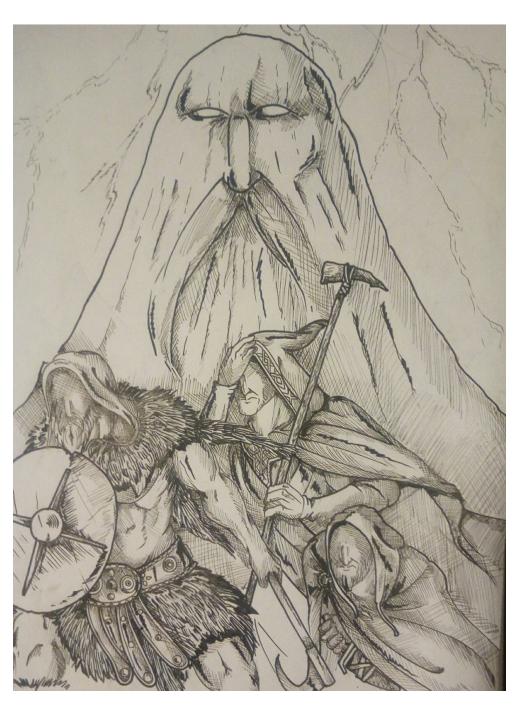


The Wizard of Bald Mountain

a Connaught County adventure



The Wizard of Bald Mountain

a Connaught County adventure for entry-level characters Using the Goldensword RPG System

Version 1.18.5.15
Written by Ken Goudsward © 2018
Cover art by Peter Deak
Logo by Reed Vander Werff & Ken Goudsward
Editing by Chris Barna
More adventure awaits you at http://goldensword.dimensionfold.com

Synopsis - Our adventurers are commissioned by the Jarl of Connaught to investigate strange weather phenomenon at Bald Mountain. The Jarl also sends his personal mage to accompany them.

This adventure can begin by hearing rumours (strange storms have been damaging crops), or by the Jarl hearing of the reputation of the adventurers, and sending a messenger to fetch them. The players may decide to investigate of their own accord which is fine, especially if they already have decent gear. If so, the Jarl will hear a rumour of this, and will send his mage to catch up with them.

- Goal: Discover what is causing the strange weather and put a stop to it.
- Resolution: The heroes locate and kill the villain responsible OR the villain kills them and the storms continue wreaking havoc on the countryside, the locals, and the economy.
- Climax: Boss fight against the wizard.
- Motivation: Stop the evil villain for the greater good or for loot.
- Incitement: The Jarl commissions the heroes. The safety and economy of the county is under threat.
- Patron: the Jarl.
- Site: A wintery mountaintop keep at a high mana locus.

NPCs

- Jarl of Connaught, the patron of this mission.
- Johan, the Jarl's mage. He is an ally and will train the PCs in magic, and fight at their side during the adventure. He does however, have his own agenda. He will try to keep all magic items for himself, and sneak away with them (during the boss fight if feasible).
- the villain: "the wizard of Bald Mountain".
- Brute, the wizard's henchman

Other Monsters

- Ice Wraith (see Appendix A)
- some random forest beasts (see Appendix B)

Loot

- Equipment from the Jarl (see Scene I)
- Some Spells from Johan (see Scene II)
- More Equipment (in guards quarters of keep) (see Scene IV)
- Potions (in lab of keep) (see Scene IV)
- Spell Books (in library & lab of keep) (see Scene IV)
- Magic Items
 - Wand of Snowball (see Appendix F) (wielded by the wizard) (see Scene V)
 - Sword of Arc (see Appendix G) (wielded by the wizard) (see Scene V)

Role-Playing Prompts:

- Can they survive the trek and harsh weather? (see Scene III)
- Can they beat the forest beasts? (see Scene III)
- Will they find the loot? (see Scene IV)
- Will they pick up on the foreshadowing clues?
- Can they trust Johan?
- What will they do if Johan betrays their trust?
- Can they find out Johan's secret agenda and convince him to share?
- Can they defeat the wizard?

