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Domain Building

So you're an adventurer and you've just cleared a 6-mile hex of all threats and are looking to found your own domain. What do you need to do, though, and what does it involve?

This document explores domain building using the Labyrinth Lord Basic rules, from start (clearing land) to completion (taxation and ruling). We start with the premise that the hex that has been claimed is empty of human inhabitants and is not claimed by anyone. It is, in other words, Wilderness.

It is focused on the higher-level play that typically focuses on the fighter or related classes, although characters of any class could conceivably found and rule a domain. Other classes will have activities that are designed specifically for them (such as a magic-user conducting spell research, or a cleric founding temples); such activities will be detailed in later supplements.

Glossary of Terms

Civilization Rating. A measure of how civilized a hex is. Determines the population it can support, the number of random encounters that occur, and a few other things. There are three categories: Wilderness, Borderlands, and Civilized.

Domain. A given amount of land ruled by a single individual, or the overall land ruled by a single individual and those owing fealty to her. The maximum size (in 6-mile hexes) domain a single individual can control is equal to her Hit Dice plus or minus her Charisma modifier.

Garrison. A permanently stationed military force (usually composed of mercenaries) that patrol a given hex. Without an appropriately-sized garrison the population is in danger of wandering monster attacks and increased crime.

Infrastructure. Any form of improvement made to a certain area. Infrastructure investments can be made to hexes (required to improve the Civilization Rating) or urban centers (required to

improve the Market Class). Infrastructure improvements can be paid for with cash or through designating resources to be used for them.

Land Value. The total amount of income generated for the domain ruler from resources that exist within a hex. There are two types of Land Value: Inherent, which is determined by the dominant terrain type within a hex, and Additional, which is determined by a die roll (see p. 12).

Market Class. A measure of an urban center's size, availability of goods and population. There are ten different Market Classes, with 1 being the smallest and 10 the largest. A hex without an urban center is one without stores, taverns, or craftsfolk.

Resources. A given hex will contain a mixture of six Resource Types (two animal, two mineral, two vegetable). These resources make up the hex's wealth.

Resource Step. A rating of the size and value of additional resources found within a hex. There are five steps, with 1 being the smallest and 5 being the largest. These additional resources can be extracted instead of added to the land value, and once a certain amount is extracted the Resource Step is reduced by 1.

Retainers. Loyal associates of a PC, the number of retainers a character can have is based upon their Charisma score. Retainers will adventure with the PC, for a share of treasure, and can also be run by the player if the main PC is not present or is incapacitated. PCs can have multiple tiers of retainers, similar to the ranks of feudal nobility. **Hirelings** are individuals hired, typically on a short-term basis, who are *not* willing to delve within a dungeon.

Urban Center. A hamlet, village, town or city, more densely populated than the surrounding country-side. Urban centers are notable for adventuring purposes chiefly because things can be bought and sold here with ease. Each urban center has a rating, expressed as the Market Class.

Retainers

Before getting too far into the exploration of domains we should first discuss retainers (also called henchmen in other systems). A character can control a number of retainers determined by their Charisma score. They are NPCs that are loyal to the character that has recruited them.

During play the Referee typically control retainers when they are in the same room as their employer but allow players to run their PCs retainers when separated from their employer. Unlike other employees (like the sage the PCs hire to identify something), retainers will venture into dungeons and can gain levels.

Retainers are important in domain level play for several reasons:

1. They allow the main PC to hand responsibility for various aspects of play over to trusted lieutenants, such as granting them sub-domains.
2. They give the player something to do while the main PC is busy ruling. The lower level retainers can continue to clear the hexes around the nascent domain, for instance, while the main PC is engaged in other activities.

Recruiting retainers can be done in two ways: a character can attempt to recruit an NPC they are already familiar with (the classic example of this is the prisoner rescued from a dungeon) or they can advertise and attempt to recruit a stranger.

Recruiting an NPC the adventurer is already familiar with is relatively straightforward: the adventurer makes the NPC an offer of employment. If recruiting an unknown NPC from a pool of potential retainers the character must spend a given amount of time advertising, hiring a town crier, frequenting taverns or mercenary guilds, etc. It costs 1 gp per Market Class per day to find potential retainers in this manner.

Ex. Spending three days searching for a retainer in a Class 5 market costs the PC 15 gp.

The chance of finding a retainer is based upon the Market Class of a given city as is the potential retainer's class and level. Higher level individuals are, of course, more rare than lower level NPCs and less likely to seek employment. The retainer to be hired *must* be a lower level than the hiring character.

Regardless of the means of finding a potential retainer the offer is the same. The minimum offer is a share of all treasure found. Some books suggest an amount as low as 15% to start out with. I prefer to assume a 50% share of treasure (since retainers gain a 50% share of XP regardless of the treasure share: see **p. 47 of LL Basic**). This makes it easy to do math, since the treasure share is also the XP share). Note that a share of the treasure also assumes a share of magical items found.

If this minimum offer is made the Referee rolls 3d6 and compares it to the below table.

Results of Hiring Offer	
3d6	Result
3 or lower	Rejects and is insulted
4-7	Rejects
8-9	Roll again with -1 modifier
10-11	Roll again
12-13	Roll again with +1 modifier
14-17	Accepts
18 or higher	Accepts with fervor

Apply the following modifiers to the roll:

- Hiring character's Charisma modifier
- -1 if the NPC is 4th level or higher
- +1 for additional inducement (magical item, paying for Cost of Living, equipping the retainer, etc.).

After each result of "roll again" the Referee may, in the role of the NPC, request additional compensation before making another roll.

If the result is a 3 or lower the potential retainer is insulted by the offer and slanders the adventurer's good name all over town. For the next 1d4 weeks all other hirelings or retainers

approached in that community make reaction rolls with a -1 penalty to the roll.

If the result is an 18 or higher the retainer gains an automatic +1 to their morale score.

Refer to the table below to determine how many potential retainers can be found in a given market class.

Retainer Availability			
MC	1 day	3 days	1 week
1	15%	30%	60%
2	30%	60%	90%
3	60%	90%	1
4	90%	1	1d2
5	1	1d2	1d4
6	1d2	1d4	1d6
7	1d4	1d6	2d8
8	1d6	2d4	3d10
9	2d4	3d4	4d12
10	3d4	3d6	5d20

Roll below to determine the level of each retainer found:

Levels of Retainers Available	
1d100	Level
1-50	0-level (needs 100 XP to reach 1 st)
51-85	1 st level
86-95	2 nd level
96-99	3 rd level
100	4 th level (1-5) or 5 th level (6 th)

Roll below to determine what class the retainer is (if they have a class). These proportions can be used to determine the prevalence of any given class within a population.

Class of Retainer	
1d100	Class
1-40	Fighter
41-70	Thief
71-80	Cleric
81-85	Magic-user
86-100	Other class (campaign dependent)

Capacity of a Market

Any mercantile activity, including searching for retainers, takes place on a monthly basis in a finite market. In other words, there are a limited number of “things” in any given market, and these “things” refresh on a monthly basis under most circumstances. However, each of the three discrete time periods (one day, three days, one week) that can be spent looking for goods or services declines over time within that month by two market class at a time.

Ex. A character spends one day searching for a retainer in a Class 7 Market. The first day they spend searching they find 1d4 retainers. None of them are quite what she is looking for, so she decides to spend another day looking. This second day spent looking is as if the Market Class is reduced by two, to 5, so she only finds 1 retainer. If she were to look for a third day it would be further reduced to an MC of 3, meaning there would be a 60% chance of finding a retainer.

What happens if after the first day of searching she decides to devote a further three days? Well, in this case the counter resets itself, and at the end of three days she finds an additional 1d6 retainers. If none of those are suitable she may spend another three days (at an effective Market Class of 5) *or* decide to spend a week, after which time she finds an additional 2d8 retainers.

Any given urban center will have a total number of potential retainers per month equal to the maximum number that can be found times five. Multiply percentages by that same amount; the remainder equals the new percentage. For instance, a Class 2 market has a 90% chance after one week of searching of producing one retainer. Multiplying 90% x 5 we get 450%, which means there are a potential 4 retainers, with a 50% of there being a 5th. This is largely a theoretical exercise to determine the pool of potential recruits, not how many are interested in work.

Retainer “Trees”

Retainers become important once the domain phase of play is entered as it allows a ruler to entrust various aspects of her domain to trusted lieutenants and companions (her retainers).

It is also possible, and even desirable, to create a henchman “tree”, as a PC’s retainers begin to gather retainers of their own. This creates a structure of obligation similar to that of vassalage and allows the character to delegate certain tasks to lower tier retainers. For instance, secondary or even tertiary retainers can be tasked with leading garrison patrols of newly conquered territories, or clearing low-level dungeons that the main PC doesn’t want to bother with.

The downside to having multiple tiers of retainers is that they soak up XP and slow advancement down. Typically, a retainer will receive a ½ share of XP to the adventurer’s one share. A second tier retainer would receive ¼ share, a third tier retainer 1/8 share, and so forth.

There are several advantages to having a “tree” of retainers. They are guaranteed to be more loyal to their employer than the average NPC, and can thus be trusted (or, at least, *more* trusted) to run independent mission, act as vassals of sub-domains, or even govern in the PC’s stead. How this actually works is up to the Referee during play, but it should be reasonable to assume that, NPC retainers are mostly loyal and unlikely to turn on their employer.

Morale Checks

Retainers have morale scores but are typically more stalwart than the average NPC. However, morale checks must be made when the retainer suffers some great calamity: maiming, death (and resurrection!), kidnapping, being robbed of all wealth, etc. On a failed roll the retainer decides it is best to leave their employer’s service.

Add the employer’s Charisma modifier (so, a second-tier retainer would use the first tier retainer’s modifier) to the rolls, as well as the following modifiers:

1. Result from initial hiring result (+/- 1)
2. +1 for every three levels gained by the retainer while serving the higher-level character.
3. -1 per calamity suffered while in service.
4. -2 if employer and retainer alignments are separated by more than one step (Lawful and Chaotic, for example).

Make a morale check if the retainer ever reaches the same level as their employer, with additional checks made for every level they *exceed* their employer.

The Hex is Cleared

Before a domain is founded the adventurers must determine where the domain will be. It may be an area they have heard rumors of or have actively visited and explored already. Perhaps there are the ruins of an ancient keep that can be used as a base of operations! The first step, however, is a thorough exploration and clearing of the hex, killing or driving away any dangerous monsters. The document **Hexcrawling Basics** explores the actual process of exploring and clearing a hex.

But for now, assume the adventurers have thoroughly explored the target hex, cleared it of any threats, and are now ready to found their domain. The following must occur once a hex has been cleared and before the domain is founded:

1. Garrison. The hex must be constantly patrolled by a garrison of soldiers to keep it safe and free of threats.
2. Keep construction. Construction of a keep to house the ruler, the garrison of soldiers, etc.
3. Peasantry move in. A domain is no good if there are no citizens to rule.

Garrisoning the Hex

An active garrison of troops intercepts all wandering monsters before they can wreak havoc on the population and it maintains the peace amongst the peasantry.

When a hex is first cleared the minimum garrison size is as follows, even if no settlers are present. This is the minimum force required to keep the hex clear of wandering monsters looking to settle.

- 200 gold per month for mercenaries, plus armorer (75 gp/month) plus captain (150 gp/month, 4th level fighter) plus two lieutenants (40 gp/month each, 2nd level fighters), for a total of 505 gp per month.

This amount covers temporary shelter, food, etc. for the troops and can be allocated as desired. The ruler could hire 20 light cavalry (10 gp each), or 10 light cavalry and 10 longbowmen, etc. It is recommended that the ruler divide the mercenaries into two “squads” – one day, one night – each overseen by a lieutenant.

The initial garrison can spend up to 6 months without a permanent barracks. Each month past the sixth month requires each squad present to make a morale check, as follows:

Morale Check for Garrison.	
3d6	Result
3 or lower	Squad leaves service, badmouthing employer.
4-7	Squad leaves service.
8-9	Squad demands 1d6+4x10% more pay until permanent quarters are built.
10-11	Squad demands 1d6-1x10% more pay until permanent quarters are built.
12-13	Squad remains in service
14-17	Squad remains in service and gains +1 bonus to future morale checks.
18 or higher	Squad remains in service and does not need to make morale checks for another 1d6 months.
*Employer suffers a -2 penalty if attempting to hire more troops in the region for the next month.	

