
Gloze: Empty, usually deceitful, words.
Grange: A solitary farm.
Gyves: Fetters.
Haggard: A wild hawk.
Harness: Armor.
Hive: A conical bonnet.
Holy-Ales: Rural religious festivals.
Horologe: A clock.
Inkle: A kind of tape.
Jack: The small bowl aimed at in lawn bowling.
Jakes: An outside privy.
Jauncing: Making a horse prance.
Jesses: Straps tied between a falcon's legs \& the arm.
Keech: A roll of beef fat; also a term for a butcher boy.
Kirtle: A jacket with attached skirts.
Lag: The lowest class of people or things.
Leaguer: The camp of a besieging army.
Vaping House: A brothel.

Limbec: An alembic or still.
Linsey-Woolsey: Fabric made of linen and wool blend.
Lop: Small branches cut off for burning as faggots.
Luce: A pike (fish).
Maintenance: A carriage.
Maund: A hand basket.
Mead: A fermented alcoholic drink made from honey.
Measure: A stately dance.
Meiny: Household retinue.
Moocher: A truant or petty thief.
Neat: Horned cattle, those lacking horns being palled.
Orisons: Prayers.
Orts: Innards; scraps.
Paddock: A toad.
Pageant: A theatrical exhibition or performance.
Painted Cloth: A large canvas hanging painted or
written upon used to decorate a wall.
Pilch: A leather coat.
Pitch: The apex of a falcon's flight in hunting.
Posset: A drink made of boiled milk, ale or sherry, eggs,
bread crumbs, sugar and spice.
Pot: A wooden drinking vessel.
Pouncet Box: A small, perforated box in which musk or perfume is kept for smelling.
Pox: A disease, either epidemic (the plague) or venereal.
Puling: Whining and begging for something.
Puttock: A kite.
Quarry: A heap of slaughtered game.
Quern: A hand mill for grinding mostly grain.
Rascal: A lean and worthless deer.
Remove: One of several courses at a dinner where old dishes are cleared for new ones.
Rouse: A bumper; a full measure of drink.
Stone Bow: A pellet crossbow.
Stoop: The dive of the falcon as it goes after its prey.
Sweetmeat: A candied fruit.
Synod: An assembly of the gods.
Tally: A notched stick used to keep count, each mark
called a score.
Tike: A small dog.
Toils: Nets or snares used to capture.
Trestle Table: Basically, a table made from planks set upon something akin to saw horses.
Truckle Bed: A bed on wheels so as to be stored under something, usually a higher bed.
Tuck: A rapier.
Urchin: A hedgehog.
Vizard: A face mask.
Wassail: Revelry; feasting and drinking with merriment.
Water-Galls: Secondary rainbows.
Weed: A garment; thus "weeds" are garments.
Wind, Downwind: The direction a falcon is sent if being freed.
Wind, Upwind: The direction a falcon is sent
after prey.
Wink: Shut the eyes; thus "winks" is
slumbering.

## APPENDIX G GEMSTONES BY COLOR, GENERALLY NAMED IN ORDER OF RELATIVE VALUE

Note: This is a compilation of actual gemstones, but it is not meant to reflect actuality. That is, it is aimed at use in a fantasy world environment, not as a treatise on gemology.

Colors named follow as closely as possible the light spectrum from white to black with the hues violet, indigo, blue, green, yellow, orange, red, (purple, and brown), between them. Of course, variations of color are interposed, such as "Colorless" before "White", "Pale Violet" after "Violet", and so forth.

The number after the name of a stone indicates its relative hardness on the Mohs' Scale.

Precious Opal (quartz mineral base at 5.5-6.5) colored as follows
black, black ground; inclusions of flecks/spatterings of blue, green, yellow, pink, red.
black, indigo ground; inclusions of flecks/spatterings of blue, green, yellow, pink, red.
black, deep blue ground; inclusions of flecks/spatterings of green, yellow, pink, red.
black, dark green ground; inclusions of flecks/spatterings of blue, yellow, pink, red.
black, dark gray ground; inclusions of flecks/spatterings of blue, green, yellow, pink, red.
white, blue ground; inclusions of flecks/spatterings of blue, green, yellow, pink, red.
white, pale blue ground; inclusions of flecks/spatterings of blue, green, yellow, pink, red.
white, pale green ground; inclusions of flecks/spatterings of blue, green, yellow, pink.
white, blue-white ground; inclusions of flecks/spatterings of blue, green, yellow, pink.
white, milky ground; inclusions of flecks/spatterings of blue, green, yellow, pink.

