

On January 1st, 2006 I began to fulfill my New Years resolution to read Thomas Pynchon's Mason & Dixon at a pace of three pages a day. I resolved to look everything up that was interesting or obscure. I took a lot of notes throughout the nine months it took to read the book. This is the result. If you find any errors, please email me at tobylevy@juno.com and I'll incorporate your corrections into this text.

Toby Levy

pages 1-3:

The first numbered page in the hardcover first edition is page 6.

Leafing back from there, page 1 is the one that has only the words "Mason & Dixon" in chapter heading typeface about a quarter of the way down the page. The ampersand usage is correct in that it was a business partnership. Mason is always listed first because he was generally considered to be the man in charge of their two major undertakings.

Unnumbered page 2 is totally blank. Unnumbered page 3 is a partition title page. The partition number is spelled out "One" and is given the name "Latitudes and Departures." This first part of the book is 250 pages. The second part of the book is over 450 pages long and the last part is barely 50 pages long. Both "latitudes" and "departures" have several meanings in the context of the work. Latitudes meaning locations on the globe that the surveyors travel through and also meaning the freedom both surveyors give each other to disagree in their personal philosophies. Departures meaning the leaving to travel to foreign lands and also the variance from their plans that they are required to make.

pages 4-6:

Unnumbered page 4 is totally blank.

Unnumbered page 5 begins Chapter 1. This page opens the story during a snowy December in a large busy house with children making their way in the afternoon to a family room. This room they love to play in is the one in which unneeded furniture is stored.

Page 5 reveals that the year at the start of this book is 1786, and the place is Philadelphia. This is where Charles Mason died earlier that year. The first named character is Whiskers the cat. The children are identified on this page only as "the twins and their sister." They and assorted friends gather in this family room to hear tall tales told by the Reverend Wicks Cherrycoke. Cherrycoke (the name of a bit character in Gravity's Rainbow) came to Philadelphia to attend Mason's funeral but arrived too late. The house belongs to his sister Elizabeth and Elizabeth's husband, the Merchant J. Wade LeSpark. Cherrycoke is invited to stay with them as long as he likes, and he soon assumes the roll as entertainer of the children.

One nice image on this page is of the city frozen over. Water has frozen on every tree and the sunlight reflecting on it is described as "Nerve-Lines of concentrated light."

pages 7-9:

On page 7 the children are given names: the sister is Tenebrae. The word tenbrae is latin for "shadows." It is the name of a Catholic religious ceremony. The Twins are named Pitt and Pliny. Pitt was named for British statesman William Pitt and for his son also William Pitt who was Prime Minister of England at the time of this first scene of the novel. Pliny was named after the ancient Roman naturalist Pliny the Elder and his statesman son Pliny the Younger.

The twins bring a tray of baked goods and a coffee machine into the room. The coffee is for the storyteller, to keep him more alert while he is spinning his yarns. The twins request that the next story be about America, and Wicks immediately starts recalling the end of the journey that produced the Mason-Dixon line. It was twenty years ago that it happened. Wicks

describes the line as eight yards wide. It was commissioned to separate two "proprietaryships" and was "nullified by the War for Independence."

vocabulary word #1: Devoirs - duties or responsibilities.

vw #2: syncope - shortening a word by dropping a letter or syllable

The twins goad Wicks into revealing that his grandfather pays him a monthly stipend with the understanding that he is to stay away from England.

an Uncle Ives, wandering through the room, asks what were the "crimes" that Wicks committed to cause this to happen. Wicks confessed that he anonymously posted leaflets revealing illegal activities committed by people in power. He was arrested and put in the Tower of London.

pages 10-12:

Tenebrae challenges Wicks, and he readily admits it was not the Tower of London, but some lesser jail. Upon being sprung, he was told he would either have to go to a mental institution or be sent abroad. Opting for travel, he was booked for passage on a "small British Frigate" named the Seahorse. This ship was to give him experience in war at sea with the French.

Page 12 begins chapter 2, which mainly consists of two letters, one from Dixon to Mason and the other from Dixon to Mason. All of Dixon's letter appears on page 12. Dixon wants to assure that as Mason's "second" he is fully up to doing the job of observing the Transit of Venus on the island of Sumatra and avid to do it. After they are well acquainted Dixon tells Mason that he re-wrote the letter twenty times while stone sober and wishing to finish it so he could go to his neighborhood pub to drink.

pages 13-15:

Chapter 2 concludes on page 13 with Mason's response to Dixon's letter. Mason admits to almost

throwing it away unread, thinking it was unsolicited advice sent to the Royal Astronomer who is Mason's boss. But upon reading it, Mason writes a warm response indicating he is looking forward to meeting and working with Dixon.

Page 14 begins the longish Chapter 3 which covers all the events leading up to Mason and Dixon's sea voyage. Wicks admits he was not present to witness the historic first meeting of Mason and Dixon, but they later told him how they met at the bar in an Inn at Portsmouth. Dixon, the country bumpkin, expresses the concern that so many people living so close together can only lead to murderous violence. Mason replies that to live in the city a man must ignore a lot that goes on around him.

Mason says that he attends the hangings at Tybrun square every Monday, and that Dixon simply must, for the tourist value, come with him to see the next one. Mason upsets Dixon a little by making fun of the country accent used by the people where Dixon lives. Dixon tries to lighten the tension by telling an insensitively ethnic joke.

Pynchon uses the phrase "the Motrix of honest Mirth." Motrix is latin for Motor (vis motrix is used in latin to mean "soul").

pages 16-18:

Mason interrupts Dixon's joke when he fears they are attracting attention in the pub. Mason and Dixon size each other up. Dixon is a couple of inches taller than Mason, but stoops a little, which Mason assumes comes from spending too much time in bars. Pynchon mentions for the first time Dixon's Quaker background.

Dixon admits to being more of a surveyor than an astronomer. Mason makes comments about surveying including bringing up the "ha-ha" which is a ditch that serves as a fence without impeding the view of the surrounding countryside.

Mason is impressed with Dixon's intelligence and Dixon is happy that Mason did not turn out to be a city slicker.

Dixon is a "spirits" drinker while Mason sticks exclusively to wine.

It begins to grow dark outside. In the pub a spotlight shines on "a somewhat dishevel'd Norfolk Terrier with a raffish gleam in its eye..." and invisible instruments play while the animal sings "The Learned English Dog am I"

vw#3: Geomancy - divination by the use of lines and figures or geographic features.

One may only assume that the insertion of a singing dog into the narrative is one of the ways in which Wicks hold's the children's attention.

pages 19-21:

The Learned English Dog finishes his song and people call out "requests." The first asks if the Dog knows "Where the Bee Sucks?" This is a quote from Shakespeare's "The Tempest" spoken by Ariel after he is set free by Prospero. The next request is "What is the integral of One over (Book) d (Book)?" This translates out log(book).

The Dog recognizes Mason and tells Mason to meet him outside. Mason wraps up the remains of his meal to give to the Dog.

vw#4: Metempsychosis - transmigration of souls; reincarnation.

Dixon observes that Mason is acting like a person who has recently lost a loved one.

On page 20 we find a very Pynchonian pun: "Suture Self, as the Medical students like to say."

Mason and Dixon go outside and locate the dog. While following the dog down the street, they are

accosted by a sailor from The Seahorse who somehow recognizes them as upcoming passengers. He identifies himself as Fender-Belly Bodine, clearly an earlier incarnation of the Pig Bodine that figures prominently in Pynchon's other novels.

Bodine thinks he is being helpful by saying that he and his mates will snatch up the dog and hide him on the ship until they reach an island where they would make money by showing off a talking dog. Mason and Dixon both reject the idea.

The dog gets Mason's attention and warns him that they may not have another chance to talk to each other.

pages 22-24:

Mason asks the dog if it is a reincarnation of a human soul. The dog replies it will not answer religious questions, but offers an explanation of it's ability to talk as a way of appearing more human and therefore less likely to be eaten due to man's abhorrence of cannibalism.

vw#5: preternatural (spelled praeternatural in the old style of the book) - beyond the natural course of nature; extraordinary.

A Lunarian (meaning night person, perhaps?) takes offense to the dog's lecture on dog behavior and challenges the dog to a fight. The Lunarian, named Derek, reaches for his "hanger" which I assume is some kind of blade, hanging from his waist. The dog tries to scare him off with a hint that he might have rabies.

vw#6: hydrophobia - rabies

The "exhibitors" of the dog show up to break up the possible fight. They are Mr. and Mrs. Jellows, whom the dog calls "the fabulous Jellows."

Dixon notices a bar named "The Pearl of Sumatra" and persuades the dog and the Jellows to go inside with Mason and Dixon. Some of the crowd

including Bodine accompany them in. The dog tells them his name is "Fang."

In the back of the bar there is an arena set up for cockfighting and a match is in progress. The smell of chicken blood draws the dog toward the arena.

pages 25-27:

Mrs. Jellow leads the dog away from the cockfight. The dog leads Mason to a fortune teller named Hepsie.

vw#7: arietta - a brief aria

vw#8: pythoness - female prophet

Here we learn of the death of Mason's wife two years earlier (this would make the year of her death 1758, when Mason was only 30 years old). Mason is still mourning her and hoping to somehow connect with her through some paranormal means.

Here Pynchon makes up the word "hyperthrenia" which he says means "excess in mourning." he constructs the word from the real word "threnody" which means song of mourning.

For the first of many times, Pynchon uses the word "smoak" on page 25. The context indicates it is used to mean "understand" or "figure out."

The dog was hoping that Hepsie would have been given something for Fang by someone named Angelo but there is no package. Who knows what the dog was expecting?

vw#9: scryess - a woman who predicts the future using a crystal ball

Hepsie wants a half a crown to read the future of Mason and Dixon. How much money is that? Mason wants Dixon to pay half, but eventually digs the whole fee up himself. Hepsie warns Mason and Dixon that they will be attacked by the French when they are at sea aboard the Seahorse.

pages 28-30:

Mason and Dixon are forced to take their leave of Hepsie because a long line of fortune seekers has accumulated behind them. They are enumerated in a song (that presumably Wicks is singing to the children).

"She warned Ramillies sailors Beware of the Bolt" refers to a 1760 naval disaster wherein 700 lost their lives. Read all about it at:

<http://www.devonlife.co.uk/sections/mag/article.cfm?id=234&yid=10>

"And the Corsica-bound of Pa-oli's revolt" refers to the patriot Pasquale Paoli, who successfully revolted against Genoan rule in 1755.

Bodine reconnoiters with Mason and Dixon and asks what they learned. They tell him of the prediction of a French attack and Bodine says Hepsie told Mauve this same prediction for free. Mauve is a prostitute who is a neighbor of Hepsie. Bodine is not afraid of the French and brags of a previous engagement with the enemy.

vw#10: rondure - a circular or gracefully rounded object

Mauve tells Mason and Dixon that they can count on Hepsie's predictions to come true.

Chapter 3 closes with Mason searching the rest of his time ashore for the dog and Hepsie and nobody will admit to knowing them. The ship leaves England on January 9th, 1761.

Chapter 4 starts on page 31 with Wicks telling the children that it was prayer that got them through their confrontation with the French at sea. But in his mind he has his doubts as to how useful the prayers were.

It is revealed that another listener to Wick's tale is Cousin Ethelmer, on holiday break from college in New Jersey. Tenebrae is clearly attracted to Ethelmer.

vw#11: Pollicate - from Latin "pollex" = "thumb", thus = waving one's thumb at

from Hyperarts at

<http://www.hyperarts.com/pynchon/mason-dixon/alpha/p.html>

"Ethelmer smiles and amiably pollicates the Revd..." So Pynchon is saying that Ethelmer gives his uncle the "thumbs up" signal of agreement.

pages 31-33:

The man of the house, Wade LeSpark, has wandered into the room. Pynchon takes the opportunity to say that LeSpark has made his fortune selling arms to "French and British, Settlers and Indians alike..." Ethelmer is morally repulsed by his uncle's actions, but enjoys the monetary gifts and other favors his uncle bestows upon him.

Ethelmer accompanied his uncle to horse races in Maryland, where he fed apples to a racehorse named Selim, who achieved legendary status over the years. Near the end of the book Mason and Dixon remember seeing a race involving Selim and another horse named Yorick.

Wicks returns to his story at the point where Mason and Dixon are dickering with Captain Smith of the Seahorse over who is going to pay the 100 guineas apiece that it will cost to transport them to Sumatra. A pound is 20 shillings, but a guinea is 21 shillings, so 100 guineas is 105 pounds. The captain thinks it should come out of the astronomers' expense account, but Mason and Dixon talk to Lord Anson, head of the British Navy, and he agrees to pay for the trip out of Navy funds.

One thing that confuses me is the identity of Mr. Mead and Mr. White. They each have one sentence of speech each on page 32 and then are mentioned again by Mason on page 247 as being with them at the departure from Plymouth.

The Captain reads the letter from Lord Anson and agrees to put the astronomers in the Lieutenant's mess. Mason explains that astronomers are usually poverty stricken, suffering from "Rutabageous Anemia" (as in "you can't squeeze blood out of a turnip" (a rutabaga is a turnip) - from the Hyperarts Mason and Dixon Alpha).

On December 8th the Captain learns that Bencoolen on Sumatra has fallen to the French, and the Captain says he can get Mason and Dixon to the Cape of Good Hope in South Africa time to view the Transit of Venus.

pages 34-36:

They are finally at sea, and pass by the site of the naval disaster at the Bolt where the Ramilles went down, referred to by Hepsie a few pages back.

The sailors are nervous until they reach the open seas, but they sing a lighthearted song about Sumatra.

The Seahorse is described as "Sixth Rate" which is defined in Wikipedia as follows:

Sixth-rate was the designation used by the Royal Navy for small warships mounting between 18 and 28 nine-pounder guns on a single deck, sometimes with guns on the upper works and sometimes without. Sixth-rate ships typically had a crew of about 150 and measured between 450 and 550 tons. Usually sixth-rates were small frigates. Some larger ship-rigged, flush-decked vessels, were rated, which meant they were large enough to rate a Post-Captain in command, instead of a Lieutenant or Commander.

vw#12: Corposant - an electrical discharge accompanied by ionization of surrounding atmosphere

Captain Smith muses back on his first glimpse of the Seahorse. These lines sound like they could have come right out of several places in Gravity's Rainbow:

"Yet, yet,...through the crystalline spray, how gilded comes she, -- how corposantly edg'd in a persisting and, if Glories there be, glorious light....and he knows her, it must be a Dream, how could it be other? A Light in which all Pain and failure, all fear are bleached away...."

The Captain is met, as he first boards the ship, by a seaman named Blinky. Blinky was "recruited but recently in a press-gang sweep" which was kind of like an early version of the military draft we know today.

Wicks recalls his first meeting with Mason and Dixon, in which they discuss Captain Smith. They question his ability to wage war. The Seahorse itself though had seen action successfully at Quebec in 1759.

Pynchon quotes Samuel Johnson who said that "being in a ship is being in a jail, with the chance of being drowned."

The actual term for a sixth rate frigate lacking a couple of large guns is "jackass," whose irony with a ship named The Seahorse is not lost on the Captain.

Mason and Dixon muse on the meaning of the motto of The Seahorse: *Eques Sit Aeguis*, which Wicks parses as "Let the Sea-Knight who would command this Sea-Horse be ever fair minded..."

A Lieutenant Unchleigh reports to the Captain that they think they've spotted a French ship in the distance. Smith tells him to go up the mast with Bodine and make sure.

pages 37-39:

Captain Smith barks orders to the crew. He orders Bongo to "smell wind!" Do all the sailors names begin with the letter B (Bodine, Blinky, Bongo)?

vw#13: holystoning - scouring the decks using soft while sandstone.

Bongo is a Lascar, or East Indian sailor.

Bongo climbs up into the sails and calls back "Frenchies!" Captain Smith advises the non-combatants Mason, Dixon and Wicks to make themselves useful below the deck.

For an hour and half the Seahorse exchanges gunfire.=with l'Grand.

vw#14: scupper - An opening in the side of a ship at deck level to allow water to run off.

Wicks, in watching the kids enjoying his description of the carnage, thinks that one of the functions of youth is to allow adults to entertain fantasies of immortality.

Wicks and the astronomers attend to the wounded below deck. After the cannons stop booking they remove a large splinter from the leg of Captain Smith, who reports that thirty of his crew have been killed.

Dixon, his thoughts on his mortality, casts aside his Quaker sensibilities, to join forces with Mason in the medical work, thinking of "Fox's advice" which refers to Charles James Fox, a famous British symbol of religious tolerance.

vw#15: loblolly boy - a surgeon's attendant on shipboard

vw#16: lazarette - A storage space between the decks of a ship

Wicks muses on why the French commander lets the Seahorse sail away. He imagines the French commander telling Captain Smith that he will let the ship go on to accomplish the mission of delivering the astronomers to their destination. He also imagines the French commander telling Captain Smith that the Seahorse is too small a catch and that he is throwing it

back in the sea, to let it grow so that he might catch it again later.

pages 40-42:

Wicks remembers that some of the sailors think that l'Grand turned around because they saw another ship coming to help the Seahorse. Since there was no other ship, they thought it might have been a guardian angel.

Another opinion was that morale was low amongst the sailors on l'Grand, and they didn't feel up to finishing the job of destroying the Seahorse. Wicks envisions them sailing back to port singing a refrain that I assume means something like "France does not make war against the sciences." There's a clue that this is the actual reason in that Pynchon states that the refrain will enter "the company of Great Humorous Naval Quotations which would one day include..." and goes on to cite two quotations that were made after the characters in the novel had passed away.

Mason and Dixon are relieved of their medical duties and they return above deck to drink and make jokes amidst the devastation of the ship.

The brief Chapter 5 begins on page 42. Mason and Dixon are sizing each other up after experiencing each other's response to crisis. They feel the war-time experience has bonded them together and "they know they must stand as one..."

pages 43-45:

The ship returns to port for repairs.

Mason and Dixon are patting themselves on the back for their behavior during the battle. Dixon admits to no longer technically being a Quaker since he was thrown out of a Raby meeting last October. Raby was the castle where Quaker meetings were held. Dixon says that Quakers can be tossed out for almost any infraction, large or small.

Dixon remarks that he has no problem getting along with Anglicans and Mason says that he has met and liked a Quaker or two before Dixon, mentioning John Bird, who was the member of the Royal Society of Astronomers who recommended Dixon for the job with Mason.

Two days later they are still talking about the battle. Mason questions why the French Admiralty were not advised of the astronomer's mission and why that did not exempt them from attack on the high seas. They speculate on the possibility of various plots to do them harm.

They load up their pipes with Golden Virginian tobacco and settle down to smoke. They send a letter off to the Royal Society expressing their concerns as to the wisdom of trying to go to South Africa to witness the Transit of Venus. They get back an angry letter from the Society full of threats. They speculate on the author of the letter. Could it be Mason's mentor Dr. Bradley, or Dixon's mentor, Mr. Bird? They resolve to buck up and carry out their obligation.

pages 46-48:

Mason and Dixon resolve to go on with their mission thinking that lightning will not strike twice, but they worry that the lightning might have struck for one and will soon strike for the other.

Chapter 6, beginning on page 47, contains the complete trip on the Seahorse to South Africa. This time they leave port accompanied by a bigger ship for protection.

Mason and Dixon had requested that the Royal Society send them somewhere else other than Sumatra. Mason and Dixon suggested Skanderoon, but they were rejected and told to go to Bencoolen on the island of Sumatra.

Returning to the scene in which Wicks is relating his tale, we see Uncle Lomax drop in from his day at a soap making factory. His soap is of very poor quality.

vw#17: loxodrome - a line on the surface of the earth that makes equal oblique angles with all meridians and that is a spiral coiling round the poles but never reaching them

Pynchon uses the term "steers a loxodrome" to equate to "make a beeline for."

Wicks resumes his tale to say that he bunked with Lt Unchleigh, who complained about everything unmilitary. He did not want Wicks reading the bible because "Print causes Civil Unrest..." The Lieutenant also does not like coffee.

Wicks sings a song lamenting the confinements of shipboard life.

pages 49-51:

The name of the protective warship sailing with the Seahorse is Brilliant. The new Captain of the Seahorse, Captain Grant is not one to abide company on the high seas.

Dixon reveals that he wears clothing that appears military in order to ward off personal attacks.

The ship's first stop on their voyage is Tenerife, one of the Canary Islands, off the African coast. They will take on water and wine at this port. The ultimate destination is kept secret from Mason and Dixon, having been given to the new Captain in a "mysterious seal'd Dispatch."

Wicks pictures the astronomers singing a song as they set out to sea once more, making light of the dangers that previously beset them.

It is revealed that at the time of departure Grant did not know the ultimate destination of the Seahorse either. He was given instructions to follow the Brilliant to Tenerife and to await further orders there.

The moody Captain Grant takes great enjoyment in pretending to be insane, thinking it keeps him young.

pages 52-54:

Pages 52-54 are mainly given over to the various ways men act strangely at sea. First there is Mason, who, for the 24 hours of February 13th (the second anniversary of the death of his wife, Rebekah) neither eating nor drinking and keeping silently to himself.

Then there is the sole remaining member of the ship's band of musicians, a fife player named Slowcombe, who switched from the army to the navy because he liked sailor's women better.

Next there is Jack "Fingers" Soames, who takes sullenness to an art form.

Finally there is Veevle, a seaman who is impossible to awaken once he falls a sleep. The other sailors have him take watches for them while he is a awake and take his rather than try to wake him up.

vw#18: euphroes - a nautical term for blocks of wood with holes in them.

The Boatswain, Mr. Higgs informs Capt Grant that there are problems with the Euphroes. It is probably that the knots used to tie the rigging to the ship are not neat enough for the Boatswain. The captain tells him to talk to the scribbling O'Brian, "the best Yarn-spinner in all the Fleets." Patrick O'Brian is the famous 20th century writer of sea stories. I suppose there is some kind of pun in spinning yarn and tying knots.

pages 55-57:

vw#19: kedging - A method of pulling a boat out of shallow water when it has run aground.

Boatswain Higgs is concerned that if the rigging is not properly tied to the ship that they may lose sails and wind up "warping and kedging into a foreign port.

Seaman Bodine is spending his time in obscene amusement and the rest of the crew are slowly flipping

out from boredom. What does Pynchon mean by the following?

"One or two chess players hold out for perhaps an extra week -- then 'tis Sal Si Puedes..."

with the Spanish phrase, which literally means "escape if you can" in italics.

The crew devise elaborate rituals to be performed when they cross the equator.

The scene switches back to the room where Wicks is telling the story and the listeners discuss with Wicks reasons why there should be a fuss about crossing the equator. Wicks says that the equator is the one place where "our shadows lay perfectly beneath us."

vw#20: barcarole - the style of music sung by the gondoliers in Venice

Eventually the Seahorse picks up a trade wind and heads toward land. Pynchon closes chapter 6 with a scene of Mason and Dixon fantasizing with each other what it would have been like on Sumatra had they gotten to go there.

pages 58-60:

Chapter 7 begins on page 58 with the astronomers in Capetown, South Africa looking back on the voyage from Tenerife to their current location as a hasty blur.