The following modifiers may be added to the roll:

- Employer’s Charisma modifier.
- -1 if more than half the squad has sustained injuries in the past month.

- +1 if the employer has hired a cook (50 gp per month, can feed one squad plus an additional squad for every helper (10 gp per month).

This initial amount is sufficient to garrison a Wilderness hex with no more than 67 families. As a hex becomes more densely populated it becomes necessary to increase the garrison size. Refer to the following, which is based upon the number of families that live within the hex:

- Wilderness (68-125 families): 300 gp/month
- Borderlands (126-250 families): 400 gp per month.
- Borderlands (251-375 families): 500 gp per month.
- Civilized (376-562 families): 550 gp per month.
- Civilized (563-750 families): 600 gp per month.

Note that the costs above are simply for mercenaries and not for the support staff (armorer, captain, etc). Assume that every 200 gp (rounding up) worth of troops requires an armorer, a captain, and two lieutenants.

Mercenary Squads

The above numbers assume that the troops are divided into discreet squads of 10 (for mounted troops) or 20 (for foot soldiers). Each squad requires a higher-level soldier who leads the patrol, plus auxiliary officers and support staff (armorers, blacksmiths, etc). A single captain can command up to five squads, at which point additional captains must be hired, and potentially a higher-ranking individual hired to command them.

In Wilderness or Borderland hexes mercenary troops will not patrol without a higher-level leader; whether this be a hired lieutenant, as above, or a retainer of the ruler is up to the player.

If confronted with danger or disaster (as per the morale rules) a mercenary squad makes a morale roll, using the above table. If the squad leader is

an NPC lieutenant or captain then make a separate morale roll for them. If the squad is being led by a PC or retainer of a PC they do not need to make a morale check (but the squad still does, albeit modified by the leader's Charisma score).

The Stronghold

A garrison is most often located within the hex that it is patrolling; over time, as the domain becomes more civilized and more densely populated these keeps become the foundation on which urban centers are built.

However, it is possible for a single keep to garrison multiple hexes. The more hexes that a garrison is meant to patrol the larger and more expensive the keep must be, since it has to be able to house enough troops to patrol the greater area.

The size of the keep required to house a garrison is measured in gold pieces, as follows. A single keep cannot garrison an area larger than 225 square miles (seven 6-mile hexes):

The minimum value of a keep that can garrison a single hex is 20,000 gp. This minimum size keep must enclose 150 sq. ft. per person to be housed within (mounts take up space for three people), with at least half that space being under roof.

An additional hex can be garrisoned for every 15,000 gp increase in the keep's value. In order to garrison the maximum number of hexes that can be garrisoned from a single keep (seven 6-mile hexes) would require a keep worth 110,000 gp. Again, the keep must enclose the required 150 sq. ft. per person to be housed within.

Double the base number of people can be housed within a keep during times of war or need, but after a month of such living all morale rolls are made with a -1 penalty, increasing cumulatively for a maximum penalty of -3.

The advantages of building a single keep, rather than multiple keeps is that it is cheaper to build one large keep than multiple smaller keeps: it costs a minimum of 110,000 gp to build a single

keep that can garrison seven hexes, while it costs 140,000 gp to build seven individual keeps.

The advantages to building multiple keeps is that individual garrisons can be built much faster than the larger structure, and once built it fulfills the requirement for a Civilized hex for having a Class I market already in place.

If a hex is wilderness only the hex in which the garrison is located can be patrolled by foot soldiers; the remaining hexes must be patrolled by mounted troops.

In Borderlands or Civilized domains all of the hexes patrolled by a garrison may be watched over by foot soldiers.

As a hex transitions from Wilderness to Borderlands to Civilized there is no reduction in the number or troops required for garrison duty; rather, the duty of the garrison transitions from patrolling to keep the population safe from outside threats to patrolling to keep the population safe from itself.

Building the Stronghold

A castle, keep, or stronghold can be assumed to be on a certain cost, or the player may desire to spend time designing their own stronghold. Components of a stronghold are described below. Keep in mind that half the overall cost of a structure is for labor, the other half for materials.

The amount of work that can be done per day is based on the CR of the hex in which the work is taking place, assuming that workers are not imported. As a general rule, the peasantry in a Wilderness hex can produce 125 gp worth of work per day, those in a Borderlands hex can produce 250 gp worth of work per day, and those in a Civilized hex can produce 500 gp worth of work per day. These numbers include labor and materials; the value of the labor is half the overall output.

The above numbers are the maximum output of work that can be produced without sacrificing

economic output. If a faster pace of production is desired the ruler has two options:

1. Remove families from revenue. The family is not included for purposes of generating service or land revenue – but does pay taxes – and is considered to produce 5 gp worth of work per day (in labor and materials).
2. Bring in workers from other hexes. If the ruler controls adjacent hexes she may task some of these to the job. These families are moved from revenue production, as above, and also produce 5 gp worth of work per day (in labor and materials).
3. Import workers. This must be done in hexes without an existing citizenry. Workers have a work output equal to their skill and cost, and do not generate revenue nor have costs (other than the cost to employ)

Barbican (37,000 gp). This is a section of wall, usually located outside of the main walls of a stronghold, as the entrance through the walls or at a natural chokepoint (such as a narrow pass). It consists of two round towers (30' tall, 20' round), a gatehouse (20' high, 20 feet deep and 30' wide), a gate and draw bridge. By itself the barbican can house approximately 20 individuals.

Battlement (500 gp). Parapet walls 100' long that go atop the walls of a stronghold. Defenders behind a battlement gain partial cover. Half the cost if made of wood. Cost includes ladders to reach the battlements.

Building, wood (1,500 gp). 20' tall, 30' x 30', two stories, with all wood construction. Can house 12 individuals. The sq. ft. cost for a wood building is therefore 1.2 gp per sq. ft.

Building, stone (3,000 gp). Same dimensions as above, can house the same number of individuals. Roof, stairs, doors and floors are all wood. Half the material cost (750 gp) is for stone, the other half is for wood. The sq. ft. cost for a stone building is 2.4 gp per sq. ft.

Corridor, dungeon (500 gp). Cost for a 10' x 10' 10' corridor, with carved walls and a flagstone floor. This is also the cost used to fashion secret passageways within a keep.

Door, exterior (100 gp). Made of iron or stone, measures 5' wide by 7' tall.

Drawbridge, wood (250 gp). Assumes it is 10' wide by 20' tall. Includes mechanism to raise and lower.

Gate, wooden (1,000 gp). Consists of two wooden doors, each 10' x 10', that are hinged on the outside and can be barred on the inside. Typical main opening in wooden walls.

Gatehouse (6,500 gp). Stone building with a passageway through it, measuring 20' tall 30' wide and 20' deep. The outside is barred with iron portcullis, the inside with a wooden door. Arrow slits and murder holes can be added to the inside. Can house 8 individuals. Costs 5.4 gp per square foot. If all wood reduce the overall price by 12.5%.

Keep, square (75,000 gp). 80' tall by 60' x 60', with stone exterior walls and roof and interior wood construction. Can house 192 individuals.

Moat, unfilled (400 gp). Excavation 10' deep, 20' wide, 100' long. Costs 1 gp per 50' excavated. If an earthen wall is constructed in conjunction with a moat reduce the cost of the wall by 50%.

Moat, filled (800 gp). Includes cost to divert flowing water to fill the moat.

Tower, bastion (9,000 gp). A half round tower, typically the height of the wall it is a part of, measuring 30 x 30. Can house 6 individuals.

Tower, round (15,000 gp). 30' high, 20' diameter. Stone exterior walls and roof, wood interior structure. Can house 6 individuals. These are not free-standing, but are instead parts of a wall. Towers cost 16 gp per sq. ft. to construct.

Wall, earthen (2,500 gp). 10' tall, 20' wide, 100' long. Packed earth, with a flat surface on top for

troops to walk. Costs 25 gp per linear foot, cost can be halved if built in conjunction with a moat.

Wall, wooden palisade (125 gp). 10' tall, 4" thick, 100' long. Minimal wooden wall. Costs 1.25 gp per linear foot.

Wall, wooden (1,000 gp). 20' tall, 5' thick, 100' long. Costs 10 gp per linear foot.

Wall, stone (5,000 gp). 20' tall, 10' thick, 100' long. Costs 50 gp per linear foot.

Refinements

These are additional features that can be added to the stronghold. They do not add to the intrinsic worth of the keep, as far as the number of hexes that can be garrisoned but do have other benefits.

Arrow slit (10 gp). Angled window 3' tall, 1' wide. Provides partial cover to those inside.

Door, interior. An interior wood door costs 10 gp, a reinforced wood door 20, an iron or stone interior door 50. If the door is to be a secret door multiple the base cost by 5.

Floor, improved. A fine wood floor adds 40 gp per 100 sq. ft., a flagstone floor adds 75 gp per 100 sq. ft., and a tile floor adds 100 gp per 100 sq. ft.

Roof, stone or tile. Adds 100 gp per 100 sq. ft. The main benefit is that the roof is no fireproof.

Shifting Wall (1,000 gp). Assumes a 10'x10' section of wall.

Shutters (5 gp). Adds 5 gp per window, allows the windows to be closed off to keep out the elements or hinder intruders.

Trap Door (cost x2). As per the cost for an interior door, but twice the cost. Measures 3' x 4'.

Windows, barred (5 gp). Adds 5 gp to the cost of the windows. Permanent metal bars are inset, preventing exit/egress but not blocking airflow.

Ex. Baron Gorm is building a stronghold to garrison a wilderness hex. The minimum cost is 20,000 gp. He wants to make sure it can house a minimum of 90 individuals. Therefore, it must contain a minimum of 13,500 sq. ft, half of which (6750 sq. ft.) needs to be under roof. A wood building that size will cost 8,100 gp, and a wall that encircles the garrison must contain at least 13,500 sq. ft. If the wall is circular it has a diameter of 130', or a circumference of roughly 410 ft. That cost works out to 20,500 gp for a stone wall or 4,100 for a wooden wall. He also needs a gate, which adds 1000 gp.

Gorm decides that he'll make the keep itself stone, bringing the overall cost to 16,200 gp, and surround it with a wood wall, bringing the total cost to 21,300, just above the minimum size needed.

This stronghold is in a Borderlands hex, and at normal speeds 250 gp worth of work can be achieved per day. At this rate it will take 85 days to complete.

Founding the Domain

Once the work on the initial keep is complete the domain is "founded". A ruler cannot do the following until the domain has been founded:

1. Collect land revenue from the controlled hexes.
2. Collect taxes from any existing peasantry living within the hex.
3. Attract followers (NPCs of the same type). Note that the ruler must be a minimum level to attract followers.
4. Attracted settlers.

On the plus side, the ruler has no expenses other than mercenaries and building costs until the domain is founded.

Upon the founding of the domain a number of peasant families will hear of the new lands and, desirous of making a new start, migrate over the course of three months. For every 500 gp of the

stronghold's initial cost 1 peasant family will be attracted to the land. One quarter arrive during the first month, one half during the second month, and the remaining quarter during the third. It is assumed these families make the journey on their own.

The minimum sized Keep to garrison a single 6-mile hex (valued at 20,000 gp) will, therefore, attract a total of 40 families, 10 arriving one month after the founding, 20 two months after the founding, and 10 three months after the founding. Additional monies spent on increasing the size of the stronghold after it has reached that minimum threshold or building strongholds in new hexes attracts 1d2-1 families for every 1000 gp in value; the movement of new settlers slows down as the domain becomes established.

The founding of a new domain also attracts followers who flock to the new ruler's banner, assuming the ruler is 9th level or higher. If not, the followers do not arrive until the ruler attains 9th level.

Note that none of the followers attracted upon reaching Name level are considered retainers unless they are specifically recruited as such. Typically, any attempt to recruit followers as retainers must occur after a month of service. Followers lost through attrition (battle, maltreatment, etc.) are not replaced. Followers will not accompany adventurers into dungeons unless recruited as retainers.

