

Magic in Siliar

The purpose of this essay is to explore and explain the process of magical manifestations in the world of Siliar. It will draw on a number of sources to depict the magical process.

Magic is a power. It is biological in nature, a force generated by beings which, when properly shaped and emanated, can create significant manifestations. The preponderance to generate this force is not equal in races or within the races.¹ An individual who can generate the force must receive extensive and detailed training in order to be able to actually use it for meaningful and predictable outcomes.

The following table illustrates relative strengths in an arbitrary unit of strength called MP (magic power). It is set such that the median human has 100 MP.

Distribution of strength within racial populations in Siliar								
Incidence out of 100,000 of having power between above that in column, but below next column in MP where median human is 100								
Race	0	1	10	100	1000	10,000	50,000	100,000
Human	80	1000	30,000	66,900	2000	20	0*	0*
Elf	20	2,000	95,980	2,000	20	0*	0	0
Dwarf	100	9,000	60,000	30,000	900	0*	0	0
Baine	50,000	40,000	9500	500	0*	0	0	0
Goblin	0*	60,000	30,000	10,000	0	0	0	0
Koblod	0*	50,000	40,000	10,000	0*	0	0	0
Giants	0*	1000	40,000	58,000	1,000	0	0	0
Dragon	0	0	0*	0*	5,000	94,000	1000	0*

*Less than 1 out of 100,000

Beyond having magic power, to use it, it must be shaped. Learning to shape the magic power is a difficult and long process requiring a particular disposition. Other considerations to the training process relate to racial tendencies toward the classes of magic (discussion to follow). Generally, however, training in the magic arts follows these steps:

1. Individuals having power making training worthwhile are identified from the population.
2. They are evaluated for temperament considerations to see if they are good candidates for training.
3. They enter a long apprenticeship learning the basics of the magic arts.
4. Among some races, they optionally continued advanced training.

¹ By “race” it is actually meant “species” such as human, elf, dwarf, baine, etc.

There are seven possible classes of magic, and mastery of them all is rare. Mastery is considered the ability to create at least 50% of the known manifestations in that class and the ability to create unique “ad hoc” manifestations as well.

Because each individual has specific “leanings” toward one type of magic (also, the races have tendencies as well), the process of mastery in other classes becomes more and more difficult.

The following table represents the instances of magic practitioners reaching each level

Distribution of Training within racial populations in Siliar									
Incidence out of 100,000 of Satisfying the Criterion (Previous Criterion INCLUDE following, thus, the 1000 humans who enter Basic Apprenticeship are among the 3000 who have sufficient power.)									
Criterion (Official Title)	Addressed as... in speech	Human	Elf	Dwarf	Baine	Goblin	Kobold	Giant	Dragon
Identified as having sufficient power to be trained	N/A	3000 3:100	99,000	30,000	10	100	50	75	99,500
Entering Basic Apprenticeship	Apprentice	750 ** 1:133	99,000	3,000	10	10	5	30	99,000
Completing Basic Training (Enchanter)	Apprentice if still in studies or Enchanter if not.	400 1:250	99,000	3000	9	9	4	25	99,000
Completing Apprenticeship (Practitioner, Magic User, Magician, Necromancer)	Master	50 1:2000	99,000	3,000	9	9	4	25	99,000
Mastery of 1 Class (Wizard)	Master	25 1:4000	99,000	1,000	8*	5	2	15	99,000
Mastery of 2 Classes (Arch-Wizard)	Master	10 1:10,000	30,000	100	7*	4	1	10	80,000
Mastery of 3 Classes (Master Arch- Wizard)	Master	5 1:20,000	10,000	10	1	1	.1	5	60,000
Mastery of 4 Classes (Mage)	Mage	1 1:100,000	3,000	1	0	.1	.01	2.5	40,000
Mastery of 5 Classes (Arch-Mage)	Mage	.1 1:1,000,000	1,000	0.1	0	.05	.001	1	20,000
Mastery of 6 Classes (Master Arch- Mage)	Mage	.01 1:10,000,000	0	0.01	0	.005	.0001	.1	10,000
Mastery of 7 Classes (Grand Master Arch-Mage)	Mage	.001 1:100,000,000	0	0.001	0	.0005	.00005	.01	2,000

*Baines have high levels of natural tendency in body/life and energy class magic. Mastery, however, is far lower than other races. ** More could be trained if more trainers were available in remote areas.

It is important to remember that those counted at the higher criterion are ALSO counted below. For example, out of 100,000,000 humans at any given time, there will be 1 Grand Master Arch-mage and 1 Master Arch-mage. That is, two who have achieved Master Arch-mage rank or higher.

Training Time

The time to complete the training is a big factor in the development of practitioners.
Consider the following:

Age / Years needed for Criterion*** (Distributed normally around the mean of the rage limits given.)								
Criterion	Human	Elf	Dwarf	Baine	Goblin	Kobold	Giant	Dragon
Identified as having sufficient power to be trained	Age 12 to 14	Age 40	Age 40	Age 10 to 11	Age 11 or 12			
Entering Basic Apprenticeship	Age 13 to 14	Age 40	Age 40	Age 10 to 11	Age 11 or 12			
Completing Basic Training	Age 22 to 26	Age 30	Age 30	Age 20	Age 20			
Completing Apprenticeship	Age 35 to 50	Age 60 to 75	Age 60 to 75	Age 25 to 30	Age 25 to 30			
Mastery of 1 Class (Wizard)	15 to 25 years*	10 to 20 years	10 to 20 years	10 to 15 years	10 to 15 years			
Mastery of 2 Classes (Arch-Wizard)	15 to 25 years	10 to 20 years	10 to 20 years	10 to 30 years	10 to 20 years			
Mastery of 3 Classes (Master Arch-Wizard)	15 to 30 years	15 to 25 years	15 to 25 years	20 to 40 years	**			
Mastery of 4 Classes (Mage)	20 to 30 years	15 to 25 years	15 to 25 years		**			
Mastery of 5 Classes (Arch-Mage)	25 to 40 years	20 to 40 years	20 to 40 years		**			
Mastery of 6 Classes (Master Arch-Mage)	30 to 50 years	30 to 50 years	30 to 50 years		**			
Mastery of 7 Classes (Grand Master Arch-Mage)	40 to 60 years	40 to 60 years	40 to 60 years		**			

*At this point, those wishing to continue enter mage sleep and resume training upon regeneration. ** Those getting here are rare and do so in special ways. ***Ages are typical. Training can begin at any time with adjusted completion.