As they are unpacking in their guest suite, they are greeted by Bonk, a representative of the "V.O.C." which is the Dutch letters signifying the Dutch East India company, which serves as the government in Capetown. Bonk warns the astronomers to follow the laws and stay out of trouble. Bonk indicates that they are suspected of being British spies.

Mason and Dixon are staying at the home of the Zeemann family, but eating at the house behind (occupied by the Vroom family) due to the escape of half of the Zeemann kitchen slaves.

Mason and Dixon at mealtime enjoy the company of Cornelius and Johanna Vroom as well as their several nubile daughters. The family apparently plays footsie with the astronomers under the tablecloth which is described as a "Jacob's Tent," which is a reference to the tent in which Moses met his future wife.

Cornelius Vroom tells tales of hunting large animals in the "unmapped wilds of Hottentot Land..." Johanna Vroom appears to be fascinated by Mason, which completely confounds him.

pages 61-63:

Mason is concerned about his weight and is developing a potbelly. He is pleased by the fact that so much upset stomach from seasickness has resulted in a visible loss of weight.

Dixon is immediately thought to be an eccentric and finds that all the women avoid him. One thing that works against him is his fascination with the Malays and the Black slaves. Mrs. DeBosch, one of the more influential of the women in Capetown, declares Dixon "S.N.S." which means Simply Not Suitable. Mason is looked upon favorably due to his introspective manner.

Mason and Dixon have until June to observe the known stars and Planets in an effort to fix the exact longitude of their location. All cloudy and stormy nights are "days off" for them.

Cornelius Vroom introduces his daughters as Jemima, Kezia and Kerenhappuch. The names they go by, however are Jet, Greet and Els. Jet is sixteen years old and obsessed with her hair. Els is the youngest at age 12. She is interested in developing relationships with men twice her age and feels ready to fall in love. Greet is described as the middle daughter, but not given an age. She is the mediator between the other two daughters.

Cornelius keeps elephant guns nearby to defend the honor of his daughters. He keeps one in "Dispens"

out back? The word *Dispens* is in italics. What does it mean - outhouse?

All three daughters do their utmost to arouse Mason and get him to act amorously.

pages 64-66:

Johanna breaks up the three daughters' amorous assault on Mason and sends them away, asking from Mason to not respond to their advances. Mason tells her not to worry because "these days Passion knows me not..." but she sees his erection through his trousers. Mason casts off Johanna's advances and she leaves in a huff.

Mason awakens during the night to find a slave girl, named Austra in his bed. She explains that it is the duty of the slave girls to try and get impregnated by the white men so that the mistress of the house can sell the lighter skinned babies for more money in the slave market. Mason takes great offense to this, but Austra says that all women are slaves, including British housewives. Austra warns Mason that Johanna and her daughters will attempt to keep Mason aroused, but the only woman he will be allowed to touch is Austra.

Austra leaves the room without successfully seducing Mason.

Mason spends the next days being regularly accosted by various female members of the household. He has many erections, which are fairly visible depending on which pants he has on each day. Dixon can't help but notice, but says nothing, "waiting rather for Mason either to brag, or complain."

pages 67-69:

Mason finally confesses to Dixon of his more or less constant state of arousal. Dixon suggests he get out of the house more. Mason asks Dixon if he knows of any natives that could provide him with a spell by which it would make all indifferent to the user. Dixon goes looking for one. Mason wants to put the spell in

the soup of Johanna who is constantly being seduced by her slaves.

Mason is deeply troubled by the great injustice of slavery.

Mason says the Dutch East India company which is the government in Capetown "is ev'rywhere and Ev'rything." Dixon responds that it sounds like Mason is talking about God.

Dixon goes on to tell Mason that there are markets and activities outside the purview of the Dutch East India company, and invites Mason to come with him some night to see it for himself.

pages 70-72:

Mason does go out with Dixon, but Mason proves to be "a difficult carousing partner" in that he talks about depressing topics with women and gets so drunk that he falls asleep face first into his food.

Mason and Dixon have been working on fixing the altitude of the star Shaula in the Scorpio constellation.

After Mason wakes screaming from dreams in which people are trying to kill him, Austra sends him to a pygmy named Toko of a tribe that believes that the land of dreams is real and Mason returns with a determination that he and Dixon should relate all their dreams to each other.

Mason says that his dreams are usually about how Capetown is really Hell and the Dutch East India Company enacts the commands of the Devil.

vw#21: routs and ridottoes - fashionable gathering places.

Dixon says his dreams are about partying every night.

Mason is amazed at how much Dixon likes Capetown, saying that he will miss it when he leaves.

Where will he get Ketjap? Dixon says they must sell it in London somewhere, and Mason replies it will cost him ten times as much in London.

Mason does as Toko suggests in his dream and stands up to his assailant and manages to defeat him. Toko has told Mason to demand something of his assailant and Mason asks for the "Krees" or dagger that his opponent used. He wakes up and finds it right next to his head, the point almost in his nose. Dixon suggests that the knife was placed there by one of the girls of the house.

Mason resents Dixon's common sense explanation and Dixon says that one of them must maintain sanity. Mason goes into a speech that includes an analogy of resentment to excrement and Dixon expresses his disgust.

pages 73-75:

Mason uses profane language and pretends to worry that Dixon will complain to his superiors about it. They then lapse into paranoid reveries about how they wound up working for the Royal Astronomer in South Africa.

What does Mason mean when he says to Dixon "however briskly you may belabor me with Mr. Peach..." This is the first time Mr. Peach is mentioned.

vw#22: Nervus Probandi - Latin: nervus = sinew, tendon, probandi = of proof

v#23: Stuffata - stew??? (I'm not sure)

Dixon goes over the chain of events that brought them there. Originally Mason was to be Maskelyne's assistant. Maskelyne was related to Lord Clive, and executive in the East India Company. Suddenly Maskelyne's assistant is declared to be Waddington and Mason is to head his own observation team. Waddington is described as a math teacher and follower of the Piggotts, who attempt to determine longitude by tracking the path of stars across the moon's path.

In a parenthetical passage lasting about half a page, Mason jumps ahead to a later meeting in January with Maskelyne who describes Waddington as melancholy. Maskelyne announces that he will observe the transit of Venus from the island of St. Helena.

Mason is described by Dixon on page 75 as "friend of the Peaches..."

The scene shifts back to the teller of the story, Reverend Wicks who said that Mason and Dixon would have gotten more compensation for their labor if they had demanded it. Ethelmer says in effect that the dead can't take money with them so what does it matter now? Tenebrae chastises Ethelmer for his negativity toward the Reverend.

pages 76-78:

Wicks philosophizes that death is "the Despair at the Core of History" and that the resurrection of Christ is the reason for hope in the study of history. I'm not sure exactly what this means in the context of this story.

Ethelmer makes a comment about man's inexhaustible inhumanity to man and he is upbraided by Mr. LeSpark. Ethelmer quickly apologizes.

Chapter 8 begins on page 77 with Dixon making his nightly tour of the bustling Capetown nightlife. He is happy to be able to whistle along to the tunes he hears played in the street.

vw#24: droster - couldn't find it defined anywhere but drost is a dutch word for a government official.

After the nightly curfew cannon sounds, Dixon stays out in the night as an "outlaw." He engages in many of the debaucheries offered, thinking that the residents are acting as if it were the end of the world.

Mason contends that Dixon is not "tempted" by the sins of the night because he is a willing participant,

and Dixon argues that Mason does not understand temptation because he is never tempted by anything.

pages 79-81:

Dinner at the Vroom's is always mutton. Dixon has taken to enhancing the taste with ketjap. Cornelius refuses to allow his family to use the condiment. As with today's ketchup, Dixon has trouble getting it out of the bottle. After dinner everyone goes out and sits on the steps in front of the house.

vw#25: younker - child or youngster

The youngsters are all talking about various places to sneak away to and a young man wanders over and sings a song to the girls on the steps, accompanying himself on a Fiji Islands guitar.

The girls engage in battles of double entendre, similar to the kind of banter to be heard in the brothels, which are all under the control of Dutch East India Company.

pages 82-84:

Mason and Dixon like to roam the streets of the Malay quarter at night when all the smells of spices are at their height. Greet Vroom (the middle child) follows them to report back on what they do. They mainly do a lot of eating. Greet sings a little song about all the different odd foods they eat. No one realizes that the meals at the Vroom table are so repulsive to the astronomers that they are driven to find food elsewhere.

Mason and Dixon join a queue of diners watching a wildly busy cook preparing an elaborate meal. His wife serves the food and collects the money while various children help out. Mason talks to the kids about how it is necessary to use Dowsers to locate new wells in England and a kid asks if the Dutch have conquered England yet. Mason says no, but Dixon reminds him about William of Orange.

The cook, named Rakhman, recognizes Dixon and they exchange comments about Mangoes.

vw#26: satay - Southeast Asian dish consisting of strips of marinated meat, poultry or seafood on skewers and dipped in peanut sauce.

Rakhman tells them that tomorrow is the best day to buy Mangoes and the following morning Mason and Dixon go down to the market and find Wicks Cherrycoke there picking out Mangoes. Mason, not a morning person, is angered by Wicks' cheeriness.

pages 85-87:

Mason and Dixon sit down on a stoop to eat mangoes together. Wicks explains that he would have left by now but that they did not want any clergy aboard the Seahorse on the return voyage. Captain Grant was looking for revenge against the French for his previous battles. Dixon tells Wicks that he might have to masquerade as non-clergy to get aboard a ship out of Capetown. Dixon says he can within five minutes teach Wicks all he needs to know in order to act as an astronomer. Mason says he can teach Wicks to act like a surveyor in just three minutes.

Mason goes to great lengths to complain about all the mutton in the Dutch diet in Capetown and Wicks writes in his journal that night of Mason's problems having to do with problems relating to the Eucharist.

Chapter 9 begins on page 87 with Johanna Vroom (called "Vrou Vroom" so as to pun the sound of a racing car engine) cornering Mason in an upper bedroom, declaring herself a wicked woman and tearing open her bodice.

pages 88-90:

Mason jumps out a window after hearing a pounding on the door. Jet rushes into the room expecting to find Mason but only finding her mother.

Pynchon gives a tiny beetle in a cage a name: Elytra. It has been brought from the Kalahari desert

and has never known rain, but the rain is coming and Pynchon suggests the feeling is similar to the way humans feel about God.

The rainstorm lasts days and strands people away from their homes. Dixon is stuck in a Malay establishment for the duration. Mason is stuck inside the Vroom house. Slaves take advantage of the storm to do the laundry of the household.

vw#27: lixiviated - washed or percolated the soluble matter from.

Els convinces Mason to come outside in the rain and chase her around. When he gets back to the Vroom house to find the door is locked. He finds a ladder in the back of the house and climbs up to the balcony. He tries the windows on the balcony but they will not open. He looks down to see Jet removing the ladder. The bolts holding the balcony to the house slip out from the rainstorm and Mason is sent crashing to the ground but is not hurt. He lays in the rain until he feels glowworms crawling around on his face. He later learns that the arrival of glowworms signal the beginning of the rainy season.

Mason and Dixon grumble over the lack of clear nights they can use to fix their latitude and longitude before the transit begins. They wish they had been allowed to go to Skanderoon, and they sing a little song in praise of the Turkish seaport.

Pynchon writes "Rain rules now, and shall until October." But the transit is in June.

Mason and Dixon press on, going to an observatory set up on the slopes of a nearby mountain. The girls decide to accompany them, with Austra along to advise them on how to stay safe from the African men.

pages 91-93:

Austra advises the girls to cover their hair with shawls and they reluctantly comply. Mason leads the way up to the observatory.

The setting sun is casting red light over the countryside and Austra calls it "the Bull's Eye," ascribing mystical qualities to it.

The rain starts up just before they enter the observatory, making them arrive soaking wet. Some of the men from the Seahorse fixed up the building for Mason and Dixon's astronomical use.

Since Mason and Dixon can make no observations until the rain stops, Mason decides to teach the girls something about the Transit of Venus.

Mason raps on the table edge with "a sinister-looking Fescue of Ebony, whose List of Uses simple Indication does not quite exhaust..." I could find no explanation of what Fescue of Ebony might be. Maybe a bottle of wine?

Mason explains that on one day in June, Venus will pass across the face of the sun and they will be required to track its path with as much accuracy as possible. The girls were not impressed and asked why they couldn't have stayed in England and observed the Transit. The answer was "parallax."

vw#28: Parallax - An apparent change in the direction of an object, caused by a change in observational position that provides a new line of sight.

Their measurements will be combined with others taken worldwide to give scientists new sources in which to draw maps and make other measurements.

The girls are not much impressed with Mason's lecture. This ends Chapter 9.

pages 94-96:

Chapter 10 begins with a paragraph from the unpublished sermons of Wicks Cherrycoke in which he equates man and God to planets circling the sun.

The children rush to the orrery in the corner of the room in Wicks has been telling his story of Mason

and Dixon. They want a demonstration of the Transit of Venus. Tenebrae and Ethelmer find themselves pressed close together and do a bit of flirting.

The orrery includes a newly discovered planet named "Georgian" which eventually became Uranus. The planet had been added by the German engineer Dr. Nessel who was going around America updating all the orreries to include the new planet. He fashions each planet by hand, and each is a little different from each other.

Wicks explains that the observers must mark as exactly as possible the times of the beginning and end of the Transit. With all the times of observations from all over the world, scientists would be able to compute the value of the Solar Parallax, which Wicks defines as "The size of the Earth, in seconds of Arc, as seen by an observer on the surface of the Sun."

Another visitor to the room calls the measurements "A vector of desire." This visitor is another college man on winter break. He is Depugh, the son of Uncle Ives LeSpark.

Wicks returns to the story with Mason and Dixon waxing rhapsodic over the event of the Transit.

pages 97-99:

It's finally the 5th of June. Mason and Dixon, along with astronomers around the world are observing the Transit of Venus. They are required to record the time of four instants, two at the beginning and two at the end. There is another Transit due in eight years and that will be the last of their lifetime.

The sky was cloudy right up to the day of the transit but cleared up enough on the 5th to allow the astronomers a clear view of the transit. Everybody was nervous on that day, with the Vrooms bustling about, causing Mason to pun "Dutch ado about nothing."

Dixon is ecstatic, thinking of the glory of God's creations and the greatness of Newton and Kepler to

forecast the transit so accurately. He remembers his teacher William Emerson telling of Galileo, after recanting his astronomical pronouncements, muttering under his breath "Nevertheless, it moves."

Mason and Dixon are a few seconds off in their observations. Mason says that Dixon was over impatient, referring to his being born under the sign of Leo and therefore suffering from "Leonation." Dixon retorts that Mason was overly inflexible, due to being born under the sign of Taurus, and therefore suffering from "Tauracity."

The Zeemans acquire more slaves, so Mason and Dixon return to eating at their house, relieving the intrigues among the astronomers and the Vrooms.

The rainy months following the Transit fly by, and in early October Captain Harold of the Mercury tells Mason and Dixon that there is enough good weather ahead for him to take them to the island of St. Helena.

pages 100-102:

Three young Company writers arrive in Capetown and quickly become the object of pursuit of the Vroom women. Mason can hear the frolic going on in the house behind him and is relieved to see things return to normal. He told Dixon facetiously that he thought there was a mass "conversion" to moral behavior. Dixon, taking Mason seriously, recalls the temporary changes wrought by the early preaching by John Wesley in Newcastle. He also felt that the Transit was a "soul turning" event.

Strangely Dixon mentions "Harry Clasper out-keel'd the lad from Hetton-le-Hole..." My research shows Harry Clasper to be a 19th century oarsman. Why the anachronism?

Dixon mentions his experience of the Spirit entering his body and Mason asks him some questions about Quakerism. Mason gives Dixon's instructions a try with no success.

Gradually Capetown returns to its lively sinful ways. Mason and Dixon have less and less to say to the Dutch and by the time they depart, the only person who sees them off is the policeman Bonk who greeted them upon their arrival in Capetown.

Bonk leaves them with a little bit of paranoia as they sail away.

The scene switches back to the family room at the LeSparks, where the assemblage ponders what drove the astronomers to make such a dangerous journey to such a distant place. Tenebrae suggests it was love of the planet Venus. Wicks recalls Tenebrae's first time looking through a telescope when she was no more than three years old.

pages 103-105:

Aunt Euphonia comes into the room carrying an Oboe and sheet music, requesting that they be more quiet. She proceeds to carve a reed out of a piece of cane which she claims to have gotten from a Turkish Sultan.

As Wicks resumes his tale, Euphonia "punctuates" Wicks' story with "scraps of Ditters Von Dittersdorf..." This was an actual Viennese composer of the 18th century. He did write comic opera but I could not verify the existence of the one Pynchon mentions: "I Gluttoni."

Chapter 11 begins on page 105, remaining in the LeSparks family room with Euphonia remarking on the delights of the island of St. Helena.

Wicks remarks that he and the astronomers parted company when they sailed, with Wicks sailing to India. He regrets not being on the island to witness Mason and Dixon's interface with Maskelyne, who later became the Royal Astronomer.

Uncle Lomax gives Wicks some more brandy and outside it begins to rain.

Uncle Ives wonders how Wicks can continue the tale if he was not on St. Helena.

pages 106-108:

Wicks fills in the blanks of his personal witness with generally known facts about Maskelyne. He was 29 when he arrived on St. Helena (four years younger than Mason and a year older than Dixon). It was his first time away from home and St. Helena was well known to be a sinful place. He was aware that his astronomical equipment was defective and that he would not be able to participate in the observation of the Transit of Venus. Wicks and the rest of the roomful of LeSparks wonder what kept Maskelyne sane during the year he spent on St. Helena.

Wicks tale of Mason and Dixon on St. Helena with Maskelyne take up the next 75 pages. They are a combination of Wick's imagination, punctuated with backfilling the stories of the younger days of Mason and Dixon.

Mason and Dixon arrive on St. Helena in the port of James's Town and they hear the roar of the ocean no matter where they go on the island. Mason notes that the main feature of the heavens is that the darkness appears to rise and fall periodically instead of sunrise and sunset. Musing on stars prominent in skies, Mason says that there should be astrological signs for the Dragon, the Dog and the Whale. The star seems to shine with a yellow light, making it a yellow dog.

The wind is intense throughout the island and the sea seems to be suspended above the island.

Prominent in the landscape are a pair of gallows, which at the time was considered essential to slavery, which was considered essential to commerce.

pages 109-111:

The people on the island are mostly on their way to somewhere else, including East India Company employees and wives going to and coming from India

to join or leave their military spouses. Dixon points out one woman who recognizes Mason from his visits to the public hangings at Tyburn. She and Mason sing a song about the hangings.

Mason recalls his wanderings through the nightlife of London the year after his wife died. He is enticed into conversation with a beautiful young woman concerning the belief that hanged men get erections at the moment they are hung.

pages 112-114:

The woman who recognized Mason on St. Helena is named Florinda. In his flashback, Mason tells Florinda of his fascination with murderers and hangings. The rope bearer arrives and everyone looks to see if Lord Ferrers is really going to be hung with a rope made of silk.

Mason and the woman purchase wine from a vendor and sip while the hanging takes place. Florinda loses interest in Mason when he accidentally reveals that he is a scientist, whom she perceives to be existing on a stipend and hence not able to be a big spender. She mentions the guidance she got from Mr. Bubb Dodington, who was a "byword for aristocratic hauteur, tactless arrogance and amorality" according to Alexander Pope. Mason voices his dislike of Dodington, but Florinda defends him.

Mason's reverie over, he is surprised that Florinda remembered him so completely from that one meeting at Tyburn.

pages 115-117:

Florinda introduces Mason to her fiance, Mr. Mournival, who looks like the personification of Death to Mason. He later turns out to be the proprietor of the Jenkins' Ear Museum. Mournival mistakes Mason to be a comedian that Florinda knew in England, but Mason says his companion Dixon is the comedian. Dixon accommodates by beginning to tell a joke as the chapter ends.

Chapter 12 begins on page 116. Mason and Dixon are meeting with Maskelyne in a pub on Cock Hill. Dixon has upset Maskelyne by mentioning the oddball Christopher Smart, and Maskelyne is not happy to talk about his memories of Smart when they were in college together. Dixon also knew him when he and Smart were children. Smart had been in the last few years committed to mental institutions. They squabble about what kind of environment contributes to madness. Maskelyne criticizes the fiction writers in England, and Dixon expresses his appreciation of such writing, including "The Ghastly Fop."

pages 118-120:

Mr. Blackner, proprietor of the Moon tavern in which Mason, Dixon and Maskelyne are meeting, has endorsed Dixon's enthusiasm for Gothic novels. Maskelyne complains that it is too much free time that generates unhealthy interests such as bad novels.

Mr. Blackner makes a pun on the dog star saying "Sirius business." He brings out a birthday cake for Maskelyne who is disturbed by the attention. He is not happy to be turning 29 because after that, the next birthday is 30, a number that can be divided by six others. Twenty-nine is a prime number.

Maskelyne steps outside and Dixon takes the opportunity to ask Mason if he really intends to send Dixon off and leave Mason alone with Maskelyne for three months. Mason says they can't use Dixon because some of Maskelyne's equipment doesn't work. Dixon intends to ask Maskelyne to allow him to look at the equipment.

Maskelyne returns and Mr. Blackner gives them a sampling of his cock ale, made with the carcasses of dead fighting cocks.

Maskelyne, studying the duo, asks if there is some lack of trust between Mason and Dixon.

pages 121-123:

Dixon is required to escort Maskelyne's clock (the Shelton clock) back to Capetown, because Mason and Dixon have brought the clock they used for the viewing of the Transit (the Ellicott clock) for Maskelyne to use.

Wicks' wild imagination conjures up an image of the two clocks sitting on a shelf briefly before the Shelton clock would be boxed up for return to Capetown. He imagines certain atmospheric effects enable the two clocks to converse with each other. The Shelton asks the Ellicott what he can expect it to be like in Capetown. The Ellicott, only familiar with the rainy season expounds on the damage that dampness can do to delicate machinery.

The Shelton asks about Dutch clocks and the Ellicott replies that they strike a tone every quarter hour, without warning, unlike British clocks that can be heard to whirr a few seconds before they strike a tone. The Shelton wanted to know how Mason and Dixon felt about the unexpected toning and the Ellicott explained how Dixon never got used to it and complained often about it. The Ellicott also complains that the cannon that announces the hour of curfew never sounds at the exact right time.

They are interrupted before the Shelton could give a full picture of what to expect on St. Helena, but he did get to say that he thought Maskelyne was insane, "but not as insane as some..."

After a carpenter crates up the Shelton, Dixon is left alone with the clock. Dixon begins to talk to the clock as if it was a person.

pages 124-126:

Dixon tells the clock not to be afraid of him just because he yells when he is surprised by the chiming of the quarter hour.

Mason sees Dixon off and Dixon tells Mason to be careful of catching social diseases on the island. Dixon sets off telling Mason he will see him again at Christmas time.