One quarter of the followers attracted will arrive during the first month, one half during the second, and the remainder during the third month.

Fighter. Followers attracted require pay as normal.

- 1d4+1 x 10 mercenaries. Roll randomly for every group of ten mercenaries to determine the type.
- 1d6 fighters of levels 1-3. Roll using the table on page 4, re-rolling results of 1-50 and 00.

Other classes may found domains as opposed to carrying out their typical name-level activities. If they do so they attract half the number of followers listed above and attract half of their normal class followers. For instance, a 9th level magic-user may typically build a tower, attracting 1d6 magic-users of levels 1-3 and 3d4 normal humans, all seeking tutelage and instruction in the magical arts. If the magic-user decides to found a domain, however, they attract 1d3 magic-users and 1d6 0-level humans seeking instruction, 1d4+1 x 5 mercenaries, and 1d3 fighters of levels 1-3.

Civilizing the Land

The assumption is made that a new domain is founded in a Wilderness hex. In order to become Borderlands a hex must meet the following criteria:

1. Be within range of an appropriately sized Market Class according to the Reach of Civilization Table,
2. Must be properly garrisoned *and* must have at least 1000 gp worth of infrastructure improvements invested in it.
3. Must have a population density of at least 95 families.

A stronghold of the minimum size required to maintain a garrison *always* counts as an urban market with an MC of 1. Therefore, in order to be considered Borderlands must an urban center of Market Class 1 or greater *or* be within range of an urban center of Market Class 2 or greater.

In order to become Civilized there must be:

1. An urban center within the hex of at least Market Class 1 and
2. An urban center of at least Class 6 within the range shown on the "Reach of Civilization" table, below.
3. Must have at least 6000 (the initial 1000 gp required to become Borderlands plus an additional 5000 gp) gp worth of infrastructure investment.

4. Must have a population density of at least 285 families.

Infrastructure investments include road-building, digging wells, terracing land for farming, building canals and dams, etc. At least one game year must separate the two investments.

This minimum investment increases by 50% for the following hexes: hills (forested), marsh, fens/moors, forest (heavy). Therefore, in order for a marsh hex to become Borderlands it must have at least 1500 gp worth of infrastructure improvements.

This investment increases by 100% for the following hexes: mountains (all sorts), swamps, jungles, badlands, desert, tundra.

As can be seen, the civilizing of the wilderness occurs when several factors interact and increase in proportion to one another; infrastructure investment allows the population density to increase, which allows a build-up of urban developments. At the same time a strong garrison keeps the population safe (from threats both within and without), which entices settlers to travel to less civilized areas to make a life for themselves.

The infrastructure needed to support the higher Civilization Rating is expensive, though, and needs to be maintained (see **Domain Expenses**). If the maintenance of the infrastructure is put off for more than one year it begins to degrade.

For every year left unattended the infrastructure will lose 3d4% of its overall value. Once 100% of its overall value has been lost the hex is automatically downgraded to the next CR, with the attendant loss of population density. It takes, therefore, an average of 15 years for a hex to go from Civilized to Borderlands, and another 15 years for it to slide back to Wilderness.

Hex Type

There are three broad categories of hexes: Wilderness, Borderlands and Civilized. The type of hex drives the following:

1. **Domain encounters.** Rolls for encounters are made on a daily basis for Wilderness hexes, on a weekly basis for Borderland hexes, and a monthly basis for Civilized hexes.
2. **Population density.** The more civilized a hex is the larger the population it can support.
3. **Income and resource extraction.** The level of civilization reflects the infrastructure that exists within hex, and the wealth generated by the citizenry within the hex.

All urban centers generate a “shadow” of activity that affects the CR of surrounding hexes.

Reach of Civilization		
MC	Borderland	Civilized
1	1	--
2	2	--
3	3	--
4	4	1
5	5	2
6	6	3
7	7	4
8	8	5
9	9	6
10	10	7

Difficult terrain counts as 2 hexes in a straight line. Ocean hexes are automatically Borderlands 1 hex beyond a domain's coastline.

The two degrees of “shadowing” are cumulative: a Class 7 market casts a shadow of 4 Civilized hexes (from the center hex), plus an additional 7 hexes of Borderland beyond that, for a total range of 11 hexes counting the central hex.

The following terrain types are considered difficult for purposes of determining the “reach” of civilization. Difficult hexes count as two hexes instead of one when determining the reach of civilization, for both Civilized and Borderland hexes. When in doubt round down.

1. Heavy Forest
2. Mountains (any type)
3. Swamp
4. Jungle

5. Badlands
6. Desert
7. Forested Hills

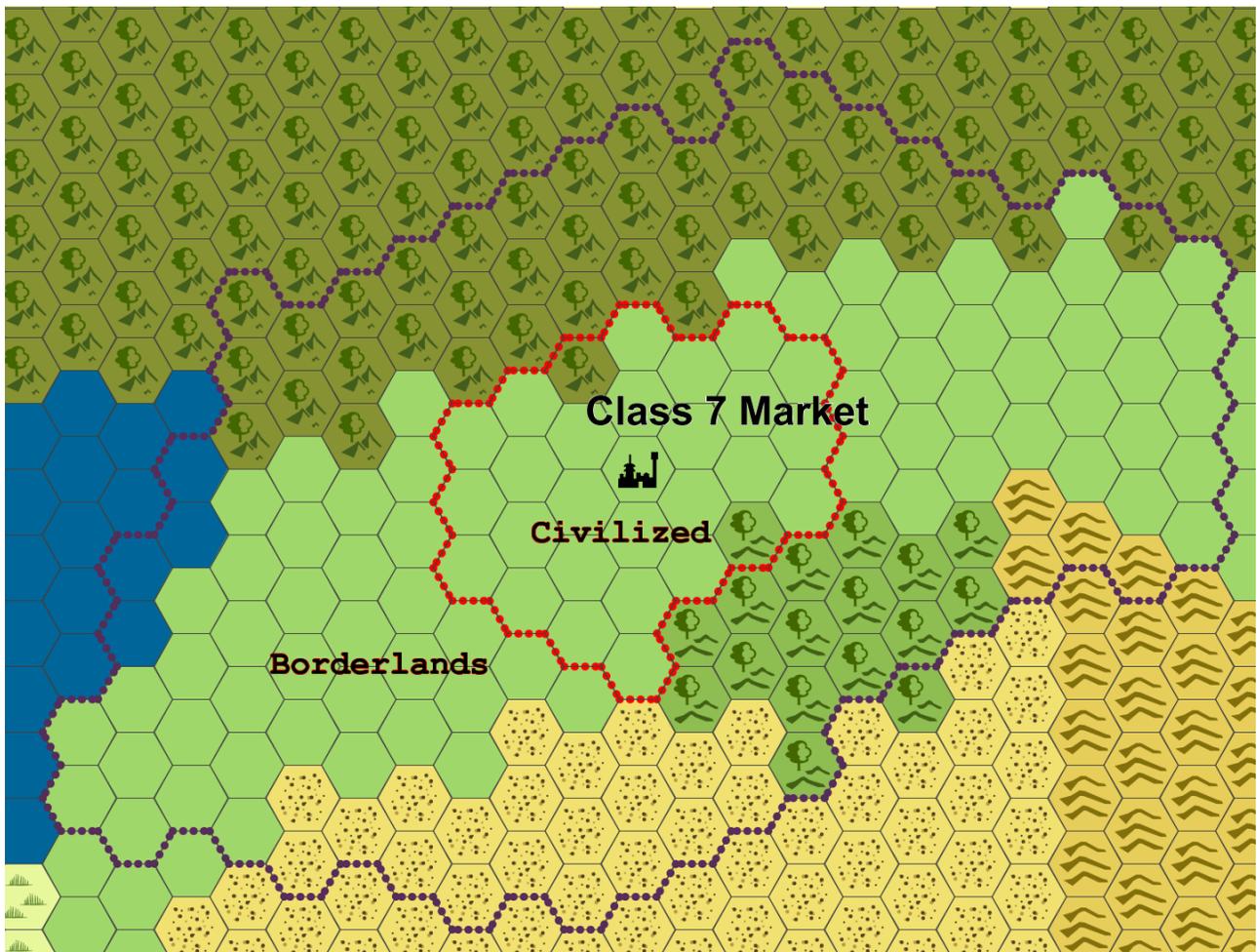
Ocean (or large bodies of water) hexes are automatically considered Borderlands if beyond one hex of a domain's coast, and wilderness beyond four hexes of a domain's coast, provided the domain has a standing navy. If they do not have a means of naval control, any ocean or large body of water is considered Wilderness.

The 1st hex is always the hex that the urban center is in. Note that in order for a hex to be considered Borderlands or Civilized it must meet the other requirements detailed in the previous section on Civilizing the Land.

The map below shows the "shadow" that a Class 7 market casts, taking into account difficult terrain. Difficult hexes are rounded down, rather

than split a hex. In order to be considered Borderlands or Civilized a hex must also fulfill the other requirements, discussed above. It is not merely enough to fall within the civilizing range of an urban center.

It also assumes there is an urban center adjacent to the coast that has a port large enough to support enough ships to patrol the water offshore. If not, those water hexes should be considered "Wilderness". Water hexes are the only hexes that cannot be Civilized; they can only be Borderlands, and the infrastructure costs associated with water hexes must be located in adjacent hexes.



Market Classes

Each urban center is assigned a Market Class ranging from 1 to 10, with 1 being the smallest and 10 being the largest.

1. up to 30 individuals (up to 6 families)
2. 31-100 individuals (6 to 20 families)
3. 101-500 individuals (20 to 100 families)
4. 501-1,000 individuals (100 - 200 families)
5. 1,001-2,500 individuals (200 - 500 families)
6. 2,501-5,000 individuals (500 – 1,000 families)
7. 5,001-10,000 individuals (1,000 – 2,000 families)
8. 10,001-50,000 individuals (2,000 – 10,000 families)
9. 50,001-100,000 individuals (10,000 – 20,000 families)
10. 100,001+ individuals (20,000+ families)

Hex Population

Any given hex can support a certain number of families. Based off data from medieval Europe the population density ranged from 5 people per square mile for the Scandinavian countries to somewhere in the range of 100-120 for some of the more densely populated European countries. That ranges from around 30 families to 750 families per 6-mile hex. The number of families a hex can support is based primarily upon its Civilization Type, as follows:

- Wilderness Hex. 125 families per hex
- Borderlands Hex. 375 families per hex
- Civilized Hex. 750 families per hex

These figures exclude urban population. Grassland, prairie, farmland, and cultivated hexes all have their maximum population density increased by 10% in each category. Hexes that are considered to be difficult terrain (see the list on p. 11) have their maximum population density reduced by 10% in each category.

Civilized domains are assumed to have an urban center of at least MC 1 in each 6-mile hex.

A hex's population tends to remain relatively stable absent any outside influences. If the hex has fewer than 100 families roll 1d10 per month:

1. Loses 2 families.
- 2-3. Loses 1 family.
- 4-7. No change.
- 8-9. Gains 1 family.
10. Gains 2 families.

If the hex has more than 100 families roll 1d10 per month:

1. Population shrinks by 2%.
- 2-3. Population shrinks by 1%.
- 4-7. No change.
- 8-9. Population grows by 1%
10. Population grows by 2%.

If the domain morale roll for the season is 14 or higher roll twice and take the better result; if it is 7 or lower roll twice and take the worse result.

The population may also be increased by attracting settlers. New settlers are attracted by offering incentives, either through land grants or flat out payments. Assume that every two hundred gold offered attracts one peasant family. Rather than a direct offer of cold, hard cash it is assumed that this money goes towards providing infrastructure for the family; a house, a plot of land to work, the cost of getting the family to the new location, and so forth.

These settlers come from the lands surrounding the new domain; the ruler may move peasant families around within her domain as desired.

No more than one family per month per rank of market class can be attracted from existing domains. Therefore, if drawing from a domain that contains a Class 4 market the ruler making the offer could "poach" up to 4 families per month from the existing domain. If the domain settlers are being drawn from consist of multiple urban centers the total MC value is used.