Classes of Magic

Magic, as has been said is considered to fall into seven classes: Material/Earth, Energy, Space, Time, Soul/Emotion, Mind, Body/Life. Each class is similar to the two adjacent classes (with Body/Life and Material/Earth assumed to be adjacent). The following table gives SOME examples of manifestations associated with each class.

Examples of Manifestations in Magic Classes			
	Simple / Native*	Moderate	Complex
Material / Earth	Fuse, Separate	Harden, Slice, Make workable (e.g. for smithing)	Alloys
Energy	Push, Wind, Fire, Light	Pull, Lift, Controlled Heat, Impart Momentum and kinetic Energy, Deflect missiles, Darkness (Absorb Light)	Force Blade, Convert momentum and kinetic energy to something (e.g. heat), Dissipate heat
Space	Guide projectiles	Teleport, Large Storage, Invisibility, Darkness	Gates and Portals, Huge Storage
Time	Haste for self	Haste others	Time Bubbles, Stasis
Soul / Emotion	Project emotions, Sense life forms	Read emotions, read fear, Sense lies.	Create affect and mood in others. Heal hurt emotions.
Mind	Project thoughts, "Sense" lies and malevolence	Read thoughts, Detect lies	Huge illusions, Animate willing others, Animate overpowered others
Body / Life	Give strength, Stop bleeding, Sense life forms.	Heal wounds, Train plants, Shape plants	Major "surgery," Stop poisons

*Baines, Goblins, and Human "Naturals"

Leanings Toward Classes as a function of Race

Some races have inherent tendencies toward some classes of magic over others. Further, within each race, a practitioner will tend to have “Leanings” toward one class or another. His/her second easiest class will be either one of the adjacent classes of magic or will follow the racial distribution. The following illustrates this.

Distribution (%) of Prime “Leaning” within Races								
	Human	Elf	Dwarf	Baine	Goblin	Kobold	Giant	Dragon
Mater/Earth	14.29	2.5	80	10	15	0	14.29	14.29
Energy	14.29	2.5	9.9	15	10	0	14.29	14.29
Space	14.29	0	9.9	0	0	0	14.29	14.29
Time	14.29	0	.0025	0	0	0	14.29	14.29
Soul/ Emotion	14.29	10	.0025	0	0	20	14.29	14.29
Mind	14.29	10	.005	0	15	20	14.29	14.29
Body/Nature	14.29	75	.19	75	60	60	14.29	14.29

Elven Magic Specifics

The elves are unique in that they have the natural ability to imbue their leaders with portions of their own strength. A trained elf can transfer up to half his power to others. A recipient may only receive up to 1000 times his original power. The greatest Elven mages rate at 100. Note, however, that this transfer works only while the imbued individual remains surrounded by his support base. Thus these Super-Elves do not travel on adventures lest they lose their power. Also, the typical leader elf will have a natural ability in the range of around 30; this means that they can control a maximum of 30000 in transferred power.

The Elven King will have power transferred to him from his Captains. Elven Captains command groups of 100 Leaders who transfer power to them. Elven Leaders are over 100 soldiers who have transferred power in turn to them. Because there is a limit of a 1000-fold increase there is enough extra power available to allow a number of Nobles to be in the same category as the King. Note: because of this sharing Elven soldiery is able to communicate at an empathic level. This is normally an advantage but, should a Captain or Noble fall it ruins the morale of those bound under him.

Thus, for our Elves, the following applies:

Class	Power	Number

Soldier	5	500000
Leader	250	5000

Captain	12500	50
King	50000	12

The greatest defensive power of the Elves is in their tireless preparation of the Forests. The Elves are able, over time, to awaken the plants sufficiently that they will entangle on command or automatically. Additionally the Elves can cause plants to grow at a 10-fold rate. Thus, should some section be burned by an invading army, it can be fully regrown in a mere 10 years. The power of the average Elven foot soldier is in his ability to perform great feats due to his mastery of the Body-Class magic. It is typical for an Elf, in battle, to have double strength, endurance and enhanced reflexes.

Elves, in the wild, will live to 900 years old. However Elves who live their lives in a harmonious Elven environment will live to twice that age. The entry of other races into their lands degrades this harmony. This is the primary reason for Elven solitude and why it is so rare to be named an Elf-friend with the privilege of roaming their lands.

Training Process

Training in magic varies from one culture to another. Though there are certain basic similarities, each culture implements magic training differently.

Human Training Process

The promotion of the Magic Arts is done through various orders. When wizards and mages see a benefit from coming together as a collective, they form orders. One of the jobs of the orders is to see to the passing of the arts on to new generations.

The training process in the magic arts for humans generally follows similar paths across all Orders of Magic. Presented here are three versions. Many small to medium size organizations operate like the Order of the Iron Sphere. The Dark Council is rather unique in their approach. The Adoros illustrates a variation of the typical where interests of financial gain are prominent.

The Order of the Iron Sphere (typical of MANY groups)

A small collective of mages and wizards primarily in Perandis Sheen.

“Iron” symbolizes solidity, strength, and utility, as iron can be used for many things. The “Sphere” represents completeness.

It is their philosophy to create practitioners who can be strong and useful members of society. They shy away from the creation of Enchanters when possible.

Entry into training: Usually 12 to 14.

First years: Emphasis on teaching words and numbers, social skills, and physical fitness. Much attention is given to teaching spatial arrangement skills and abstract reasoning. Magic training is limited to seeing auras, threads, weavings, and emanations. Some skills from next phase are occasionally learned if student started closer to age 12 than age 14.

Age 17 to 20: In Perandis Sheen, boys of this age are usually required to serve in the realm's militia. The Order of the Iron Sphere usually attempts to get this waived by offering power stone rudiments to the realm's defense. During this phase of training, the Apprentice learns to place his/her power into rudiments, learns to "pitch" the voice of his/her power, and generally learns fundamental combat skills. Girls are usually taught to use a bow and short sword. Boys usually learn bow and a sword that suits their ability. Word and number learning continues.