## Common Opal (quartz mineral base at 5.5-6.5) colored as follows

milk white, blotches and/or swirl inclusions of blue, green, red, pink color.
whitish, blotches and/or swirl inclusions of blue, green, red, pink, brown color.
pale yellow-brown, blotches and/or swirl inclusions of blue, green, red, pink color.
brown-yellow, blotches and/or swirl inclusions of whitish, blue, green, red, pink color.
grass green, blotches and/or swirl inclusions of whitish, blue, red, pink color.

Pearl (with a pearlesent luster called "orient" at 3-4) colored as follows
black, spherical fine skin dark green, spherical fine skin rose tint, spherical fine skin green tint, spherical fine skin pink tint, spherical fine skin
cream, spherical fine skin silvery tint, spherical fine skin yellow tint, spherical fine skin brown tint, spherical fine skin gray tint, spherical fine skin

Pearls with a weight over 100 carats add $1 \%$ per carat to the carat weight value of the specimen.

Oval and pear-shaped pearls are worth approximately $75 \%$ of the value of spherical ones.

Hemispherical pearls are worth approximately $75 \%$ of the value of spherical ones.

Baroque (irregularly shaped) pearls are worth approximately $50 \%$ of the value of spherical ones.

Average skin texture lowers pearl value by approximately $25 \%$.
Coarse skin texture lowers pearl value by approximately $50 \%$.
Fresh water pearly have approximately $50 \%$ of the value of marine ones.

Moonstone (feldspar at 6-6.5) with a turbid transparency colored as follows
whitish clear, strong blue-white sheen
whitish translucent cat's eye
whitish translucent
very pale dove gray translucent cat's eye
very pale dove gray translucent
pale tan-yellow translucent cat's eye
pale tan-yellow translucent
pale dove gray translucent cat's eye
pale dove gray translucent
soft gray translucent cat's eye
soft gray translucent
Labradorite Feldspar (6-6.5) opaque with a play of metallic colors colored as follows
pale gray with a strong blue color play dark gray with a full-spectrum color play black with a full-spectrum color play dark gray with a green to gold color play black with a green to gold color play dark gray with a blue to green color play black with a blue to green color play

## Aventurine Feldspar (6-6.5) opaque with a play of metallic color colored as follows

orange with a blue color play red-brown a blue color play orange with a green color play red-brown a green color play orange with a red color play red-brown a red color play


Transparent
Blue with White Banding:
Trlent/Cat's Eye/Star Opaque
chalcedony quartz (7)

Gray-Blue:
chalcedony quartz (7)
Gray-Blue with White Flecks:
chalcedony quartz (7)

Gray-Blue with Brown Flecks and/or Swirls:
chalcedony quartz (7)
Blue to Clear (in one stone):
tourmaline (7-7.5)
Blue to Clear to Pink (in one stone):
tourmaline (7-7.5)

## Light Blue:

diamond (10)
sapphire (9)
sapphire (9) /yes/yes sapphire (9)
euclase (7.5)
aquamarine (7.5-8)
anchorite tourmaline (7-7.5)
topaz (7-7.5)
indigolite tourmaline (7-7.5)
benitoite * (6-6.5) benitoite * (6-6.5)
zircon (6-6.5)
turquoise (5-6)
turquoise ** (5-6)
*No larger when cut than 10 carats, and most stones smaller.
** Veined with green, brown or black.

Light Blue to Clear (in one stone):
tourmaline (7-7.5)

## Green-Blue:

aquamarine (7.5-8)
wardite (5)
lazulite (5-6) lazulite (5-6)
turquoise (5-6)
turquoise * (5-6)

* Veined with green, brown or black.

Blue-Green (Sea Green):
aquamarine (7.5-8)
euclase (7.5)
amazonite feldspar (6-6.5)
wardite (5)
turquoise (5-6)
turquoise * (5-6)

* Veined with green, brown or black.

Blue to Green (in one stone):
tourmaline (7-7.5)
Blue to Clear to Pink (in one stone):
tourmaline (7-7.5)

Olive Green:
peridot (6-6.5)
clinozoisite epidote (6-7) clinozoisite epidote (6-7)
idiocrase (6.5)
smaragdite (6.5)
actinolite (5.5-6)
apatite (5)
apatite (5) /yes/no
Dark Olive Green with Red Flecks and/or Spots: chalcedony, heliotrope

Transparent
quartz (6.5-7)
Moss Green:
chrysoberyl (8.5) chrysoberyl (8.5)/yes/yes
anchorite tourmaline (7-7.5)
jadeite * (6.5-7)
clinozoisite epidote (6-7)
epidote (6-7)
kornerupine (6.5)
smaragdite (6.5)
diopside (5-6)
apatite (5)
aventurine quartz ${ }^{* *}$ (7)
moldavite (5.5)
malachite ${ }^{* * *}$ (3.5-4)
obsidian ${ }^{* * * *}(5-5.5)$
Trlent/Cat's Eye/Star Opaque
jadeite * (6.5-7)
clinozoisite epidote (6-7)
epidote (6-7)
kornerupine (6.5)
diopside (5-6) /yes/ yes
apatite (5) $/ \mathrm{yes} / \mathrm{no}$
cat's eye quartz (7) /yes/no moldavite (5.5)
*Typically with flecks, spots, or pattern of lighter or darker color.
**This stone has a metallic iridescence.
***With stripes or bands of lighter green color.
****Most valuable is with golden or silver luster; another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.