Investing in infrastructure will also serve to draw in new settlers. When the ruler invests the initial

amount needed to transition from Wilderness to Borderlands 1d10 families will be automatically drawn to the area over a period of 1 month. When the ruler invested the amount needed to transition from Borderlands to Civilized 4d10 families will be drawn to the area over a period of three months.

The second set of settlers will arrive as follows: 2% during the first month,, 50% during the second month, and 2% during the third month.

Alternatively, land grants can be offered to those who have served or are currently in the ruler's service, as an award for service or pension. Such an offer is typically made to mercenaries that, in the course of serving the ruler, are injured and unable to continue serving. For each mercenary that is thus pensioned off make a reaction roll, modified by the ruler's Charisma, with an additional +1 modifier to the roll. If accepted the mercenary accepts the pension and brings her family to join her on the homestead. This offer has the added benefit of keeping combat capable citizens within the populace, should the need arise for the ruler to recruit among the peasantry.

Settlers do not technically exist until the first full month after they arrive. They do not generate income nor add to expenses. Therefore, a group of settlers that arrive during the Firstmonth do not actually cost anything until the last day of the Secondmonth, nor is the income they generate collected until the first day of the Thirdmonth. They are counted as being present during the Secondmonth for other purposes (such as determining festival costs, or population growth).

Population Demographics

The vast majority of individuals living within a hex will be 0-level*. If there is no urban center within a hex assume that 1d4 individuals for every 50 inhabitants will be level 1, 1d4-1 individuals per 100 will be 2nd level, 1d3-1 per 250 will be 3rd level and 1d2-1 per 500 will be 4th level. This excludes the ruler of the hex (if any), the ruler's followers and retainers, or any named

NPCs dwelling within the hex (placed, say, as the result of lair population).

*Note that this only applies to humans. A hex within a demi-human domain will be comprised of level 1 individuals if there is no "0-level" version of the race.

If there is an urban center use the following table to determine the levels of those living within the hex. This ratio applies to all individuals within the hex (both rural and urban). If no percentage is listed assume there are a number of that given level (for example, a range of 1d6-1 indicates there are 0-5 individuals of that level). The section on retainers provides a table that can be used to generate the classes of any higher-level individuals.

About 90% of any given urban center will consist of 0-level, non-classed humans. I use an excellent website called The Domesday Book (<https://www.rpglibrary.org/utills/meddemog/>) when calculating the number of skilled tradesmen or shops in a given urban center.

Domain Demographics (% of population)					
	Urban Market Class				
Level	1-2	3-4	5-6	7-8	9-10
0	90%	90%	90%	90%	90%
1	5%	5%	5%	5%	5%
2	2%	2%	2%	2%	2%
3	1d2-1	1%	1%	1%	1%
4	*	1d3-1	.75	.75	1%
5	*	1d2-1	.5	.5	.5
6	*	*	.25	.25	.25
7	*	*	.1	.1	.1
8	*	*	1d3-1	2d4	4d4
9	*	*	1d2-1	1d4	3d4
10	*	*	*	1d4-1	2d4
11	*	*	*	1d3-1	1d4
12	*	*	*	1d2-1	1d4-1
13	*	*	*	*	1d3-1
14	*	*	*	*	1d2-1

*If there are leftover leveled "slots" available there is a % chance equal to the Market Class of there being one NPC of each level present.

Note that the term "family" is used for some applications. A family consists of 5 individuals.

Two of those five are considered “able-bodied” for military purposes.

Example 1. Dunderhaven is a village of 100 individuals and is considered a Class II market. Of the 100 individuals 90 are 0-level humans, five are 1st level classed individuals, 2 are 2nd level, and the remaining three are diced for. Rolling 1d2-1 we get a 0, meaning there are no 3rd level NPCs. There are still three “slots” left to fill, so we roll 1d100 for the rest of the levels (4-14); on a result of a 1 or 2 an NPC of that level is present. We roll 1d100 11 times, and don’t get a 1 or a 2, so the three extra slots are added to the pool of 0-level NPCs. Dunderhaven has a population of 93 0-level, five 1st level and two 2nd level NPCs. Referring to the table on p. 4 we roll 1d100 seven times, yielding the following rolls: 97, 98, 24, 2, 76, 74, 84. That means the NPCs present are as follows:

- Two 1st level “other” NPCs.
- Two 1st level fighters
- One 1st level cleric
- One 2nd level cleric
- One 2nd level magic-user

Example 2. Centuries later Dunderhaven has grown into a large metropolis with 50,000 citizens (a large Class 8 market). Dunderhaven’s citizens are as follows:

- 45,000 are 0-level
- 2,500 are 1st level
- 1,000 are 2nd level
- 500 are 3rd level
- 375 are 4th level
- 250 are 5th level
- 125 are 6th level
- 50 are 7th level
- 6 are 8th level (rolling 2d4)
- 2 are 9th level (rolling 1d4)
- 0 are 10th level (rolled a 1-1)
- 2 are 11th level (rolled a 3-1)
- 1 is 12th level (rolled a 2-1)
- There’s an 8% each of there being an NPC or 13th and 14th level, but the rolls are a 75% and a 23%.

- *This accounts for 49,811 of the citizens, so the remainder (189) are added to the pool of 0-level citizen.*

Domain Income

The ruler of a domain earns an income through four means:

1. Land Revenue
2. Services
3. Taxes
4. Vassalage

Land revenue is income generated by economic activity occurring within any given hex. It is abstracted out and is not a measure of the total economic output of a hex; rather, it represents the money generated as taxes, fees and licenses through work done within a hex by the population. This income is in the form of coin. See below for a more in-depth explanation of land revenue.

Service revenue is abstracted income generated by the day to day activity of the ruler’s subjects. The value of the service depends on the Civilization Rating (CR) of the hex, as follows:

1. Wilderness. The subjects generate 4 gp per month per family.
2. Borderlands. The subjects generate 7 gp per month per family.
3. Civilized. The subjects generate 10 gp per month per family.

Rather than collect service revenue the ruler may decide to allocate a portion of the value towards making land improvements within a given hex. The amount designated yields a monthly value equal to the amount times 1.5 and does not count towards the monthly revenue. The only restriction is that value allocated towards this must stay within the hex in which it is generated.

Ex. Baron Gorm is trying to improve a hex from Borderlands to Civilized and needs to spend 5,000 gp to do so. To help out he decides to allocate 2 gp per family of service income towards infrastructure. This reduces his income

from 7 gp per month to 5 gp per month per family, but he can put a total of 3 gp (2 gp x 1.5) per month per family towards the needed infrastructure improvements.

Tax revenue is actual coin collected on a monthly basis from each family within a domain. **The standard tax rate is 1 gp per month.** Higher taxes generate more revenue but lead to increased unhappiness. Lower taxes tend to increase the morale of the governed. The effects of a higher or lower tax rate last for four seasons, after which point the populace becomes used to the new tax rate (for morale purposes. See p.23). No population, however, will ever get used to a tax rate of over 4 gp per family.

Vassalage is revenue collected by a domain ruler by lesser rulers who owe fealty to that ruler. Vassalage is typically 20% of a dominion's gross income. It is based off the vassal's gross monthly income from domain activity.

Revenues generated within a month are collected on the first day of the new game month. Therefore, revenues generated during the Thirdmonth are collected on the first day of the Fourthmonth.

Land Revenue

There are three ways of determining land revenue, ranging from simple and abstract to complicated, but giving the ruler greater control over the process.

All three ways work on the same assumptions:

1. Land value is based on the terrain type that the majority of a hex is composed of. This is the **Inherent Land Value** and doesn't really change.
2. Many hexes will have one or more **Additional Resources**. These resources can be added to the Inherent Land Value for long term gain or extracted for more immediate gain.

Inherent Land Value

Each hex is assigned a base number of resources. These resources, and the relative value of them, are based upon the general terrain type. The value of these resources can only be exploited once a hex has been cleared and functions as a domain. In other words, these base resources are extracted by those living within the hex, once the hex has been brought into a domain.

There are three broad types of resources: Animal, Mineral, Vegetable. These three are broken down into two sub-categories each, as follows:

1. **Animal.** Game and Livestock
2. **Mineral.** Quarried and Mined
3. **Vegetable.** Agricultural and Industrial

Game. The number of wild animals, birds, and fish have that can be hunted or trapped for food, fur or hides.

Livestock. The number of domesticated animals that a hex can support, whether for food or working animals.

Quarried. Primarily stone resources, although peat and sod both fall into this category, of resources that are used for building or large-scale applications. These resources are often used locally.

Mined. Resources extracted from the ground through mining, often requiring refining. Metal ores and gems are in this category. These resources are often shipped to larger, more urbanized markets.

Agricultural. A hex's ability to grow food. It can occasionally be represented by naturally occurring vegetation (such as fruit or nut trees) but is most often cultivated crops.

Industrial. Plants that are harvested for timber (used either in building construction or crafts) or fibers (such as cotton for fabric or hemp for ropes).

Land Values by Terrain Type						
Terrain	G	L	Q	M	A	I
Badlands	1	2	2	2	1	1
Desert	1	2	2	1	1	1
Forest, heavy	2	1	1	1	1	3
Forest, light	2	2	1	1	2	2
Grasslands	2	3	1	1	3	1
Hills, grassland	2	3	2	2	2	1
Hills, forested*	2	1	2	2	2	2
Hills, shrubland	2	2	2	2	2	1
Jungle	2	1	2	1	2	3
Marsh	2	1	1	1	1	1
Moor/Fen	2	2	2	2	2	1
Mountains	2	1	3	3	1	2
Mountains, forest*	2	1	3	3	1	2
Shrubland	2	3	1	1	2	1
Steppe	2	3	1	1	2	1
Swamp	2	1	1	1	1	2
Tundra	2	1	2	2	1	1
*Heavy forests have an I Rating of 3.						

Each of the six subcategories is given a rating from 1-3. “1” indicates the terrain is sorely lacking in a given resource, “2” indicates the terrain has an average amount of the resource, and “3” indicates the resource is plentiful.

For instance, grassland hexes have an Industrial Rating of 1, light forests a rating of 2, and heavy forests a rating of 3.

Each hex produces a given amount of wealth per month based on the Land Rating, as follows:

Game. 1/2/3 gp per month. This increases by .5 gp in Wilderness terrain and decreases by .5 gp in Civilized Terrain.

Livestock. 1.5/2.5/3.5 gp per month. This decreases by .5 gp in Wilderness terrain.

Quarried. 2.5/3/3.5 gp per month. No change.

Mined. 3/4/5 gp per month. No change.

Agricultural. 1.5/2/2.5 gp per month. Increases by .5 gp per month in Borderlands and 1 gp per month in Civilized hexes.

Industrial. 2/3/4 gp per month. Decreases by .5 gp per month in Civilized hexes.

Referring to the example above, grassland hexes, with an Industrial Score of 1, produce 2 gp/month per family, light forest hexes produce 3 gp/month per family and heavy forest hexes produce 4 gp per month, assuming the hex is either Wilderness or Borderlands. If the three hexes were civilized their revenue for Industrial Vegetation would be:

- Grasslands 1.5 gp per month
- Light Forest 2.5 gp/month
- Heavy Forest 3.5 gp/month

Regardless of which method is used to determine land revenue there are some general guidelines:

1. No more than 20% of the population can be involved with quarrying or mining without causing morale issues amongst the populace. A total of 40% of the populace, therefore, can work on both combined without issue.
2. No fewer than 30% of the populace combined can be involved in Agriculture, Game and Livestock without running the risk of causing morale issues amongst the populace as foodstuffs become in short supply.
3. A given resource does not have to be exploited as long as #1 and #2 above are followed.

Determining Land Value

It doesn't matter which method the player decides to use, as long as she maintains the same method for all of the hexes within her domain. She can change at any time, as well, as long as she does so for all of the hexes.