Chapter 13 starts on page 125 with Mason walking alone on wet rocks near the sea just after Dixon's departure. Maskelyne notices Mason and approaches him, saying that it his habit to take walks at night. It is nearly daybreak and Mason marvels at the activity all around them, since he recently came from a place that enforced a curfew.

vw#29: Passado - A fencing maneuver in which the foil is thrust forward and one foot advanced at the same time.

Maskelyne tells Mason that the main town on the island, James's Town, can be as intricate as any European city. Mason wonders if it would be possible to "Disappear" for a week or so on the island. Maskelyne say it would be difficult but not impossible. He then says how happy he has such a good Astronomer as Mason to "share in my simpler, meaner, Duties."

pages 127-129:

Mason mentions the fact that Waddington left Maskelyne immediately after the Transit of Venus with a "D.I.O" which was a popular 18th century expression, short for "Damme, I'm off."

Maskelyne responds that Waddington left three weeks after the Transit, stating that he had fulfilled the provisions of his contract and was not interested in going beyond it.

vw#30: Brochette - Food broiled or roasted on a small skewer or spit.

Maskelyne said that Waddington hated St. Helena.

vw#31: Indiaman - A large merchant ship formerly used on trade routes to India.

Waddington started to complain about the island while they were still on the ship sailing toward the island. He complained every day he was there. But

Maskelyne heard that when Waddington returned home, he appeared before the royal academy and praised St. Helena. Waddington also did much astronomical work on the way back to England and Mason says he must remember to emulate Waddington. Maskelyne fears that this indicates Mason doesn't want to help Maskelyne on St Helena either. Mason assures Maskelyne that he is looking forward to working with him.

Maskelyne discloses to Mason that there is a tremendous amount of squalor on the island and that a great many people, including himself, cannot shake the feeling that the island itself is a living creature. Mason thinks that Maskelyne is "a dangerously insane person" and that he must take great pains never to alarm him. Maskelyne admits that living "alone" on the island might have tipped his moral compass and that perhaps Mason could set him on the right course. Mason does not respond.

As they climb out of town, they are met by a flock of women hurrying to the harbor to meet the ships so as to get first crack at the shopping. One woman, Bridget, greets Maskelyne and asks "Who's your attractive friend?"

Maskelyne pretends to be surprised to find they have arrived back at the entrance to the Moon tavern.

pages 130-132:

A group of pretty girls sing to Mason and Maskelyne as they enter the Moon tavern.

vw#32: quidnunc - A nosy person; a busybody.

Mr. Blackner, proprietor of the Moon, delights in telling everyone that Maskelyne is the brother-in-law of Lord Clive (a British war hero). Mr. Blackner allows Maskelyne to run a tab that he is not certain of ever collecting on.

Mason and Maskelyne make their way to the observatory on Alarum Ridge and although Mason attempts to be tactful on the subject of Maskelyne

missing the Transit, Maskelyne expresses his bitterness.

Maskelyne asks Mason if he finds living on St. Helena disturbing and Mason says he finds it "calming," after living in Capetown. Maskelyne says he is wracked with nerves from living on an island that is actually a live volcano that could blow up at any time. He thinks the gasses emitted from the volcano affect the minds of the residents of the island.

pages 133-135:

Mason suspects that St. Helena might be a creation of the Devil. He is attempting to observe some stars when suddenly a large portion of the sky disappears. At first he thinks it is a supernatural creature but then it begins to rain and he realizes it was just a rapidly developing cloud. Mason gets soaked securing the observatory while Maskelyne remains warm and dry inside.

Maskelyne floats a theory that St. Helena is populated by extra-terrestrials and the civilization is all a show for their benefit.

vw#33: Mathesis - Learning; especially, mathematics.

Mason would like to believe that the points in the sky are but parts of a mathematical equation that, when comprehended, would answer the mysteries of the Universe.

Maskelyne floats another theory that the garden of eden may have been on St. Helena. He believes the serpent still lives inside the volcano. Maskelyne also believes that people will gradually destroy the environment until they either all die off or kill one another.

Mason asks how long it will take to destroy the environment, and Maskelyne says hopefully not in their lifetime. He speaks of studying Astronomy as being a form of "disobedience." Maskelyne quotes the mathematician Bernoulli in latin and translates the

motto as "Against my father's wishes I study the stars." Mason takes this at a swipe at Mason's humble father.

pages 136-138:

Maskelyne indicates he meant no offense by his remarks, and talks about his struggles with his own family to accept his fascination with science. He complains that after doing the horoscopes of his brother and sister that he was known as "Nevil the Astrologer." Mason says that this is not as insulting as "star gazer." Mason and Maskelyne reminisce about taking money for doing horoscopes. Maskelyne calls astrology "astronomy's wanton little sister," and then sings a song about Astronomy in a "competent tenor."

Maskelyne wants to do Mason's astrological chart, and Mason thinks it would not be a good idea to rebuff him. Maskelyne gives Mason "the heavy O.O." which the Hyperarts Mason and Dixon Alpha interprets as the "Once Over."

Maskelyne remarks that it is a striking coincidence that Mason, whose sign Taurus is ruled by Venus observed the Transit of Venus with Dixon, whose sign Leo is ruled by the Sun. Maskelyne takes things like this as proofs of the existence of God.

pages 139-141:

Maskelyne continues to analyze the astrological charts of Mason and Dixon, finding reasons for the pair's success in observing the Transit. Mason steers this discussion towards delving into the possible political conspiracies that led to the pair being sent to Capetown and Maskelyne is more than willing to trade paranoid theories.

Maskelyne repeats a rumor that "your Peach will be nam'd a Director." Mason acknowledges the debt he owes to Sam Peach, but says it is nothing compared to Maskelyne's debt to Clive of India. Maskelyne laughs at this because he is not close to his brother-in-law at all. But he knows that someday he will be called upon to do something for Clive and is not happy about it. Mason also feels he may someday be called to

answer for his good fortune, but has no idea what he might be required to do.

Mason again fears that Maskelyne is not sane, and recalls his first encounter with the man through a letter Maskelyne had written to Royal Astronomer Bradley. Bradley couldn't make heads or tails out of it and passed it along to Mason, who also couldn't understand most of it, which had to do with "Lunar Distances." Mason thinks back upon the Longitude Act of 1714 that engendered large prizes offered for a reliable method of finding true longitude while at sea. This created a great deal of correspondence to the Royal Astronomer, and it was Mason's job to read through it all, looking for anything of value.

pages 142-144:

Mason remembers some of the correspondence he read through in response to Royal Astronomer's offer of a prize for a method of finding true longitude while at sea. Some of the letter writers appeared to be insane. Bradley asks Mason to read aloud twice a letter from a retired naval officer who mentions a yet unnamed planet that guides his measurements. Bradley asserts that he too has observed this celestial object.

Susannah, the wife of royal astronomer Bradley, enters Mason's memories and he remembers being obsessed with trying to figure out just why the couple only had one child, a daughter. It is revealed that Susannah is the daughter of Sam Peach, Mason's benefactor. Mason sings a song of his obsession with Susannah.

Mason does the horoscope for Maskelyne, and finds almost all positive symbols within, suggesting good fortune throughout his life. Maskelyne seizes upon the one slightly negative aspect of the chart (Mercury in retrograde) to explain why all his writing has been ignored.

pages 145-147:

Mason realizes how easy it is to get Maskelyne's paranoia pumping, but he usually prefers to tell

Maskelyne that everything will work out for him just fine in the long run,

vw#34: Velleity - A mere wish or inclination.

Chapter 14 begins with Mason thinking about Dixon, and wondering how he is doing back in Capetown. He writes a letter to Dixon but decides not to send it. Back in the LeSpark house, the twins challenge Wicks as to how he would know about an unsent letter. Uncle Ives and Aunt Euphie applaud the kids' acumen and tell them they should become lawyers.

Mason is surprised at how unruffled Dixon appears to be to enter back into the intrigue of the Vroom house full of females. It turns out, as the focus of the narrative shifts to Dixon, that by the time Dixon gets back to Capetown rumors have been flying about as to Johanna having an affair with Mason. Cornelius accepts Dixon as an acceptable substitute for Mason and takes to firing at Dixon with an elephant gun.

pages 148-150:

After a second and third blast from the elephant gun, Dixon decides to stop Cornelius Vroom from firing at him. He charges Vroom before he can reload and explains to him that he is not Mason and should not be shot in his place.

vw#35: Soupkie - glass for drinking gin.

Dixon convinces Vroom to accompany him to his favorite tavern, The World's End, where they drink gin. Dixon listens to all of Vroom's marital problems.

vw#36: Sumptuary - Regulating or limiting personal expenditures.

The wind is blowing around old clothes from the days of the sumptuary laws. Read all about sumptuary laws at: <http://renaissance.dm.net/sumptuary/>

vw#37: Ticklingburg - A coarse, mixed linen fabric made to be sold in the West Indies.

vw#38: Paduasoy - A rich heavy silk fabric with a corded effect.

vw#39: Swanskin - Any of several flannel or cotton fabrics with a soft nap.

vw#40: Shalloon - A lightweight wool or worsted twill fabric, used chiefly for coat linings.

They sit for hours in the bar as sailors come in, most of them known to Dixon, and leave with women. The smells of everything smoked in the bar is intoxicating. Cornelius at last becomes chummy with Dixon and proposes they go the Company Lodge, which according to Cornelius operates as a bordello.

vw#41: Seraglio - 1. A large harem. 2. A sultan's palace.

As they enter Dixon notices an odd Barometer on the wall, which is hung just above a "velvet meridian" from France..." As close as I can determine this is a painting of a navigation tool that represents the globe. It is also near a painting with something in the corner "all but painted over..." But Pynchon does not say what it is.

Austra enters on a leash being led by a Malay woman. Dixon allows her to pass into another room. He muses on Mason's obsession with her.

vw#41: sylph - A slim, graceful woman or girl.

Cornelius leads Dixon to peepholes called pornoscopes, where they can watch other members engaged in sexual activity.

pages 151-153:

There are prostitutes who are opium addicts, and they have a room of their own.

Pynchon writes "The Gunfire is at nine..." but I don't know what this refers to. Sexual activity of the visiting sailors?

vw#42: Penetralia - The innermost parts of a building, especially the sanctuary of a temple.

vw#43: Polity - The form of government of a nation, state, church, or organization.

The women have no idea what lies in the innermost parts of the lodge. They hope that miracles occur there which transforms ill treatment into joy.

There is a room where madmen are kept and sometimes the men put disobedient women in the room and observe what happens. Some women do not survive the experience.

vw#44: Herren - plural of Herr, so therefore German men.

vw#45: Rencontre - An unplanned meeting.

It is rumored that there is a nine by seven foot room in which members can have a "Black Hole of Calcutta Experience." Wicks muses to himself in his day-book why there would be something like this in a brothel. But he does not read his day-book aloud to the children. He mentioned it to illustrate a moral, which is: slavery is bound to produce horrors like the black hole of Calcutta.

vw#46: Dhoti - A loincloth worn by Hindu men in India.

Cornelius leaves Dixon to go into the "Room of the Beasts" and Dixon wanders on until he stumbles into a tap-room where he can drink some ale.

pages 154-156:

Dixon encounters the policeman Bonk in the tap room who is surprised to see Dixon back in Capetown. Dixon in turn is surprised that the East India Company did not let him know Dixon was returning. But Bonk says that he has quit the force and will be moving his family "out of the reach of the company" to a place where he can do some farming. Bonk complains of the

company's desire of total control over every moment of life in Capetown.

Dixon returns to the Vroom house at Dawn, practically carrying Cornelius. Everyone is already awake. Dixon sees in the Vrooms evidence of the weight of guilt that the sin of slavery places upon people. They dream of having to pay for their oppression.

The girls look upon the large clock that stands in a passageway in the middle of the house as a living being, and refer to it as "Boet" which is a term for an elder brother.

Greet Vroom tell Dixon that his clock is believed to have special powers of identifying longitude at sea. She advises him to hide the clock but Dixon says the idea is absurd.

I still haven't found any answer as to why the clocks had to be switched and why the Shelton clock had to go to Capetown rather than be shipped directly back to England.

Greet attempts to seduce Dixon but he is not interested in her.

The leaders of the East India Company in their Castle are dismayed by the new clocks because they are sure that at some point bureaucrats will have to document all their actions with greater chronological accuracy.

The leaders have also learned that Dixon knows a Priest named Christopher Le Maire (who we learn later was a friend of Dixon's teacher Emerson) who they assume must be some relation to Isaac Le Maire, a former director of the East India Company.

pages 157-159:

Due to his possible connection with Isaac Le Maire, the leaders of Capetown therefore note that Dixon may have "dangerous connections" and allow him to roam unrestricted in Capetown.

Chapter 15 begins on page 158, shifting the focus back to Mason. Maskelyne has decided that he and Mason must move to the windy side of the island to take measurements in order to determine if the mass of the mountains affects the operation of his plumb line which he obsessively believes is faulty.

Mason considered his experience on Capetown to be a "Parable about Slavery and Free Will" (why?) but he cannot figure out what this experience on St Helena will be about.

Maskelyne's former assistant, Waddington refused to even set foot on the windy side of the island. In the fort the Company maintains on the windward side of the island, residents enter suicide banks and madness pools so that they may profit from the inevitable craziness engendered by living in a constant windstorm.

Mason doesn't like the idea of staying on the windy side but feels obligated to help Maskelyne with his work.

pages 160-162:

Maskelyne tries to tell Mason that enduring the wind brings on good things, but Mason doesn't buy the argument. Mason suggests that the influence of the wind was a quality not understood by scientists and that the understanding of it might be as great a discovery as Bradley's discovery of the Aberration of Light that proved the Copernican theory to be correct. Maskelyne, who sees himself as a rival of Bradley does not like Mason bringing up the Aberration of Light.

Maskelyne changes the subject to tell a story of meeting German soldier named Dieter who was so depressed that he was willing to commit suicide. He joined the company to see the world and attain wealth, but was immediately placed on the windy side of St Helena.

vw#47: Nawabheit - "Nawab" is an alternate spelling of "Nabob" (a man of great wealth); "heit" is a German suffix meaning quality of or a state of (-ness)

Maskelyne speculates as to whether he might pay the Company some money to release the German. The German recites a couple of lines from "Wittenbergisch Nachtigall" a poem by Hans Sachs (1494-1576) German poet, Meistersinger and dramatist:

"Sobald das Geld im Kasten klingt, // Die Seele aus dem Fegefeuer springt."

this translates as:

"as soon as the money in the box sounds, jumps// the soul out of the purgatory"

Mason wonders at what point will Maskelyne go to his brother in law for help in getting him off the island.

pages 163-165:

Mason fantasizes that he may be able to move Maskelyne closer to sanity and some day be rewarded by Lord Clive for helping his brother in law survive St Helena. After those reveries fade, Mason spends some time fantasizing various accidents that could happen to Maskelyne.

And suddenly in all that wind, Mason begins to hear the voice of his dead wife Rebekah. Even though he is a scientist in the age of reason, he cannot deny hearing the voice.

She asks him why he is on St Helena. He explains that he is helping Maskelyne measure the distance from Earth to "one star."

Rebekah calls Mason by her pet name of "moper."

vw#48: Moper - the act of moping, vagrancy or dawdling

Mason dares not tell Maskelyne of these visitations. But as soon Dixon returns to St Helena and Mason immediately takes him to a pub called "The Ruin'd Officer" and tells him. Mason says that he is afraid he is losing his sanity and asks Dixon for advice. Dixon just says "Get on with it."

pages 166-168:

Mason says he is not ready to move on from his mourning of the death of Rebekah, and Dixon suggests that maybe it would help if Mason told Dixon about her.

Chapter 16 begins on page 167 with a four page flashback to the day Mason met Rebekah. Mason was in the small town of Randwick to attend the annual cheese-rolling event. Cheeses were rolled to the church and blessed by the priest. Mason wanted to see a giant cheese known as the Octuple Gloucester, measuring nearly ten feet high and weighing four tons when green.

vw#49: Caseifaction - the act of turning into cheese

The cheese is too big to be rolled so the owners found a large "Cotswold waggon" (Cotswolds are a group of hills in central England) to transport it to the church. Local youths spring aboard the waggon as it moved toward the church, steadying the cargo during rough passages. They sing a song to the cheese.

pages 169-171:

Mason hopes to catch a glimpse of Susannah Peach at the cheese rolling. She would be in silk, because her father Samuel Peach was a silk merchant and a rising power in the East India Company. The Peaches lived in nearby Minchinhampton. He imagined her selecting from among may bolts of silk and offering to teach Mason about silk. Mason had been to her house (we are not told why) and had seen her bedroom and pressed his face on her silk counterpane.

Mason was at the hill where the cheeses were to be rolled and he was moping because all the other young people around him appeared to be paired off. The giant cheese was not supposed to be rolled down the hill, but an accident occurred and the wagon tipped over, launching the cheese down the hill, right at Mason. At the last moment he was shoved out of the way and fell face down on the grass. He looked up to see his savior was a young woman. He fell in love with Rebekah as soon as he saw her face.

A parenthetical break in the narrative has Uncle Ives stating that no records exist of her in Gloucestershire. He suggests that Wicks' story might have taken place somewhere else in England, perhaps Greenwich.

Flashback over, Mason continues to be haunted by visits from Rebekah. He thinks he sees evidence of hell and damnation in her image, and feels he is failing her in death as he had in life.

pages 172-174:

Mason asks the ghost of Rebekah for help with astronomic problems. She laughs them off. She tells him to "belong" to the earth and everything will be revealed.

vw#50: telluric - Of or relating to Earth; terrestrial.

Rebekah assures Mason there is nothing he needs to do for her and then disappears.

vw#51: crepuscle - twilight.

Mason attempts conversation with Maskelyne, but he is morose. Maskelyne now denies the existence of Dieter, the german soldier, and Mason is very puzzled.

The wind is starting to really get to Mason. He fears for his sanity. He decides to flee to the leeward side of the album and flags down a small craft off shore. A voice coming out of nowhere suggests he be dropped off at "Break-neck," and the ship operator consents to take him for an exorbitant fee.

pages 175-177:

Chapter 17 begins on page 175 with Mason on the boat leaving Maskelyne to fend for himself on the windy side of the island. Mason is amazed at the absence of wind. He is dropped off in Break-neck valley, a couple of miles from town.

Mason soon finds himself in front of the Jenkin's Ear Museum. The ear of Robert Jenkins was presented to parliament in 1739 and resulted in war against Spain. Jenkins came to St Helena as governor in 1741 and lost the ear in a gambling debt to Nick Mournival, who we were introduced to about 60 pages back as Florinda's fiance.

In order to enter the museum, Mason must crawl through a very small gate. He is worried that he is too fat to fit through it. But he gets through it and is greeted by Nick Mournival. Mason asks after Florinda and Mournival says that she has left him for a "chicken-nabob."

Mournival "operates the show" in the museum, which consists of the sequence of events surrounding the famous ear. Mason finds personal significance in the fact that Jenkins was on a ship named Rebecca when his ear was chopped off. Finally a life-sized portrait of Jenkins as governor of St Helena is displayed.

pages 178-180:

Mason studies Jenkins' ear in its glass case. It seems to come to attention, and Mournival says that the ear is indeed listening and in fact can't get enough words to listen to. Mournival sometimes reads to the ear, including passages from *The Ghastly Fop*, last mentioned about 60 pages ago by Maskelyne decrying the public's passion for gothic novels.

Mournival insists that Mason tell something private to the ear. He resists but Mournival threatens him and thrusts the ear upon Mason, also charging him for the privilege. Mason is afraid, but remembers that

he survived "the Royal Baby," which was a ritual aboard the Seahorse mentioned back on page 56. Here's a full explanation of the ritual:

<http://www.hyperarts.com/pynchon/mason-dixon/extra/info.html#baby>

Mason wants to wish Rebekah back to life, but he actually speaks a wish that Dixon make safe passage back to St Helena and help keep Mason sane. This must be a flashback since Dixon is described as having returned to St Helena back on page 165.

vw#52: priapic - Of, relating to, or resembling a phallus; phallic.

Mason finally emerges from the museum, finding himself back in the garden. But the walls seem to have grown since he entered and he walks the perimeter searching for a gate. He cannot remember how he emerged from the garden. Mason does not tell Dixon about this until they are a few days out at sea on the way back to England.

Dixon claims that he heard Mason's wish while he was sitting in the World's End pub in Capetown. At first Mason believes Dixon, but then realizes he is pulling his leg.

Dixon offers to teach Mason how they fish in Durham.

pages 181-183:

After discussing fishing, the conversation between Mason and Dixon turns to Maskelyne. Dixon questions the necessity of staying on St Helena for six months to observe the star Sirius. Mason says that he believes Maskelyne is hoping for a revelation along the line of Bradley's discovery of the Aberration of Light.

They wonder what awaits them in England. Maskelyne has told them that he heard the Royal Astronomer has been asked to assist in drawing the borders between Maryland and Pennsylvania in America. Mason thinks that Maskelyne is telling them

about it in the hope that they would go instead of him. Mason thinks Maskelyne would rather be alone with Bradley than share time with Mason.

Mason tells Dixon that his work on the Transit was so good that he could easily be picked to go to America as well. They ponder the possibilities of going to America and then conclude that it probably won't happen.

Chapter 18 begins on page 183 with the return of Mason and Dixon to London. They are well feted and have all good things to say of their experiences. Dixon soon returns to his home up north.

Mason dreads his reunion with his two sons.

vw#53: Devoirs - An act or expression of respect or courtesy; civility.

Mason is debriefed by a number of government officials on various topics concerning Capetown and St Helena.

Mason goes along with the rage in England concerning the Cock Lane Ghost. Read all about it at

http://www.1911encyclopedia.org/C/CO/COCK_LANE_GHOST.htm

pages 184-186:

In his visit to the Parsons house searching for the Cock Lane Ghost, Mason sees famous lovers Margaret Woffington and David Garrick. Garrick was an actor whose craft will come under discussion 200 pages later.

Mason returns to his home town of Sapperton and sees his sisters and his sons. William is five years old. Doctor Isaac is three. Mason gives them each a toy boat and takes them down to a stream.

In July Bradley takes sick and dies. He is buried in Minchinhampton alongside his wife. A couple of

pages later it is mentioned that she had died in 1757, five years before Bradley.

As he pays his respects, Mason thinks back to the time when he and Rebekah lived next door to the Bradleys and enjoyed social activities together. Mason was still mooning over Susannah. Mason sees Susannah's brother Sam and Susannah's seventeen year old daughter at the funeral. They advise him that Bradley only wanted the family near and they turn him away.

Susannah's daughter ("Sukie?") and Rebekah spent hours into the night talking while Mason worked in the observatory. Rebekah tells Susannah's daughter that Rebekah was directed to marry Mason by two mysterious gentlemen.

pages 187-189:

Susannah's daughter asks Rebekah where she and Mason were wed. They were wed near the East India docks in a place known as Clive Chapel which had scenes in it depicting Lord Clive's marriage to Margaret Maskelyne.