Bottle Green:
diopside (5-6) diopside (5-6)/yes/ yes
enstatite (5.5) enstatite (5.5)*/yes/yes enstatite *
dioptase (5)
moldavite (5.5) moldavite (5.5)
*Displays a metallic sheen
Deep Green (Emerald Green):
emerald (7.5-8) emerald (7.5-8) emerald (7.5-8)
spinel (8)
uvarolite garnet (7.5) uvarolite garnet (7.5)
jadeite * (6.5-7)
anchorite tourmaline (7-7.5)
verdalite tourmaline (7-7.5)
jadeite * (6.5-7)
demantoid garnet (6.5-7)
spodumene, hiddenite (6-7)
smaragdite (6.5)
diopside (5-6) diopside (5-6) /yes/ yes
dioptase (5)
malachite ** (3.5-4)
*Typically with flecks, spots, or pattern of lighter or darker color.
A stone of solid coloration is the most valuable.
**With stripes or bands of lighter green color.
Deep Green to Bright Pink:
tourmaline (7-7.5)
Deep Green to Clear (in one stone):
tourmaline (7-7.5)

## Green:

diamond (10)
sapphire (9)
sapphire (9) /yes/yes sapphire (9)
emerald (7.5-8)
emerald (7.5-8) "jardine"chry* (8.5)

Transparent
(8.5)/yes/yes chrysoberyl (8.5)
verdalite tourmaline (7-7.5)
grossular garnet (7-7.5)
anchorite tourmaline (7-7.5)
demantoid garnet (6.5-7)
jadeite ** (6.5-7)
clinozoisite epidote (6-7)
zircon (6-6.5)
kornerupine (6.5)
diopside (5-6)
sphene (5-5.5)
chalcedony, chrysoprase
quartz (6.5-7)
amazonite feldspar (6-6.5)
*This stone will show a commensurate hue of red in artificial light.
**Typically with flecks, spots, or pattern of lighter or darker color, or white.

Green to Clear (in one stone):
tourmaline (7-7.5)
Green to Pink (in one stone):
tourmaline (7-7.5)
Green Exterior, Clear Middle Band, Red Interior (in one stone): tourmaline (7-7.5)

Green Exterior, Red Interior (in one stone):
tourmaline (7-7.5)
Apple Green:
jadeite * (6.5-7)
jadeite * (6.5-7)
nephrite * yes/no (6-6.5) nephrite * (6-6.5)
chalcedony, chrysoprase
quartz (6.5-7)
turquoise (5-6)
turquoise ${ }^{* *}$ (5-6)
*Typically with flecks, spots, or pattern of lighter or darker color, or white.
** Veined with green, brown or black.
Light Green:
diamond (10)
sapphire (9)
emerald (7.5-8)
sapphire (9) /yes/yes
sapphire (9) emerald (7.5-8) emerald (7.5-
beryl (7.5-8)
chrysoberyl (8.5) chrysoberyl (8.5)/yes/yes chrysoberyl (8.5)
topaz (7-7.5)
verdalite tourmaline (7-7.5)
grossular garnet (7-7.5)
anchorite tourmaline (7-7.5)
jadeite * (6.5-7)
demantoid garnet (6.5-7)
nephrite * yes/no (6-6.5) nephrite *(6-6.5)
zircon (6-6.5)
spodumene, hiddenite (6-7)
kornerupine (6.5)
kornerupine (6.5)
smaragdite (6.5)
malachite ** (3.5-4)
*Sometimes with flecks, spots, or pattern of lighter or darker color, or white.
**With stripes or bands of lighter green color.