Method One

The first method is the easiest. A given hex will produce the following monthly income per family based on terrain type, plus modifiers from Additional Resources (described on p. 18)

1 gp/month: Swamp, Tundra, Badlands, Desert

1.5 gp/month: Moor/fen, Marsh, Shrubland, Hills (shrubland), Steppe

2 gp/month: Hills (grassland), Forest (light), Grassland, Jungle

2.5 gp/month: Hills (forested), Forest (heavy), Mountains

3 gp/month: Mountain (forested)

When using this method it doesn't really matter the distribution or concentration of the resource types; the revenue is abstracted into a fixed gp amount. Therefore, each family in a forested hill hex produces 2.5 gp per month of land revenue.

Method Two

The second way of determining land revenue uses these two numbers to determine land revenue with the following formula:

$$(G \times 20\%) + (L \times 20\%) + (Q \times 10\%) + (M \times 10\%) + (A \times 20\%) + (I \times 20\%) = \text{total monthly revenue.}$$

As an example, let's assume Borderland light forest hex with a population of 100 families. The land revenue for the hex is as follows:

- Game: Base of 2 gp/month.
- Livestock: Base of 2 gp/month
- Quarried: Base of 2.5 gp/month
- Mined: Base of 3 gp/month
- Agricultural: Base of 2 gp/month, modified by .5 to 2.5 gp/month.
- Industrial. Base of 2 gp per month.

20% of the population (20 families each) is assigned to work on Game, Livestock, Agricultural and Industrial, while 10% (10 families each) work on Quarry and Mines. Plugging numbers into the formula we get:

$$(2 \times 20) + (2.5 \times 20) + (2 \times 10) + (2.5 \times 10) + (2.5 \times 20) + (3 \times 20) = 245 \text{ gp per month land revenue or } 2.45 \text{ gp per family.}$$

Method Three

The third, most complicated way, allows the ruler to allocate percentages as desired. It is possible

for the ruler to re-allocate resource extraction as needed or desired during play, although this may only be done once per month, at the beginning of each month. The only restrictions on allocation are described above.

Additional Resources

Most hexes will have additional resources that can either be exploited immediately or added to the overall long-term wealth generation of a hex. These additional resources are specific and finite; a grove of trees in a grasslands hex can be used for timber, firewood or fine woodworking, depending on the type of wood. It can be harvested over a short period of time, which results in cash in hand for the domain ruler, or it can be managed and potentially added to the overall wealth of the hex.

Each hex that is cleared has the potential to possess additional resources, as determined below (**3d6**):

3-4. 0

5-10. 1

11-16. 2

17-18. 3

Roll below to determine the type of the resource (**1d20**):

1-3. Animal, Game

4-6. Animal, Livestock

7-8. Mineral, Quarried

9-10. Mineral, Mined

11-15. Vegetable, Agricultural

16-20. Vegetable, Industrial.

And the value of each resource (**1d20**):

1-5. 1

6-10. 2

11-15. 3

16-18. 4

19-20. 5

The value of each resource is a measure of the worth and how long it takes to extract that value.

These additional resources can either be preserved and added to the overall land value of the hex or they can be extracted. Each time a resource is extracted it reduces the value of the resource by 1. Therefore, extracting a resource with a value of 3 reduces its overall rating to 2; extracting a resource with a value of 1 eliminates it from the hex.

The Ratings are described, below:

1. The resource is minimal and extracted relatively quickly. It is a stand of trees in a prairie that can be used to build a house or two, or a small herd of deer that will provide meat and hides for a month, or a patch of herbs that can be harvested in a few days. Resources with a value of 1 do not add to the overall value of a hex. It takes no more than a week to fully extract the value of this resource.

2. The resource is minimal and extracted at a slower rate than above. It takes no more than 1 month to extract the value from this resource. It adds 1d2 sp to the respective land value if not extracted.

3. This represents a substantial reserve of the resource. It takes around 6 months to fully extract the value from this resource. It adds 1d4 sp to the respective land value if not extracted

4. This represents a substantial reserve of the resource. It takes around 9 months to extract the given amount. It adds 1d6+1 sp to the overall land value of the hex if not extracted.

5. The largest deposit of this resources to be found, it takes a full year to extract the value of this deposit. It adds 1d6+3 sp to the overall land value of the hex if not extracted.

Note that if you are using the Method One for domain resources (see above) each step adds a value equal to the **step minus 2**, rather than a variable amount. Therefore, an additional resource with a value of 4 adds 2 sp to the overall value of the land.

Ex. Gorm is using Method #1 and adds a lightly forested hex to his domain. By itself the hex produces 2 gp per month. However, it has two additional resources: an iron mine with a value of 3 and a stand of old growth oaks with a value of 3, as well. Deciding not to extract the two means that the hex produces 2.2 gp per month per family.

Ex 2. Later on Gorm decides he needs to maximize his income. He switches over Method #3 to have the most control over how resources are used. Rolling 1d4 twice he finds that the iron mine adds 2 sp to the Mined value and the stand of oak adds 4 sp to the Industrial value.

Industrial and **Quarried** resources give the ruler the option of extraction not for gold but for infrastructure improvements. If this method is taken it still takes the same amount of time to extract, but the value is doubled and is applied straight towards infrastructure improvement. This can only be applied to improvements (rural or urban) within a one hex radius, however (i.e. the hex in which the resource is located and the six hexes immediately adjacent to that hex). Note that the resource counts towards the material cost of a project, and not the labor. The ruler still needs people to do the work.

Agricultural and **Game** resources can be harvested for several purposes:

1. To end a famine. Reducing the resource by one step/CR will immediately end the effects of a famine within the hex.
2. Population growth. While the resource is being harvested roll twice for natural population growth per month, taking the better of the two results. This applies to both the initial roll to determine if population is lost or gained *and* to the second roll to determine how many are gained or lost. The effects last as long as it takes to reduce the Resource Step.

Mined and **Livestock** resources can be extracted in the same way, but for every step the resource is reduced the domain is able to attract additional

settler families as the booming economy draws those interested in settling down in the new domain. The number of families is determined as below. They are considered permanent settlers and will remain even once the resource is exhausted. Divide the total number of settlers that arrive by the amount of time it takes to extract the resource; this is the number of settlers that arrive over the course of the extraction.

Degree	Mined	Livestock
1 to 0	1d4	1d2
2 to 1	2d8	2d4
3 to 2	3d10	3d6
4 to 3	4d12	4d8
5 to 4	5d20	5d10

Ex. Gorm clears a lightly forested hex in wilderness territory. It naturally possesses the following resources: Game 2.5, Livestock 1.5, Quarried 1, Mined 1, Agricultural 2, Industrial 2. Rolling to determine if there are additional resources yields one extra resource, with a Step Value of 4. This resource proves to be a Mined Mineral, and Gorm has the following options:

- 1. He can let the mine add to the overall land revenue. Rolling to determine the value, we find that it adds 4 sp to the overall value, bringing that up to 3.4 gp.*
- 2. He can extract the value for cash. If this option is taken the Referee rolls to 20d100 (see below) to determine the base value and gets a result of 1156. Multiplying this by the resource modifier of 4 yields an overall gp value of 23,120 gp. That is how much wealth can be extracted before it reduces a Step to 3.*
- 3. He can extract the value to draw settler families into the area. The first reduction, from Step 4 to Step 3, brings in 4d12 settlers, the second reduction brings in 3d10, the third 2d8 and the fourth 1d4.*

The amount of time it takes to extract a resource is determined by the number of people dedicated to harvesting it, which is in turn dependent upon

the overall value of the resource. Use the following to determine how much of a resource can be extracted per day: A single man-day (8 hours of work for one person) extracts 1 gp worth of goods from the resource and costs the ruler 1 sp. This assumes that the work is being undertaken by peasant families living in the hex and not imported, specialized workers. This work is done in *addition* to the normal work the peasants do, provided that no more than 10% of the population works to extract the resource. In other words, if no more than 10% population works on extracting resources there is no impact on land or service revenues.

Ex. Gorm claims a hex that contains a stand of trees that can be used for building. There are 50 families, or 250 people, living in the hex, so he decides to task 25 of them (or 10%) with felling the timber to be used as infrastructure improvement. There's a total of 250 gp worth of trees in the grove. Each person produces 1 gp worth of timber per day, for a total of 25 gp per day. At this rate they clear-cut the copse of trees in ten days (the x2 multiplier is applied at the end), producing 500 gp worth of timber for infrastructure investment. This costs the Baron a total of 25 gold (1 sp per person for 25 people for ten days). If he had determined to sell the timber, rather than use it for infrastructure improvements, it would have yielded 250 gold but still cost 25 gold to extract.

No more than 10% of the overall population can be put to work extracting resources, even if there are multiple resources present within the hex.

Each resource has a base value, given in the descriptions below. Some eyeballing will be needed; for resources that are common roll twice and take the lower result, for resources that are rare roll twice and take the higher result. The base result is for a Value of 1. For each additional step multiply the base amount as follows:

It is up to the Referee to determine what exactly the resources are; placement of resources should make sense within the context of the hex in which it is found.

- Step 1.** 1x
- Step 2.** 5x
- Step 3.** 10x
- Step 4.** 20x
- Step 5.** 50x

Game. These are wild animals found within the hex that can be harvested for meat, hides, or other parts. Common game might be squirrels, rabbits, trout, etc. Rare game would be oysters or mussels, beaver, mink, etc. The base degree of value is worth a base of 10d10 gp.

Livestock. Animals raised for meat, hides, or as working animals. Common animals would be mules or draft horses, pigs, cows, and so forth. Rare animals would be those that can be trained as specialized mounts, rare breeds, etc. The base degree of value is worth 10d20 gp.

Quarried. Includes stone and rock mined for large scale projects; marble for statues, granite for building materials, slate for roofs, etc. The base degree of value is worth 10d100 gp.

Mined. Ores mined for all sorts of purposes, from coal or iron, semi-precious stones and minerals or precious stones or valuable minerals. The base degree of value is worth 20d100 gp

Agricultural. Food and related production (such as hemp, cotton, etc.). The base value is worth 10d10 gp

Industrial. Vegetable matter harvested for use in crafts. Wood for structural timbers, furniture and fine crafts, or even firewood. The base value is worth 10d100 gp.

Ex. Gorm rules a hex that has a Game Value of 5 because of the plentiful herds of deer that can be found within. Deer are neither common nor rare, so they are worth a base of 10d10 gp, for a result of 59 gp. Before he starts to cull the deer they are worth a total of 2,950 gp (59 gp x a Step multiplier of 50). After the herd has been reduced to Step 4 it is worth a total of 1,180 gp, then 590, then 295, then, finally, once the herd is almost depleted, 59 gp.

Collecting Revenue

A hex will start to generate income the first full month after settlers arrive. Any families gained afterwards – whether from immigration or natural growth – start to generate income the next full month after they arrive. Income generated during a month is collected the first day of the following month. Population changes are rolled for on the first day of the new month and are assumed to have occurred spread out during the previous month.

The collection of revenue is assumed to fall under the Maintenance expense, below.

Domain Expenses

Every hex has expenses, just as every hex has income. Expenses are due on the final day of each month and are for that month's cost. Each hex has the following expenses, and all are based off the gross income.

1. Tithes
2. Vassalage
3. Maintenance
4. Garrison
5. Festivals

The tithe is a payment of 10% of a hex's income, paid to the various sanctioned churches that have a presence within the hex.

If the domain ruler owes vassalage to another ruler they must pay 20% of their income to their liege.

A flat 1d10% of the hex's income (roll each month, or assume a 6% rate) goes towards maintaining existing infrastructure. If the hex is Wilderness roll twice, taking the lower result (or assume 4%). For every month the tax is not paid increase the next month's cost by 1d6% (or 4%) as wear and tear to the infrastructure increases.

Example. Baron Gorm is low on cash and decides to forgo maintenance costs for two months. On the third month he is ready to continue paying, but deferred maintenance is now equal to

1d10%+2d6% of the month's income, or 6% + 4% + 4%.

The cost of the garrison is also included in a hex's expenses.

Festivals are an optional expense, but not having at least one festival per season (three-month period) incurs a morale penalty (see p. 24).

Urban Centers

At some point the ruler is going to want to start growing urban settlements. The initial investment of a keep worth a minimum of 20,000 gold automatically creates an urban center of Market Class I, albeit one without a population! The ruler may invest more money into urban developments to increase size potential of the center.