Hazards, Traps, & Obstacles

- hidden hunting snare strings up PC upside-down if they leave the road
- bridge washout
- Weather and freezing effects

Foreshadowing

- provides a glimpse of loci for future investigation
- leads to adventure: "the Wizard of Cinema"

Please refer to the Goldensword GM's guide for full rules, mechanics, etc Free download available at http://goldensword.dimensionfold.com/

The Hook - The PCs have heard rumours around town about strange storms damaging crops in the vicinity of Bald Mountain. The may seek out the Jarl for funding, or may be summoned by the Spears (local law enforcement/military) with a written note: "The Jarl requests your presence immediately to discuss an important mission." Optionally, if the PCs decide to avoid the Jarl and the authorities, or if they are already geared up they can simply begin the quest without the Jarl's assistance, however, it is beneficial to have Johan the mage catch up with them along the journey, so they can learn spells from him.

Scene I - The Jarl's Court - Once in the Jarl's court in Connaught Castle. The Jarl introduces himself (though of course, he needs no introduction - everyone knows who the Jarl is). Gazing around the castle, the PCs note that it is solid, well kept, and decorated handsomely without being ostentatious. To be honest, some of the decor is a bit distracting, and the PCs are only half listening to the Jarl. Intricate tapestries on the wall seem to tell of ancient legends and hidden mysteries. The stories capture your imagination. (to roll-play this, have all PCs roll Perception, a high roll will let the PC notice the detailed decor, a low roll will cause the PC to be distracted from the Jarl and will daydream about the decor).

The Jarl is now describing the problem: It's regarding the storms the rumours have referred to. "crops have been lost – pummelled by massive hailstones", says the Jarl, "a young shepherd and his entire flock have frozen to death in unexpected blizzard". This is unacceptable! Our food supplies are in danger! I need you to go to Bald Mountain and determine the cause of these unnatural storms. Someone or something evil is behind this!"

The Jarl equips each PC with a weapon & leather armor. Each player must choose ONE of the following weapons:

Item	Dmg	Default Skill	Min Str	# hands	Value	Notes
Sword	d6	Agility	9	1 handed	\$200	
Battle Axe	d8	Agility-2	8	1 handed	\$170	
Battle Spear	d8	(Average(Strength,Agility)) - 1	(thrown) 11	2 handed	\$10	(thrown) range 15 meters

Armor	Min Str	Value	Notes
Leather Armor	3	\$70	Armor Rating 3

If anyone shows any other initiative in preparation, he will also remember to outfit them with warm winter-rated cloaks and bedrolls.

Scene II - Mage Up - The Jarl now introduces his mage, a young man named Johan, robed in a long black hooded cloak. Johan will accompany the PCs on the mission. Secretly, he is a mere novice and is desperate to find another wizard's grimoire so that he can learn more spells before the Jarl realizes his limited knowledge. In an attempt to look more advanced, he is generous with what he knows. He trains the PCs in a few spells and let's them browse his library.

Johan knows the following spells:

- Truth Spells: Detect Lie, Detect Truth, Inspect Hidden Object
- Fluid Spells: Detect Pressure, Pressurize
- Force Spells: Detect Force, Alter Force
- Space Space: Analyze Space, Loosen Space
- Matter Spells: Analyze Matter

PCs roll d10 and add Magery, to determine who gets to learn the following spells. See Appendix H for PC Grimoires.

Player 1 (who rolled highest)(30 XP worth of training)

Truth Spells: Detect Lie, Detect Truth Health Spells: Cure Disease, Heal Injury

Player 2 (rolled 2nd highest)(20 XP worth of training) Truth Spells: Detect Lie, Detect Truth, Detect Magic

Player 3 (10 XP worth of training)

Heat: Locate Heat

If desired, each PC (regardless of roll or Magery) may elect to accept a weapon enchantment from Johan. He will cast onto one weapon from each player, the Loosen Space spell, giving that weapon +3 Attack (add to roll), but -1 Dmg (subtract from Dmg roll). Ask each player if they want this optional "benefit". If a PC has Magery = 0, the spell has no effect while he wields the weapon, however, he may still elect to take the enchantment, as it will presumably increase the weapon's resale value.

You may have noticed that the spells learned by the PCs include some that Johan does not himself know. Those ones are from his library. These books can be stolen. This list includes: Cure Disease, Heal Injury, Detect Magic, Locate Heat.