Age 20 to 24/26: At this time, learning to focus power is key. Learning to place it in items without destroying the item is emphasized. Making power stones continues (to the benefit of the mentor). Social training emphasizes government and geography. History, especially as influenced by magic is also studied. Accommodation for romance is given at this time.

Final phase -- Until age 35 to 50: The emphasis here is on Weavings. Generally, entering this phase, the student can see them and *perhaps* create one or two most basic manifestations. If one or two more are learned in this phase, it is a bonus. More time is spent learning to read the weavings of another user to defend against magic attack. Learning to "snap" threads of others is vital to completing this phase. Refinement of the ability to recharge items is also studied. Learning how to place Weavings in items is also learned in this phase so the student can make magic items of some quality.

Marriage and family tend to swing the fast learner closer to age 50 than 35 in this phase.

After achieving Practitioner status, this order encourages a two year enterprise period wherein the student can make abundant wealth while deciding if s/he wants to continue.

The Dark Council

Much in History is written about this group.

Readily creates Enchanters

Entry into training: Usually 13 to 16.

First years: Emphasis on teaching words and numbers, social skills, and physical fitness. Much attention is given to teaching spatial arrangement skills and abstract reasoning. Magic training is limited to seeing auras, threads, weavings, and emanations and to learning to “pitch” the voice of magic.

Age 17 to 20: Basic weapon training and continued learning of words and numbers is done at this time. Work begins teaching the ability to place power into stones.

Age 20 to 24/26: At this time, learning to focus power is key. Learning to place it in items without destroying the item is emphasized. Making power stones continues (to the benefit of the mentor). Accommodation for romance is given at this time. Candidates for companionship are provided to the students.

Upon mastery of these skills, many are encouraged to remain Enchanters and to enjoy life in the Dark Council. Their power is greedily used by others. Overall, the Dark Council wants as many Enchanters passing their power up to Mages and Wizards as possible.

Final phase -- Until age 35 to 50: The emphasis here is on Weavings. Learning to “snap” threads of others is vital to completing this phase. Refinement of the ability to recharge items is also studied. In this phase, a few Weavings are taught to go with any (rare) that have been learned along the way.

Practitioners are vetted for compatibility with the Council’s overall philosophy. Those differing most are assigned the most dangerous tasks. The Dark Council has little interest, usually, in helping these people get better. They prefer to keep the power at the top of the organization and use the Practitioners (Called Magicians in their order) and Enchanters for their power.

Sometimes, Magicians are assigned to the service of a military unit. Particularly if they can perform healing or offensive attacks.

The Adoros

Oldest collective of mages and wizards in Siliar, primarily south of the Opus Hari through 4950.

Economics drives this group after the 48th century.

Entry into training: Usually 12 to 14.

First years: Emphasis on teaching words and numbers, social skills, and physical fitness. Much attention is given to teaching spatial arrangement skills and abstract reasoning. Magic training is limited to seeing auras, threads, weavings,

and emanations. Some skills from next phase are occasionally learned if student started closer to age 12 than age 14.

Age 17 to 20: During this phase of training, the Apprentice learns to place his/her power into rudiments, learns to “pitch” the voice of his/her power, and generally learns fundamental combat skills. Girls are usually taught to use a bow and short sword. Boys usually learn bow and a sword that suits their ability. Word and number learning continues.

Age 20 to 24/26: At this time, learning to focus power is key. Learning to place it in items without destroying the item is emphasized. Making power stones continues (to the benefit of the mentor). Social training emphasizes government, commerce, and geography. Economics, especially as influenced by magic is also studied. Accommodation for romance is given at this time.

Final phase -- Until age 35 to 50: The emphasis here is on making items. Generally, entering this phase, the student can see Weavings and *perhaps* create one or two most basic manifestations. Time is spent learning to read the weavings of another magic user to defend against magic attack. Learning to “snap” threads of others is vital to completing this phase. Refinement of the ability to recharge items is also studied.

Marriage and family tend to swing the fast learner closer to age 50 than 35 in this phase.

After achieving Practitioner status (called Magic User by Adoros), this order encourages a three-year enterprise period wherein the student can make abundant wealth while deciding if s/he wants to continue.

The Effect of Auras

Because most beings in Siliar have some amount of magic, the effect of auras must be discussed. Light is a fair model for how the effect of auras works.

If the projection of light through a shape is considered the manifestation of magic, then it is easy to see that, in a dark room, even a small magic source can create clear shapes. However, if the room contains many other light sources, the combined effect of the randomly dispersed light would quickly wash out the projection through the shape. In order for the projection to be discernable, the intensity – magic power – of the source would have to far exceed the combined intensities of the other lights. Alternately, the distance from the projected source would have to be very small in order to discern the projection.

In the same way, magic in Siliar is subject to interference from even untrained auras of the general population. For this reason, one who has mastered the arts of magic cannot simply walk into the center of a town and “blast” people walking by. The sum of the hundreds of people – within a certain range – simply overwhelms the power of the wizard/mage. (Liken it to using a cheap flashlight at noon. To see the beam, the flashlight must be VERY near the surface on which it shines.)

Given that the mean magic power of humans in Siliar is 100 and the mean magic power of one trained in magic is 1000, it follows that, in close proximity, 10 untrained people would equal the power of 1 trained.

Threshold Levels

The *Threshold Level* is the degree to which the emanated power must EXCEED the level of stray auras in an area – (background auras, hereafter). For some manifestations, the *Threshold Level* is 2. That is to say, that if at the point of the manifestation, the sum of all the auras in the area is 500, the shaper of the manifestation must expend energy such that 1000 MP reaches the target. *Threshold Levels* range from 1.5 and up, depending on the complexity of the intended manifestation.

To determine the level of the background aura, in truth requires extremely complex mathematics. To determine the actual background aura, one must find the sum of all aura strengths in the universe at the point in question. To find a single aura strength (AS) is somewhat straightforward.

$$AS_r = MP / (r/R_p)^2$$

where AS_r is the aura strength at the point in question, MP the magic power of the individual, and r is the distance, given that r is greater than the Prime Radius (R_p) for the being's aura.

(The Prime Radius is unique to each manifestation and race, and will be discussed later in detail. For the human aura, $R_p = 100$ feet (33 paces).