On the ride back from his attempt to attend Bradley's funeral, Mason muses on the life of Bradley: how he observed major comets in 1723 and 1737 but not 1744 because that was the year of his marriage to Susannah. Susannah died in another comet year, 1757. Rebekah died two years later. Halley's comet reached perihelion a month after Rebekah's death.

Mason remembers listening to predatory owls hunting and killing as he did his observations in Bradley's observatory. Mason remembers Bradley describing his discovery of the aberration of light. By the time Mason went to work for him Bradley was a legendary figure throughout Europe.

Mason reproaches himself for a few unkind thoughts about the Peach family and Bradley. He tries not to think of what the future might hold for him with Bradley gone.

pages 190-192:

Chapter 19 begins on page 190 with Mason in a pub named "The George" discussing Bradley. The President of the Royal Society Macclesfield is remembered by those present as being one of the group that spearheaded the adoption of the Gregorian calendar, resulting in eleven days being dropped in 1752. Mason remembers his own father being angry about the "loss" of the days. Mason's scientific explanation falls on deaf ears.

In the pub Mr. Swivett and Mr. Hailstone complain about the loss of the eleven days. They say that it was done in order to appease scientists worldwide.

Mason, still stunned by his rebuff at the hands of Bradley's family, thinks back to conversations with Bradley about the loss of the eleven days.

pages 193-195:

Macclesfield was given the post of President of the Royal Society as a political reward by the "Walpole-Gang" referring to Horace Walpole, who is famous for being the originator of the Gothic novel, but also was a member of parliament and active in politics. Mason imagines a conversation between Macclesfield and Bradley in which Macclesfield rails against the popular opposition to the loss of the eleven days. Bradley plays devil's advocate and stokes Macclesfield's disgruntlement.

In 1752 Bradley was 59 and Macclesfield was 55. Macclesfield thinks of Bradley as being in perpetual bad health and having married "foolishly." They discuss the lies politicians must tell as opposed to scientific measurements which must be as truthful as possible.

Mason spins a tale to his listeners in The George: Macclesfield assembles a group of "Strangers" from the far east where time was much less important. He then gets into a discussion about three "genders:" male,

female and dead. In a parenthetical mention of Wicks, Pynchon injects the possibility that these views are more Wicks' than Mason's.

Mason invents a leader of the group of eastern strangers: Count Paradicsom. Paradicsom is the hungarian word for paradise.

pages 196-198:

Mason goes on to spin a tale to his little group of listeners in The George. An army of Pygmies is brought in to "colonize" the Eleven Days and "not allow the Time to elapse." Mason's audience is completely taken in and Mr Hailstone even embellishes it.

Mason gets no joy out of conning the locals, and buys them all another pint before sulking off to spend the night prior to returning to his relatives.

pages 199-201:

Chapter 20 begins on page 199 with Mason returning to his sister's house. His sister Hester is taking care of Mason's two sons, along with Hester's husband Elroy.

Mason expects to meet with hostility due to his long absences but instead is met by Delicia Quall, who makes it clear that she would like to marry Mason.

VW#54: Sally Lunn - a slightly sweetened tea cake.

Mason uses the phrase "Oh, Be A Nice Girl, Kiss Me Right Now, Sweetheart" which is a mnemonic for star classes on a stellar evolution diagram.

Mason's less than immediate rejection of Delicia brings forth the sound of Rebekah turning over in her grave.

Mason hints that he might not be around town too much longer and everyone objects to his thoughts of travel. They suggest he take up the challenge of the

longitude problem. Mason says that the problem is all but solved thank's to "Mr. Harrison's watch."

After some prodding, Mason tells the rumor that he might be sent to America to draw up "Boundary-Lines, hundreds of miles long..."

The women react to America with "Snakes! Bears! Indians!"

pages 202-204:

Elroy draws Mason aside and tells him that if he goes to America it will be years before he sees his sons again. He says that in all likelihood they will be indentured to Mason's father at the bakery for seven years.

Throughout the rest of the day other relatives come to tell Mason variations on the theme of the inadvisability of leaving for so long a time.

The next day Mason talks to his father who has already heard that Mason was going to America. Mason's father refuses to admit that he intends to take his financial support of the kids out in the form of their labor when they are old enough to work in the bakery.

Mason's father reminds Mason that he had warned Mason about Sam Peach, that Peach was not friend of Mason's. Now that Bradley's dead, Mason is in danger of Peach controlling his life.

Mason's father, Charles Sr., is not really a bad guy, asserts Wicks. "He believes bread is alive..." He enjoys holding the dough in his hands.

pages 205-207:

Although Mason's father thinks of bread with almost spiritual adulation, Mason is terrified by it's seething liveliness, and by it's representation as the body of Christ.

vw#55: succedaneum - A substitute.

Mason recalls falling asleep once when he was young with a pillow consisting of a risen raw loaf and the bread infiltrated his ear and spoke to him.

Mason's father tries to convey the terror of unconditional love to his son and how they have to work their way through it, but the two are doomed to fail to communicate.

Chapter 21 begins on page 207 with Mason musing on his days in Sapperton with Rebekah. The village was full of bickering over property rights and other pettiness. Mason stated his needs to live in a larger city and Rebekah could not understand him.

pages 208-210:

Mason imagines a scene in which he talked to his father before he got married. The conversation did not take place, but he thinks his father would have warned him not to become indebted to Sam Peach for securing a position with Bradley, and that his wife would not be happy being married to a "stargazer."

Mason remembers a time when he invited Rebekah to accompany him to his logging the Transit of Venus. Rebekah worries that his position as assistant to Bradley would not be waiting for him when he got back.

vw#56: Pelhamites - followers of Henry Pelham (1659-1654), became prime minister of England in 1643.

Rebekah is surprised by all the politics that are involved in the Royal Society.

Mason remembers a trip he and Rebekah took south the view Stonehenge by moonlight. They arrived a few hours before sunset and spent the time discussing how Rebekah had relatives who came from this area, and Mason makes gentle fun of her druid ancestry.

pages 211-213:

Mason recalls the first time he took Rebekah up to the observatory. She thought it very peculiar. Mason wonders how Rebekah will get along with Susannah Bradley. He thinks that perhaps Rebekah has been sent to him to "Guarantee her husband's behavior..."

Out of his reverie, Mason has found that his sons have heard he will be going to America. They are excited about him going to a savage land. Every time he says goodbye to them he fears it will be the last time.

Mason thinks that he is less welcome in London because of the time he spent with Maskelyne, who is not well liked in London.

Maskelyne returns to London and Mason meets him in the summer of 1763 in Maskelyne's rooms near New Bond Street. Maskelyne is about to leave for Barbados to test the Harrison solution to the longitude problem. They discuss the visit to London of Joseph-Jerome Lalande, the head Astronomer of France. As they are talking about him, he arrives at Maskelyne's place. They have scarcely begun to talk when Maskelyne's goofy brother Edmund shows up and monopolizes the conversation.

pages 214-216:

Maskelyne's brother Edmund is apparently drunk. He tells Maskelyne of meeting an astronomer named Herschel at a pub named The Octagon. William Herschel was the astronomer who would later discover Uranus. Edmund makes fun of Mason's dour expression. The french astronomer Lalande says he's off to see "Florizel and Perdita" and Edmund thinks Lalande is going to date two women at once. The play Lalande is going to see was written by David Garrick, who Mason saw a few pages back. Mason takes his leave as well and is soon alone on the street, thinking of America.

Chapter 22 begins on page 215 switching the focus back to Dixon. He is at the home of his mentor William Emerson. Also in attendance is Father

Christopher Maire, who hardly looks at all like a Jesuit priest.

vw#57: pinguid - fat; oily.

Fr Maire studied in Italy with Fr Boscovich, who a mathematician who developed the first coherent description of atomic theory. Maire's appearance resembles the goblins that haunts country roads in folk tales.

Emerson enters the front parlor to join Maire and Dixon. He carrying an unappetizing plate of leftover breakfast. Emerson gives the appearance of a wizard. He is not always a nice person, as evidenced by the fact that he once hypnotized an annoying child into staying up a tree for most of a day.

Wick's audience interrupts to weigh in on hypnotism. Cousin DePugh says it is all the rage in Paris and that he himself has been "Mesmeriz'd."

Euphie said that it cost big money to get mesmerized by Mesmer and DePugh said that he got a group rate and that he recouped the money by not drinking for a while. His father had left the room and he told everyone that his father doesn't know about it and to keep quiet about it. Depugh adds that he's learned to do it himself and is thinking of "setting up a practice." Brae advises him to do it in New York if he wants to make a profit.

pages 217-219:

Mr. LeSpark takes offense to the idea that the only place in America to turn a profit is New York, He quotes from Timothy Tox's Pennsylvaniad. This is the first of many references to Tox and his poem. Tox is a fictional character and his poem appears to be a nod to John Barth's "The Sotweed Factor."

DePugh says that he is thinking of setting up his hypnotism practise in the wild west. Mr. Lespark says that doctors will run him out of town. Depugh says that America is supposed to be all about competition, and his father reenters the room at this point to dispute this

view. He says that the professions of law and medicine need to create monopolies to maintain high prices for their services.

Wicks states that monopoly is a form of sloth. Several voices reply "Rubbish."

Wicks returns to his narrative, explaining that most of the town where Emerson lives, Hurworth, believe Emerson to be a practicing magician. Shepherds have seen shadows at dusk that they think are of Emerson and his class flying overhead.

Wicks runs with this, describing Emerson and his class flying over the countryside to view the outlines of Roman ruins. He talks of "Ley-Lines" which is an anachronism in as much as the term was invented in the 1920s by mystic Alfred Watkins. See:

<http://www.mystical-www.co.uk/leylines.htm>

Later Dixon will tell Mason about these ley lines and how they exerted a magnetic influence on Dixon. Mason will reply with a ghost story of his own about how Bisley Church was cursed with various afflictions. Dixon says that the ley lines were not malevolent and that "Flying was indeed quite pleasant, quite pleasant indeed..."

I am at a loss to understand this flying business in Mason and Dixon. I can only attribute it to Wick's vibrant imagination.

vw#58: palimpsest - 1. A manuscript, typically of papyrus or parchment, that has been written on more than once, with the earlier writing incompletely erased and often legible. 2. An object, place, or area that reflects its history.

Emerson taught that it was possible that the earliest coal mines in England were discovered by Mithraic cultists who built underground temples. Emerson taught of the mystical nature of coal. He quotes the original latin of Galileo's "Nevertheless it moves," remembered by Dixon during his witnessing of the Transit of Venus back on page 99.

pages 220-222:

Dixon remembers various things about Emerson. How he loved to watch vortices in flowing water. Emerson's first book was on "fluxions," a branch of differential calculus concerned chiefly with the study of the rate of change of function and which dealt extensively with vortices.

Emerson was much shorter than Dixon. He thought of wind as a kind of lateral gravity. All of his science increased his clarity of the way in which Emerson viewed God.

After completing his studies with Emerson, Dixon was asked by Emerson to tell him his aim in life. Dixon said he wanted to be a surveyor. Emerson calls him a fool, but Dixon remains firm in his conviction that it is a good career choice. He reminds Emerson that he has said that Dixon's destiny was to "inscribe the Earth."

Dixon makes it clear that he would like to continue to study under Emerson but Emerson sends him out to make his mark in the world.

Now, after returning to England from witnessing the Transit of Venus, Dixon is visiting Emerson at Emerson's house.

The dapper Fr Maire says he must reluctantly return to his teaching position at St. Omer. Dixon makes a smart comment and Emerson directs him to show some respect and Dixon replies that he has the greatest respect for the writings of Fr Maire. Dixon praises his ability to do mathematics while on horseback, as described in a poem by the eminent mathematician, Fr Boscovich.

pages 223-225:

Fr Maire takes a few gentle swipes at Fr Boscovich, but eventually tells Dixon that he wishes Boscovich well in England. Emerson asks Maire what Boscovich's real purpose is in coming to England and

Maire says that Boscovich wants to "measure a Degree, in America." Dixon asks latitude or longitude and Maire says latitude. But Emerson does not believe the King will allow Boscovich to do any scientific work in America.

vw#59:tilth - Tilled earth.

Emerson and Maire discuss how the Jesuits are despised by most national governments. They discuss the necessity to "penetrate" China.

Emerson tell Dixon that rather than serve his country by going to America, he can become a Jesuit priest and do "Soldj'ring for Christ." This is told to Dixon in the form of a song.

Dixon does not like the celibacy vows required of priests.

Emerson says that he is certain that Dixon will be approved for taking part in the "Boundary-Line Survey in America." He says that his Quaker family and Jacobite connections make him a natural.

pages 226-228:

Dixon is surprised that there is still any Jacobite presence in America. Emerson assures him that such is the case. They discuss the case of the execution of the Earl of Stafford who attempted to seize control of Raby castle from Sir Henry Vane. Vane's son became governor of Massachusetts.

vw#60: attainder - In the ancient common law, the state of an offender who had been sentenced for a capital offense.

They decide to adjourn to Emerson's favorite pub, The Cudgel and Throck.

vw#61: throck - a spell that causes plants to grow. Also defined as "the piece of Timber on which the Suck is fixed, on a plough."

Maire fishes a wig out of his pocket so that he is not seen as a Jesuit priest in the pub.

Chapter 23 opens on page 228 with the Dixon, Emerson and Maire settling in at the Cudgel and Throck. It's Maire's first time there and he does not like it.

A Mr. Brain tells Emerson that Lud Oafery has been looking for him. This is Oafrey's first mention in the book. Emerson says that Lud is probably wanting to purchase another spell from him.

pages 229-231:

The tavern operator mentions his regret at spending sixpence for having Emerson do his horoscope and Fr Maire registers surprise at the size of the fee.

Dixon says he finds The Cudgel and Throck depressing and Emerson disparages Dixon's favorite pub, the Jolly Pitman. Dixon says there is music at the Jolly Pittman, and Mr. Brain says he can provide music and takes out a hurdy gurdy and makes noise with it although he does not know how to play it. A dog named Goblin howls along.

Maire tells Dixon that owing to the cult of Feng Shui, there are no 360 degree circles to be found in China. This is the first of many mentions of Feng Shui in the novel. Maire and Emerson seem to be equating China with America in their conversation with Dixon. Why?

vw#62: Cilice - Jesuit chastity belt, a wire girdle with sharp metallic points to irritate the skin; from Latin (cilicia: course garment made from haircloth).

Dixon perceives that Maire wants Dixon to represent Jesuit interests in America and Dixon refuses. Dixon says maybe the astronomer Lalande might be more agreeable. Lalande was mentioned a few pages back by Maskelynes brother.

Emerson said that he bet Maire that Dixon would not take the assignment, but Maire is unwilling to concede.

Walking into the pub, a Mr Whike overhears the three talking about Jesuits and launches into a diatribe against the Jesuits. Emerson knows that Whike is Lud Oafrey's friend and asks why Lud has been looking for him.

pages 232-234:

Whike tells Emerson that it is Lud's mother who wants to see Emerson. Whike wants to know who Maire is because his wig is so ill fitting. Dixon perceives that a fight is brewing and he indicates to Whike he is ready to fight him. Before they can begin Lud Oafrey and his mother arrive at the pub. Dixon knew Lud when they were both children and Lud could speak coherently then, but now he speaks in a roar and Whike has to translate.

Lud works in the coal mines and there is some repartee concerning the differences between living on the surface of the world and living inside it.

Ma Oafrey says that she heard Dixon was going to go to America to build a "Visto" or corridor.

Whike says that Lud wants to know Maire's opinion on the shape of the world, and Maire says it is a flat as a funnel-cake or a pizza.

pages 235-237:

Whike is unfamiliar with the term "pizza" and Maire describes it as a "Delicacy of Cheese, Bread and Fish." The patrons of the Cudgel and Throck express an interest in learning to make a pizza and Maire asks for a risen but uncooked loaf and he begins to flatten it. An enthusiastic Lud finishes the job. Maire asks for a tomato but there is none to be found. Dixon pulls a bottle of Ketjap out of his surveyor's kit. Maire then asks for fish and Mr. Brain finds a cask of anchovies. Maire then asks for cheese and is supplied with the

stilton left over from the Ploughman's Lunch. They put the pizza in a baking oven next to the fireplace.

It is beginning to get dark and Lud is acting nervous. Lud's mother and Emerson are glad it is a cloudy night so that the moon will not appear, for Lud apparently is a werewolf. Emerson thinks that popular belief in werewolves are reinforced by the changes males go through during the onset of puberty.

Unfortunately the clouds clear away and the moon shines through the window. As soon as he notices it, Lud runs out the door, followed by Whike, who reports back that he can see Lud changing. Once the change is complete, Lud strolls back into the pub, dressed like a dandy and speaking letter perfect upper-crust English. For Lud, the transformation is from neanderthal to a model of modern culture! His mother groans that he stays this way for two or three nights, but that she can "tolerate" it.

pages 238-240:

Chapter 24 begins on page 238 with Dixon recalling how his parents met and how Dixon owes his existence to a pair of shoes. Dixon's father George finds a pair of wet shoes drying by a fire and takes them, as is the custom, to be redeemed later for a gift. The shoes belong to Mary Hunter and a relative introduces her to Dixon. Mary is actually a kind of relation to Dixon by marriage. Mary's father had married twice after Mary's birth mother died. After Mary's father died her step-mother had married George's father. So Dixon wonders if they should be considered "step-brother and step-sister-in-law." Mary was 18 when her father died and she married George 12 years later.

Jeremiah Dixon was her second son, the first being George Jr.

Jeremiah was a happy child, called Jelly-Belly by all.

pages 241-243:

Dixon's mother came to be known as the smartest woman to marry a Dixon. She gives advice to a daughter telling her to learn her arithmetic because "she who keepeth the Books runneth the Business."

Dixon's father died when he was 22 years old. He does not allow himself to drink too much in his mourning because he wanted to do a good job as a surveyor. We learn everything he keeps in his work bag. He wants to draw borders everywhere because he is afraid of unenclosed spaces.

vw#63: Fell - a barren field.

He was miserable to all after his father's death. His older sister got married three months after the funeral and Dixon made a spectacle of himself at the wedding.

Dixon and his brother kept busy after their father died. Dixon worked hard indoors perfecting his drafting skills. He wanted to be able to create a fantastical map of the world. At night he would go to pubs and hang out with friends of his father and learned a lot about the coal business.

Just before leaving for America he spends a lot of time at his favorite pub, The Jolly Pittman.

vw#64: Keel - barge used on the Tyne to carry coal.

Dixon accepts an invitation to ride on a coal barge and is startled by the amount of fog on the river.

vw#65: Pirogue - nearly flat-bottomed boat, able to cruise in shallow water, marsh and swamp.

Out of the fog emerges a boat containing about twenty painted American Indians. Everyone in Dixon's boat is at a loss at their appearance.

pages 244-246:

The people on the coal barge that Dixon is riding on think they have been magically transported to America.

A grappling hook attaches to the side of the boat. The crew thinks they Indians want some of their coal. Suddenly church bells peal a great torrent of music. The captain steers further into the fog.

The fog clears to reveal they are near a town that looks just like the towns of their region in England. Eventually they realize that they really are still in England. As they return home Dixon is thinking about the fact that tomorrow he and Mason will sign the contract for the job in America.

Chapter 25 begins on page 246 with a brief return to the LeSpark house, where Tenebrae puts a paranoid spin on the selection of Mason and Dixon to establish the border between Pennsylvania and Maryland. Wicks rejects her paranoia and remarks that the job took Mason and Dixon five years to complete, including the year spent establishing a latitude in Delaware.

Mason and Dixon meet in London after a separation of a year and a half. After the legal business is completed, Dixon tells Mason of his condolences over the death of Bradley and Mason thanks him for the letter Dixon sent to Mason. They meet again two weeks later in a pub in Falmouth.

pages 247-249:

Mason reminds Dixon of the day they set off from Plymouth to witness the Transit of Venus, and how Bradley kept apart from everyone and did not speak. Mason regrets not talking to Bradley on that day as it would have been their last conversation. Mason is saddened by the fact that "The business of the World is Trade and Death, and you must engage with that unpleasantness, as the price of your not-at-all-assur'd Moment of Purity."

Dixon refers to the waiter in the pub as a "dodman," which means snail.

Mason and Dixon debate the question of whether the Americans are British. Dixon says they are no more British than the Cape Dutch are Dutch.

They both regret that they are going to another place that practices slavery. Dixon also says that the Americans are inclined to kill off the people already living where they wish to settle.

They look back over their adventures together and argue over who was more scared and who was the braver of the two.

pages 250-252:

Mason and Dixon can't believe they've been hired to work together again. They feel they showed cowardice on the journey on the Seahorse and are perplexed at their reputation in the scientific community. They still regret that they did not get to go to Skanderoon rather than South Africa.

They also suspect the Royal Society is sending them to America to get them out of the way. Mason indulges on paranoid flights of fancy as to the meaning and motives of the actions of the Royal Society. He says that the Society likes to deal with chartered companies and reminds Dixon that both Maryland and Pennsylvania are chartered companies.

from the Mason & Dixon Alpha at Hyperarts:

"The lord proprietors of England's colonial trading companies claimed special protections over their incorporated businesses, extended through their divinely granted authority, including permanency of incorporation, limited liability, and the legal authority to be free from community and worker interference. These protections were initially limited by the American colonists, whose intent in this area was to create a nation where the citizenry were the government and the government controlled the corporations--by ensuring that, if a corporation violated its agreement to obey all laws, to serve the public good, and to cause no harm, its charter would be revoked."

pages 253-255:

Mason is a little frustrated at his inability to get Dixon to take Mason's paranoid fears seriously. He praises Dixon for his bravery in returning to the Cape from St Helena.

Dixon remarks about the way people tend to forget their experiences and repeat mistakes. He thinks this will happen in "the next World." Mason and Dixon banter about the differences in their religions.

Page 253 marks the end of Part One. Page 254 is blank and page 255 is the partition title page with an underlined "Two" toward the top of the page, and one word: "America" in the center of the page.

pages 256-258:

Page 256 is blank. Page 257 begins Chapter 26 with a long passage from the nonexistent poet Timothy Tox's poem "The Line." The poem describes the dispute between Maryland and Pennsylvania over their border and how Mason and Dixon arrived "To mark the Earth with Geometrick Scars."

It is the middle of November when Mason and Dixon arrive in the new world, and before they can see much of anything, they hear lots of different noises marking civilization coming from the shore. They awake the next morning to coffee made by Shorty the cook, and Captain Falconer moves the vessel to a dock in Philadelphia, described as "second only to London, as the greatest of English-speaking cities."

Mason and Dixon stand on the quarter-deck taking in the view. The climate feels like late English summer to them.

pages 259-261:

The ship docks and the crew busies itself unloading the cargo. Mason and Dixon feel like "supercargo." The women who come to greet the arriving ships seem much more forward than even the women of Capetown and Dixon is delighted and breaks out into song.

Various people are attracted to arriving ships, including thieves and salesmen, selling everything from love potions to early versions of travel mugs. There are also evangelists, among them followers of Revd MacClenaghan. And Quakers too are out in the streets proselytizing.