Transparent
Trlent/Cat's Eye/Star
Opaque
Light Green to Clear (in one stone):
tourmaline (7-7.5)

## Leek Green:

peridot (6-6.5)
andalusite (7.5)
prasiolite quartz (7)
prase quartz (7)
cat's eye quartz (7) /yes/no cat's eye quartz (7)

## Yellow-Green:

sapphire (9)
emerald (7.5-8)
beryl (7.5-8)
chrysoberyl (8.5) chrysoberyl (8.5)/yes/yes chrysoberyl (8.5)
grossular garnet (7-7.5) grossular garnet (7-7.5)
peridot (6-6.5)
andalusite (7.5)
idiocrase (6.5)
amber (2-2.5) amber (2-2.5) amber (2-2.5)

## Green-Yellow:

beryl (7.5-8)
grossular garnet (7-7.5) grossular garnet (7-7.5)
andalusite (7.5)
spodumene, hiddenite (6-7)
idiocrase (6.5)
brizalianite (5.5)
amber (2-2.5)
amber (2-2.5)
amber (2-2.5)
Wine (very pale) Yellow:
phenacite (7.5-8)
danburite (7-7.5)
amblygonite (6)
Pale Yellow:
diamond (10)
sapphire (9) sapphire (9)/yes/yes sapphire (9)
beryl (7.5-8)
topaz (7-7.5)
spodumene, hiddenite (6-7)
jadeite * (6.5-7) jadeite * (6.5-7)
amblygonite (6)
apatite (5)
nephrite * yes/no (6-6.5) nephrite * (6-6.5)
citrine quartz (7)
*Sometimes with flecks, spots, or pattern of lighter or darker color.

## Yellow:

diamond (10)
sapphire (9) sapphire (9) /yes/yes sapphire (9)
beryl (7.5-8)
topaz (7-7.5)
andalusite (7.5)
grossular garnet (7-7.5) grossular garnet (7-7.5)
diopside (5-6) diopside (5-6)/yes/yes
brizalianite (5.5)
apatite (5) apatite (5) $/ \mathrm{yes} / \mathrm{no}$
amber (2-2.5)
citrine quartz (7)

## Lemon Yellow:

beryl (7.5-8)
demantoid garnet (6.5-7)
demantoid topazolite garnet (7.5)
prehnite (6-6.5)
sulphur (1.5-2)

## Deep Yellow:

diamond (10)
sapphire (9)

Transparent Tricnt/Cat's Eye/Star Opaque
sapphire (9)
cancrinite (5-6)
amber (2-2.5)
Golden Yellow:
sapphire (9)
beryl (7.5-8)
chrysoberyl (8.5)
topaz (7-7.5)
idiocrase (6.5)
sphene (5-5.5)
amber (2-2.5)
citrine quartz (7)

## Greenish Gold:

chalcopyrite * (3.5-4)
*Shows a brassy luster.

## Golden:

beryl (7.5-8)
spinel (8)
topaz (7-7.5)
dravite tourmaline (7-7.5)
fire opal (5.5-6.5)
enstatite (5.5)
amber (2-2.5)
citrine quartz (7)
chalcopyrite * (3.5-4)
*Shows a brassy luster.
Pale Brownish Gold (Champagne color):
scapolite (6-6.5) scapolite (6-6.5) /yes/no orthoclase feldspar (6-6.5)
amblygonite (6)
apatite (5)
apatite (5) /yes/no
chalcopyrite * (3.5-4)
*Shows a brassy luster.

## Golden with Golden Brown Bands:

tiger's eye quartz (7)
Golden Orange:
sapphire (9) sapphire (9) /yes/yes sapphire (9)
beryl (7.5-8)
spinel (8)
topaz (7-7.5)
zircon (6-6.5)
amber (2-2.5) amber (2-2.5)
citrine quartz (7)

## Pale Orange:

scapolite (6-6.5)
amblygonite (6)
apatite (5)

## Orange:

sapphire (9)
topaz (7-7.5)
spessartite garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
zircon (6-6.5)
fire opal (5.5-6.5) fire opal (5.5-6.5)
cancrinite (5-6)
sphene (5-5.5)

## Red-Orange to Scarlet:

sapphire (9) sapphire (9)/yes/yes sapphire (9) spessartite garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
fire opal (5.5-6.5)
scapolite (6-6.5) /yes/no
apatite (5)/yes/no
sapphire (9) /yes/yes sapphire (9)
fire opal (5.5-6.5)

Transparent
piemontite epidote (6-7)
amber (2-2.5)
coral (3-4)

## Pale Pink:

spodumene, kunzite (6-7)
phenacite (7.5-8)
danburite (7-7.5)
petalite (6-6.5)
scapolite (6-6.5) $\quad$ scapolite (6-6.5) $\mathrm{yes} / \mathrm{no}$
coral (3-4)
rose quartz (7)
Pale Pink with White Bands rhodochrosite (4)

Pink:
diamond (10)
sapphire (9)
sapphire (9) /yes/yes sapphire (9)
beryl (7.5-8)
spinel (8)
anchorite tourmaline (7-7.5)
rubellite tourmaline (7-7.5)
topaz (7-7.5)
coral (3-4)
rose quartz (7)
rose quartz (7)/no/yes
Pink with White Bands:
rhodochrosite (4)