For r less than R_p , $AS_r = MP$.

To find the sum of all auras in the universe, however, is practically impossible. Therefore, for the sake of a model, a Minimal Background Aura Strength (MBAS), can be assumed to be 1. Additionally, a close-enough approximation can be found by including only those auras within a reasonable range.

Since AS_r is a function of r^2 , there is no need to consider sources beyond $R_p \cdot 20$, in most cases.

Example 1:

A human with MP = 100 is 2000 feet from the target of a magic user's manifestation. What is his/her aura strength at that point?

$$AS = 100/(2000/100)^2$$

$$AS = 100/(20^2)$$

$$AS = 100/400 = .25$$

Assuming that the practitioner is able to create an Effect Strength (ES) of 500 and a *Threshold Level* of 2, he could be successful until 2000 people gathered at a distance of 2000 feet.

While it is possible that so many people would be together at such a distance, most cases involve far fewer people or far closer ranges. At closer ranges, small groups of people can all but nullify a magic users effect.

Example 2:

15 people are in a room with a wizard. Everyone is inside R_p , so $\Sigma AS = 15 \cdot 100 = 1500$.

Given a wizard with a mean MP of 1000, s/he would be totally unable to create a manifestation inside the room.

For the manifestation to succeed as expected, the Effect Strength, ES, must be greater than the sum of all AS at the intended point of manifestation.

ES is calculated similar to AS in that,

$$ES_r = MP_e / (r/R_p)^2$$

where ES_x is the effect strength at the point in question, MP_e the magic power emanated, and r is the distance, given that r is greater than the Prime Radius (R_p) for the manifestation.

For r less than R_p but greater than $R_p/10$, $ES_r = MP$.

For r less than $R_p/10$, ES_r is a linear function rising from MP at $R_p/10$ to $MP \cdot 100$ at $r = 0$.

If the target of the manifestation is at distances less than $R_p/10$, the ES increases so that, even in the presence of others, some magic can be done. At $r = 0$ (touching something), a

magic user with mean MP (100) can still exceed a 2 *Threshold Level* if up to 500 people are within 100 feet of the target.

Prime Radius

There is much variance in Prime Radii for manifestations. However, within a particular race (species), R_p is nearly constant. Even the same manifestation Woven differently *might* have different R_p .

For the sake of discussion, let us consider humans, whose Aura Prime Radius = 100 feet. Suppose a wizard with MP = 1000 has devised a magic blast spell (fire blast) with $R_p = 200$ feet and a *Threshold Level* (also variant from manifestation to manifestation) of 2.

Suppose that s/he is walking along in the desert (forest, abandoned city, etc.) alone. Bored, he decides to release 1000 MP at a target. How close must the target be in order for the manifestation to have an effect?

Since the *Threshold Level* is 2, that means that the blast must have twice the MBAS of 1... that is to say 2. Applying the ES formula,

$$ES_x = MP_e / (r / R_p)^2$$

and solving for 40, we find that

$$2 = 1000 / (r / 200)^2$$

$$1000 / 2 = (r / 200)^2$$

$$500 = (r / 200)^2$$

$$\sqrt{500} = r / 200$$

$$4472 \text{ ft} = r$$

Thus, the blast would be effective for nearly a mile, given that NO auras were encountered along the way. Reaching that target, the Effect Strength would be 5, having a very small affect on the target compared to an Effect Strength of 1000 possible within R_p .

Now, let us introduce a single human as the target. Presuming that the human has mean MP (100), what is the maximum distance that the above wizard can successfully manifest the blast?

As above, we are solving for r based on a *Threshold Level* of 2 applied to the 100 MP aura of the targeted human. Thus, at what r is $ES = 200$?

$$1000 / 200 = (r / 200)^2$$

$$\sqrt{5} = r / 200$$

$$447.2 \text{ ft} = r$$

Thus, beyond 447.2 feet, the manifestation fails against a single human. However, at that range, the ES is 200, which would be quite painful.

If there were 5 average humans bunched together, the ΣAS could be assumed to be 500. Since the *Threshold Level* is 2, they would have to be within R_p (200 feet) in order for the manifestation to have an effect. However, at that distance the ES would be 1000, but, if an offensive blast, would be distributed over all of the people in the area. If more than 5 are bunched together, a manifestation with a *Threshold Level* of 2 from a practitioner with average MP would be impossible, unless they were closer than $R_p/10$.

However, in a case where the wizard is touching an object ($r = 0$), and with a *Threshold Level* of 2, given that ES is, at that range is $100 \cdot 1000 = 100,000$, it follows that, even in the presence of 500 average humans within their auras' Prime Radius of 100 feet, he could still successfully manifest the attempted magic.

Now, consider an attempt to use a blast of magic against a group of 10 humans. Again assuming a *Threshold Level* of 2 and $MP = 1000$ for the wizard against 10 humans with $\Sigma AS = 1000$. Supposing that the manifestations $R_p = 200$, as in the previous examples, it is possible for the attack to be successful, provided that the wizard can get close enough. Beginning at 20 feet ($R_p/10$), the ES grows linearly until it is 100 fold at $r = 0$. Thus, it can be interpolated that at $R_p/20$ (10 feet) the ES is 50 fold (50,000 MP).

Under such conditions, among as many as 250 humans within the 100 ft radius, the wizard could release an effective blast. On first glance, this seems to give a distinct advantage to practitioners of magic in close range combat.

In truth, however, since the Weavings require some degree of time to complete, and since they must be completed where they are began, the circumstances are rare in which an enemy would stand around 10 feet from a wizard and allow him to complete a weave and release his power through it. Assuming that even the most simple of shapes takes 5 seconds to Weave, at 10 feet, a kobold with a dagger could prevail over the Wizard. Beyond 20 feet (assuming a Prime Radius of 200) against 5 or more humans and the effect of the blast will be null (unless larger amounts of MP are used).

Similarly, it might seem that a wizard would have a tremendous advantage against a single, unsuspecting victim. Again, if the wizard is able to stand within $R_p/20$ feet of the victim for 5 or more seconds, his advantage would be no greater than that of a kobold with a dagger at the same distance. Essentially, any intended victim who fails to defend against ANYONE who is close enough to touch him or her can be defeated, be it by magic or blade.