A keep built in a given hex **always** creates an urban center with a Market Value of 1. Once a keep is built and the base urban center established, any additional infrastructure investments to the village must take place separate from improvements to the keep. In other words, if a character builds a keep worth 20,000 gp, and later decides to expand it to be worth 40,000 gp, those improvements do not do anything to increase the size of the urban center. Likewise, spending 10k to increase the size of the urban center doesn't increase the value of the keep.

Even though the presence of a garrisoned keep creates a Market Class of 1, it doesn't become a populated urban center until at least ten families are moved into the settlement (usually from somewhere else in the domain).

If for some reason an urban center is established without the presence of a keep in a hex it costs a base 10,000 gold to build the infrastructure for the starting hamlet, after which point settlers can be moved into the settlement.

The area surrounding an urban center must be developed and populated to the extent that it can support the settlement. A Wilderness hex can support a maximum settlement size of Class 4. A

Borderlands Hex can support a maximum settlement size of Class 6. In order for an urban center of Class 7 or greater to exist than it must be surrounded by seven contiguous Civilized hexes (including the hex it is in).

Refer to the table below to determine how much investment is needed to increase the size of an urban center. The number below are per increase in size, not total. Therefore, it costs 5,000 gp to go from MC 1 to MC 2, and an additional 10,000 gp to go from MC 2 to MC 3

Urban Investment Costs	
Market Class	Investment Needed
1	10,000 gp
2	+5,000 gp
3	+10,000 gp
4	+20,000 gp
5	+40,000 gp
6	+60,000 gp
7	+80,000 gp
8	+100,000 gp
9	+200,000 gp
10	+500,000 gp

The above costs are abstracted out and assume a general selection of infrastructure improvements. Specific investments can be made, with specific benefits to the given market class, as desired by the Referee. Such improvements will be detailed in a later supplement.

Assume an average population density in Class 6 markets and larger of 60 individuals (or 12 families) per acre. Class 5 and smaller markets will have a population density of less than that, around 40 to 50 individuals (or 8 to 10 families) per acre. Certain urban improvements may enable more people to squeeze into a given area.

An acre occupies 43,560 sq. ft. If a circle it would have a diameter of roughly 240 feet and a circumference of roughly 740 feet. A single child hex of a 6-mile hex, therefore, contains roughly 724 acres. The largest cities, therefore, could conceivably occupy an entire subhex.

These figures are useful for determining how much space a settlement occupies, the length of wall required to encircle the center, and so forth.

Urban Income

Urban centers generate income much as do hexes, and the income generated is part of the domain's overall income (for purposes of figuring tithes, vassalage, XP, etc.). However, urban residents pay higher taxes while generating less service income. Urban income comes from two sources:

1. Taxes
2. Service Income

A typical urban center charges a tax of 4 gp per month per family. Urban centers located in grasslands, prairie or similar hexes, on important trade routes, or on navigable waterways generate +10% more in taxable revenue than other urban centers, due to their favorable placement for trade.

Service income for urban centers is equal to 3 gp per month per family. If desired, the domain ruler can allocate service income to infrastructure improvements *or* pet projects. Doing so doubles the allocated gold for such purposes. A ruler could allocate service income towards improving her keep, increasing the size of the urban settlement, or building ships for her navy, for instance.

Unlike projects in the rural part of a hex any percentage of the urban service revenue can be devoted towards projects. Additionally, there is no direct cost involved in devoting urban service revenue to pet projects; the loss in the revenue makes up for that.

Projects using service income must take place within the urban center itself. Service income generated in this manner is considered to be all labor. Note that in the case of construction and infrastructure projects half the cost is in labor and the other half is in materials.

Example. The time has come for Gorm to build a navy. Rather than pay for it directly, though, he

decides to allocate some of the service income from his largest port city, Dunderhaven, towards that goal. Dunderhaven is a Class 5 market with 400 families, and typically generates 1200 gp of service income a month. He decides to allocate two-thirds of that – 800 gp per month – towards building a fleet of large sailing ships (cost of 22,000 gp each). The gold amount designated for the labor is doubled, so he is producing 1600 gp worth of work on his vessels each month. Each ship requires 11,000 gp worth of labor, so it will take roughly 7 months to build each ship. Note that in this case he still pays the full 11,000 gp for materials.

Urban Expenses

Like domains, urban centers require monthly expenses. They are as follows:

1. Garrison.
2. Maintenance.
3. Tithe.
4. Vassalage.

The urban center must be patrolled by a properly sized garrison lest it be overrun by thieves, slavers and ne'er-do-wells. This is separate from the cost of the garrison, even though the garrison is likely stationed within an urban center. The guard is tasked with maintaining law and order within a city. A force of one guard per twenty families is considered sufficient. This can be abstracted out to a cost of 5 sp per family to support the infrastructure needed for the guard.

Guards are typically 0-level humans armed with clubs and leather armor. Every ten guards are overseen by a sergeant, typically a 1st level fighter, and every three squads are overseen by a captain, a fighter of level 2-3.

The urban center will also need constant maintenance due to wear and tear. This costs 1 gp per family per month.

Urban centers often contain shrines and temples to many deities, and wise rulers tithe a portion of their gross income (typically 10%) to the various sanctioned religions functioning within a city.

An urban center's income is included in the vassalage owed by a domain's ruler (if any).

Both tithes and vassalage are determined prior to subtracting any other costs.

Ex. With 400 families, Dunderhaven generates 2,800 gp of income a month. 10% of that goes directly to religious tithes (280 gp per month), another 20% goes towards Gorm's payment to his liege lord (560 gp per month), and Dunderhaven itself must pay for its city watch (200 gp per month) and urban maintenance (400 gp per month). This leaves it with a total income of 1,360 gp per month.

XP from Domain Income

Each month determine the ruler's net income from all of the hexes and urban centers under their direct control. The net income is equal to Income minus Expenses. This is the base pool of XP the ruler gains per month. Divide this total by the ruler's level. This is the actual amount of XP they earn from rulership. Domain rulers can become more powerful over the years simply through administering her lands, but those who adventure gain experience much more quickly . . . at a much greater risk, of course.

Note that income generated through vassalage *is not* included in the XP calculations, as it has already been applied further down the food chain.

Domain Morale

A domain's morale score is rolled for four times a year, at the beginning of each season. Modifiers are applied based on the action of the ruler during the previous season. Roll 3d6 and modify the result as follows:

Domain Morale Modifiers	
Factor	Modifier
Ruler's Charisma modifier	Varies
Ruler's Int/Wis Modifier	+/- 1
Ruler devotes inadequate time to ruling	-1
Festival held for citizens per month	+1
No festival within a season	-1
Ruler does not pay religious tithe	-1
Ruler does not maintain garrison	-1
Ruler stations as many troops as citizens within hex	-1
Taxes < 1 gp per month	+1
Taxes > 2 gp per month	-1 per gp increased
Maintenance tax not paid	-1/10% decrease
41%+ of the populace mining	-1
>29% of the population producing food	-1
Ruler is Chaotic or population abused	-1

Morale is rolled for each domain individually (within a larger domain). Note that all costs and requirements are for all hexes and urban settlements within a domain. If a ruler underfunds her urban garrisons it has the same effect upon the overall morale as underfunding rural garrisons. Likewise, urban citizenry expect to participate in the same festivals as their rural relatives.

Ability Score Modifiers. Charisma is the most important score for rulers and is added to the roll. Realms also benefit from Wisdom and Intelligence. For each positive modifier (regardless of the score) add +1 to the morale roll. For each negative modifier subtract -1 from the roll.

Ex. Gorm has a Charisma of 16, a Wisdom of 16 and an Intelligence of 9. He adds +2 to the roll for his Charisma modifier and +1 for having a positive Wisdom modifier.

Absent Ruler. Governing a domain is hard work. The domain's ruler is expected to spend at least one week per month administering her domain, modified as follows:

- +1 day for every hex beyond one she personally rules.
- +1 day for every urban center of Class 4 or higher that exists within her personal domain.
- +1 day if at least one hex within her domain is Civilized.

The time does not have to be continuous, but they must have at least three continuous days per month during which they deal with administrative matters. The remaining days can be spread out as desired throughout the month.

During this time the ruler cannot take care of any other duties or tasks (such as magical research, if she is a mage). Spending less than the required time in her domain is detrimental to her reign, allowing dissent to flourish. Subtract one from the roll if the required time is not spent per month, plus an additional +1 if the ruler is not present for at least three consecutive days at least once per month.

Festival. The ruler of a domain can sponsor festivals for the population. Throwing a festival costs 1 gp per family within the domain, both rural and urban. The citizenry expects at least one festival per season. If there are no festivals within a season a -1 penalty is applied to morale rolls. If one festival is held per season no adjustment is made. Additional festivals per season add a +1 modifier for each one past the first, to a maximum of +1 per month. Therefore, having a festival each of the three months during a season grants a +2 bonus to the morale roll.

Festivals typically last two days, during which time all urban centers within the domain have their Market Class increased by 1.

Garrison. Maintaining less than the required garrison, or having a garrison equal to or greater than the population of the citizenry in the hex (for Borderlands and Civilized domains only),

assesses a penalty of -1 to the roll. This penalty is applied only if the garrison is undersized/oversized for more than one month per season.

Taxes. Lowering taxes under than 1 gp per family per month improves the morale of the populace, adding a +1 bonus to the check. The lowered tax must last all season. The bonus is only good for four seasons, after which point the populace gets used to the new lower tax rate.

Raising taxes does the opposite, imposing a -1 penalty to the roll if increased above 1 gp and for every additional gp above 1. After four seasons the populace becomes inured to the increase and the penalty decreases. If the tax rate is higher than 4 gp/month, though, the populace never gets used to the higher rate.

Maintenance Tax. If the liege neglects the maintenance the improvements in the hex begin to degrade. In addition to accumulating cost, a penalty of -1 is applied to the roll if the maintenance tax is not paid for two or more months per season.

Mining. If 50% or more of the population is engaged in mining and/or quarrying, impose a -1 penalty to the check for every 10% above 50%. Thus, 50% of the population imposes a -1 penalty, 60% of the population imposes a -2 penalty, etc.

Food Production. If less than 30% of the populace is engaged in food production (Game, Livestock and Agricultural Resources, combined) apply a -1 penalty per month to the roll.

Morale Results

No morale score will change more than one degree from one season to another, regardless of the actual roll.

Example. Gorm is a good ruler, and his morale has been Happy for the past four seasons. However, at the start of the new year the roll is horrible, a 3, for a modified result of 6. For this

season the populace's morale slips down one degree, from Happy to Content.

1 or lower (Revolt). The domain is in open revolt. No income can be collected. There's a 1 in 2 chance per month of an assassination attempt against the domain's ruler by a thief or assassin of level 1d8+6), 50% of the peasantry rises up to form a militia, led by a pretender to the throne (fighter level 1d4+7). The population automatically decreases by 5% per month as those who can flee do so.

2 (Rebellious). Income from all sources drops by 50% per month. There's a monthly 1 in 4 chance of an assassination attempt against the ruler (thief or assassin 1d6+6). Roll three times monthly for population change, taking the worst result. There's a 1 in 6 chance that 50% of the peasantry rises up to form a militia, under the leadership of a pretender to the throne (fighter level 1d4+5)

3-4 (Belligerent). As below. Income is reduced by 25%. There's a 1 in 6 chance per month that an attempt is made upon the ruler's life (thief or assassin level 1d6+3). Banditry and crime becomes prevalent. There's a 1 in 10 chance per month that 20% of the populace will rise up and form a militia, under the leadership of a pretender to the throne (fighter level 1d6+3).

5-7 (Discontent). When rolling for natural population growth roll twice, taking the worse of the two results. There's a 1 in 10 chance per month that an attempt is made upon the ruler's life (made by a thief or assassin of level 1d8+1). Income from all sources is reduced by 5% per month as the population resists the yoke of taxes.

8-13 (Content). The population and income generated remain stable.

14-16 (Happy). The population tends to grow slowly (roll twice, taking better result). Spies have a 25% of being unmasked per season.

17-18 (Loyal). As above, with income from taxes and services increasing by 5%. Spies have a 35% of being unmasked per season.