Trlent/Cat's Eye/Star Opaque amber (2-2.5) amber (2-2.5) rose quartz (7)/no/yes rhodochrosite (4)

Pink to Golden Brown (in one stone):
tourmaline (7-7.5)
Bright Pink:
sapphire (9) sapphire (9) /yes/yes sapphire (9)
spinel (8)
anchorite tourmaline (7-7.5)
rubellite tourmaline (7-7.5)
tugtupite * (6)
purpurite ** (4-4.5)
coral (3-4)
rhodochrosite (4)
*With a violet tine and white and/or black inclusions in spots and/or swirls.
**Shows a metallic luster.
Bright Pink to Brown (in one stone):
tourmaline (7-7.5)

## Bright Pink with White Bands:

rhodochrosite (4)
Light Red:
sapphire (9) sapphire (9) /yes/yes sapphire (9)
rubellite tourmaline (7-7.5)
spessartite garnet (7-7.5)
chalcedony, cornelian quartz (7)
coral (3-4)
Scarlet to Strawberry Red:
beryl (7.5-8)
rubellite tourmaline (7-7.5)
spessartite garnet (7-7.5)
zincite (4.5-5)

## Transparent Tricnt/Cat's Eye/Star Opaque

Strawberry Red with Black Inclusions:
rhodonite (5.5-6.5) rhodonite (5.5-6.5)
Red:
ruby (9) ruby (9)/yes/yes ruby (9)
spinel (8)
rubellite tourmaline (7-7.5)
spessartite garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
zircon (6-6.5)
fire opal (5.5-6.5) fire opal (5.5-6.5)
chalcedony, cornelian quartz (7)
rhodonite (5.5-6.5) rhodonite (5.5-6.5) rhodonite (5.5-6.5)
zincite (4.5-5)
amber (2-2.5) amber (2-2.5) amber (2-2.5)
coral (3-4)
Red with Black Inclusions:
rhodonite (5.5-6.5) rhodonite (5.5-6.5)
Deep Red:
ruby (9)
ruby (9) /yes/yes
ruby (9)
rubellite tourmaline (7-7.5)
spessartite garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
zincite (4.5-5)
Violet-Red (Crimson to Carmine):
ruby (9) ruby (9)/yes/yes ruby (9)
rubellite tourmaline (7-7.5)
piemontite epidote (6-7)
cuprite (4.5)
zincite (4.5-5)
Violet-Red:
ruby (9) ruby (9)/yes/yes ruby (9)
spinel (8)
rubellite tourmaline (7-7.5)
almandine garnet (7.5)
chalcedony, cornelian quartz (7)
Brown-Red:
ruby (9) ruby (9)/yes/yes ruby (9)
spessartite garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
cassiterite (6-7) cassiterite (6-7)
zircon (6-6.5)
chalcedony, cornelian quartz (7)
amber (2-2.5) amber (2-2.5) amber (2-2.5)
Red-Purple:
sapphire (9)
sapphire (9) /yes/yes sapphire (9)
Blue-Purple:
axinite (6.5-7)
axinite (6.5-7)
Dark Purple:
sapphire (9)
amethyst quartz (7)
Purple:
sapphire (9)
sapphire (9) /yes/yes sapphire (9)

Transparent
axinite (6.5-7)
purpurite * (4-4.5)
amethyst quartz (7)
*Shows a metallic luster.
Pale Purple:
tanzanite (6-6.5)
amblygonite (6)
amethyst quartz (7)

## Purple-Brown:

purpurite * (4-4.5)
amethyst quartz (7)
*Shows a metallic luster.

## Light Brown:

diamond (10)
sanidine orthoclase (6)
labradorite feldspar (6-6.5)
topaz (7-7.5)
cassiterite (6-7)
cassiterite (6-7)
idiocrase (6.5)
sinhalite (6.5)
smoky quartz (7)
jadeite * (6.5-7)

| jadeite $^{*}(6.5-7)$ |  |
| :---: | :---: |
| nephrite $*$ yes $/$ no (6-6.5) | nephrite * (6-6.5) |
| amber (2-2.5) | amber (2-2.5) |

amber (2-2.5)
*Sometimes with flecks, spots, or pattern of lighter or darker color.

## Golden Brown:

topaz (7-7.5)
dravite tourmaline (7-7.5)
grossular, hessonite garnet (7-7.5)
cassiterite (6-7) cassiterite (6-7)
idiocrase (6.5)
sinhalite (6.5)
tantalite (5-6)
amber (2-2.5) amber (2-2.5) amber (2-2.5)
smoky quartz (7) smoky quartz (7)/no/yes
aventurine quartz * (7)

$$
\mathrm{c} \text { at's eye quartz (7) /yes/no }
$$

cat's eye quartz (7)
*This stone has a metallic iridescence.