As a last example, consider a town behind a wall. For the purposes of calculating AS at the wall where an attacking wizard might wish to direct a manifestation, the ΣAS can be considered the sum of all people who are within $2 \cdot R_p$ of one another, where R_p is the

Prime Radius of the aura. AS_r at the wall can then be calculated using the formula assuming that r is 1 half the distance from the “center of mass” of all individuals included in ΣAS . Thus, in a town with a radius of 2500 feet protecting 5000 people,

$$AS_r = MP / (r/R_p)^2$$

$$AS_r = 500,000/(1250/100)^2 = 3200$$

Thus, for a manifestation to have an effect a practitioner expending 1000 MP would have to be within $R_p/10$ feet of the wall. Obviously, this would assume that the people are all beyond the aura’s Prime Radius from the point of the intended effect. Otherwise, other methods of calculation should be used for **more restrictive** results.

Ranges of Prime Radius and *Threshold Levels*

As mentioned prior, the magnitude of the Prime Radius (R_p) for manifestations varies from one method of Weaving to another. However for auras, it is essentially a constant within a race.

The following table offers some *suggestions* of how these interact.

Representative ² Prime Radii and Threshold Levels For Manifestations			
Manifestation Description	Difficulty	Prime Radius	<i>Threshold Level</i>
Blast (fire, lightning, etc)	Easy	200 feet	2
		300 feet	3
	Medium	300 feet	2
		100 feet	1
	Hard	200 feet	1
		500 feet	2
<i>Forming</i> Mind Link (probe, project, etc.)	Easy	2000 feet	2
		1000 feet	1
	Medium	1000 feet	1
		5000 feet	2
	Hard	1000 feet	.5
		10,000 feet	1

As illustrated in the table above, harder manifestations are more powerful. Of course, more difficulty demands more complex Weaves which take longer to complete.

² Numbers are representative, intended only to illustrate the relationship between variables.

Mentioning Mind Links is a good transition to the next topic. Some magic is done once with enduring effects, some are done once with temporal effects, and some are created and then maintained.

Manifestation Types

Without consideration to magic items, magic can generally be considered to be one of three types: Enduring Effect Magic, Temporal Effect Magic, or Sustained Effect Magic.

Enduring Effect Magic

Enduring Effect Magic includes those things that, once done, are done. Examples of these include many in the matter/earth class such as hardening metal or fusing stones. In the body/life class, manifestations such as healing wounds are also in this class. Likewise using magic to heat an object is in this class, in that, once the magic is done, there are no Weavings left and no magic “trails.” Another such manifestation is teleporting. Once the magic manifests, the item is transported elsewhere, and there is then no more magic.

Temporal Effect Magic

Temporal Effect Magic includes those things that fade over time. Such manifestations might last for some time period, after which, the effect is gone. Included in this category are things like light, levitation, and translocation gates. Hasting *can* fall into this category as well (or, as with the others, into Sustained Effect Magic). Obviously, blast type manifestations are of this type. The magic is manifest, the effect transpires, then the magic is gone. Locking type manifestations that are meant to be opened generally fall into this group (though a door could be “locked” by fusing it to the door facing using Enduring Effect Magic).

Sustained Effect Magic

Sustained Effect Magic allows some of the most complex and powerful manifestations, but also requires the maintaining of some flow of magic power to keep the manifestation functioning. Most mind class magic is of this type. After the initial link is formed (following the formulas for Prime Radius etc.) some ongoing expenditure of power is required to maintain the link. This sustaining connection is often visible as “Threads” of power from the manifestation to the source. Levitation can be done this way, allowing the wizard to change the position dynamically instead of building the entire motion path into the initial Temporal Effect Weave. In magic items, an example of this type is magic weapons which consume stored energy to effect tremendous cutting power.

A drawback of this type magic is that, like the Weavings, the Threads are susceptible to disruption. However, such disruption is VERY difficult as compared to simply breaking the Weavings.

Illustrations From Texts

In From Darkness, Fall:

As users of magic go, each generally has some leanings -- native tendencies to one class of magic or another and it seemed obvious to Marleen that Nathan's was for the mind class -- the mental arts, as some called it. Although Marleen's most native skill lay in the category of material arts -- earth class, to some -- he agreed to take Nathan on as an apprentice to at least set him on the long, long path of training until a better, more fitting mentor could be found. As in most things that require in depth training, the fundamentals of the magic arts can be taught by a mage of any class and, later, specialization can follow. Thus it came to be that Nathan became an apprentice of Marleen Brener and moved to live with him on his estate a few miles north of Dinaule Drandin, close enough for frequent visits from his father.

For the past year, Nathan had worked hard, but he was never quite satisfied. He thought being the apprentice of a mage would be more exciting, more adventurous. Nevertheless, he resolved himself to learn his lessons and go on.

"Someday," he thought to himself, "I shall be a powerful wizard and will do great deeds"

Many of his "lessons" were more like chores... cutting wood, buying food, cooking and cleaning up. But much of his time was spent listening to and watching Marleen. It was the custom of mages in Marleen Brener's order to not only develop the magic arts of their pupils, but to also help them develop mind and body as well as learning how to live with others. Through the years of mentoring this way, the Order of the Iron Sphere, Marleen's order, had developed many wizards and mages who were generally as well round as people as they were equipped in the magic arts. The drawback to their approach, however, was the typically slow progress in the early years that often time frustrated the apprentice.

In Nathan's case, this was entirely true. Though he had learned much, he felt he really could do little more with his magic power after a year than he could before coming. Marleen had taught him some elementary disciplines of the mind that he hoped would help him control his natural drift toward manifestations in that class. Marleen had taught him the processes of a magical manifestation as well.

"Magic is a power," the old man would say, "at least the kind you and I have. It's an energy we make within us. Everyone has it, but some more than others. Magic is turning that energy into something we can use or doing something with it. The magic power is produced within us, as is energy we use to move about.

"Now I'm talking about regular, normal magic: energy we make and learn to control. I do not deny that there could be mystical feats done supernaturally, but that is not what we have. There is nothing supernatural about our magic. It's simply a part of us we learn to control like a hand or a foot. I know of stories that defy all understanding of things that have happened, and those things must have been miracles. Certainly, if Johvah can create Siliar, then it is within his power to make things happen in supernatural ways.