19 (Dedicated). As above, but income is increased by 10%. Spies have a 50% chance of being unmasked per season.

20 or higher (Fanatical). The population grows more quickly. Roll three times, taking the best result. Income from all sources is increased by 15%. Spies will be uncovered 75% of the time.

Domain Sizes

Using the traditional European ranks of nobility, we can assign average sizes (in 6-mile hexes to a variety of domains). The assumption is that any given domain larger than a Barony is made up of constituent parts.

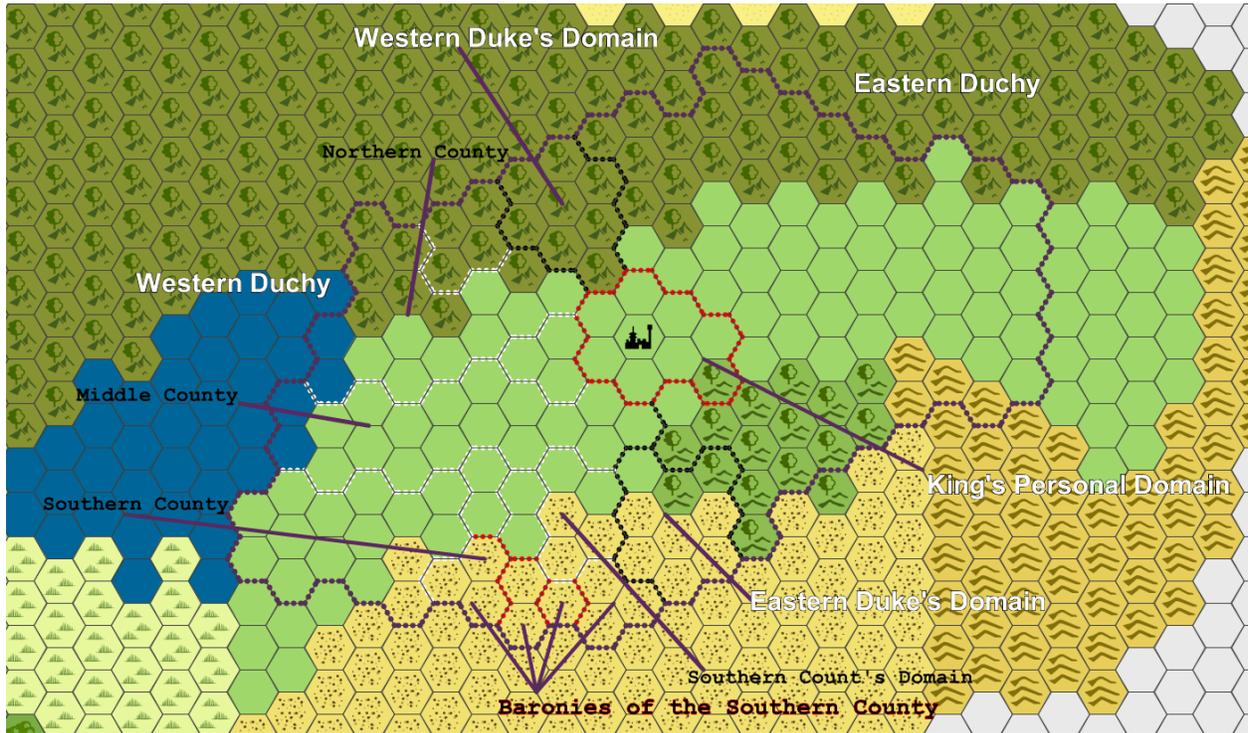
These sizes are not hard and fast rules; someone who founds a domain that owes fealty to no master can call herself whatever she wishes, even if she only controls a single hex.

Typically, a large domain, such as a kingdom, is made up a number of smaller domains. The king or queen would rule her own personal domain, and there would be a number of dukes who have pledged their fealty to them. Each duke would rule over a duchy, consisting of their personal domain plus all of the domains of the counts and marquis that own them fealty. Further, each count and marquis would rule a domain, consisting of their personal domain, plus those of their vassals. Finally, at the bottom, are a number of barons.

On the next page is the same sample map we used earlier to define the shadow of Civilization, but filled in with a sample kingdom. As can be seen, the king oversees a central domain (in red) and the rest of the kingdom is divided into two Duchies, East and West. These two Dukes owe fealty to the queen and give her 20% of their monthly income. Each Duchy, and the personal dukedoms, are outlined in black.

Each Duchy is divided into the Duke's personal domain and a number of Counties; the Counts of which are vassals of the Duke. Each Count owes 20% of their monthly income to their Duke. The counties are subdivided by the white dotted line.

Each County is divided into the Count's personal domain as well as a number of Baronies. Each baron owes fealty to and 20% of their monthly income. The baronies are outlined in red.



How this Works in Play

Upon reaching 9th level Gorm the Fearless decides it is time for him to make his mark upon the world and found a domain. He dislikes the idea of owing fealty to another, so strikes off into the wilderness, accompanied by his loyal companions (the other PCs and his retainers). It takes a month or two of travel and surveying, but he eventually finds a piece of land that he thinks will serve him well.

His chosen domain is some 150 miles away from the borders of the nearest kingdom and is in the Wilderness. He and his companions explore, map, and clear the initial hex (50.33), a process that takes roughly three

weeks. Hex 50.33 just happens to contain the ruins of an ancient keep, and from the crumbling roof line he flies his banner. "I hereby declare this Gormhold," he exclaims to those assembled, "from this humble place we will pacify and settle the surrounding lands and found a great kingdom!"

The referee rules that the existing keep is worth 7,500 gp, and the minimum value it must be in order to control the existing hex is 20,000 gp. The keep needs 12,500 gp worth of work, of which half (6,250) is labor and half (6,250) is materials.

Hex 50.33, forested hills, has the following Inherent Land Values: Game 2, Livestock 1, Quarried 2, Mined 2, Agricultural 2, Industrial 2. It has the following Additional Resources (determined randomly by the Referee when

populating the hex): Vegetable (Industrial) 3, Vegetable (Industrial) 1.

The Referee has determined that both Additional Resources are the same: stands of old-growth oaks suitable for use in construction. The first stand, with a Value of 3, has a base value of 495 gp (yielding a current value of 4,950 gp) and the second stand has a base (and current) value of 412 gp. Gorm has the choice to harvest some of the resources now or wait and add it to the land value.

Before he can start bringing his peasants and collecting land revenue he must first rebuild the Keep. There are no humans living within this hex, so he must import workers, an adventure in itself, but he manages to do so. First off, he decides to harvest the second stand of oak for materials for the Keep. It's not worth much, and won't add anything to the overall land value, and because he is using it for infrastructure purposes he gets double the value of the trees that he can use to pay down the material cost, reducing the materials needed for the Keep by 824 gp to 5,426 gp.

It takes six months, during which time Gorm must still keep the hex patrolled and clear of threats, but the Keep is finally complete. The hex was cleared on the last day of the Firstmonth of the Thirdyear, and the work on the Keep completed on the last day of the Seventhmonth of the Thirdyear.

Eighthmonth, Thirdyear

The Referee determines that the construction of the Keep attracts 40 peasant families, ten of whom will arrive during the first month after the founding. In addition, because Gorm is 9th level he will attract 50 men-at-arms and 1 higher level NPC (rolling the Referee determines she is a 2nd level fighter). One quarter (ten, in this case, since they arrive in squads) of the mercenaries and the one 2nd level fighter arrive during the 1st month.

As long as the domain remains this size Gorm need only spend one week per month managing his domain.

- Size of the domain at the start of the month: 1 6-mile hex.
- Value of Keep Gormhold: 20,000 gp
- Urban Centers within the domain: None (Keep Gormhold counts as Market Class 1).
- Population at the start of the month: 0
- Revenue generated during the month: 0
- Expenditures during this month:
 - Garrison. 505 gp
 - Followers. 110 gp
 - No other expenditures are due until the end of the Ninthmonth.
- Peasants arriving during the month: 10 families
- Followers arriving during the month:
 - 10 bowmen (10 gp each, total 70 gp)
 - 2nd level fighter (40 gp/month)
 - Initial cost is 110 gp for the Eighthmonth.

Gorm looks askance at his dwindling treasury and sets his new followers, and a quartet of trusted retainers, to start exploring and clearing the hexes adjacent to Hex 50.33. Knowledge of the surrounding land will help him plan future expansion, as well as hopefully generate some revenue as lairs are eliminated.

It takes the month to explore, map and clear Hex 49.32. Gorm determines there two additional resources within this hex: Animal, Livestock (2) and Vegetable, Agricultural (4).

Ninthmonth, Thirdyear

Twenty more peasant families and thirty more mercenary followers arrive during the Ninthmonth, but only the first ten peasant settlers count towards land revenue and taxes. Gorm sets his followers to explore and clear hex 50.34. To make life easy for him Gorm just uses the abstracted land value. The additional resource within this hex doesn't apply at this point (it only will if he ever breaks down land value into its constituents). The abstracted land value for forested hills is 2.5 gp per month, and the service revenue for a wilderness hex is 4 gp per month.

- Size of the domain at the start of the month: 1 6-mile hex.
- Value of Keep Gormhold: 20,000 gp
- Urban Centers within the domain: None (Keep Gormhold counts as Market Class 1).
- Population at the start of the month: 10 families
- Revenue generated during the month (collected the first day of the Tenthmonth): 75 gp
 - Land Revenue: 25 gp
 - Service Revenue: 40 gp
 - Tax Revenue: 10 gp
- Expenditures during this month (due at end of month): 826.25
 - Garrison. 505 gp
 - Followers. 300 gp
 - Tithe: 10% of gross: 7.5 gp
 - Maintenance: 5% of gross, or 3.75 gp
 - Festival: 10 gp
- Net Profit: -751.25
- XP gained: None
- Peasants arriving during the month: 20 families, plus 1 through natural growth.
- Followers arriving during the month:
 - 30 more followers arrive during the Ninthmonth: ten crossbowmen (50 gp), ten light mounted (100 gp) and ten heavy infantry (40 gp)

Gorm considers letting some of the garrison go and replacing them with followers, but decides instead to put some of this second tier retainers (the retainers of his direct retainers) in charge of the followers and have them sweep the hexes outside of Gormhold that have been cleared but not garrisoned.

He also starts paying for a festival a month, figuring that the cost will more than pay for itself in higher morale for his citizens. This is also the first month he rolls for additional population growth: rolling 1d10 he gets an 8, meaning the hex gains one additional family.

It takes the month to explore and clear hex 50.34. He determines there are

Tenthmonth, Thirdyear

His retainers start to explore and clear hex 51.34.

- Size of the domain at the start of the month: 1 6-mile hex.
- Value of Keep Gormhold: 20,000 gp
- Urban Centers within the domain: None (Keep Gormhold counts as Market Class 1).
- Population at the start of the month: 31 families
- Revenue generated during the month (collected the first day of the Tenthmonth): 232.50 gp
 - Land Revenue: 77.5 gp
 - Service Revenue: 124 gp
 - Tax Revenue: 31 gp
- Expenditures during this month (due at end of month): 921
 - Garrison. 505 gp
 - Followers. 350 gp
 - Tithe: 10% of gross: 23.25 gp
 - Maintenance: 5% of gross, or 11.75 gp
 - Festival: 31 gp
- Net Profit: -688.50
- XP gained: None
- Peasants arriving during the month: 10 families, plus 2 through natural growth!
- Followers arriving during the month:
 - 10 more followers arrive during the Ninthmonth: ten crossbowmen (50 gp)

The new domain continues to hemorrhage cash, but luckily the exploration and clearing of the nearby hexes provides a steady source of income. With the current troops Gorm has on hand he will be able to patrol three adjacent hexes; not so that settlers can move there, but to at least remain alert to any threats moving into the area.

Eighthmonth, Fourthyear

A year after Keep Gormhold is complete the new domain is no longer shedding gold, and it now

consists of two hexes and a burgeoning village. There are now enough peasants living in each hex that it is worthwhile figuring out and allocating labor to the different resources. They are both forested hills and are still considered Wilderness. The Land Revenue values are below, adjusted for CR and any Additional Resources the hexes possess.