## Copper Brown:

grossular garnet (7-7.5)
idiocrase (6.5)
binghamite quartz $*(7)$
citrine quartz (7)
*Displays a metallic shimmering when cut in a cabochon.
Brown:
diamond (10)
dravite tourmaline (7-7.5)
grossular, hessonite garnet (7-7.5)
axinite (6.5-7) axinite (6.5-7)
cassiterite (6-7) cassiterite (6-7)
zircon (6-6.5)
sphene (5-5.5)
amber (2-2.5) amber (2-2.5) amber (2-2.5)
smoky quartz (7)
smoky quartz (7)/no/yes
cat's eye quartz (7)/yes/no cat's eye quartz (7)
chalcedony, sard quartz (7)
nephrite * yes/no (6-6.5) nephrite * (6-6.5)
obsidian ${ }^{* *}(5-5.5) \quad$ obsidian $* *(5-5.5)$
*Sometimes with flecks, spots, or pattern of lighter or darker color.
${ }^{* *}$ Most valuable is with golden or silver luster; another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.

## Transparent <br> Trlent/Cat's Eye/Star

Brown with Golden Brown Striations:
hawk's eye quartz (7)

## Green-Brown:

diamond (10)
chrysoberyl (8.5) chrysoberyl (8.5)/yes/yes chrysoberyl (8.5) peridot (6-6.5)
clinozoisite epidote (6-7) clinozoisite epidote (6-7)
sinhalite (6.5)
kornerupine (6.5)
enstatite (5.5)
amber (2-2.5)
obsidian ${ }^{* *}$ (5-5.5)
kornerupine (6.5)
*Displays a metallic sheen
${ }^{* *}$ Most valuable is with golden or silver luster; another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.

## Red Brown:

topaz (7-7.5)
garnet, pyrope (7-7.5)
spessartite garnet (7.7.5)
spessartite garnet (7-7.5)
grossular garnet (7-7.5) grossular garnet (7-7.5)
grossular, hessonite garnet (7-7.5)
andalusite (7.5)
axinite (6.5-7)
axinite (6.5-7)
cassiterite (6-7)

$$
\text { cassiterite }(6-7)
$$

zircon (6-6.5)
rutilite (6-6.5)
jadeite * (6.5-7) jadeite * (6.5-7)
sphene (5-5.5)
tantalite (5-6)
amber (2-2.5)

| amber (2-2.5) | amber (2-2.5) |
| ---: | ---: |
| nephrite $*$ yes/no (6-6.5) | nephrite * (6-6.5) |

citrine quartz (7)
aventurine quartz ** (7)
hematite (5.5-6.5)
*Sometimes with flecks, spots, or pattern of lighter or darker color.
**This stone has a metallic iridescence.

## Gray-Brown:

smoky quartz (7)
smoky quartz (7)/no/yes
obsidian * (5-5.5) obsidian * (5-5.5)

* Most valuable is with golden or silver luster; another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.


## Black-Brown:

epidote (6-7)
epidote (6-7)
hypersthene (5-6)
purpurite * (4-4.5)
amber (2-2.5) amber (2-2.5) amber (2-2.5)
jet (2.5-4)
*Shows a metallic luster.

## Gray:

enstatite (5.5)
smoky quartz (7)
enstatite (5.5) /yes/yes enstatite (5.5)
smoky quartz (7)/no/yes
cat's eye quartz (7) /yes/no cat's eye quartz (7)
chalcedony quartz (7)
nephrite * yes/no (6-6.5) nephrite * (6-6.5)
hematite (5.5-6.5)
obsidian ${ }^{* *}(5-5.5) \quad$ obsidian ${ }^{* *}(5-5.5)$
*Sometimes with flecks, spots, or pattern of lighter or darker color.
**Most valuable is with golden or silver luster, another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.

Transparent
Trlent/Cat's Eye/Star Opaque
Pale Gray:
sanidine orthoclase (6)
jadeite * (6.5-7)
jadeite * (6.5-7)
nephrite * yes/no (6-6.5) nephrite * (6-6.5)
*Sometimes with flecks, spots, or pattern of lighter or darker color.