"But magic is not a miracle. Magic is a force Johvah gives us to use, just like he gives us hands and feet, eyes and ears. There are many forces in the universe and magic

is one of them. There is the force that pulls an object to the ground if it is released. Warmongers use this force to make great catapults and engineers must work around this force in building bridges. There is a force that pulls the needle of a compass to the north or that makes a lodestone cling to iron. There is a force that makes the hair of your head stick out when you pull on a wool sweater. There is the force that holds a material together. The blade of a sword is an object unto itself because a force holds it together. The metal in the blade does not flow apart unless great heat is used to overcome the force that holds it together. At the same time, there is a force that holds things apart. Two sword blades laid together remain two. They do not merge into one unless great heat is again applied to overcome the force that keeps them apart. And there is the force of magic. There are forces in our world, all created by Johvah and all related.

"We study the force of magic. To use it, we must learn to concentrate and focus our minds...like a jeweler working on a fine and delicate piece of jewelry... to get our power to do what we want. We use our will to create a shape through which the energy emanates and, passing through, it is manifest into something useful.

"And, my young student, we must know what it is we seek to do, so go and study all creation and learn what you can concerning its working. Then only can you try to copy parts of it to accomplish what you desire!"

"Come on my boy," said the mage. "Concentrate... you can do it."

Nathan knelt in front of the stove, his face bent with concentration. His lips moved, but no sound came forth and he moved his hands and fingers in front of his face in an intricate pattern.

"Collect your power, make the shape, then release it..." the mage urged. "You almost had the shape there. Try again."

Suddenly, the whole stove shook, rattled, and then lurched two feet to the side as if pushed by a great force. It stretched to a stop on the stone floor as the stove pipes clattered down around the mage and his apprentice. Nathan leapt backwards and stumbled into the wizard.

"I'm sorry, master," Nathan exclaimed. "I messed up, didn't I?"

"Well, my boy. Yes, I'd have to say you did," agreed Marleen. "You surely have quite a bit of power, though misdirected as it was, but don't worry, you can try later..."

"What went wrong?" Hob asked

"Well, he almost had the shape just right, but in the last second he made a small error. As a result, when the power emanated through the shape it was manifest as a push, not a fire.... Although both are very simple spells to shape, they are different."

"Push and fire are easy?" Hob asked.

"Well, yes. They are two of the most basic manifestations a magic user can create. Take a look at that table there, Hob. Pushing it is really not that hard. In fact, if you were to trip and fall down, your body could crash into it and push it, without you even trying. To pull it, you would have to grasp it with your hand.... That would require a more conscious effort. To lift it, you would have to grasp it and balance it. You would have to have your feet just so to keep your balance and grip it in just the right place.

While pushing is something that you can almost do without trying, pulling and lifting require a lot more thought and effort.”

“So you’re saying Nathan tripped and fell into the stove with his magic?” Hob said teasing his friend.

Marleen laughed at the joke and replied, “Yes, that is just what happened!”

“I was trying to make fire, Hob,” Nathan explained. “I am having trouble getting the shape just right.”

“I get it, a little,” Hob replied.

“Come Hob.... Nathan, you come as well. The lesson would not be wasted on you a second time. Come boys with me to the study.”

Hob, Nathan and Marleen hurried up the stairs to the study to the dining table that sat there. Marleen grabbed the table with his hands and drug it close to a blank section of the wall.

“Hob, grab that candle and snuff the rest of them out,” the mage directed.

Hob did as he was directed and shortly the room was dimly lit by the single candle. Marleen motioned the boys to come close, so they did.

“Let’s say that candle is a human. The light that flows from it represents magic power that flows from all of us. Ok?”

The boys nodded.

“Now, I cannot show this well, but the first thing a user of magic has to do is learn to focus the power in one direction.”

Marleen reached nearby and held up a palm-sized mirror. He put the mirror so that the candle was between it and the wall.

“See how the light on the wall is brighter but behind the mirror it is darker?”

Marleen asked and waited for their nods. “Well, a mage has to be able to first learn to focus his power so that it all emanates in a single focused manner. More focused than the mirror and the candle, but you get the idea...”

“I see, yes,” replied Hob.

Marleen moved the mirror away, and then continued with his explanation.

“Now, pretend that the light from the candle emanates only toward this blank wall, ok?”

The boys nodded.

Marleen held up his hands between the candle and the wall and contorted his fingers for a moment. As he did the shape of a duck appeared as the shadow of his hands.

“See the duck?” Marleen replied with a smile. “The way I moved my hands made a shape. When the light emanates around my hands, we see the shape of a duck manifest on the wall. Now magic is not exactly like that, but it is similar. In magic, the light passes through the shape to form the manifestation.”

“I think I get it,” Hob replied.

“Ok, then,” Marleen continued, “now, Hob, hold up your hand near mine. See how the shape of the duck is ruined? Though you did nothing more than stick your fist out, the duck is gone. That is why it is so easy for one magic user to destroy the manifestations of another. While I am trying to get my shape made, all you have to do is stick your hand in the way and all my efforts can be ruined.”

“Oh, I see,” Hob replied.

“In truth, it is really more like a spiders web. I am using my power to make small treads that are woven together to make a shape. The magic power, like the light, emanates through the web to create some effect. Now, what happens if you pluck one of the strands of a big spider web?”

“The web falls down?”

“Indeed,” Marleen replied. “Sometimes the web falls down entirely if you snap just the right thread. Sometimes, a large portion of the web will collapse upon itself into a distortion of the original shape. It depends on which strands you snap. When two magic users do battle, there is a constant duel to see who can complete a shape while at the same time plucking the most damaging strands of the others shape. It is a complex interaction where one weaves and the other breaks. The challenge is to know just which ones to snap, because a smart wizard will weave large sections that are simply meant to distract the opponent from the section through which he actually intends to emanate his magic.”

“Now I am lost,” Hob replied.

“Well, then, let’s just say that magic is difficult to use against others trained in its use.”

“What about magic items?” Hob replied.

“Well,” Marleen replied, “they can be the candle or the hands.... Sometimes both. As the candle, the magic power comes not from the wizard but from the item. The wizard still forms the shape through which the power passes. These items are called “power items” for obvious reasons. “Shaping items are like this....”