Gorm spends a minimum of eight days per month personally managing his domain.

Hex 50.33: Game 2.5, Livestock .5, Quarried 2.5, Mined 3, Agricultural 2, Industrial 2.7.

Hex 49.32: Game 2.5, Livestock .7, Quarried 2.5, Mined 3, Agricultural 2.6, Industrial 2.5.

In each hex Gorm designates 20% of the populace to work Quarried, Mined, and 30% into Industrial resources, and divides the remaining two categories into the remaining 30%:

Hex 50.33. $(2.5 \times .15 \times 100) + (2.5 \times .20 \times 100) + (3 \times .20 \times 100) + (2 \times .15 \times 100) + (2.7 \times .30 \times 100) = 258.5 \text{ gp}$

Hex 49.32. $(2.5 \times .15 \times 75) + (2.5 \times .20 \times 75) + (3 \times .20 \times 75) + (2.6 \times .15 \times 75) + (2.5 \times .30 \times 75) = 196.13$

- Size of the domain at the start of the month: 2 6-mile hexes.
 - Hex 50.33 – Gormhold
 - Hex 49.32 – White Oak Canyon
- Value of Keep Gormhold: 35,000 gp
- Urban Centers within the domain: Gormhold (MC 3)
- Rural population at the start of the month: 175 families
 - Hex 50.33: 100 families
 - Hex 49.32: 75 families
- Urban population: 25 families
- Revenue generated during the month (collected the first day of the Tenthmonth): 1,529.63 gp
 - Land Revenue: 454.63
 - Service Revenue (rural): 700
 - Service Revenue (urban): 100
 - Tax Revenue (rural): 175 gp

- Tax Revenue (urban): 100 gp
- Expenditures during this month (due at end of month): 1,439.44
 - Garrison. 1010 gp
 - Followers. Absorbed into garrison or henchmen.
 - Tithe (10% of gross): 152.96
 - Maintenance (5% of gross): 76.48
 - Festival: 200 gp
- Net Profit: 90.19
- XP gained: 10 XP

And the domain continues to grow, with Gorm conquering new territory and adding it to his new kingdom. At a certain point it will become larger than he can manage, so he will make land grants to his various retainers, and titles, and they will begin to administer their domains.

Speculative Trading

Speculative trading involves buying goods in one place and transporting it to another place in hopes it can be sold at a profit. Much of the trade in Absalom occurs via Company contract; those involved have contracts to transport goods from one city to another and are guaranteed to make sales. If there is excess storage in a caravan, or the caravan is made up of adventurers dabbling in trade, one may engage in speculative trading.

This chapter deals with speculative trade; leave the contracted goods to the merchants who wish to do so. There are two broad ways the adventurers may wish to engage in speculative trade:

1. Personally.
2. Through intermediaries.

If the adventurers do it personally the assumption is that they hire or purchase the wagons or boats, hire the guards, purchase goods, etc. All costs associated with such a venture can be dealt with directly; the characters can figure out how many guards they want to hire and proceed to do so. If the trade is to be done through an intermediary – in other words, it is handled off-screen and not role-played – it is best to abstract these things out.

We'll start with the assumption that the PCs will be personally involved with the venture, and then provide additional clarification on abstracting everything out. There will also be rules for trading on land versus trading via boats.

Trade Goods

First, the things the characters buy with the hopes to sell are called trade goods and are abstracted out into "loads". For the most part a load is a load, and the quality or type of material in the load doesn't matter terribly. Note that individual trade goods might have certain modifiers based upon where they come from: pottery from one

village might be world-renowned, and therefore worth more than an average load of pottery.

Common Trade Goods				
Roll	Merchandise	1 Load	Enc/load	Base Price
01-04	Wood, common	1 cord (1)	8,000	50 gp
05-08	Oil	5 jars	3,000	100 gp
09-12	Textiles (2)	4 bags	2,000	100 gp
13-16	Salt	150 bricks	7,500	100 gp
17-20	Beer, ale	1 barrel	800	100 gp
21-26	Grain, veg.	20 bags	8,000	150 gp
27-30	Fish, preserved	10 barrels	8,000	150 gp
31-35	Hides, furs	10 bundles	4,000	150 gp
36-39	Tea, coffee	2 bags	1,000	150 gp
40-43	Animals	Roll on Animals Table		
44-47	Pottery	2 crates (3)	1,000	200 gp
48-51	Wine, spirits	1 barrel	800	200 gp
52-54	Meat, preserved	10 barrels	8,000	200 gp
55-60	Metals, common	200 ingots	10,000	200 gp
61-63	Dye, pigments	5 jars	2,500	250 gp
64-68	Cloth	20 rolls	8,000	200 gp
69-73	Weapons, tools	1 crate (3)	1,000	Varies (4)
74-75	Monsters	1 monster	Varies (5)	
76-80	Glassware	2 crates (3)	1,000	400 gp
81-85	Semi-precious stones (6)	1 box	100	200 gp
86-99	Roll on Rare Table			
00	Unique	As desired.		
Rare Trade Goods				
01-10	Mounts	Refer to Animals Table		
11-21	Wood, precious	1 cord (1)	8,000	500 gp
22-33	Porcelain, fine	2 crates	1,000	1,000 gp
33-41	Books	1 box	300	1,000 gp
38-53	Armor (3)	1 crate	1,000	Varies (4)
54-61	Ivory	1 tusk	1,000	800 gp
62-67	Spices	1 jar	600	800 gp
68-75	Silk	5 rolls	2,000	1,000 gp
76-85	Furs, rare	1 bundle	500	500 gp
86-94	Metals, precious	2 ingots	400	600 gp
95-99	Gems	1 box	50 gp	3,000 gp
00	Unique	As desired		

(1) A cord consists of one of the following: fifteen logs each 12" diameter x 10', forty planks 2" thick x 6" wide.

(2) Textiles include rope, sacks, and other similar goods such as canvas, yarn, etc.

(3) A crate weighs 200 cn. To find the number of objects within divide the remainder (800 cn) by the encumbrance of the good. Any excess is assumed to be devoted to padding.

(4) Once the number within is determined use the given prices to determine the worth of the goods.

Ex. Magnus has purchased a crate of short swords. Each short sword has an encumbrance of 30 cn and is worth 7 gp. The crate contains (800/30) 26 short swords, worth a base price of 182 gp.

(5) Monster encumbrance should be determined by the Referee. Monsters (alive) are worth 10d10 gp per HD (roll once, then multiply by HD), multiplied by 10 for every special power (asterisk) the monster has. Monsters worth more than 1,000 gp are considered rare merchandise. A dead monster is worth 40-100% of the cost of a live monster (2d4+2 x10). Live monsters require twice the cargo space as dead monsters, and likely require food as well.

(6) Semi-precious stones include amber, turquoise, alabaster, agates, geodes, etc.

Animal Type					
Roll	Animal	Enc*	Load	Fodder	Base
1-3	Rabbit/Hen	50 cn	100	20 gp	25 gp
4-6	Goat/Hound	500 cn	20	20 gp	100 gp
7-9	Pig/Sheep	1,000 cn	10	20 gp	100 gp
10-12	Goat/Deer	1,500 cn	7	20 gp	125 gp
13-15	Cow	10,000 cn	5	20 gp	125 gp
16-17	Horse (1)	15,000 cn	2	20 gp	200 gp**
18	Elephant	100,000 cn	1	30 gp	1,500 gp
19-20	Other				

*Encumbrance is per animal.

(1) If the result is horse it will be a draft horse on a roll of 1-3, a riding horse on a roll of 4-5, and a warhorse on a roll of 6. Adjust base price accordingly.

Buying and Selling Goods

Every urban center has the potential to be a desirable market for either buying or selling. This means that a given good is either typically available in surplus – meaning it can be purchased cheaply – or in demand – meaning it can be sold for more than the base price.

Roll 1d4-1 twice for each market center. The first result is the number of goods that are in surplus, the second the number of goods that are in demand. The exact goods can be diced for at

random, using the numbers assigned to the trade commogoods table, or they can be assigned by the Referee. The urban center's hex provides a good guideline for determining what goods are plentiful and which are rare: if the hex is forested, for instance, wood products will likely be plentiful.

Each good within a group is then assigned a modifier ranging from -3 to 3. Roll 1d3 for each good. Those goods that are in surplus have a negative modifier, those that are in demand have a positive modifier.

Ex. Rolling for Dunderhaven we determine that there is one good in surplus and one good in demand. Rolling on the trade goods table we find that hides and furs are in demand and common metals are in surplus. Hides and furs have a demand modifier of +1 while common metals a demand modifier of -2.

When attempting to buy or sell goods the character must spend time searching for a potential market. It takes a number of days to find a buyer determined by the market class. Additionally, any market can only absorb a limited number of loads per day. Refer to the following table for more information. If the market is on a major trade route, a navigable river, or is a port city roll twice for each column, taking the better result.

Roll individually per type of good to determine how long it takes to find a buyer, then for that good roll how many loads per day can be sold. Once the initial loads are sold the clock resets, new rolls are made, and it takes that length of time to find a new buyer.

MC	Days*	Loads/day
1	1d2	1d2
2	1d3	1d3
3	1d3	1d4
4	1d3	2d4
5	1d4	2d6
6	1d4	2d8
7	1d4	3d8

8	1d6	3d10
9	1d6	3d12
10	1d6	3d20

*note that it can take longer in a large market to find a buyer due to the sheer number of merchants and traders that must be contacted, even though there are *more* of them.

Ex. Magnus has arrived in Dunderhaven, a class 5 market, with ten loads of oil, five loads of pottery, and two loads of glasswares. He wants to buy three loads of common metals and five loads of common wood.

Rolling, we determine that it takes 4 days to find a buyer for the oil, 4 days to find a buyer for the pottery, 4 days to find a buyer for the glasswares, and two days to find a seller of metal and two days to find a seller of common wood.

After two days Magnus is able to buy 3 loads of metal, all he wants to buy, and 10 loads of common wood, far more than he is interested in. After four days he can find buyers for 6 loads of oil, 6 loads of pottery, and 6 loads of glasswares.

After four days Magnus has been able to find buyers and sellers for all of his desired goods, except he hasn't purchased all the oil he wants yet. It takes another 2 days to find someone to sell him the rest of the oil that he wants.

If a good is in surplus apply the modifier to the length of time it takes to find a good for sale; a good with a -1 demand modifier takes 1d2-1 days to find for sale (with a minimum of 1 day). If it is in demand apply the inverse: it would take 1d2+1 days to find the good for sale.

Likewise, if a good is in demand one can generally sell more of it. Roll twice and take the better result. If a good is in surplus it is more difficult to unload. Roll twice and take the lower result.

Once a buyer or seller is found the actual price must be determined. Roll 2d6+1 and apply the demand modifiers. The principle agent's Charisma modifier is also applied to the roll, in a means that is most beneficial to the agent. If the

agent is buying, for instance, the modifier is subtracted from the roll. If the agent is selling the modifier is added to the roll. This is the percentage, x10, that modifies the base price.

Ex. Magnus finds a seller of common metals, a good that is in surplus in Dunderhaven with a demand modifier of -2. Magnus has a Charisma modifier of +1, so he can subtract a further 1 from the roll, which is an 8, yielding a modified total of 5. Magnus can purchase the common metals at 50% of the base price.

Associated Costs

There are a wide variety of costs associated with speculative ventures: labor must be paid for to load and unload the goods at the beginning and end of the trip, guards, hired, food and water provided for all going on the trip, including any animals that are either being taken along as cargo or pulling vehicles, goods must be stored before leaving or while waiting for buyers, etc.

The players have two options: they can track all of these associated costs individually or abstract them out. This guide covers just abstract costs. It includes all costs except for the costs of conveyances, mercenaries, and associated crew.

Caravan travel by sea costs 1 gp per 5000 cn of cargo per day. Caravan travel by land costs 1 gp per 4,000 cn of cargo per day. This is an abstract amount meant to represent all associated costs of transport – repairs, taxes, bribes, goods lost to bad weather, etc.

Adventurers earn XP based upon their success at trading. Subtract the total amount of gold spent from the total amount of gold earned. This is the pool of XP available to all those who participated in the venture.

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