Scene III - The Journey - It is an 8 league journey (8 hr walk) through wild country on a well trodden dirt road. Once per league, there is an encounter with a random forest beast. GM roll d20 with the forest beasts table in Appendix B to determine which beast appears. A few may be challenging, but most will be trivial or merely provide dinner opportunities. (See Combat rules in GM's Guide).

At any point along the journey, a PC may decide to **leave the road**. If so, they face a hidden hunting snare with Perception difficulty 30 to avoid the trap. (See Success Rolls rules in the GM's Guide). Failure to detect the trap causes the trap to spring, catching him by the foot and stringing up the hapless PC upside-down from a tree. He takes d2 damage from the trap, and, depending on how roughly his friends cut him down, may take additional d3 damage from a fall.

At **league 4** of the journey, the party comes upon a rickety bridge over a creek, raging and swollen with ice-cold meltwater and very nearly flooding its banks. The bridge appears to be about to fall into the creek. Perception difficulty 5 to notice this hazard.

Have the players establish order of crossing attempts, for crossing in single file. At some point during this bridge encounter, there is also a random forest beast encounter. Roll d6 to determine where in the order this occurs.

Each PC must attempt crossing with an Agility roll difficulty 15. If the party happens to have any horses or carts, the difficulty raises to 20 for those units. Should some PC refuse to go single file, difficulty increases to 25 as multiple PCs cross together.

Failure causes the bridge to washout, dumping that PC into the icy water and sweeping them downstream 20-Agility meters. The party will likely figure out a way to help him out. If they do not help him, he gets out in ten minutes. Either way he is soaking wet and chilled to the bone and takes weather damage. See Appendix C.

At **league 5**, the weather becomes worse and worse, quickly growing to a full raging rain and sleet storm. Unless protective clothing is worn, the PCs will be soaking wet. See Appendix C for weather damage.

At **league 6**, the weather is now a blizzard. Unless very good winter clothing is worn, PCs will be chilled to the bone. See Appendix C for weather damage. This may be circumvented by stopping and building a fire.

If the players get stumped by the weather, a local farmer may happen by, who just happens to have several extra sets of protective clothing for sale for \$100 per set.

The Ascent - Upon reaching the base of the mountain, the PCs follow a trail upward to toward the peak, but the trail is quickly lost in the snow. While climbing Bald Mountain, the PCs are continually assaulted by blizzards of high wind and driving stinging ice and snow. The climb is difficult as there is knee-deep snow which is very tiring to climb in. All PCs (and Johan) now experience the Chilled to the Bone effect (see Appendix C). Continuing the ascent, they soon come upon numerous small streams of excellent drinking water. A Perception check at difficulty 15 reveals that the water is not as cold as would be expected, given the frigid weather.

d3 swarms of d4 ice wraiths will attack during the ascent. See Appendix A for Ice Wraith stats.

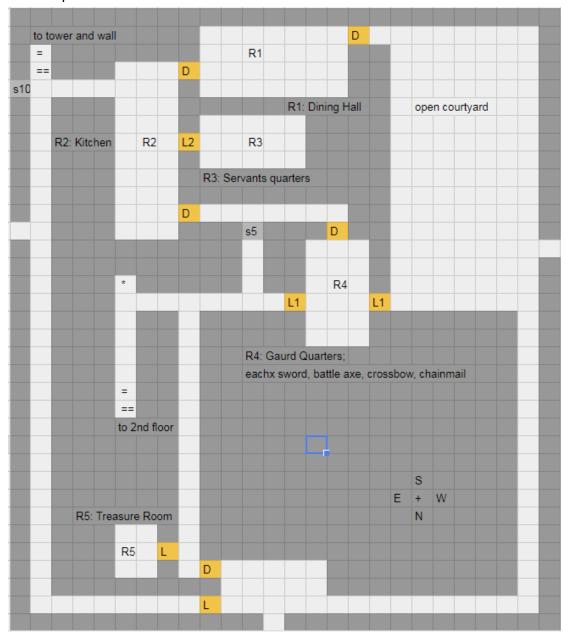
As the PCs reach the summit, the wind dies off suddenly, and the snow turns to a torrential downpour of surprisingly warm rain. The Chilled to the Bone effect is replaced by the Soaking Wet effect (see Appendix C). Up ahead, the PCs see an ancient looking stone keep.