The scene shifts back to the LeSpark house where Wicks bemoans the fact that religion appears to now be in decline in America. Wicks believes that the outburst of "born again" Christianity helped spur the revolution. Others in the family room are not so sure.

pages 262-264:

vw#66: Dithyrambists - in ancient Greece, a dithyramb was an ecstatic hymn to Dionysus, the god of fertility and wine. Thus, the "Dithyrambists" would have been devotees of Dionysus; these days, dithyramb is, according to Webster, "a sus. short poem in an inspired wild irregular strain" or "a statement or writing in an exalted or enthusiastic vein" (definition courtesy of the Hyperarts Mason and Dixon Alpha).

The debate on religion shifts to a debate on the evolution of music. Euphrenia is concerned that there are too many new songs written in B-flat major. Ethelmer and Tenebrae discuss the new form of music, thirty-two measures, four stanzas, with the energy and tension as primitive as the act of...Tenebrae is concerned that Ethelmer is going to say sex, but he says he was thinking of the act of eating.

Euphrenia asserts that "Mason and Dixon's West Line...shares this quality of Departure and Return..."

Uncle Ives is not convinced that new music is revolutionary. But Ethelmer plays "The World Turned Upside Down" a song believed to have been played at the surrender of Cornwallis at the end of the Revolutionary war. But the story of that song being played at that time is apocryphal. Check out:

<http://www.americanrevolution.org/upside.html>

Ethelmer the future of the music revolution lies in "the Negroe Musick, the flatted Fifths..." which is a reference to one of the core elements of jazz music a century and more in the future. Then Ethelmer scans further into the future when he says how important the new music is to him:

"Is it not the very Rhythm of the Engines, the Clamor of the Mills, the Rock of the Oceans, the Roll of the Drums of the Night, why if one wish'd to give it a Name, --" "Surf Music!" DePugh cries.

Ethelmer does not mind being made fun of. He says that someday dePugh will be buying a guitar to play the new music and that Tenebrae will dance to it at her wedding.

pages 265-267:

After a brief flirting moment between Ethelmer and Tenebrae, Chapter 26 comes to a close.

Chapter 27 begins on page 266. Mason and Dixon have wandered into an apothecary's shop on Locust Street to purchase laudanum. They are surprised to bump into the famous Benjamin Franklin. Franklin is wearing tinted eyeglasses of his own invention.

Dixon asks Mason how much they should buy and Mason lets Dixon decide so Dixon orders 100 cases, which Mason is outraged by. At this point Franklin interjects to say that Daffy's Elixir may be put to many uses, and so the trio meet. Franklin tells them that the apothecary, Mr. Mispick, can mix a concoction identical to Daffy's Elixir for a tenth of the brand name's cost. Or they can buy the ingredients and make their own. He then raises a finger and recites "Strangers, heed my wise advice, -- never pay the Retail Price."

JBoR of the pynchon list submits the following:

from:
<http://www.shu.ac.uk/schools/cs/teaching/sle/Book/dri nkgloss.htm>

"Daffy's Elixir" Daffy. "So called after a seventeenth-century clergyman, daffy was a medicine for children. It was a mixture of senna to which gin was commonly added, and hence became the slang name for gin itself." (_Oliver Twist_, Chapter 2, note 1)

Daffy's Elixir. Invented by said clergyman in the Restoration period. "What it tasted like one can no longer tell, but it was probably pretty good since it contained brandy, canary wine, oranges, lemons, rhubarb and a certain amount of borax, perhaps to convince customers that it really was a medicine and not just a rather expensive sort of gin."

pages 268-270:

Franklin wants to introduce Mason and Dixon to the experience of a Philadelphia coffee house, and invites them to his favorite, The Blue Jamaica.

Mason tells Franklin that his Glass Armonica is very popular in London, as played by Miss Davies. The Hyperarts Mason and Dixon Alpha provides this explanation of the armonica:

"musical instrument consisting of a set of graduated and tuned glass bowls sounded by the friction of wet fingers on the rims. It was invented by Benjamin Franklin in 1761. His "armonica" consisted of hemispherical glasses suspended on a treadle-operated spindle, overlapping so that only their rims were visible. A trough of water beneath the glasses moistened them as they rotated through it. It spanned four octaves. Mozart composed Adagio und Rondo K 617 and Adagio f r Harmonika K 356 for the instrument. Beethoven also composed for it, as well as others."

Franklin says that the French hypnotist Mesmer plays the instrument and "the Mozart child." Mozart would be about seven years old at this time. He had already become internationally famous.

Dixon excuses himself to go to the bathroom and Franklin asks Mason about Dixon's "Calvert

connections." Frederick Calvert was the leader of the Maryland colony. Mason is perplexed by the question. Franklin makes the connection between Calvert and Fr Maire and Emerson. Franklin asks Mason to ask Dixon about Calvert and report back to him. Mason turns him down.

Dixon comes back and mentions a man in the alley selling watches. Mason says he wants to go take a look and departs. As soon as he leaves Franklin asks Dixon about Mason's East India Company connections. Dixon expresses ignorance and so Franklin mentions the name Sam Peach. Dixon still pretends not to know anything.

Mason returns to say that the watch salesman asked him a riddle and that Franklin would know the answer. The riddle was "Why is the King like a near-sighted gunner?"

Franklin changes the subject to the Royal Society, of which he is a member, and says he was at a meeting there when they discussed the letter Mason and Dixon sent after they fought the French on the Seahorse. He mentions four of the members who were in attendance. He states that he was absent from the meeting that approved the acerbic reply to their letter.

pages 271-273:

Benjamin Franklin shows that he knows all about the Seahorse episode and decries the British willingness to risk scientists' lives. He is sure that sooner or later America will go to war against the British.

Two women, early version of "groupies," show up to escort Franklin to a recital he will be giving later at a pub called The Fair Anchor. The women are named Molly and Dolly.

Out in the street, Mason and Dixon discuss the oddness of Benjamin Franklin. They decide to go to the Fair Anchor that night.

The Fair Anchor is a melancholy place, well suited to Mason's demeanor. The walls are covered with portraits of Swedes, from the early days of Swedish settlement.

Franklin appears, his glasses changed to "nocturnal blue." The two women arrive with two more similarly dressed women, and they call out for Mason and Dixon to join them at their table.

Franklin plays his Glass Armonica. During an intermission he introduces Mason and Dixon to a Mr. Tallihoe of Virginia. Tallihoe says that he wants them to meet George Washington, who has "been out there, knows the country, the Inhabitants..." Tallihoe implies that Washington and Mason and Dixon are all surveyors, which irritates Mason. Dixon says that Washington is supposed to be from a Wear Valley family and people from his neighborhood have advised him to look him up.

Mason and Dixon meet Tallihoe at dawn outside the city. An odd shaped Coach is driven up to them and Tallihoe helps them aboard, but declines to accompany him. He tells them it is about a 24 hour trip down to Washington's place in Virginia.

pages 274-276:

Mr. Tallihoe says that George Washington does not wish to see him, so he will let Mason and Dixon make the somewhat perilous journey by themselves. The Coach goes non stop all day. The driver passes sandwiches through a hatch down to Mason and Dixon, and they have ale from a keg on tap. They urinate into glass jars. The driver drops them off on the banks of the Potomac, and they climb up Mount Vernon.

Chapter 28 begins on page 275 with a couple of paragraphs from the Spiritual Day-Book of Rev'd Wicks Cherrycoke. He ruminates on the decadence of the Virginia slave holders.

Washington is a tall man, as much taller than Dixon than Dixon is taller than Mason. At the time

they meet, he is only Colonel Washington. Mason and Dixon are pleased to find that he is not the incompetent fool portrayed in the British press.

Washington mentions the family he has over in Dixon's part of England, and Dixon detects a slight Geordie accent to Washington's speech. Washington is reluctant to smile because of his false teeth.

Washington says he doesn't know what kind of accent he has, but in Philadelphia they say he talks like an African, due to his proximity to the slaves. He invites them to have punch made by "my Man Gershom."

(Brad Carroll, Dept. Physics, Weber State University, suggests that Pynchon gets the name Gershom from the French Jewish mathematician, philosopher, astronomer, and Talmudic scholar Levi ben Gershom 1288-1344).

Washington tells them of various real estate opportunities opening up. He suggests that they purchase some land while they are in America. He says the French are out of Ohio and "the scoundrel Pontiac is vanquish'd."

pages 277-279:

Mason reminds Washington of a rule established by General Bouquet that no new settlements may be established west of the Allegheny ridge line which would be in Ohio today. Bouquet was a British general who drove the Ottawa Indians, led by Pontiac, out of Detroit. Washington doesn't believe that this rule will stop settlers.

Mason then relates a rumor that General Bouquet declined a bribe of 25000 acres from Maryland surveyor Thomas Cresap, and Washington says he thinks the bribe wasn't big enough. Washington says the next step in westward expansion is to win the Indian Wars by hiring mercenaries to do the fighting.

Dixon remarks that the expansionists ought to have some regard for the Indian's "whose Homes they

invade" but Washington replies that Americans will fight whoever they want whenever they want.

Washington complains about the taxes imposed on the colonies by Prime Minister Grenville and Dixon said he wrote to Grenville advising him to tax the East India Company but did not get a reply.

Washington advises Mason and Dixon not to discuss religion with the "Back Inhabitants." They are known to shoot atheists on sight.

Dixon, smelling "hemp," asks Washington about it, and Washington tells Gershom to bring pipes and some of the new crop.

Washington calls Gershom "an Israelite in whom there is no guile." Mason recognizes this as John 1:49, but my research shows that it is actually John 1:47. Dixon was offended by the remark, saying that it was used offensively in Raby castle. But Washington says he did not mean to offend and Gershom reveals he is really Jewish, so the quote is apropos. Washington praises Gershom's ability to cook Jewish dishes such as Kasha Varniskies. Gershom adds he also likes to cook Hog jowls, and that his Jewish sect does not bother with the dietary laws.

Washington all tells Mason and Dixon that Gershom is a successful stand up comic. Gershom tells Mason and Dixon that Washington wants him to invest his earnings in Washington's Dismal Swamp Land Company, and Mason and Dixon are upset by this but Dixon quiets Mason before he can say anything and Washington tries to usher Gershom out of earshot. I can't find any reason for this reaction.

pages 280-282:

Gershom makes fun of Mason's bright red coat, saying that it will make him a good target for Presbyterian rifles and Indian arrows. Mason is very unhappy at these remarks.

Martha Washington appears. She smelled the smoke and brought out a huge tray of baked goods for the hungry smokers to eat.

Washington launches into a long story about his adventures as a young man with the Ohio Company. Read about it at

<http://rs6.loc.gov/learn/lessons/gw/leader.html>

Gershom mentions the failure of Ohioans to get the Bishop of Durham clause in their charter. The Bishop of Durham clause refers to the traditional expectation that the Bishop of Durham, who lived on the Scottish border, would protect English land from foreign enemies.

vw#67: palatine - Belonging to or fit for a palace.

Mason perceives that Martha Washington thinks that astronomy is "unworldly" and launches into a defense of his profession.

pages 283-285:

Mason thinks he detects that Martha Washington is flirting with him. He continues to talk seriously about the importance of the work of astronomers in finding a reliable method of identifying longitude. But Martha and George Washington turn the conversation around to how the Transit of Venus caught the public imagination invading the popular culture with such items as the Transit-of-Venus Wig and Transit-of-Venus pudding. George and Martha sing a song about the transit of Venus that they heard from sailors.

Gershom changes his master-slave jokes into King-Fool jokes for the benefit on Mason and Dixon. After the jokes he sings Havah Nagilah.

Washington tells Mason and Dixon of the journey of the Frenchman Celeron de Bienville, who was sent south from Montreal to stake a claim on the Ohio territory in 1749. Washington mentions the leaden "flags" he planted to record his claim. The Wikipedia

says he placed at least six lead plates in the ground but only two have ever been found. Wikipedia goes on to state that the French claims on the Ohio Territory led to the Seven Years War, which was raging when Mason and Dixon sailed on the Seahorse.

Mason, Dixon and Washington speculate on the reason for the lead plates and Dixon thinks it might have something to do with electricity. They all agree that Franklin is crazy with his obsession over electricity.

pages 286-288:

Dixon says that Mason suffered a childhood "misfortune" with an torpedo, an electrical fish.

Mason, Dixon and Washington continue to discuss the lead plates that Celeron de Bienville planted in the Ohio territory. Washington says he thinks they were only meant as a slap in the face to the British.

Wicks interrupts the story to give his own opinion that the plates might have had inscriptions of words that produced magical effects.

Mason and Dixon ask Washington if he's seen the plates. Washington admits to have dug some up. Gershom fetches them and they all examine the plates. Dixon notices that the reverse side of the plates contains Chinese characters. Washington says that the only people who recognize Chinese are Jesuits. Dixon asks defensively if Washington has a problem with that, and Washington responds with a code designed to determine if Dixon is a Mason. Dixon responds with the proper countersign. Washington is relieved to determine that Dixon is not a french Jesuit working for France.

The scene shifts forward to Philadelphia where Franklin is telling Mason and Dixon about the way the Jesuits conquer time with the use of "telegraph" involving information conveyed via giant balloons travelling at high altitudes, operated by "converted Chinese."

Franklin worries that the Jesuit-Chinese alliance poses the greatest threat to "Christendom." He says it is deadly to combine the Jesuit's "Rage for Jesus" with the Chinese "Escape into the Void." He hopes that arguments over Feng-Shui keeps them divided.

pages 289-291:

Chapter 29 begins on page 289. Mason goes to visit the Veery brothers (Cosmo and Damian), professional effigy makers that have have a shop on the edge of Philadelphia.

vw#68: shambles - a building where animals are butchered.

Why does Mason go there? Pynchon writes it is Mason's "unabating Search after the Grisly," but that really doesn't explain it.

Mason and Dixon in the course of tavern hopping find secret societies meeting in the back room of every place they visit. They seem fairly tame. The people they meet in the taverns decide that Mason must be a member of the Masons by virtue of his name.

In one back room, Mason comes upon a roomful of effigies of the Boundary Line commissioners. In a later meeting, on December 1st, Mason will look at the real life Commissioners and realize who the effigies were meant to represent.

pages 292-294:

After the meeting with the Boundary line Commissioners, Dixon points out to Mason that they are natural subjects for effigies to be used by rent payers.

Mason and Dixon have trouble sleeping in noisy Philadelphia, which Mason declares is much worse than London. While Dixon snores, Mason lays awake recalling a galloping song from an opera he attended in London just before he left for America. The opera,

apparently made up by Pynchon, is named "The Rebel Weaver" and was a kind of Romeo and Juliet story set amidst the conflict between weavers and clothiers.

Mason and Dixon both lie in bed wearing the clothes they have worn all day. They are afraid of being bitten by the bugs which appear to be everywhere.

vw#69: quotidian - Everyday; commonplace.

Mason gives up trying to sleep and goes to Orchard Tavern. Before he gets drunk he learns a great deal of Pennsylvania politics, which is a struggle between religious groups: Quakers, Anglicans, Presbyterians and German Pietists. Mason has a hard time following the explanation of the way the groups interrelate.

Suddenly it is announced that Benjamin Franklin is about to give a demonstration of the Leyden-Jar, which is described in the Hyperarts Mason & Dixon Alpha as

"an electrical condenser consisting of a glass jar coated inside and outside with metal foil and having the inner coating connected to a conducting rod passed through the insulating stopper."

Franklin, dressed as Death complete with a scythe, gets a group to hold hands and then makes a connection to the battery which discharges after giving all a shock punctuated by flashes of light.

A thunderstorm can be heard outside and the tavern owner rushes to close the windows.

pages 295-297:

Franklin is excited at the prospect of a thunderstorm and invites all those in attendance at his leyden jar show to accompany him outdoors to try and "capture" a thunderbolt with his scythe. Franklin specifically invites Mason to come along, but Mason demurs.

Chapter 30 begins on page 296 with Mason and Dixon beginning their task. A group of dignitary and lookers-on go to Cedar Street to declare the north wall of a certain house as the southernmost point of Philadelphia. Exactly fifteen miles south of this point Mason and Dixon will begin their line.

Some people question the choice of the north wall, but the reason is that the south wall is on private property. Other people complain that the city is still growing, and why don't they wait a bit.

The Sector is carried in a padded wagon. Here's a description of the instrument, provided by Hyperarts:

"A sector, more fully called a zenith sector, is a telescope meant to view only the zenith (i.e., the point in the sky straight above you). To do this, the telescope is part of a larger contraption, complete with built-in plumb line to maintain verticality and a circular sector with micrometer at the bottom for precise measurements of angle, and some cross hairs--usually several--so that one can time when key stars cross the zenith itself. The sector that Bird made for Mason and Dixon was lost in a fire sometime in the late 19th century."

Mason and Dixon will use it initially to determine accurately the path south.

A Carpenter named Ben Loxley is building the observatory.

One of the Commissioners, Mr. Chew explains to the workers and the crowd that Mason and Dixon will use the Sector to find the exact latitude of each point so they may keep the line exactly straight.

Dixon asks the carpenters if they will be able to fit the big Sector through the door of the observatory.

pages 298-300:

One of the workers, Clovis, insists that the design for the observatory covers a door large enough to get the Sector inside. Mason and Dixon remain skeptical,

but another two workers, Hobab and Elijah promise to build a door big enough to get the sector in and out.

Dixon goes to a coffee house noted for being habituated by people interested in magnetism. It is called The Flower-de-Luce. Dixon orders some very strong coffee and the proprietor remarks "Planning on some ELEVATED Discourse tonight?" Dixon thinks he recognizes the "coffee-drapeer" but the proprietor says no.

Dixon sees Franklin's friend Dolly pouring over a map with a measuring device. She looks up and greets Dixon, telling him that new "declination figures" have arrived and that Pennsylvania is a bit more east than previously figured.

vw#70: declination - (astronomy) the angular distance to a point on a celestial object measured north or south from the celestial equator; expressed in degrees; used with right ascension to specify positions on the celestial sphere [syn: celestial latitude].

Dolly asks what could be causing the shift and Dixon speculates "Something underground, moving Westward...?" Dolly tells Dixon he is being incautious and pulls him into an alcove. But once there they talk of a coffee house where the waitresses dress in the costumes of various nations. Dolly asks Dixon about his relationship with Mason and offers to fix Mason up with a friend of hers, Molly, who is also of a melancholy nature. Dolly launches into an explanation of her interest in science.

pages 301-303:

Dolly says that she first held a mariner's compass at the age of nine and was fascinated by it's movements.

Dixon responds by telling her about his circumferentor.

vw#71: circumferentor - A surveying instrument, for taking horizontal angles and bearings; a surveyor's compass. It consists of a compass whose needle plays

over a circle graduated to 360[deg], and of a horizontal brass bar at the ends of which are standards with narrow slits for sighting, supported on a tripod by a ball and socket joint.

vw#72: fell - An upland stretch of open country; a moor.

vw#73: cryptoscope - early term for a simple x-ray fluoroscope.

Dolly says that Lord Calvert of Maryland thinks Dixon to be a Wizard because of his surveying skills. Dixon says it's ok with him if people want to believe that basic science is magic.

Dolly suggests that the commissioners think that Dixon can make them rich, his circumferentor dowsing for iron, like "Lord Lepton, to whose ill-reputed Plantation you must be drawn..." Mason and Dixon will turn up at the Lepton's about a hundred pages later in the book. Lepton runs an iron-plantation (mining iron ore) and has bawdy parties at his "mansion."

Chapter 31 begins on page 302. It is now late December. Mason and Dixon awake to be startled by the quiet outdoors. They can actually hear birds chirping. Dixon suggests that it must be Christmas. Mason wants Dixon to go out into the street to see if he can determine why it is so quiet. Dixon fears for his life but goes. He decides to dress like a Quaker. Dixon tells Mason that Dolly and Molly love to discuss ways of improving Mason's appearance. Mason decides to follow Dixon out into the street.

pages 304-306:

The snow this late December morning is ankle deep and the street seems deserted. It is a Wednesday and should be jammed at that time of day. They decide to look for news at a nearby coffee house, The Restless Bee.

vw#74: Susurrus - A soft, whispering or rustling sound; a murmur.

Moving toward the tavern they begin to hear normal everyday sounds in the distance. In front of the Bee they see a circle of people surrounding two fighters, one apparently a Quaker, the other apparently a Presbyterian. Dixon asks one of the people in the crowd to explain what is happening. The person Dixon addresses is a lawyer named Mr. Chantry. He tells Mason and Dixon of the Paxton massacre at Lancaster a couple of days ago. Here's the Wikipedia history of the events:

"The Paxton Boys were a group of back country Scotch-Irish frontiersmen from the area around the central Pennsylvania village of Paxtang (Paxton) who formed a vigilante group in response to the American Indian uprising known as Pontiac's Rebellion. The Paxton boys felt that the government of colonial Pennsylvania, dominated by Quaker pacifists, was negligent in providing them with protection, and so decided to take matters into their own hands.

"As the nearest belligerent Indians were some 200 miles west of Paxton, the men turned their anger towards the local Conestoga (or Susquehannock) Indians-many of them Christians-who lived peacefully in small enclaves in the midst of white Pennsylvania settlements. (The Paxton Boys believed or claimed to believe that these Indians secretly provided aid and intelligence to the hostile Indians.) On December 14, 1763 a group of more than fifty Paxton Boys marched on an Indian village and murdered the six Indians they found there, and burned the bloody cabin in which the killings were done. Later, colonists looking through the ashes of the cabin, found a bag containing the Conestoga's 1701 treaty signed by William Penn, which pledged that the colonists and the Indians "shall forever hereafter be as one Head & One Heart, & live in true Friendship & Amity as one People."

"The remaining fourteen Susquehannocks were placed in protective custody by Governor John Penn in Lancaster. But on December 27, Paxton Boys broke into the workhouse at Lancaster and brutally killed and mutilated all fourteen. These two actions, which resulted in the deaths of all but two of the last of the Susquehannocks, are sometimes known as the

"Conestoga Massacre". The Governor issued bounties for the arrest of the murderers, but no one came forward to identify them."

Dixon's sympathy for the Indians puts him in some danger of assault by the onlookers, so Mr. Chantry escorts them into the coffee house. The place is a hotbed of activity, all relating to the Paxton boys. There are a group of Indians converted by the Moravian Brothers living near Philadelphia and these are thought to be the next target of the Paxton boys and some of the people in the coffee house were organizing to oppose them.

Mason and Dixon are appalled by the savagery of America. They are reminded of the cruelty of the Dutch in Capetown. Dixon refers to the Dutch as "Butter-Bags," which the Hyperarts Mason and Dixon Alpha states is a "somewhat derogatory slang for a Dutchman."

They had not paid much attention to the first report of the Paxton boys two weeks ago because they were busy taking their first observations in the new observatory.

pages 307-309:

Mason and Dixon are at a loss to understand the savage acts by the "civilized" whites of South Africa and America. They have talked to Benjamin Franklin about it, and he said that the electrical charge in the atmosphere of South Africa is all negative in the dry season and positive in the rainy season. "Then what's America's excuse?" responded Dixon.