Pale Gray with Blue and White Banding: chalcedony quartz (7)

Black:
diamond (10)
sapphire (9) sapphire (9) /yes/yes sapphire (9)
spinel (8)
jadeite (6.5-7) $\quad$ jadeite * (6.5-7)
ilmenite (5-6)
demantoid melanite
garnet (6.5-7)
coral (3-4)
amber (2-2.5) amber (2-2.5)
amber (2-2.5)
smoky quartz (7)
hematite (5.5-6.5)
obsidian * (5-5.5) obsidian * (5-5.5)
jet (2.5-4)
*Most valuable is with golden or silver luster; another variety has whitish,
flower-shaped inclusions, and it is thus called flowering obsidian.

## APPENDIX H: CRIMES

Accessory after the Fact: Whoever, knowing that an offense has been committed, receives, relieves, comforts or assists the offender in order to hinder or prevent his apprehension, trial or punishment, is an accessory after the fact.
Accessory to a Crime: Whoever is not the chief actor in the perpetration of the offence, nor present at its performance, but is some way concerned therein, either before or after the fact committed.
Adulterating Food or Drink: The introduction of foreign agents into food or drink for gain.
Adultery: Voluntary sexual relations between a married person and another person who is not their married spouse. Aiding/Comforting an Enemy: The provision of assistance to a hostile foreign power or a member of such a force; see also Treason.
Armed/Highway Robbery: The act or an instance of unlawfully taking the property of another
by the use of violence or intimidation, with the present ability to carry out the threat by the use of a dangerous weapon or device. Highway robbery refers to banditry generally taking place upon remote or unpatrolled roads.
Arson: A criminal offense occurring when a person intentionally sets fire to or burns something; and the person acted wrongfully and without justification, or the person did something which was a substantial step toward committing the crime.
Assault: Whenever one person makes a willful attempt or threat to injure someone else, and also has an apparent, present ability to carry out the threat such as by flourishing or pointing a dangerous weapon or device at the other.
Assault with a Deadly Weapon: Whenever one person makes a willful attempt or threat to injure
someone else, and also has an apparent, present ability to carry out the threat and presents a dangerous or grievous weapon likely to seriously injure or kill the other.
Battery: The unlawful touching of another person by the aggressor himself, or any other substance put in motion by him. It must be either wilfully committed, or proceed from want of due care.
Begging without License: The solicitation of assistance from others, without licensure, with entreaties or pleas, as a means of income.
Breaking \& Entering: Parting or dividing by force and violence a solid substance, as a door or window, or piercing, penetrating, or bursting through the same with violence and a felonious intent.
Bribery of an Official: Giving, offering or promising something of value to a public official, with the intent to influence an official act by the agent or to persuade the

## in

Flight from Arrest: Fleeing from officers of the law intent upon siezure of said person.
Flight from Slavery: Fleeing from master(s) who have legally bought and/or obtained said person.
Flight from/to Avoid Bond Servitude: Fleeing from an agreed upon indenturement to avoid the $* * *$
Forgery: The act of criminally making or altering a written instrument for the urpose of fraud or deceit.
Gaming (gambling) without License: Purveying games of chance without licensure from a local authority.
Gaol-Breaking: The unlawful removal of persons being held within a prison, gaol jail), or other confinement.
Grave Robbery: The unlawful removal of burial goods from a tomb, grave, or other internment site without consent.
Harboring a Felon: Giving shelter and/or aid to a known criminal, generally fleeing from
incarceration.
Harboring a Slave: Giving shelter and/or aid to the known property of another, e.g. slave.
Heresy: An opinion or a doctrine at variance with established religious beliefs.
Horse Theft: The felonious abstraction of a horse of another, without consent, generally for monetary gain.
Impersonation: To assume the character or appearance of, especially fraudulently, an fficer of the law or establishment.
Impersonation, Petty: To assume the character or appearance of, usually of well known locals or without fraudulent intent.
Incest: Sexual relations between persons who are so closely related that their marriage is illegal or forbidden by custom.
Inciting a Riot: Urging or instigating other persons to riot.
Kidnapping: To forcibly and unlawfully hold, keep, detain and confine a person against his or her will.
Leaving area of Villeinage: A villein (a freedman in all dealings, but with their lord) who has removed themselves from the demesne of their liege lord without prior approval or consent.
Lese Majesty: An offense against the dignity of the sovereign of a state or of a state itself.
Lewd Conduct: Conduct which is obscene or indecent, generally with a sexual intent or desire.
Libel: Published material meeting three conditions: The material is defamatory either on its face or indirectly; The defamatory statement is about someone who is identifiable to one or more persons; and, The material must be distributed to someone other than the offended party; i.e. published; distinguished from slander.
Maiming of an Innocent: The disabling or disfigurement of an individual, either though the loss of limb or loss of use of said limb, who is uninvolved in the primary action taking place, usually a bystander present at the scene of a crime.