The mountaintop is a high mana locus. All characters with Magery > 0 receive bonus (d10+Magery) MP (temporarily, for the rest of this adventure only).

Scene IV - The Keep - The team will need to gain entry into the keep. The keep can be easily entered from east, north or west side. It is made of rounded stone, rough hewn, and mortared. It is quite ancient looking, and poorly maintained. Moss and lichens abound and ferns and the odd small tree grows out of gaps in the stone. Everything is dripping wet, as if the drenching rain is part of the actual structure itself.

They will need to fight Brute (see Appendix A), who is somewhere within the keep, probably lollygagging about instead of performing some mundane task such as fetching a book for his master, most likely in room R3 or R8.

The Keep - Main Floor



(See Appendix D: Reading the dungeon maps)

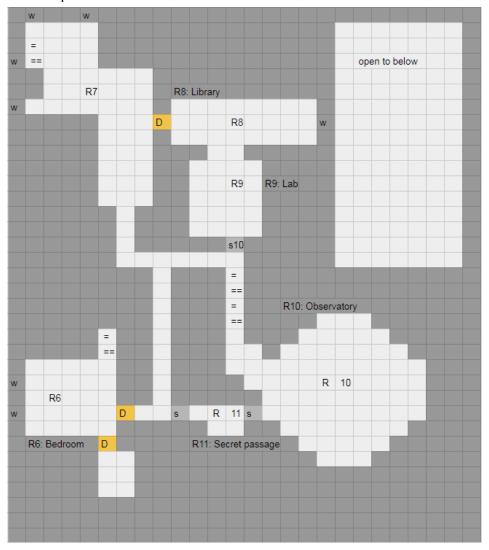
R1: [D] - (dark) ancient ruined dining hall, tattered tapestries, strewn & broken chairs, thick tables, 1 burnt R2: - run down kitchen; partially still used, 1 corner with lit fireplace, a half decent countertop, and basic cooking utensils; the rest is all dusty and dark

R3: [L2] - (dark-empty torch sconce) 3 beds, only 1 with blankets; 1 dresser with shabby clothes

R4: [D,L1] - (dark) (# of players)x bed & chest containing (sword, battle axe, crossbow, chainmail) see Appendix G: Loot

R5: [L] - (dark & dank) (# players)x \$500, several ruined scrolls & moldy papers

The Keep - 2nd floor



R6: [D] - (windows, lit sconce) large canopy bed, bare walls, lit fireplace

R7: (shadowy) Open area, some junk strewn around in corners

R8: [D] - (poorly lit) Library lined floor to ceiling with books and scrolls

Any search reveals D100 non-magical books (NOT spell books). If players ask for titles or details, give them the task of making them up as homework.

A more thorough search at Perception difficulty 12, reveals some Spell Books - see Appendix E: Loot.

R9: Lab - lit fireplace, several tables littered with scrolls, books, parchments, pens, potions, and spells - See Appendix E: Loot

R11: (dark) secret passage with 15 foot thin iron ladder (can be unfastened, 20 lbs)

R10: circular room, well-lit by several torch sconces, marble lined walls (imbued with 60 MP)

Entering R10, PCs see that the room has no roof, and the rain is pouring in, flowing into a circular trench in the floor, then out through floor drains In the center of the room sits the wizard. He appears to be in a trance. He is silently facing away from the PCs...

Scene V - the Boss Fight

See Appendix A for the Wizard's combat stats

Just before PCs enter, the wizard preemptively casts Ice Shell as a defensive measure.

Once combat begins, the wizard will cast Freeze and use Wand of Snowball once per turn.

If PCs use ranged attack, he will counter with Ice Wall on his next turn.

If the PCs get within melee range, he will clumsily attempt to use his Sword of Arc. (He lacks strength to wield it so must use 2 hands to do so at below default skill.)

If possible, during the battle, Johan will attempt to take all the spell books and sneak away.

After defeating the wizard, it is assumed that the PCs return to Prince's Crossing to collect their reward from the Jarl. He gives them each \$300. If Johan is still alive, he offers to join you on adventure to Cinema, as found on the map in the lab.