The scene shifts back to the LeSpark family room and Wicks is telling them that the word Liberty back then unfortunately meant the liberty to injure whomever one wanted. Tenebrae is shocked by this and temporarily leaves the room.

Ives mentions that he was one of the soldiers who passed used hospital blankets to the Indians in order to give them small pox. This was at the battle of Bushy Run, which was held in August of 1763. Mr. LeSpark

is not at all bothered by this and he challenges Wicks to express sympathy for the Indians. Wicks responds that everybody was as guilty as the Paxton boys back then, with even Quakers selling rifles to the Indians, including ones that would blow up on first use.

Wicks talks about little Peggy Shippen, who was the daughter of one of the Commissioners that Mason and Dixon reported to. Peggy later married Benedict Arnold. Tenebrae walks into the room and they settle back into the story of Mason and Dixon.

In the coffee houses now there is a torrent of action and violent speech, making Mason and Dixon uneasy. Someone gives a passionate speech that invokes the death of Edward Braddock, whom the Hyperarts Mason and Dixon Alpha describes as "a Scottish soldier who came to America; he was Commander-in-Chief of the British-American forces when he led the attack Fort Duquesne (now Pittsburgh), on July 9, 1755, where he was ambushed and slain; George Washington was on that expedition, and it was supposedly there where he learned to not wear a redcoat."

pages 310-312:

Page 310 begins with a half dozen lines from another poem by the apocryphal Timothy Tox entitled "The Siege of Philadelphia, or Attila Turned Anew," in which the Paxton boys are confronted by Benjamin Franklin.

Mason is impatient to pin down the exact latitude of the southernmost point of Philadelphia. As soon as it is accomplished they will be able to move to a new observatory constructed on the same latitude somewhere to the west. Dixon hopes to be in town when the Paxton boys arrive. Mason hopes to avoid them, but Dixon thinks they will have to run into them at some point.

Dixon says as a Quaker he is offended by the violence, but as one who remembers the Jacobite rebellion of 1745, he can understand people who feel need for revenge. Mason states that Dixon was a child

in 1745. In fact he was only 12 years old. Mason was 17 that year and sympathetic to the Jacobites, who failed to restore the throne to the Stuarts.

They reminisce at length of their passions during the thrilling events of the rebellion of 1745.

pages 313-315:

Mason tells a longish tale of how the British intimidated the Jacobites and also of the way in which hydraulic looms created a wealthy class of residents changing the life of everyone else who lived in the area. He speculates that they are moving towards more extreme examples of uncivilized behavior as they moved from London to Capetown to Philadelphia.

vw#75: Casuistry - The determination of right and wrong in questions of conduct or conscience by analyzing cases that illustrate general ethical rules.

Chapter 32 begins on page 315 with a return to the family room of the LeSpark house. Pitt and Pliny are told it is their bedtime, but they are reluctant to leave the story of Mason and Dixon. They perceive that at this point in the story Mason and Dixon were irritated and were about to go into a fist fight. They ask how they as twins can be asked to leave the story being told of twins like Mason and Dixon. Wicks said they were twins only to a point, having a dispute in 1767 or 1768 that ended their partnership. Pitt and Pliny decide it is better to leave off before the split occurs.

pages 316-318:

Pliny and Pitt want to know if they are going to miss any good action scenes by going to bed before Wicks finishes his story. They ask about Pontiac's rebellion, and Wicks says that Mason and Dixon were still in Delaware, working on the Tangent at that time. They ask about the Paxton Boys and Wicks says that Mason and Dixon have moved south to a new observatory before the Paxton boys moved through Philadelphia.

Pliny and Pitt ask if they could have Indians at the next story session and Wicks says of course. They go off and now Tenebrae is the youngest in the room and she is appreciatively observed by the two college boys Ethelmer and DePugh.

Wicks resumes his tale with Dixon telling Mason that just before they left for America, Emerson gave Dixon a mysterious package. In it is a watch that Emerson says will never stop.

vw#76: Remontoire - A device in a timepiece whereby the main source of power periodically winds up a spring or lifts the weights to drive the actual mechanism, so that it can provide a constant force. For example a spring-driven clock winds up a weight which transmits the power to the heart of the timekeeper or clock.

Dixon says that Emerson taught that there is no such thing as perpetual motion. Emerson says yes, saying in latin "there is no free lunch," but then says that the works of the clock permit it to transfer power "indefinitely."

Dixon is worried about carrying such a valuable prize to an unruly country, but Emerson says the watch cannot be taken apart with being destroyed and if it is destroyed another can easily be built.

Emerson won't tell Dixon why the watch is not commonplace if it so easily built. Nor will Emerson say where the watch came from.

At first, on the ship coming to America, Emerson tries to figure out how it is wound, but cannot. He meditates on the meaning of the "message" of Emerson giving him the watch but cannot figure it out. He eventually gives the watch over to the captain to put in the ship's strongbox for safe keeping.

pages 319-321:

Dixon gets his mysterious watch back from the ship's strongbox when they arrive in Philadelphia and it is still keeping good time.

Dixon offers to let Mason listen to it one day when they are working on the Tangent line. According to the Wikipedia:

"The Mason-Dixon "line" is actually made up of four segments corresponding to the terms of the settlement: Tangent Line, North Line, Arc Line, and 39ø 43' N parallel. The most difficult task was fixing the Tangent Line, as they had to confirm the accuracy of the Transpeninsular Line mid-point and the Twelve-Mile Circle, determine the tangent point along the circle, then actually survey and monument the border. They then surveyed the North and Arc Lines."

Dixon continues to pester Mason about the watch and asks if Mason has ever seen him wind it. Mason says no, but says Dixon could trick him if he wanted to. He does not believe in perpetual motion. Eventually he takes Dixon's watch to his ear and sings a song to the beat of the watch's mechanism.

Dixon suffers as the watch continues to work without being wound. He begins to think that Emerson has cursed him. Although he swore to keep the watch safe, he begins to try to find ways of getting rid of it.

vw#77: shagreen - An untanned leather with a granular surface that is often dyed green.

Dixon thinks the watch in it's carrying case resembles a vegetable and he seeks out Professor Voam "camp naturalist" in his crew for information, but the professor advises that vegetables don't tick. The professor advises him to talk to "R. C." another crew member who is a land surveyor and who likes puzzles. But as soon as R.C. sees the watch he lusts after it with "Mens Rea" which is Latin for "criminal intent"

vw#78: obloquy - Abusively detractive language or utterance.

pages 322-324:

R.C., local land surveyor, confuses Dixon's watch with Harrison's famous timepiece used to discover true

longitude at sea. R.C. asks Dixon if he ever tried to find out what it's worth. Dixon replies that he is keeping it for someone, but does not mention Emerson.

R.C. does not like the axmen in the Mason and Dixon crew to make jokes about the watch. One night R.C. is discovered in the act of swallowing the watch. Moses Barnes, supervisor of the axmen, declares that R.C. should be punished for stealing the watch. Another crew member suggests that the watch is merely "sequestered." Mr. Barnes ascribes the strange goings on to the fact that they are in a strange area on the Tangent line known as the Delaware Triangle or The Wedge, where farm animals have been known to disappear.

R.C. has always been considered a sourpuss, and his methods of surveying are not conventional: he records data without taking measurements.

R.C. keeps the watch in his stomach for years. His wife eventually moves to another room so she isn't kept up by the ticking all night.

pages 325-327:

R.C. tries to tell his wife that the watch lulls him to sleep with its ticking in his stomach, but R.C.'s wife is determined to sleep in another room far away from the sound of the watch. R.C.'s wife soon is reluctant to have sex with him in fear that the watch is somehow witnessing their acts.

Commissioner Shippen suggests that they perform surgery to remove the watch, and R.C. attempts to throw it up but fails.

Dixon writes a letter to Emerson telling him that the watch has been swallowed. He waits weeks, moping, for a reply. Eventually a letter comes from Mrs. Emerson, saying that Emerson was ecstatic at the fate of the watch and danced a jig, during which he stepped on something that caused him a small injury, and he is lying in bed, promising to explain his happiness in a future letter. Emerson himself adds a

postscript to the letter: "Time is the Space that may not be seen."

Chapter 33 begins on page 327. Commissioner Chew invites Mason and Dixon to join them at Christiana Bridge, a village in Delaware near the Tangent Line, where the commissioners frequent an ale house known as Mary Janvier's. Many businessmen from Philadelphia like to pass time there.

pages 328-330:

It's now summer and Mason and Dixon are in a bar named Janvier's where there is much political activity.

vw#79: pluvial - of or relating to rain; rainy.

vw#80: ridotto - A favorite Italian public entertainment, consisting of music and dancing.

Mason and Dixon find themselves arguing with a drunk gentleman casting aspersions on their profession. Besides the alcohol, a great deal of coffee is consumed in the bar, with so much coffee-dust being generated that it affects the workers at the bar. Wicks suggests that the combination of alcohol and coffee has created a new sort of European.

There is much anti-British talk in the bar. There is much unrest in and around Philadelphia. But by now Mason and Dixon are about thirty-one miles due west of the southernmost point of Philadelphia and are setting up a new observatory at the farm of a man named John Harland.

pages 331-333:

Mrs. Harland is worried about her vegetable patch on their farm, but Mr. Harland is overjoyed at the arrival of the astronomers. He says that if they need to use the vegetable patch, then he will buy his vegetables that year rather than grow them. But Mason and Dixon have no intention of ruining their garden.

They explain to John Harland that exactly fifteen miles south of his farm they will be establishing the zero point, or beginning, of the west line that will become the border between Pennsylvania and Maryland.

Dixon admits that they attempted to set up at a larger farm owned by Mr. Tumbling, but the farmer fired a rifle at them.

Harland visits the Astronomers at night and they give him a lesson in Astronomy. He seems an appreciative student. He says the neighbors think that Mason and Dixon use their instruments to look into the future.

When it comes time to move the observatory fifteen miles to the south to the farm of Alexander Bryant, Harland decides to join the crew working with the Astronomers and he is offered five shillings a week. He tells his wife to take care of the farm while he is gone.

pages 334-336:

Harland returns from the Mason and Dixon crew to visit his farm and finds his wife Betsy has planted a field of sunflowers and in a corner of the field the sun shines on "a newly-set chunk of Rose Quartz," which is revealed nearly a hundred pages later to be the monument left by Mason and Dixon to mark the crossing of the latitude of the south edge of Philadelphia and the longitude of the "Post mark'd west." He becomes romantic at the thought of accompanying Mason and Dixon west.

Time in the novel is moving swiftly. on page 328 it was summer, on page 333 it was February and now on page 334 it is April and the May and then June. Now they are ready to begin to actually survey the Tangent line that will define the east-west border between Delaware and Maryland. The move down to the middle of the Peninsula and survey northward. By the end of the month they have chained about six miles north to the Nanticoke river.

Wicks launches into a lengthy explanation of why it was so difficult to establish with any certainty the boundary laws of the colonies and how valued the decisions of the Royal Astronomers were. Wicks bemoans the stupidity of the rulers who gave vague ideas of boundaries to the colonists. Tenebrae goes to a large map and imitates what King Charles must have done when granting land to William Penn.

pages 337-339:

Wicks imagines a playful conversation between King Charles and William Penn concerning the border of the colony granted to Penn.

Mason and Dixon have to spend a couple of nights meeting with the commissioners in New Castle, Delaware, which is just south of Wilmington and is right on the Delaware river, just before it empties into the Delaware Bay. Their hosts inform Mason and Dixon that there used to be regular assaults by the Spanish and French via the river, and it became necessary for them to protect themselves by staying up all night. They do not sleep easily and dream of all night parties and large stuffed sandwiches.

Another verse from Tox's Pennsylvaniad is thrown in near the top of page 339.

Back to the story, it is now July and the Mason and Dixon crew are working northward through swamps and in hot weather. The line reminds Dixon of an ancient Roman road in England. By August they have moved 81 miles to the north, and they are just about at the Tangent point. They take the next three months to pin the point down exactly.

pages 340-342:

After three months of calculations Mason and Dixon have pinned down the radius between the tangent point and the courthouse, which by modern methods will prove to be off by only two feet and two inches.

It's now December and they send their crew back to their homes for the winter. Now Mason and Dixon can look forward to the west line next year. Mason and Dixon are staying at the Harland farm, but they are constantly squabbling and then apologizing, so they decide that a trip to Lancaster will soothe their nerves.

Here chapter 33 comes to a close. There has been a lot of clock time in this chapter. It was the middle of November 1762 when Mason and Dixon arrived in the New World back in chapter 26. It takes until chapter 31 to get to late December. There's no discussion of time in chapter 32, but chapter 33 begins in summer and by the time it is over, it's December 1764.

Chapter 34 begins on page 341. Mason had intended to go to Lancaster alone to review the carnage committed by the Paxton boys against the Indians, but Dixon said it was too dangerous and went with him. They arrived in Lancaster on January 10th 1765. They stay at an inn called The Cross Keys, which is filled with well to do lawyers and politicians. They hire an earthy guide named Jabez to show them around.

Their guide takes them first to a tavern called The Dutch Rifle, where the Paxton boys assembled "just before doing the deed." Mason and Dixon notice that the sign for the tavern shows a rifle with a five pointed star on the stock, with two points up and one down, which they perceive is a sign of the devil. They have seen rifles like this in South Africa.

The proprietor of the Dutch Rifle is not happy to see another touring group and asks them if they are members of the press. Dixon says they are London surveyors looking for work.

pages 343-345:

The proprietor of the Dutch Rifle tavern asks why would two surveyors looking for work be asking questions about the Indian massacre. Dixon says it is of interest to all men of science.

The men of Lancaster attempt to defend the actions of the Paxton boys. They claim to be a line of defense before the city of Philadelphia. They claim to be extracting an eye for an eye and now the debt is settled.

Dixon asks what the men are smoking and he is told that since tobacco is scarce, they smoke twisted cigars called stogies. The smoker blows a smoke ring that has one side and one edge. In a brief parenthesis, Wicks is challenged on this point by his audience.

It soon becomes clear that Mason and Dixon will not be allowed to see the site of the massacre and they retire to their rooms to spend a restless night. Mason contemplates the reasons for the European need to explore and classify everything in the new world. He posits that people are looking for the realization of mythical kingdoms, such as the garden of Eden or the fountain of youth. He mentions Prester John, which was a medieval legendary ruler of a lost Christian kingdom in the Orient.

pages 346-348:

Mason cannot sleep and thinks of Rebekah, who has not "visited" him since he was on St Helena. The next morning before Dixon wakes, Mason sneaks out of his room and goes to the site of the massacre alone. It is the smell that affects Mason more than anything he sees. He later remarks to Dixon that the settlers are foolish to think that the debt is settled and the carnage will stop there.

Dixon resolves to go see for himself. He does not know what to wear in order not to attract attention. He decides to borrow Mason's clothes. He knows Mason does not like America but Dixon is trying to keep an open mind. Dixon sees a great many bits of evidence of the horror and thinks back to earlier sights of cruelty that he witnessed in South Africa. He would like to pray but does not want to call attention to himself. He feels very depressed.

Dixon returns to their rooms to find Mason guiltily reading "The Ghastly Fop." This was the book

first mentioned derisively by Maskelyne a couple of hundred pages back. This is also the same book that is read to Jenkin's Ear in the Jenkin's Ear museum.

Dixon is anxious to leave and Mason agrees. Once again they speculate on who they are really working for and do not have an answer. They hasten to return to Harland's farm.

pages 349-351:

Chapter 35 begins on page 349 with a paragraph from a book written by Wicks entitled "Christ and History." It is a rumination on the nature of History, explaining that history is neither chronology nor remembrance. Analysis of events is required .

There follows a debate amongst Wicks' audience as to the nature of history. Some believe that the truth cannot be found and that all is opinion, while others say that the truth must be found and reported. Uncle Ives weighs in against the Novel and how it wastes the time of the reader, while others want to know how they should feel about fictionalized history such as was found in Shakespeare.

pages 352-354:

Wicks tells his audience that the historical Hamlet did not die but went on to marry two wives.

Uncle Lomax opens up a bottle of peach brandy and offers some to Wicks. Wicks tastes it and realizes it is from Ocarara Creek, where he met Mason and Dixon in the winter of 1764-1765 after not seeing them for four years.

Wicks had come to America to be a Minister at a Susquehanna parish, but the reaction to the Stamp Act was causing all the settlers to be anti-British and Wicks did not feel welcome.

Wicks rides on a coach to Philadelphia with a Mr. Edgewise, who manages to beat Wicks in a gambling game called All-Fours and takes Wicks' IOU under the disapproving eyes of Mrs. Edgewise.

Wicks tries to explain why the inside the coach is much larger than it appears from the outside, but his audience begs him to go on with the story.

The coach stops late at night to pick up two women, mother and daughter, whose luminous faces haunt Wicks.

pages 355-357:

At first the two women who entered the coach in which Wicks was riding maintained silence and avoided eye contact. Eventually Mr. Edgewise asked them where they were going and was told they were going to Philadelphia to engage the services of a lawyer. Everyone in the coach was shocked by this. Mr. Edgewise said that perhaps they should get help from the clergy instead. They saw Wicks' collar and asked if he was in the English Church. Wicks stammered an inconclusive answer.

vw#81: interprebendary - not in the dictionary, but prebendary is described as someone who receives a stipend from a cathedral or collegiate church in England. Perhaps Wicks used this word because he was receiving stipends from more than one church.

Mr. Edgewise has a device from Italy which keeps a large quantity of coffee hot. The mother drinks some of the coffee and soon begins to open up and tell her story. She is Frau Luise Redzinger. Her daughter is named Mitzi. She has a sister named Lisele who lives in Bethlehem. Luise is unhappy that her sister, who married a baker, is in a church too close to Roman Catholic. Mr. Edgewise advises her to forgive her sister, but Luise is envious of her because her husband is still alive. But Luise's husband Peter "died" while bringing hops to a cooling pit. The pit was 20 feet deep and he "drowned" in them.

pages 358-360:

Luise Redzinger says that when a farmhand named Jurgen found Peter in the hops pit, only one finger was not submerged in hops. He was pulled out

by that finger and it was permanently misshapen from the act. Peter was spiritually reborn from his near-death experience.

Peter wanders from farm to farm telling his "tales from the pit" and has followers named Redzingerites who attempt enlightenment by nearly drowning.

The Redzinger farm is near the Maryland border, and she is awaiting Mason and Dixon to come through in order to find out if the farm actually is in Maryland. Her problem is that there is a farmer named Grodt who lives nearby who can use Maryland law to take her farm away. If she is in Pennsylvania then her farm is safe.

This story agitates Mr. Edgewise greatly and he finds another flask in his pocket. It is filled with wine and he begins to drink it, without offering any to anyone else.

pages 361-363:

Mr. Edgewise says that after God divided the waters above and below the firmament on the second day of creation that everything else in history was "Sub-Division."

Wicks falls asleep in the coach thinking paranoid thoughts.

Chapter 36 begins on page 362. The driver of the coach Wicks is riding in notifies the passengers that they are approaching an inn. It looks immense and newly built. Everyone from the coach goes to stay in the inn overnight.

Meanwhile Mason and Dixon are making their way back from Lancaster and it begins to snow heavily. They see the same inn in the distance and determine to stop and await the passing of the bad weather. Wicks is astounded to see them for the first time since he left South Africa. Dixon does not seem too happy to see Wicks. Mason says that Wicks must be an illusion. Wicks assures them he is real and that

they will be seeing a lot of him. He gives them his commission to look over.

pages 364-366:

Wicks has been commissioned to join the crew of the Mason and Dixon workers as "Party Chaplain." Even though there will not be many Anglicans in the party, the Royal Society wanted him there.

The proprietor of the inn is Mr. Knockwood, described as a trans-Elemental Uncle Toby. As Richard Romeo commented: "Uncle Toby is a character in Stern's *Tristram Shanty*; *Tristram Shandy's Uncle Toby* resorted first to maps then to scale model earthworks, recreating the siege of Namur, in order to explain to solicitous enquirers, regarding where exactly he was wounded during the siege, the precise position, location and angle of his injury. n.b. Uncle Toby was wounded in the groin. Knockwood is described as trans-Elemental since he works with water, not earth, the other two elements being air and fire."

Mr. Knockwood tries to explain to people the impact of small changes on the world, using a beaver moving a pebble in a stream and causing the stream to move a mile out of the way.

The snow storm continues to intensify. One person complains about the smoking and wishes there was a no smoking room. Mr. Whitpot and Mr. Dimdown take offense to this idea.

Mrs. Edgewise takes the heat off the argument by doing a magic trick. People hear there is a magician in the vicinity and gather to watch. Mr. Edgewise does not want her to accompany him while he gambles.

Mitzi argues with her mother Luise Redzinger about how she wants to style her hair.

vw#82: brumal - Of, relating to, or occurring in winter.

Here's one of Pynchon's puns: Squire Haligast states "Tis a brumal night, for behold it sweepeth by."

When Mason and Dixon come across Mr. Knockwood, the proprietor says that their time spent between the two transits of Venus could be thought of as a sandwich. And he makes a joke that someone might eat it. The sandwich had been invented only a couple of years earlier.

The Chef of the inn bursts out of kitchen to complain that the sandwich is an insult to the "Sacrament of the Eating." The chef is Armand Allegre (Arm and A leg), about whom much more will be said in the coming pages.

pages 367-369:

The customers of the inn take offense to Armand's slur of the sandwich. Except for Mitzi who is stricken with Armand's good looks. Wilks attempts to settle the crowd down by explaining that the Earl of Sandwich is now in disrepute in England due to his sexual indiscretions.

vw#83: consubstantiation - The doctrine, proposed by Martin Luther, that the substance of the body and blood of Jesus coexists with the substance of the bread and wine in the Eucharist.

Squire Haligast expounds upon the irony of the connection of sandwich to the eucharist.

The next morning Luise is pleasantly surprised to find that the meal is exceedingly appetizing. Mr. Edgewise introduces her to the chef Armand Alegre, who is described as diminutive and athletic.

Frau Redzinger asks Armand how he made the croissant and he offers to demonstrate. As he is making the croissant, Armand reveals he is in exile, tormented by an inhuman pursuer. Mitzi Redzinger is dazed in the presence of the chef.

pages 370-372:

Armand the chef faces a roomful of what he considers barbarians and tells his "Iliad of Inconvenience."

Chapter 37 begins on page 371 and contains the story of Armand Allegre, chef at the Inn by Ocatarara creek.

Armand was youngest of four brothers and at a young age apprenticed to a great Chef in Paris. Eventually he became a celebrated chef himself. One day a well known detective visited him in his rooms.

Here Armand sees Mason and Dixon enter the room and asks them if they know the famed scientist Jacques de Vaucanson. Dixon recalls after some thought that he is "The Lad with the mechanical Duck." Vaucanson built his duck in the mid 1730s.

Armand says that Vaucanson actually gave the duck the ability to excrete feces. And it was this attention to detail that enabled the Duck to metamorphise from inanimate to animate.

pages 373-375:

The detective visiting Armand in his rooms told him secrets that cannot be revealed but he was an assistant to the scientist Vaucanson, and found the formerly mechanical duck hovering above a table. Vaucanson had added sexual parts to the duck and Armand believes this pushed it over the line into being an animate object.