Manslaughter: The unlawful killing of a being without malice or premeditation, either express or implied; distinguished from murder, which requires malicious intent.
Mental Control/Domination by Magic: The unlawful subjugation of another, without their consent, to control via magical means.
Murder: When a person of sound mind and discretion, unlawfully kills any reasonable creature in being, and under the king's peace (e.g. not in wartime), with malice aforethought either express or implied.
Murder, Accessory: Not the chief perpetrator of the offense, nor necessarily at its performance, but is some way concerned therein, either before or after the fact committed.
Mutilation of an Innocent: The disabling or disfigurement of an individual, either though the loss of limb or loss of use of said limb, who is uninvolved in the primary action taking place, usually a bystander present at the scene of a crime.
Mutiny: The unlawful resistance of a superior officer, or the raising of commotions and disturbances on board of a ship against the authority of its commander, or in the army in opposition to the authority of the officers; a sedition; a revolt.
Oath Breaking: The giving of a promise and then knowingly not fulfilling said promise.
Passing off of Shoddy Goods: The sale of goods, with known defects, either apparant or not, without disclosing said defects to the prospective buyer; usually passing goods as perfectly sound, knowing of inherent defects.
Pedaling without a License: The sale of items, generally without benefit of a store front or shop, without licensure from a local authority.
Perjury: When a person, having taken an oath before a competent tribunal, officer, or person, willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true.
Piracy: The commission of any murder or robbery on the high seas, or any act of hostility against the principality, or against any citizen thereof, under color of any commission from any foreign prince, or state, or on pretense of authority from any person.
Pocket Picking: The removal of another's belongings from their person without their knowledge.
Prison Breaking: The act by which a prisoner, by force and violence, escapes from a place where he is lawfully in custody.
Prostitution without License: The giving or receiving of the body for sexual activity for hire but excludes sexual activity between spouses, which is made without licensure of the local authority.

Purse Cutting: The removal of another's purse from their person without their knowledge.
Racketeering/Protection: Carrying on of illegal business activities involving crimes such as extortion, loansharking, bribery, obstruction of justice, murder, kidnapping, gambling, robbery, dealing in obscene materials, or dealing with dangerous drugs.
Rape: The carnal knowledge of a woman by a man (or vice versa) forcibly and unlawfully against their will.
Receiving Stolen Goods: The knowledgable taking of goods which do not belong to the proffering entity.
Resisting Arrest: Failure to cooperate with an officer of the law, having identified themselves or being obvious as such, in their attempt to apprehend said person.
Riot: A tumultuous disturbance of the peace, by three persons or more assembling together of their own authority, with an intent, mutually to assist each other against any who shall oppose them, in the execution of some enterprise of a private nature, and afterwards actually executing the same in a violent and turbulent manner, to the terror of the people, whether the act intended were of itself lawful or unlawful.
Robbery: The felonious and forcible taking from the person of another, goods or money to any value, by violence or putting him in fear.
Rustling: The theft of livestock, especially cattle.
Sale of Stolen Goods: Knowledgable passing of goods which were not obtained through legitimate means.
Sedition: Conduct which is directed against a government and which tends toward insurrection but does not amount to treason.
Selling Alcohol without a License: The sale of beverages of an alcoholic nature, without licensure from a local authority.
Selling Goods without a License: The sale of any manner of goods, without licensure from a local authority.
Shipwrecking: To cause a ship to be destroyed, as by storm or collision, or to cause a passenger or sailor on a ship to suffer shipwreck.
Shop Lifting: The theft of merchandise from a store or vendor that is open for business.
Slander: Oral communication of false statements injurious to a person's reputation.
Smuggling: The fraudulent taking into a country, or out of it, merchandise which is lawfully prohibited. To bring something into a location secretly or by fraud.
Soliciting for Prostitution without License: The proferring of sex for hire, without licensure from a local authority.
Sorcery: Divination by the assistance, or supposed assistance, of evil spirits, or the power of commanding evil spirits.

Swindling/Confidence Games, Conducting of: To cheat or defraud of money, especially with games of chance, where conditions are preset to provide an advantage to the "house" or performer.
Tax Evasion: Willfully attempting to evade or defeat the payment of taxes
Theft: The secret and felonious abstraction of the property of another for sake of lucre, without their consent. Treason: Betrayal, treachery against, or breach of allegiance, usually with regard to nationality or fealty; conduct consisting of levying war against said state or of adhering to its enemies, giving them aid and comfort.
Use of False Weights: The sale of goods, whose weight determines the price, by substituting heavier weights for weights of known value with intent to defraud.
Vagrancy: Living idly without any settled home, especially those who refuse to work, or go about begging. Witchcraft: An act of employing sorcery, especially with malevolent intent, and the exercise of supernatural powers.


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