Suggested XP reward: 50 XP for each PC

Appendix A: NPC & Monster Stats

Johan

Johan will try to flee from fights, but may fight if circumstances force him to.

HP: 18						
ATTACK	: 22	DEFENSE: 17				
Str: 9	Agil: 11					
Con: 9	Char: 6	Per: 3	Rea: 4	Know: 12	Mage: 14	
total level: 68						

Armor: leather (2)

Weapon	Sword	
Skill	11	
Attack	22	
Dmg	d6	

Ice Wraith

Ice Wraiths are undead elemental spirits. Only fire or bladed weapons can damage them. They patrol in packs of d4 members, and tend to use a flanking tactic, all members focusing attacks on a single enemy. Their weapons and armor are inherent, cannot be looted. They can not use external weapons or armor.

HP: 8					
ATTACK: se	e weapons	DEFENS	SE: 15		
Str: 5	Agil: 10				
Con: 4	Char: 0	Per: 8	Rea: 1	Know: 0	Mage: 0
total level: 28					

Armor: ice (inherent) Shield: none Helm: none

Weapon	Freezing Touch	Icy Bite	
Skill	10	6	
Attack	20	16	
Dmg	d4	d6	

Brute

HP: 28						
ATTACK: 23		DEFENSE: 9				
Str: 16 Agil: 9						
Con: 16	Char: 5	Per: 5	Rea: 4	Know: 3	Mage: 0	
total level: 58						

Armor: none	Shield: none	Helm: none

Weapon	Great Club	Fist
Skill	14	11
Attack	23	20
Dmg	d8	d3

the Wizard

HP: 14						
ATTACK: see weapons DEFENSE: 10						
Str: 6	Agil: 6					
Con: 7	Char: 3	Per: 6	Rea: 9	Know: 11	Mage: 20	
total level: 68						

Armor: (Ice Shell, +10 Def)	Shield: (Ice Wall)	Helm: none
-----------------------------	--------------------	------------

Weapon	Wand of Snowball	Sword of Arc	dagger
Skill	n/a	4	6
Attack	see Combat Spells	10	12
Dmg	3d3	d6 + d6 electrical shock	d4

Combat Spells:

Spell	Ice Shell	Ice Wall	Freeze	Wand of Snowball
Difficulty	20	15	20	1
MP cost	20	10	10	n/a
Power	+10 Def	25 HP	d4 Dmg	3d3 Dmg
Duration	10 minutes	2 minutes	1 minute	1 round
Range			10 meters	10 meters

Appendix B: Random Forest Beasts

GM: roll d20 to determine which forest beast is encountered. Typically one per hour of travel.

d20 roll	Beast	HP	Def	Attack	Dmg
20	Bear	14	7	10	d10
19	Cougar	12	13	15	d8
18	Moose	11	5	8	d3
17	Elk	10	6	8	d4
16	Wolverine	9	15	11	d6
15	Wolf	8	11	12	d6
14	Deer	8	7	7	d3
13	Lynx	7	12	9	d4
12	Eagle*	7	12	17	d6
11	Owl*	5	11	8	d3
10	Falcon*	5	14	17	d4
9	Snake	4	8	13	d3 + poison
8	Goose	4	6	5	1
7	Raven	4	12	6	d2
6	Rabbit	3	4	1	1
5	Grouse	3	2	2	0
4	Murder of Crows	3 each	7	5	1
3	Swarm of Horseflies	1 each	7	7	1
2	Swarm of Flies	1 each	4	3	0
1	Swarm of Mosquitos	1 each	3	10	1

Note:

- Birds marked * can fly away if attacked and may swoop in for rapid attacks.
- Swarms take <u>Multiple Opponent Damage</u>
- Crows take <u>Domino Damage</u>

Appendix C: Weather & Freezing Effects

Storms and Blizzards can cause the following effects:

Soaking Wet:

- d2 Dmg effective immediately (not recurring)
- Agility reduced 1 point
- Cured by shelter, stripped, and clothes hung by fire for 2 hrs

Chilled to the Bone:

- d4 Dmg effective immediately (not recurring)
- Agility, Strength, and Constitution reduced by 2 points
- Cured by sitting by a fire for 2 hrs

Frozen Solid:

- d4 Dmg effective immediately (not recurring)
- PC is unable to act
- Cured by lying by a fire for 2 hrs, at which point they are still Chilled to the Bone

Appendix D: Reading the Dungeon Maps

Our standard "dungeon maps" or floor plans use a set of simple codes to indicate types of spaces and doors.