The detective tells Armand that the bird can now travel at such speeds that renders it invisible. Since Armand is the undisputed champion of cooking duck, the automated duck has taken an interest in him. The duck has formed a resentment against all other ducks. Armand is worried that the duck might resent him too for cooking them and the detective says there is no protection from "the Beak of Death."

vw#84: fricative - A consonant, such as f or s in English, produced by the forcing of breath through a constricted passage.

The Duck reappears and the detective flees. The duck talks to Armand, perhaps sounding like Daffy Duck. He tells Armand that they are natural enemies.

pages 376-378:

Armand promises the duck safety whenever Armand is present. The duck agrees to spare Armand in return for a favor. He wants Armand to give Vaucanson a message.

The duck maintains that Vaucanson has another mechanical duck in reserve, waiting to see how things work out with his original creation. The duck wants Armand to go to Vaucanson and ask his permission for the duck to take the second duck out on a date to an opera by Gallupì and then to a restaurant that prepares a dish that translates out to "steamed Pond Insects."

Armand asks about the gender of the ducks. The duck tells Armand that she is female but the other is not genetically modified so is yet neither, or both.

Armand wants to know why he thinks Vaucanson would allow this. The duck tells Armand to deceive him somehow, and then the duck vanishes.

Armand attempts to find Vaucanson. He went to Mme la Marquise de Pmpadour, a mistress of King Louis XV, and found spies everywhere, some working for the Jesuits and others for a variety of other organizations.

People began to avoid Armand. Other people spied on him. And no matter where he went, the duck followed to remind him of his obligation. Finally Armand begged the duck to find Vaucanson herself.

pages 379-381:

Armand finds that he was being protected by the invisible duck.

vw#85: Toise - An old measure of length in France, containing six French feet

vw#86: Anatine - Of or pertaining to the ducks; ducklike.

Armand thinks that perhaps the duck has fallen in love with him. His strange behavior has irritated his friends and acquaintances and made him lose work. His friends suggested he move to Pennsylvania, a wild place in their estimation.

The duck began to wake him up in the middle of the night to criticize his clothing and his cooking.

At length Armand finds passage to the new world. First he goes to Martinique and then to his current location in Delaware.

As chapter 37 comes to a close, Mr. Dimdown draws his knife out and threatens Armand, who picks up his Hachoir, or chopper, to defend himself.

pages 382-384:

Chapter 38 begins on page 382, picking up right where Chapter 37 left off, which is unusual in this book. Mr. Dimdown has been drinking steadily for the last three days and has taken offense to Armand's comments on the new world. He decides to attack Armand with a dagger, despite Mr. Knockwood's efforts to calm him down.

As Mr. Dimdown's dagger moves toward Armand's heart, it is invisibly removed from Mr. Dimdown's hand and flies into the hottest area of the fireplace.

Armand tells the assembled group that they have now seen the duck in action.

Luise tells Armand that the duck is his guardian angel. Armand and Luise begin to form a connection as they discuss ways to cook and eat beaver.

For the next few days, as they are stuck in the inn due to the storm, Luise, Armand and the duck form a

triangle. The duck includes Luise in her circle of protection.

vw#87: Niveal - could this be a typo? Nival means "growing in or under the snow." This makes sense in context. Also the dictionary has Niveous, meaning "like snow, snowy." But no Niveal. hmm.

Strains occur within the inn under the confinement. Squire Haligast's pronouncements irritate people including a Mr. Whitpot who complains aloud.

Wicks passes the time writing in his memorandum book his thoughts on cannibalism and how it relates to an essay by British mathematician Reverend Brook Taylor entitled "On the Lawfulness of Eating Blood."

Mr. Knockwood sees that the snow is now level to an upstairs window sill, and consults Mason and Dixon as to the quality of air in the rooms below. Armand and Luise are seen embracing in the pantry.

pages 385-387:

Mitzi Redzinger spends her time during the time the storm forces them to stay at the inn by flirting with all the youths that work there. Finally getting bored with them, she asks Armand if she can help in the kitchen. Armand begins to teach her French cuisine, allowing her to make salads and explaining to her all about the importance of how to utilize the pot-lid, all on, all off, open a bit, etc.

Wicks is fascinated by Armand. Wicks ruminates on the mysteries of the eucharist and how it relates to cooking and eating animal flesh. He then goes on to think about the Indians who supposedly eat the flesh of their enemies and all that this means in terms of "the Sacred."

Mitzi recovers Mr. Dimdown's dagger from the fireplace, cleans it off, sharpens it and returns it to Mr. Dimdown. He is horrified that she tried to sharpen it. But he sees she has done an acceptable job.

Mitzi flirts a bit with Mr. Dimdown and he apologizes for threatening Armand. Mitzi suggests he apologize to Armand but Mr. Dimdown is afraid to enter Armand's kitchen.

pages 388-390:

Mitzi tells Mr. Dimdown not to fear Armand. She says that he has forsworn violence in the kitchen, perhaps due to her mother's influence.

Mr. Dimdown tells her his first name is Philip and admits he has never been in a duel.

The landlord, Mr. Knockwood, comes in and tells Mitzi that her mother is looking for her and Mitzi tells Mr. Knockwood that Mr. Dimdown wishes to apologize to Armand. Mr. Knockwood says that he will arrange it.

That afternoon Armand accepts Mr. Dimdown's apology and the two have an amicable conversation. They discuss bladesmen such as the great Figg and Professor Tisonnier.

Everyone gets into the act of discussing the process of layering thin sheets of materials, which Mason mentions in some cases is called lamination.

Philip Dimdown, it is revealed to be a patriot. He puts out revolutionary posters on a printing press in his cellar. A few weeks he will be arrested but confidently faces the fact that he will be freed by the American Revolution.

The chapter ends with Tenebrae demanding that Mitzi get to see through Dimdown's Fop disguise to the hero underneath.

pages 391-393:

Chapter 39 begins on page 391 with Mason and Dixon hoping their stay in the inn will be ended the next day by a break in the weather.

vw#88: Mephitic - poisonous or foul-smelling.

Once again Dixon is telling Mason that he must get over his wife's death and seek another. Mason says he is still mourning.

Mason observes that Dixon is getting fat on the cooking of a pastry chef named Maureen.

vw#89: Prolate - Having the polar axis longer than the equatorial diameter.

vw#90: Oblate - Having an equatorial diameter greater than the distance between poles; compressed along or flattened at the poles.

They finally escape the inn and after returning to the Harland's farm, they resolve in the future to travel separately. They flip a coin and Mason goes north while Dixon heads south.

Wicks says there are no records to show where Dixon went, so he is going to assume he went to Annapolis. There is some objection to this by his audience, but Wicks stands firm.

pages 394-396:

Mason later asked Dixon what he hoped to find when he went south and Dixon told him that he hoped to be approached by agents of some power that would reveal the secret forces motivating their employment. But none came forward.

Dixon goes through Maryland into Virginia, winding up in Williamsburg,

vw#91: Flemish bond - A form of brickwork in which headers (end) and stretchers (horizontal length) alternate.

The Stamp Act has caused a great deal of political activity to energize the city. There is an immense amount of activity in a multitude of directions. Dixon finds himself a place that seems to bring it all into focus: Raleigh's Tavern.

During conversations there people are expected to rise and make toasts. Many denounce the king. When it comes Dixon's turn he drinks "To the pursuit of happiness." Thomas Jefferson, described only as "a tall red-headed youth at the next table" and later called Tom by the landlord, asks Dixon if he may use that phrase sometime.

Dixon agrees and Jefferson calls for a pencil and paper. Dixon loans him his pencil he uses at work and Jefferson recognizes it as a surveyor's implement. He asks Dixon if he is Mason or Dixon. The Landlord says that Tom's father helped survey the western line of Virginia's southern border.

Jefferson gives a description of the making of the border line and his father's part in it. A Colonel Byrd was the main person, writing all his impressions in a Field book that Jefferson hopes will be published and issued to all prospective surveyors.

They notice three women trying to be bold enough to enter the room filled with men and tobacco smoke. Dixon asks if all the Virginia women are so merry. Jefferson says yes, except in Norfolk.

vw#92: Paronomasia - Word play; punning.

Jefferson figures that the women are trying to get their attention so that the men will dance with them.

pages 397-399:

Jefferson warns Dixon that there are men looking for an excuse to duel, and when Dixon dances with a woman named Urania, her fiance Fabian challenges Dixon to a duel. When Dixon says he is a Quaker and will not fight, Fabian suggests Quoits and Dixon agrees. The next dawn they go to the grounds and each wins a game. They agree not to play the third.

Returning north, Dixon tries to make sense of his trip and decides that the point was although there must have been slaves in Virginia, he didn't see any.

Chapter 40 begins on page 399. Mason observes the sixth anniversary of his wife's death and then heads north to New York City. Mason is told that he should visit the Battery and there he finds many needful people. He meets a milk maid from Brooklyn named Amelia who is "without funds." Mason perceives she has not eaten and takes her to a restaurant where she eats not only her meal but his as well. Soon she is in a panic to catch the last ferry back to Long Island.

pages 400-402:

Amy is dressed all in black and she asks Mason what he thinks of that. Mason has no words with which to reply. He returns Amy to her uncle who is very young, and calls her Amelia. Her uncle invites him into his parlor, in which Mason finds an odd collection of rogues who attempt to figure Mason out by looking him over.

Finally Mason tells them that he is a surveyor.

vw#93: Cadastral - A public record, survey, or map of the value, extent, and ownership of land as a basis of taxation.

After a brief threat from a pistol carrying Irishman called "Black-Powder" The Uncle realizes that he is in the presence of the "renown'd Astronomer" Mason.

The rest of the group goes on complaining about the British and their lack of respect for the colonies. Finally the Uncle asks Mason if he would be able to repair a telescope on the premises.

pages 403-405:

Nobody seems to be using real names in the house Mason finds himself, and Amy's Uncle is called Captain Volcanoe.

Mason looks at the telescope on top of the house. It is positioned to look out over the edge of the river. Mason works through the day attempting to repair the telescope.

vw#94: collimate - To make parallel; line up.

While he is working on the telescope, Mason debates with others the topic of political representation, and everyone gets heated up about it.

Mason is amazed at how quickly America seems to be evolving into its own nation.

pages 406-408:

Once it is established that Mason is not a property owner, the group on the rooftop try to tell Mason that he is not better than a slave. Mason is not buying it. He continues to work on fixing the telescope.

The group makes clear to Mason that the colonies are working together to reject the laws of the King.

Amy is impressed that Mason is famous and working directly for the King. The rest of the group is not impressed because they believe that Mason's line will not last long because in the near future all boundaries will be removed. Mason again is skeptical.

They get Mason to drop the pretense that he is French. He admits he is from Stroud, and they assert that in Stroud he will have encountered slavery. Mason rejects this saying that the weavers in Stroud don't compare to slaves in South Africa and America.

They remind Mason of how the weavers were treated during the Jacobite Rebellion of 1745. They are particularly hostile to the memory of James Wolfe, who was involved in quashing their rebellion and who later died in the battle of Quebec in 1759.

Wicks writes in his day book of his wonderment that a government would "send violent young troops against their own people."

Mason parts on good terms with the revolutionary bunch. They accompany him to New Jersey as he starts back to Harland's farm.

Travelling through New Jersey, Mason encounters a group of Quakers emerging from a meeting and as he attempts to get his horse around them his horse stumbles and Mason is laid up with a very sore hip. He leaves out of his notes the part about the Quakers and Wicks' audience discuss the import of this decision.

pages 409-411:

While Mason is recovering from his bruised hip, he reads I Corinthians, and ponders on the puzzle of resurrection of the dead. He doesn't understand the passage and is given a little advice from Rebekah who arrives in a minor visitation.

Chapter 41 begins on page 410 with Mr. LeSpark recalling that he met Mason and Dixon early on in their work, at a party held at Lepton Castle.

Mr. LeSpark tells the story that he went out into the countryside feeling protected by the invisible hand of commerce to check on his suppliers. One of his suppliers was the plantation where iron was extracted, owned by Lord and Lady Lepton. Mr. LeSpark appreciated the way in which everything seemed to work perfectly in the iron production.

pages 412-414:

Mr. LeSpark attempts to convey his romantic notions about iron and the sway it holds over him. Later Wicks will write in his journal that LeSpark does not mention the slavery that made exploitation of the metal possible.

Mason and Dixon stumble onto the estate by being lost one evening and saw a light in a cabin. Upon entering it they discovered it was much bigger inside than apparently possible. It was brightly lit inside.

vw#95: plafond - A decorated ceiling.

Dixon wants to leave immediately but Mason says it is too dangerous to wander aimlessly at night. Then

they begin to hear music. They move to find it and pass through several rooms until they hear noises of a gathering. As they pass through a grand archway they are announced by someone unseen as "Mr. Mason and Mr. Dixon, Astronomers of London."

Mason wants to flee the room, but Dixon tells him they must not offend the hostess, whoever she may be. Soon they are subjected to some sarcastic comments by Captain Dasp, described by Mason as a "notorious Calvert agent." I suppose this means he was in the government of the Maryland colony.

Captain Dasp advises them to be as invisible as possible in the room.

Suddenly the hostess, Lady Lepton appears and greets Mason and Dixon.

pages 415-417:

Dixon excitedly tells Lady Lepton that he saw her when he was a boy and she visited Raby castle. She was a young girl herself at that time. Although she is expected to make a joke about it, she responds in a seductive manner that gives Dixon a thrill.

The orchestra in the hall is composed of the best slave musicians to be found.

vw#96: Phrygian Mode - A lot of traditional music, especially Scottish and Irish is termed 'Modal' because it does not follow the conventional modern major or minor scales. There are seven modes, and Phrygian is the one that starts with E.

Dixon remembers watching her as she rode horses at Raby castle and also happened to see her kissing a chambermaid. His great-uncle thought she was a witch. Somehow she had wound up marrying the dissolute Lord Lepton.

Earlier Lord Lepton went bankrupt in England and indentured himself to an iron dealer. He worked out of his indenture in five years and then made a fortune, returned to England and married Lady Lepton.

vw#97: Chatelaine - The mistress of a castle.

Lord Lepton wanders over to Mason and Dixon and is in the midst of a conversation that he expects them to pick up on though they have no idea what he is talking about.

pages 418-420:

Dixon attempts to bring the conversation with Lord Lepton around to something he knows about, so he brings up the surveyor's chain.

Lady Lepton advises Dixon that he will be seeing coal in the course of making the west line. It is very valuable. She is disappointed with her life in the iron plantation. Rumor has it that she married Lord Lepton because he was a member of the famous Hellfire club and therefore thought he would be a good sexual partner, but he proved to be very average.

A woman slave comes by to offer Dixon a glass of punch that she promises is very potent. Lepton sees Dixon observing her, and says he acquired her in Canada at a convent called Widows of Christ where the novices descend "into ever more exact forms of carnal mortality."

Mason is convinced that Lord Lepton is a French spy.

The dinner gong rings and the guests all move to another wing of the castle to eat. The dining room is a hemisphere of glass created from a bubble blown to the size of a barn by a jesuit air pump and then sawn in half. The Leptons won't say where the other half of the bubble went to.

pages 421-423:

The dining room also contains gaming tables of every description, including an E-O wheel which the Hyperarts Mason and Dixon Alpha describes as:

"Even Odds; a roulette (French: small wheel) wheel, a gambling game based on opposing pairs, e.g. black/white, even/odd, in which players bet on which red or black numbered compartment of a revolving wheel a small ball (spun in the opposite direction) will come to rest within. Bets are placed on a table marked to correspond with the compartments of the wheel."

Chapter 42 begins on page 422 with Wicks sermonizing on why gambling is considered a sin: it challenges the Will of God. Wicks also says that war could be considered a gambling event with entire fortunes on the line.

Returning to Mason and Dixon, we find them complaining about the fact that there was much cheating going on at the gaming tables. They lost twenty pounds gambling.

Dixon suggests that they should take something worth twenty pounds from the castle. He looks around and first chooses an etching, but then decides it is too pornographic to sell. Mason jokingly suggests the bathtub in their room, but Dixon is excited by the idea of taking the tub.

Mason protests that the tub must weigh a half a ton, but Dixon says that Emerson taught him secrets of leverage and suddenly he has the tub standing on end.

pages 424-426:

Mason is amazed by Dixon's ability to move the cast iron bathtub. He and Dixon exchange jokes. Mason asks Dixon if magnetism is part of his magic but Dixon doesn't answer.

Dixon glides the tub over to the door and then asks Mason to hold it while Dixon checks to see if anyone is on the stairs. Mason is skeptical as to his ability to keep the tub upright, but Dixon promises he will be right back.

Soon he smells Dixon's pipe tobacco and then he hears what he thinks is Lady Lepton. He hears music

coming from a musical bodice that plays when it is ripped.

Mason hears someone tapping on the tub and a man appears with a compass saying that the tub is gigantic magnet. He introduces himself as Professor Voam, who is hiding from authorities due to an electrocution incident in Philadelphia. Voam appeared a hundred pages back as the "camp naturalist" that Dixon consulted about Emerson's watch. That incident must have been a "flash forward."

Voam suggests they go for coffee, but Mason says he cannot leave the tub. When Mason mentions Dixon's name, Voam appears to be meeting them for the first time.

Voam examines the tub and figures how to gently set it down. He decides it would be a good place to keep his electric eel, named Felipe. Mason is very grateful to get out from under the tub and offers the professor refuge as a member of his surveying party.

pages 427-429:

Voam thanks Mason for the offer to join his crew, but Voam is concerned that he may not be welcome due to his esoteric ideas. Mason disagrees. Voam ponders on having his electric eel travel westward and calls it "Rural Electrification." He then invites Mason to come meet his electric eel.

vw#98: Coprophagous - Feeding on excrement.

As they walk out of the room, they are joined by Dixon who emerges from a false wall panel carrying the tub. They leave the castle and head toward the gardens where Felipe the eel is being kept.

Suddenly Mason is confronted by a female slave, the one Dixon thought he recognized a few pages back. She is clearly Austra from the Vroom household in South Africa. She gives a brief history of how she came to Lepton Castle. She disappears behind a wall. Mason, Dixon and Voam attempt unsuccessfully to find her. Instead they find a dutch rifle with the

inverted five pointed star on the handle, hanging above a fireplace.

LeSpark breaks into the story to say that he was in the room sleeping when he awoke to hear Mason and Dixon debating the origin of the rifle. LeSpark examines the rifle and tells them that it was made in America and the star may have been added to the handle after it was made.

LeSpark asks them how far they were thinking of taking the bathtub.

pages 430-432:

Dixon says that they would not have taken the tub if they had seen the rifle first. They are tempted still to leave the tub and take the rifle, but they are afraid that it is cursed. LeSpark suggests he could turn a blind eye to the tub but not the rifle. They thank LeSpark for his kindness and as they seem to linger, LeSpark speeds them on by suggesting he could change his mind and tell Lord Lepton that they are taking the tub.

They leave and LeSpark goes back to sleep on the couch. They go to the Arabian Gardens and collect the electric eel. They load the tub into a wagon, put the eel in the tub and are off. As they ride away they wonder if the slave they saw was really Austra.

Professor Voam tells them about Felipe, his electric eel, that he insists on calling a "torpedo" although that strictly refers to other kind of aquatic creatures. When he was sold to the professor, the eel was five feet two inches, and is still growing.

Voam insists that the torpedo likes the repetitious displays of it's electricity. He picks up his banjo and sings a song praising the torpedo.

pages 433-435:

Mason and Dixon witness a display of the electric eel's powers. A large crowd gathers as Voam attaches wires to the head and tail of the torpedo. He brings the wires closer and closer together until a white spark

leaps between them. He uses the spark to light his cigar. Everyone looks away from the bright light of the spark but Mason, who claims he saw something in the spark. Dixon wouldn't let him say what he saw, but later in his journal, Mason says he saw the aperture to another dimension that seemed to invite him to enter.

Mason wonders in the journal if he should tell Dixon about his vision, or if perhaps he should discuss it with Wicks whom he describes as a "cherubic pest."

vw#99: Diurnal - Relating to or occurring in a 24-hour period; daily.

They feed the eel anything on hand from locally caught fish to salted beef. Wicks wonders if the fish awaits human flesh.

In a flash forward, Voam builds a larger tank for the fish and puts the tank on the line every day. The fish moves around in the tank until his head is facing north, and he soon becomes the camp compass. The crew members hope that the eel will point toward an iron lode at some point. They dream about opening an iron mine and growing rich.

Squire Haligast has joined the party and makes pronouncements about the importance of iron. I must admit I don't quite understand what Haligast is supposed to represent in the novel. Clearly Pynchon means to indicate something in Haligast's cryptic pronouncements, but what?

Moses Barnes, overseer of the axmen, tells the crew to stop bothering Haligast, but he tells Barnes there is no harm. Here Chapter 42 comes to a close.

pages 436-438:

Chapter 43 begins on page 436. It is now the end of February and Mason and Dixon relocate to Newark, preparing to begin work. They find a pile of letters waiting for them. Among them are more offers to work in America from the Royal Society. Also a letter telling them that Maskelyne was selected as Royal Astronomer. Mason says that at the moment

Maskelyne was named, he was laid up with his bruised hip in New Jersey.

Mason and Dixon discuss what Maskelyne must have done to get the job.

vw#100: Sizar - the Hyperarts Mason and Dixon Alpha spell this word "sizer" and define it thusly - In Cambridge University and at Trinity College, Dublin, a "sizer" is an undergraduate receiving an allowance from the college to enable him or her to study and, formerly, required to perform certain menial duties.

Mason now thinks he was put out of the way in America so that Maskelyne could be offered the job without controversy.

Dixon tries to calm Mason down by suggesting that Maskelyne might want Mason as his successor.

pages 439-441:

Dixon suggests that Mason ought to subtly emphasize Maskelyne's unworthiness at every opportunity. Mason suggests that Dixon is thinking like a Jesuit, but Dixon says he is only a simple man.

Chapter 44 begins on page 440 with a long quote from Wicks' Day-Book. He explains a little about his idea that it is possible for humans to fly though the air by following the ley lines in England, and then muses about the line that Mason and Dixon are creating across America.

It is now March and Mason and Dixon are taking many astronomical observations to determine the exact angle to proceed westward. They have to set out in April.

The farmer Harland has been hired as an instrument carrier. Mrs. Harland suggests there is much danger in the area west of the York river. Mason and Dixon speculate on how much Mrs. Harland resented her husband joining the crew.

Another crew member runs up to tell Mason and Dixon that there is a stranger "over by the monument" acting strangely. The "monument" is the quartz stone planted in the field to mark the starting point of the west line. The stranger is prostrating himself before the stone.

pages 442-444:

The rose quartz marker laid down by Mason and Dixon has taken on mythic qualities. The man prostrating himself before the marker is Jonas Everybeet.

vw#101: Scryer - One who sees or predicts the future by means of a crystal ball.