Marleen took a piece of parchment from nearby and laid it on the table. He drew a small dagger from his cloak and began to carve a shape from the parchment. After a moment, he held up his creation, the rough shape of a horse cut from the middle of the parchment. When he held it up between the candle and the wall, the light passed through the shape and created the image on the wall.

“Now if this were a shaping item, I could focus my power,” he said holding up the mirror once more, “and quickly emanate it through this shape.”

He took away the horse shape for a moment, the rapidly put it between the candle and the wall. He repeated it, adjusting the alignment of the mirror to get the sharpest image he could manage.

“That’s how shaping items work,” Marleen said. “I do not have to spend time weaving the shape with my hands,” he added as he once more made duck shadows on the wall, “but only pour my magic through the shape that is already made.”

“I get it,” Hob said.

“Well, that is good.” Marleen replied. “There is one more thing I can teach you with the candles. Nathan, can you make a bunny rabbit shadow with your fingers?”

Nathan did as directed as Marleen hurried around the room to get more candles.

“Now, suppose the candle is Nathan and he has made a shape. See how nice the manifestation is?”

Hob nodded. Marleen lit another candle and placed it to the side of Nathan’s hands. The light from the second candle dimmed the contrast between the shadow and the wall.

“Hold up the mirror Hob,” Marleen added and Hob complied. “See? Even if the magic user focuses his power, the stray power of even an untrained person interferes.”

“I see,” Hob replied as Marleen lit more and more candles.

“See now? With just these eight untrained men standing around, the manifestation of the bunny is nearly indiscernible,” the mage declared.

“Wow,” Hob exclaimed, “so that is why you live out of the city.”

“Yes,” Marleen replied, “and it is also why, if I ever have a very complex work to do that I will send everyone on the estate to the picnic fields. Only my high guard will stay, and I have trained them how to tune their magic emanations to make the interference as little as possible.”

“Tune there magic?” Hob asked.

“Well, yes, but now we are getting to an aspect of magic that will be new to Nathan. So far, he has learned many of the foundations of magic and most importantly, so far, how to gather the power and emanate it at will. As you saw earlier, he is just starting to learn shaping, but to learn how to gather and release his power at will is no small feat for the little time we have had to work on it.... As for tuning, I will keep this short, for now.”

Nathan and Hob nodded.

“As I was saying, magic power can be tuned. We can no longer think of the candle anymore, but now, think of magic power as a voice or as music. Just as some notes played on the harp sound pleasing together, some notes when played together sound bad. Magic power is like that. Do you remember that choir that came through here a few months ago and sang for us in the Steward’s palace?”

“Yes, they were very nice,” Nathan replied.

“Do you remember the red-haired lady who sang the solo?”

Nathan and Hob nodded.

“Well, do you remember the men who sang harmony to the melody she sang?”

The boys looked to each other for a moment until they could vaguely recall the men singers.

“The men were trained to sing in their voices so as to add to the melody she sang. Their voices did not take away from hers. Yet her voice carried the themes and her lyrics told the story of the song. My high guard is like that. Their magic power has been trained only to the point that it does not take away from the melody I am trying to sing with mine. Nathan, that will be your next lesson, for the noise that comes from you is most destructive to my efforts. Now, that brings me to the next metaphor.”

“What is that, Master Brener?”

“Do you recall the duet? Two tenors, I believe. They each carried the melody and harmony in turn. They had practiced, no doubt, many times and decided who would sing which notes and who the others. In music, there could be trios, quartets, and more. Of course, there was the whole choir... perhaps thirty that day?”

Nathan and Hob nodded.

“Magic can work the same way. A group.... Two, three, four.... A whole choir of mages for that matter.... They can all come together and plan how to do the empowerment, and the shaping. Then the emanation of all that power can create wonders. That is how the great feats of magic are done. Choirs, if you will, of mages and wizards all come together and shape their power in harmony.”

“Is that why so many mages sing?” Nathan asked. “Because it is like music.”

“Many mages do sing and I think the likeness to music is partly responsible. However in singing, it is easy to exactly duplicate the same patterns of thought and emotion, which are truly the instruments by which shaping, is done. Hand movements, singing, even dancing I have seen.... All these are tools we use so that we can exactly reproduce the thoughts and emotions that create the shapes through which our power can be released.”

“I cannot wait to learn how to do more than make a mess,” Nathan declared.

“That will be a nice change,” Hob said punching his friend in the shoulder.

“Well, if you want, we can try again... after you clean up your latest mess. Hob, be a good sport and lend Nathan a hand here.”

“There is an Orb of Chaos,” Lansal stated. “That, I will confirm. It is quite an impressive device. At Dorn Hollow, it caused the enemy to flee from the hollow and run into the open, but I don’t know what the mage did to cause it.”

“But how does it work?” Hob asked again.

“It is magic,” Korgol replied. “I cannot tell you how it works beyond that. There is magic power and the magic items use it. Magic.”

“It’s like this,” Nathan explained. “You can think of magic in three parts. When a wizard does a spell, he has to get the power together, he has to shape it into what he wants and he has to set it loose. In real terms it’s called empowerment, shaping and activation. Another way to say it is that the power is there, and it has to emanate through a shape and the outcome is called the manifestation. Magic items usually either do the empowerment or the shaping. The person using it has to do the activation.

“But some items... like magic swords... do it all ‘cause most of the time the person using the sword can’t do the magic to activate it. In that case, all he has to know is a command word... But weapons are different from most magic items.

“Most magic items only do one part like I said, either the empowerment or the shaping. That way a wizard can do a spell that is more powerful or more complex than he can do by himself.

“Really powerful items can do both the empowerment and the shaping and sometimes the activation too.

“Something else.... When magic is being used against another wizard, the other wizard can do magic to mess up the shaping part and the activation part too, sometimes. When that happens, all kinds of things can happen. It all boils down to how powerful the will of each wizard is and how quickly and how exactly he can make do the shaping.”

“It sounds complicated,” said Euric.

“He or she,” Rachel said, then, when the others were looking at here with puzzlement, she added. “Nathan said ‘he’ but there can be women wizards too.”

“Yes, of course,” Nathan replied.