Hallways are generally unmarked, unless some type of marking is needed to indicate special hallway contents or encounters.

Rooms are always marked with a R# code. Usually, there will be a corresponding entry below the map, describing the room. The format is as follows:

Room #: [Door type] - (lighting and visibility) description of room and contents.

for example:

R22: [L] - (dark) a dark musty room

this example indicates a room (room 22) with a Locked door. Inside the room it is dark. PCs will need a torch or other light source in order to see.

Several types of door codes are used:

D: a regular door, not locked

L: a locked door, can be picked at difficulty 20. A key may be found somewhere in the vicinity.

L#: a locked door with a numbered lock, which only the matching # key can open. These locks are better quality and harder to pick (difficulty >=25)

s: a secret door, camouflaged or magically hidden. Varying Perception difficulty. Also used for trap doors.

Other codes:

w: indicates a window

=, ==: equals signs indicate stairs

Appendix E: Loot

Loot the Guard's Quarters - The guard's quarters (R4) contains several chests of equipment, one for each player:

Item	Dmg	Default Skill	Min Str	# hands	Value	Notes
Sword	d6	Agility	9	1 handed	\$200	
Battle Axe	d8	Agility-2	8	1 handed	\$170	
Crossbow	d8	13	7	2 handed	\$400	range 20 meters

Armor	Min Str	Value	Notes						
Chain Mail	13	\$900	Armor Rating 13						

Loot the Treasury - The treasury (R5) contains \$500 for each player

Loot the Library - A thorough search of the Library (R8) at Perception difficulty 12, reveals some Spell Books:

- Truth Spells; complete, and in good condition
- Space Spells; partial book, many pages missing or unreadable. Only 4 learnable spells:
 - Measure
 - Analyze Space
 - Loosen Space
 - Pass Through
- Heat Spells; partial book crumbles to dust when picked up, with only a few pages remaining intact. Only 2 learnable spells:
 - Locate Heat
 - Change Temperature

For all Spell Books, please refer to the Magic Manual or online spell documentation available at http://goldensword.dimensionfold.com

Loot the Lab - The Lab (R9) holds lots of obvious stuff on the desktop, no searching required:

- a complete Fluid Spells book.
- Vibration Spells; partial book, in completely illegible handwriting.
 - contains a contains hand-drawn map to "Cinema", 12 leagues to the south-east, across a river.
- Matter Spells; partial book in poor condition. Only 2 learnable spells:
 - Analyze Matter
 - Arrange Molecules

On the desk are numerous well-labelled potions:

Quantity	Name	Description	Value
6	Healing Potion (3)	Restore 3 HP	\$100
1	Cure Disease (1)	20% chance of curing disease	\$10
1	Antidote (1)	20% chance of curing poison	\$10
2	Agility Potion (1)	Boost Agility by 1 point	\$50
3	Resist Cold (1)	10% chance of immunity to all cold/ice effects	\$20

Additionally, a search at Perception difficulty 5 reveals a keychain under some papers on the desk. These keys will open all the locked doors within the keep.

Loot the Boss - The wizard has a few items on his person which can be looted once he is defeated. First is a regular old dagger, d4 Dmg (see the GM's guide). The other items are more spectacular: the Wand of Snowball (see Appendix F), and the Sword of Arc (see Appendix G).

Appendix F: the Wand of Snowball

The Wand of Snowball allows the wielder to cast a Snowball spell, without having learned the spell or its prerequisites.

The user need not know any spells, but must have Magery > 0. The wand is specially attuned for the spell Snowball, and only works for this spell.

The wand is made of Vida wood and is embued with its own inherent MP, so using the Wand of Snowball requires no MP from the user. It contains d20+10 MP. If the wand is drained of its MP, it will use the wielder's MP. The wand recharges overnight.

When used at a high mana locus, the wand channels mana from the locus rather than using it's own MP, therefore is effectively "bottomless" in that location.

The wand can be used in either one of two modes:

Normal use: use a major action to aim the wand. Attack is difficulty = 1, for an automatic hit.

Quick mode: use a minor action without aiming. Attack is difficulty = 10 to hit the target. In either case, on a successfull hit, roll 3 attacks of d3 Dmg (may be distributed between 1 to 3 targets).

Time to Use	CHOOSE 1 minor action OR 1 major action
Difficulty	10 if minor action, 1 if major action
MP cost	5 (from the wand's MP)
Power	3d3 dmg
Duration	1 round
Range	10 meters
Other	don't forget to keep track of the wand's MP usage (unless at a high mana loci)
Prerequisite	n/a

Appendix G: the Sword of Arc

The Sword of Arc functions as a normal sword, with normal skill defaults, but includes an additional d6 of damage from electrical shock. Even on a failed attack roll, opponents within 1 meter take 1d6 damage as the sword lashes out with bright arcs of electricity.

The user need not know any spells, but must have Magery > 0. The sword contains the spell Arc, and only works for this spell. (It is supposed that the sword was crafted and blessed during a severe lightning storm, taking on the properties of this spell)

The sword of arc integrates a power stone embedded in its hilt which provides inherent MP, so using the sword may require no MP from the user. The stone contains d100 MP. If the stone is drained of power, the sword will use the wielder's MP. The stone recharges overnight.

When used at a high mana locus, the sword channels mana from the locus rather than using it's own MP, therefore is effectively "bottomless" in that location.

If used during an active lightning storm, the sword channels charge from the storm rather than using its own MP, therefore is effectively "bottomless" during the storm's duration.

Item	Dmg	Default Skill	Min Str	# hands	Value	MP		
Sword of Arc	2d6	Agility	9	1 handed	\$1000	d100		

Appendix H: PC Grimoires

These are the PC Grimoires for the spells learned from Johan. For brevity, some details are truncated. Please see the Magic Manual for full details.

Player 1 Grimoire

Truth: Detect Lie, Detect Truth Health: Cure Disease, Heal Injury

Detect Lie - Allows the caster to detect if something heard is a lie or is true. Does not necessarily indicate what the truth is.

- Time to Cast = 1 second
- Difficulty = 5
- $MP \cos t = 2$

Detect Truth - Allows the caster to detect the truth behind something heard.

- Time to Cast = 1 second
- Difficulty = 5
- $MP \cos t = 5$

Cure Disease - Heal self or another of a disease.

- Time to Cast = 1 minute
- Difficulty = 10
- $MP \cos t = 5$

Heal Injury - Heal self or another of damage resulting from an injury or combat. Heals 1 Hit Point per Magic Point expended.

- Time to Cast = 1 minute
- Difficulty = 10
- MP cost = 1 per HP

Player 2 Grimoire

Truth: Detect Lie, Detect Truth, Detect Magic

Detect Lie - Allows the caster to detect if something heard is a lie or is true. Does not necessarily indicate what the truth is.

- Time to Cast = 1 second
- Difficulty = 5
- $MP \cos t = 2$

Detect Truth - Allows the caster to detect the truth behind something heard.

- Time to Cast = 1 second
- Difficulty = 5
- $MP \cos t = 5$

Detect Magic - Can be used to scan an object, person, or area to determine if there are active or latent magical effects present

- Time to Cast = 3 seconds (Major action)
- Difficulty = 10
- $MP \cos t = 5$

Player 3 Grimoire

Heat: Locate Heat

Locate Heat - The caster will sense heat sources from a distance of up to 1 km.

- Time to Cast = 30 seconds
- Difficulty = 10
- MP cost = 5

Appendix I: Success Roll Lookup Table

		De	fens	e -																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Attack	1	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16	16	16	17	17
	2	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16	16	16	17
	3	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16	16	16
	4	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16	16
	5	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16
	6	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16	16
	7	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16	16
	8	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15	16
	9	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15	15
	10	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15	15
	11	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15	15
	12	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15	15
	13	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14	15
	14	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14	14
	15	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14	14
	16	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14	14
	17	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13	14
	18	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13	13
	19	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13	13
	20	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12	13
	21	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12	12
	22	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11	12
	23	3	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10	11
	24	3	3	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	10