In fact, part of the training involved resisting a mind probe and Nathan convinced Charles, the young user of magic who conducted that portion of the training to teach the spell to him.

“Well, Nathan,” Charles asked, “has your mentor taught you how to see the Weavings yet?”

“Not yet,” Nathan replied. “I know how it works in principle, but I did not yet learned the method to do it.”

“Well, the Weavings are not hard to learn to see,” Charles explained. “I really don’t know how you could possibly learn to do the mind probe until you learn to see the Weavings, so we will start there, I guess. But first of all, we have to agree on something.”

“What’s that?” Nathan asked.

“It is actually taboo for me to teach you these things. I am not ranked so high as to be allowed an apprentice and there is an understanding between those who practice the magic arts not to interfere with the teachings of another person, so really, I should not be doing this. However, if you will agree that when your master teaches you these things, you will explain all that I have done and be willing to ignore what I teach you and relearn it his way, then I’ll go on.”

Nathan agreed eagerly and Charles then began.

“When you are shaping, your mind is creating patterns of magic energy through which you will emanate your power. It takes only a small amount of power for your eyes to see the Weavings as well as the emanations. Some magic leaves behind threads of power between the manifestation and the source too. Those are the easiest to see, so we will start there. A mind probe leaves just such threads.”

Charles enlisted a volunteer who had learned well how to protect his mind from being probed and thus they began. Charles would tell Nathan what to do, and then create the link. Nathan would then attempt to see the threads. It took only half a dozen tries before Nathan managed it for the first time. A couple more tries and he had it down pat.

Next, they moved on to seeing the emanations. Charles would cast a spell that made a rock glow with light like a white candle. It took only a few minutes before Nathan could see Charles’s power project from him through the still-unseen Weavings into the stone.

Finally, Charles and Nathan spent the rest of the afternoon working so that Nathan could finally see his own Weavings. He still did not learn to see Charles’s Weavings, however.

“Well, that should not be a problem for teaching you the spell, now,” Charles decided. “I am sure that your mentor will be quite unseated by us doing this, for surely I have done something wrong in your training. Anyway, you should now be able to learn to create the mind probe.”

From “Against the Shaman”

At age fifteen, Elgin had apprenticed in the magic arts to Dufingar, of Westmarch. Except for his two years of training in the realm’s militia – required of all boys between the ages of seventeen and nineteen – Elgin had spent the last twenty-five years learning the basics of magic. He had turned 40 last season and finally completed his mentor’s requirements to move beyond apprentice.

Elgin could control and focus the magic power that his body generated each day. He could set the “voice” of his magic energy to one his mentor could use. He had learned to see magic threads left by some manifestations, emanations of magic energy from another practitioner, and the Weavings they created through which the magic energy was directed. He had learned to place his own magic power into rudiments – power stones – that anyone with training could use in place of the power their bodies created. He had also learned how to place his power into magic items that could then use it for whatever purposes they had been created.

It was for this task Elgin had been hired. Long ago, in forgotten ages, someone had commissioned magic lights in the court of Southwatch and the streets around the earl’s keep. For these lights to work, someone trained in the magic arts had to give power to them each day. That was Elgin’s job. He circled the court and passed the streets each day just before sunset and transferred his power into the magic lamps. It was

not hard, nor intrinsically rewarding. It did, however allow him to finally earn a living using his skills in magic. And since he had so few of them, it was not a bad job.

Elgin stood beneath one of the lamps on the street near the keep. He placed his hands on two large orbs set into the post and concentrated, just as he had done many times before. Above his head on the post, a glass globe began to glow brightly.

Using magic in battles, if the truth were known, was only effective if one side had an extremely large reserve of magic and powerful practitioners who could shape it quickly. Otherwise, as a magic user on one side of the battle started the Weavings to shape a spell, another who opposed the first could easily disrupt it by breaking the magic threads of which the shaping was made. Magic power emanated through disrupted Weavings generally did nothing.

Even if only one side of the battle had one who practiced the arts, the use of magic was limited. The further the magic user was from the target, the weaker the manifestation. To create even the most basic Weavings took long enough that any archer could usually prevent the completion. Barring even that, the effect of the magic is further allayed by the aura of magic power, even untrained, of the intended victim.

Most humans who were trained in magic were ten times more powerful than the typical untrained soldier. Nevertheless, a wizard could not Weave an overwhelming blast against them. The combined effect of distance and the sum of all their magical auras would mean that, though they would be hurt, it would be rare for any of the soldiers to be killed. Only at close range against a small number of enemies could a magical attack be deadly. Such an attack could only be done two or possibly three times with a day's worth of power. All things considered, archers and foot soldiers were generally more effective tools of war than one or two practitioners of the magic arts – and soldiers were much easier to find and train.

Elgin was further comforted by the knowledge that a baine shaman had only a small measure of power as compared to human wizards. They could use their magic to create weak attacks, heal injuries, and manifest other simple effects, but shamans were extremely rare and none too powerful. Although he could only use it to do two spells, Elgin knew that his power would be far greater than that of any baine shaman. Furthermore, Elgin had his pouch filled with power stones.

From “Naturals”

Another thing they shared, although in their own unique ways, was the gift of magic. They were both Naturals, as the wizards and mages called them.

“Make the dark go away, Kirk,” Kate implored.

“I like the dark,” Kirk taunted.

“Please. I am getting scared,” Kate begged. “I like the no-dark better.”

Kirk relented and in a moment, a dim glow appeared from no particular place in the tiny cave where Sarah's children hid.

Naturals were a phenomenon that could not be explained by the understandings gained by centuries of studying the magic arts. Mages and wizards spent many decades

studying magic in order to learn how to create Weavings through which their magic power could be emanated into useful manifestations. Yet, Naturals, somehow, were able to do magic – sometimes complex manifestations – nearly from birth with no training whatsoever.

Naturals usually had average or better power, but otherwise, for all the study of them that had been done, little else could be found common. They could have gifts in any of the seven classes of magic: mind, body, soul, time, space, energy, or earth. Two naturals could create the same manifestation, but looking at their simple Weavings, they would be completely different and equally indiscernible. Exhaustive attention to Naturals had concluded that they somehow did what they did because their innocent minds simply direct their power. They would want something to happen, and not knowing that it should not happen, they were able to make it happen with their magic power.