Everybeet seeks "ghosts" in crystals such as quartz. He joins the crew.

vw#102: Oolite - A small round calcareous grain found, for example, in limestones.

vw#103: Crimp - A person who tricks or coerces others into service as sailors or soldiers.

Mason and Dixon talk to O'Rooty, who offers to staff the crew with Scandinavian axmen. He talks about steel that never needs sharpening and never rusts, which seems ridiculous to both Mason and Dixon.

Someone Dixon knew in England came to try to sell them some land. Mason and Dixon manage to escape their conversation with him.

The work on the west line finally begins on April 5th, a Friday.

vw#104: Enfilade - Gunfire directed along the length of a target, such as a column of troops.

They had to wait until the 5th due to recent heavy snow followed by cloudy skies. After several clear nights, they decided to seize on Friday to start. The chain men Darby and Cope debate who is to be in

front and who behind. Mason and Dixon work out that if there is a disparity, the astronomical readings will take precedence over the compass.

pages 445-447:

The line finally moves from the point marked west at the top of page 445 as Cope moves his chain to Darby's former spot.

vw#105: kine - an archaic plural of cow.

The crew grumble at the necessity of pulling the instruments in their carts while they have to walk. The crew sing dirty marching songs until Overseer Barnes tells them to stop because there are gentlemen present. Barnes is a huge man who really likes to eat.

In less than a week they are required to move the chains right through a house owned by a Mr. Rhys Price. The line is about a mile and a half long at that point, just past Little Christina Creek. Mr. Price is in town and Mrs. Price asks Mason and Dixon to lay down a marker in the house to show exactly where the line runs. They do this as Mr. Price returns. Mrs. Price tells him that they were married in Pennsylvania, so whenever she is in the Maryland side of the house she is not under his authority. She asks Mason and Dixon for confirmation but they both refer her to Wicks, because Mr. Price is carrying a rifle. Wicks tells them to consult an attorney.

Someone named Alex McClean tells Rhys that he will be hit with double taxes and other hassles, and that he would do well to put the house on rollers and move it into one state or the other. Rhys says it is downhill toward Maryland so they will move it in that direction. His wife says they will not be married in that case and Rhys is still in favor of the move. Thus ends chapter 44.

pages 448-450:

Chapter 45 begins on page 448. Armand's duck has become the topic of conversation everywhere the line travels. The duck has become a superhero. Mason

and Dixon despair at the need of the people to believe in the possibility of artificial life. The duck takes offense to this conversation and takes Mason's hat.

Mason recalls that Vaucanson took some interest in the transit of Venus and speculates that maybe he thinks that his disappeared duck became a planet. Both Dixon and Armand think Mason is crazy to think this. Armand runs back to the kitchen to get away from Mason.

pages 451-453:

Several of the Axmen ask Wicks about angels, thinking the Duck is a sort of angel, and Wicks suggests that the heavenly angels do things like drink and smoke, but on a grand scale, and he goes on to suggest that anything done on a grand scale, even crime, is revered by men.

Chapter 46 begins on page 46, talking about the balance drawn between drinking and working. Mason and Dixon have to take measurements about every twelve miles. They reach the first twelve mile point on a Saturday just after crossing a road that runs from Octarara to Christiana Bridge.

A half dozen drunks, coming from nearby taverns fall asleep in the Mason and Dixon crew campgrounds. Mason and Dixon debate the dangers of allowing this. The crew is now composed of 30 people.

On Monday morning they assemble and listen to the plans for the day. Then Wicks gives a prayer. Then overseer Barnes listens to special requests until the breakfast alarm is heard.

pages 454-456:

Overseer Barnes dispenses advice and takes action to resolve disputes, in one case giving an axman extra duty for repeating the same joke over too many times.

Stig, a Swedish axman who speaks no English, is having trouble with a prostitute, Mrs. Eggslap, who keeps raising her prices. Overseer Barnes tells him to talk to Nathaniel McClean, who has a reputation of being a kind of protector of the women, even though Nathaniel is just a college kid working a summer job. Nate talks to Mrs. Eggslap and gets her to lower her prices with Stig. Anville Azote wrote the Pynchon list to say that "EGGSLAP" is the mnemonic we learned in Quiz Bowl team for the seven deadly sins: envy, greed, gluttony, sloth, lust, anger and pride."

pages 457-459:

Nathaniel McClean is pestered by Spit, who is trying to set up a "Pass-Bank" which I suppose is a place for the crew to keep their money. Nathe wants no part of the enterprise. A short flashback shows how Nathe's father Archibald, another member of the crew convinced Mason and Dixon to give the boy a summer job, to get him out of his imaginary world of books. Dixon makes the provocative comment that "Books aren't going to hurt him...Once he's found out about them, 'tis too late in any case." I wonder what that's supposed to imply about books.

In camp Nathe is usually too tired to read, but occasionally dips into *The Ghastly Fop*. He writes to a friend about the temptations he is faced with in camp.

pages 460-462:

Chapter 47 begins on page 460. It's Monday and two of the crew, Robert Farlow and Thomas Hickman return to Bryant's farm to get the sector that will be used in making the next reading at the twelve mile point. They arrive at the next twelve mile point on Sunday May 12th. It is near the banks of the Susquehanna river. There are many taverns about and they take their time projecting the line across the river. They do not begin moving the chains again until May 29th.

On the last Saturday besides the banks of the Susquehanna, a tremendous thunderstorm occurred,

and Mason was moved to write in his journal about the long straight streaks of lightning he observed.

pages 463-465:

Mason and Dixon are both frightened by the lightning during a thunderstorm. Mason goes to seek shelter under a wagon. Dixon stays in his tent.

They have new orders to immediately return to the tangent point and draw a five mile line north and south to define the northeast corner of Maryland.

The remainder of the chapter is taken up with the younger crew members' fascination with milkmaids. There are excerpts from the journals of Murray and Nathe, and songs sung by the milkmaid extolling the virtues of dairy products.

pages 466-468:

Chapter 48 begins on page 466. On May 29th, following their later directives, they travel back east, taking measurements as they go. They find it more difficult to work toward the east than toward the west.

Dixon enjoys the rustic coffee prepared at the camp, but Mason hates it, and switches over to tea. Dixon cannot understand how Mason can drink tea. They argue at length on the topic.

They arrive back at the tangent point and for three weeks try to sort out exactly how to go about drawing the five mile north south line. Archibald McClean and John Harland both advise Mason and Dixon that the going will not be easy. Mason reminds them that their loyalties remain with Penn, because Virginia is not paying any of the cost of the surveying. Their new measurements produce a second boundary a tiny bit longer than the first and a bit curved. In a parenthetical remark Pynchon says that the curved boundary will later become the legal boundary of Virginia, carving a tiny slice from Maryland.

pages 469-471:

Dixon worries about being out at night among the wild creatures of America. Mason says that they are more afraid of Dixon and he shouldn't be concerned.

They debate who was more disturbed during their forced layover in the inn during the snowstorm last winter.

Finally, on June 6th, they complete their work on the north south boundary. Pynchon advises the reader to stand on the created intersection and experience the feeling of ambiguity.

vw#106 Dumbledores - bumblebees; also cockchafer (large European beetles).

In the Pennsylvaniad, Tox likens the arc of the border to a bee in flight.

Near the intersection is a hill that is apparently full of iron ore, but has not been mined due to the question of which state it is a part of.

As soon as their work was completed, Mason and Dixon head back to Susquehanna to resume work on the west line, to go "as far as the Country is inhabited." They understand this to be the crest of the Allegheny mountains.

The chain men, Darby and Cope arrive ahead of them and pretend to be Mason and Dixon, although they switch off who is playing Mason or Dixon. Mason and Dixon arrive and discover what's going on. They immediately figure out the pretenders are Darby and Cope. Dixon forgives them because he feels they are humiliated by not being allowed to touch any instruments but the chains.

pages 472-474:

Mason wonders if they should allow Darby and Cope to use other instruments besides the chains but Dixon says no. Mason makes fun of Dixon's attachment to his tools.

Darby and Cope show up and talk business with Mason and Dixon.

vw#107: Stichomythia - An ancient Greek arrangement of dialogue in drama, poetry, and disputation in which single lines of verse or parts of lines are spoken by alternate speakers.

Darby and Cope confess to masquerading as Mason and Dixon.

A group of newly hired axmen come looking for the "chinamen." Dixon explains that Overseer Barnes was having a joke with them, and that Darby and Cope were "chainmen," not "chinamen." But Squire Haligast predicts that a Chinaman will arrive soon.

Finally they are ready to begin moving west again on June 22nd, another Saturday. Just before they cross the river, a fast rider comes with a package containing the newly published book by Fr. Boscovich, entitled "De Solis et Lunae Defectibus" which translates to On Eclipses of the Sun and the Moon. It was sent by Maskelyne who directs their attention to the part which indicates the effect of mountains on the workings of plumb lines.

pages 475-477:

Mason and Dixon discuss the book that Maskelyne sent them, despairing over the way the terrain can affect their instrument readings. Mason hopes that the Western side of the Allegheny mountains will be less upsetting than the windward side of St Helena.

Chapter 49 begins on page 476. The area to the west of the Susquehanna river is inhabited and peaceful. They have to make a small correction to their direction, moving northward one RPH (red pubic hair, defined back on page 296).

There is so much iron in the soil in this area that it is thought that running a magnet over a tilled field, the vegetables would leap out of the ground and stick to the magnet.

The line moves west without difficulty, and summer arrives, bringing millions of fireflies, which Dixon would like to harness and light the campsite with.

Many people follow the crew as they move west, including the crystal reader and a musical group named the Vasquez Brothers Marimba Quartet. They play back up music for the performances of the electric eel. They play a song that is considered the "anthem" of the expedition, entitled "Pepinazos" The song is in Spanish in the book, and the Hyperarts Mason and Dixon Alpha translates it as follows: "Blows, never/Hugs, if you/Loved me, (here Hyperarts leaves out the words Si De Veras which I believe means 'if it is true')/ Listen to me/ Leave, the blows!"

pages 478-480:

Mason and Dixon work through the summer, crossing rivers, creeks and roads. The old paranoia sets in again and Dixon is convinced that they shouldn't have take the job, but he assures Mason he will finish it.

Mason takes the paranoia and intensifies it. He thinks that perhaps Maskelyne is a French spy, using their observations and calculations to feed into a decoder and extract a secret message from ancient times.

Dixon says he prefers his conspiracies to be motivated by trade.

They end their discussion with magnificent punning of the words sari and sarong.

Armand is upset because Luise has returned to her husband's farm. The line is moving in the direction of the farm. Peter Redzinger has returned to the farm and has been working it since winter ended. When Peter sees Luise, he harbors no jealous suspicions. He is saddened because he feels that Jesus has left him. He said when he left, Peter could see the

back of his robe for the first time and there was a message on it in German, a message he couldn't read.

Luise is torn between Armand and Peter.

pages 481-483:

Luise attempts to tell Peter about Armand but he is too full of religious thought to listen. Luise tells an unidentified woman she is talking to about Peter's ability to make Golems, or Jewish automatons, that perform useful household tasks such as peeling and coring apples.

There is a lengthy passage from Wicks' spiritual day-book in which he talks about the varieties of religious people in Pennsylvania and how they live alongside the profane.

Back in the family room of the LeSpark house, Depugh relates a sermon he heard in a church that was attended by German mystics. It seemed like all mathematics to him.

Ethelmer and Wicks try to make sense of the sermon as told by Depugh. They speculate on mapping heaven and hell and assume that via this construction Mason and Dixon must have been in hell, but Tenebrae interjects to say that they could just as easily be in heaven, and rejects the men's need for symmetry. Here chapter 49 draws to a close.

pages 484-486:

Chapter 50 begins on page 484.

As the line moves westward, they cross many roads running north and south. Mason and Dixon agree that when they come to a north-south road, they will each take a direction and travel several miles and the one who does not find a tavern will return and go in the other direction until they meet up at a tavern.

Once they each wound up in separate taverns, waiting in vain for the other to arrive. Other times they find terrible inns or no inns at all. Finally they come to

what appears to be the edge of civilization, the mountain forrest, and on that day the sun shone with a special brilliance.

On one of their north-south forays, Dixon comes across an inn run by a kabbalistic sect called Rabbi of Prague, which greets him with the star trek salute and tall him "Live long and prosper." They tell him of a gigantic golem built by an Indian tribe that was thought to be one of the lost tribes of Israel. They have released the golem to live in the forrest. Dixon is skeptical.

One person tells Dixon that the only words the golem knows are "Eyeh asher eyeh" which a man resembling Popeye translates to "I am that which I am." Dixon recalls that these were the words God said to Moses.

They tell Dixon that Christ as a child made golems.

Dixon asks if the idea of invisibility was that as long as the golem kept moving it was invisible, and this generated much heated response.

pages 487-489:

The Rabbi of Prague cult followers tell Dixon that America is a secret text to be studied like the Kaballah. They take interest in the line that Mason and Dixon are creating, because the place that it ends will have mystical significance.

The cultists believe that the American revolution is propelled by capitalists and greedy people and it will not be good if they prevail.

But one of the inn drinkers states that Ben Franklin and his people stopped the Paxton boys outside Philadelphia. Others see Franklin as a charismatic leader who takes the place of a bishop among the nonbelievers.

They keep quoting lines of poetry and Dixon asks who is the author and they tell him it is Timothy Tox

and his Pennsylvaniad. It turns out that Tox is there in the tavern but he tells Dixon he is hiding out and travelling secretly because his writing is not appreciated by the British.

pages 490-492:

A gigantic golem approaches the inn and Dixon asks Tox if he has summoned it with his poetry, but Tox says it comes in defense of liberty when it chooses. They can see only the huge feet of the golem through the windows of the inn.

Chapter 51 begins on page 491. Dixon starts wearing a coonskin cap and Mason thinks that it is Dixon's real hair. Dixon teases Mason, provoking panic from him before revealing he was only joking.

vw#108: Metonymy - A figure of speech in which one word or phrase is substituted for another with which it is closely associated, as in the use of Washington for the United States government or of the sword for military power.

Mason gets back at Dixon by pulling tricks on him when Dixon falls asleep at inappropriate times.

pages 493-495:

Mason says that Dixon has the ability to sleep with his eyes open. Dixon says that his father did it too. They wonder about what the eyes are seeing while the soul is elsewhere.

They hear rhythmic sounds from the forest and speculate as to their origin. Dixon thinks it's Indian drums that are talking about Mason and Dixon. Mason thinks that it is a dog barking. Dixon sees Nathe walking by their tent and asks his opinion. Nathe also thinks it's a dog.

Other crew members come into their tent to discuss the sound. It becomes too crowded so they move to the mess tent where other crew members are already there discussing the sound. Many are afraid it

is the "Black Dog" a supernatural kind of devil figure. Wicks suggests it's a mass hallucination. Mr. Farlow suggests it's Indians pretending to be the Black Dog and this panics everyone. Dixon offers to go out and take a look around.

pages 496-498:

Dixon leaves the tent to check out the rhythmic barking. Mason drifts into a daydream of being elected dogcatcher of Philadelphia.

vw#109: Sensorium - The part of the brain that receives and coordinates all the stimuli conveyed to various sensory centers.

Dixon returns with a wild story that the noise is coming from a "Glowing Indian." Mason tells him that he goes too far, but Dixon enjoys his little joke.

At the 96 mile point in the line they encounter a settler named Stephel Shockey who tells them of a huge cavern that may be found about six miles south of the line. In the winter they hold church services in it. The next day is Sunday. Mason and Dixon go with Mr. Shockey and his children to visit the cavern. A quote from Mason's field book describes his impressions of the cavern.

Dixon thinks there is ancient writing on the walls, possibly ogham, which was an ancient British way of writing. Mr. Shockey says the Indians stay away from the cave due to bad spirits, but one of the sons says the writing may have come from Welsh Indians that have since moved west. They say that Captain Shelby knows more. Shelby was a real person. His son was the first governor of Kentucky.

vw#110: Monolgy - The habit of soliloquizing, or of monopolizing conversation.

Mason was greatly affected by the visit to the cavern, and can't stop talking about it. Dixon asks Mason to leave him alone.

pages 499-501:

Chapter 52 begins on page 499. Just before they wrap up for the year they cross Conococheague creek. The "dismal history" is upsetting to the crew, but no explanation is given as to what that history is. Perhaps it has to do with slaughter of Indians, but I couldn't find anything in a search on the web.

At 117 miles west of the starting point, Mason and Dixon enter the domain of Captain Evan Shelby. They pack up their instruments and leave them in his care. Then everyone heads east for the winter.

Dixon recalls Emerson's "backwards" overcoat as he walks into the wind. He recalls that Emerson stated that custom of buttoning coats in the front came from the days when the only people with coats had servants to help them put them on, and nobles wanted servants in front of them where they could be seen.

Mason recalls the feelings he had at the start of the Jacobite rebellion. They cross the area where Edward Braddock and his troops were killed in the French and Indian War. Mason and Dixon discuss the depths of hatred felt by men towards other men.

vw#111: bap - a small loaf or roll of soft bread.

Mason recall's his father's specialty was bap, baked in the bottom of the oven, sold whole or by the slice.

Dixon says the weavers rebelled when the government decreed that their wages had to be decreased by 50 percent.

pages 502-504:

Mason says that Rebekah's relatives were weavers and Dixon said he didn't know that.

Mason said he witnessed another protest, held by coal hauling boatmen. There were thousands in the streets.

Dixon said many of the protesting weavers that were caught were "transported," winding up in America. Dixon is surprised they haven't run into any of them yet.

Dixon recalls how his father told him to stay away from the rioting weavers.

Dixon admits to a fear of open spaces. He recalls how Emerson taught him to overcome it by having him study maps.

pages 505-507:

Emerson teaches his students that altitude by flying releases them from the bounds of the horizon. Dixon worries that they will encounter ghosts and goblins while flying around. Emerson says they are easily ignored. Dixon is obsessed with one ghost he has seen, the Old Hell-Cat of Raby. She is the ghost of a woman who died in 1742 after a bitter struggle over who was going to inherit the castle.

Dixon sees her waiting for a coach, which finally arrives late. The driver complains of running into "traffic" which turns out to be Emerson flying around with his students. And that was the first time Dixon heard of Emerson: during the conversation of the ghosts. By the time he was 14, Dixon was one of those students flying about the countryside.

pages 508-510:

Before they left the mountains, Mason and Dixon did some sledding when early snowfalls enabled it. Someone piles up cushions at the bottom of the descent to assure that they will not get hurt.

When they arise from the sleds they detect the smell of cigar smoke, and are not happy that men are smoking near the instruments.

Mason and Dixon return to Harland's farm for the winter. There is a tavern nearby that its a favorite spot for Mason and Dixon. They exchange gifts, Mason giving Dixon a hat and Dixon giving Mason a sliver

wine jug. They give cigars to Mr Harland, linens to Mrs. Harland and sweets for their children.

Mrs. Harland thanks Mason and Dixon for "simmering down." What does she mean by that? Dixon says it was hard year, but Mason thinks it went by easily.

vw#112: Osnabrigs - (from the Hyperarts Mason and Dixon Alpha) A course unbleached linen or hempen cloth first made in Osnabruck, Germany. It was commonly used for trousers, sacking, and bagging. Osnabrigs were used at Williamsburg to strengthen wallpaper. They are to have been made in brown, blue, and white although other colors were probably available. In the colonial period (1767) Osnabrig was woven in Germany, Lancashire, and Scotland.

pages 511-513:

Chapter 53 begins on page 511 with a lengthy quotation from Wicks' book of undelivered sermons. It concerns the importance of doubt to faith.

Following the quote there begins a lengthy extract from the Ghastly Fop. There is no indication that we have left the narrative of the story of Mason and Dixon other than the fact that they are nowhere to be found over the next 25 pages.

The focus is upon a young woman in a family that settled in eastern Pennsylvania.

vw#113: vendue - A public sale; an auction.

She is alone in her house one afternoon. Men dressed in Indian clothes came and took her away into the forest. The further they went from her house, the more sure she was that they did not intend to kill her. When they got to the Susquehanna river, there were boats waiting for them. They were not Indian canoes, but "battoes" which as described on <http://www.nysm.nysed.gov/albany/art/kalm.html> appear to be large rowboats. She later learned that they were built from wood that grew only in Illinois.

They crossed the river in the boats and commenced walking again. She was not bound nor abused. She was only required to walk with them deep into Indian country. There are great flocks of birds in the sky, including many snowy owls. Early snow makes an appearance.

Finally they reach a vast body of water, which is clearly supposed to be Lake Erie. They board canoes and head toward the horizon.

pages 514-516:

The Indians keep the shore in view and paddle northward to a large river (the St Lawrence?). the unidentified settler woman has been with them for weeks and has done everything she has been directed to do.

They arrive in Quebec in the winter. She is delivered to a Jesuit College in the dead of night. At dawn she is served porridge and coffee that has been made from an automatic coffee maker set the night before using a french timing device. She is taken to see a Jesuit named Pere de la Tube. A spanish philosopher sits and observes. A Chinese man enters the room, hands the priest a paper and leaves. The priest advises her to keep her eyes lowered.

The method of Jesuit telegraphy is jokingly described.

pages 517-519:

A priest walks the unidentified woman past the workers, and she faints. Some Chinese men revive her. A Spanish priest requests that he take the unidentified woman to become one of the Widows of Christ.

She is given over to S. Blondell, a cynical British woman, who loves working for the Jesuits. The unidentified woman is examined by Sister Grincheuse and Sister Crosier, and the unidentified woman finally speaks to let them know she was not abused by the Indians.

The Hyperarts Mason and Dixon Alpha says that Grincheuse is french slang for ill-humored and crude.

pages 520-522:

The nuns tell the unnamed woman that she needs to be punished for talking about sexual desire. They tell her she will have to wear a chastity belt.

vw#114: Cilice - Jesuit chastity belt, a wire girdle with sharp metallic points to irritate the skin; from Latin (cilicia: coarse garment made from haircloth).

They tell her that she was lucky the Indians did not abuse her.

She feels she should protest the chastity belt, but does not.

She has all of her hair shaved off. They tell her she may be given a wig at some point. She notices that all the wig stands are human skulls.

A lecturer named The Wolf of Jesus gives a lecture that describes the function of walls in setting up lines of power. Since Europe has been determined to be unsafe for Jesuits, they have searched for other places to expand their power and are perplexed at their lack of success in America.

pages 523-525:

The Wolf of Jesus lectures that perhaps people want a return to a silent one-ness, and the students all react by saying that how can this be when Feng Shui is forbidden?

The lecturer replies that Feng Shui is forbidden because it works. It is too easy and therefore bears the mark of the devil.

Chapter 54 begins on page 525 continuing the story of the unnamed woman taken captive by the Indians and delivered into the college of the Jesuits. But now it is being told in first person. The novitiate is dressed in a corset and adorned with attractive

makeup. She is told she is supposed to charm "the chinaman." She is not told who he is. She is told she will have to learn the language and will be sent to China for a year or two.

pages 526-528:

Sister Blondell talks about all the good food there is to eat in China. The other nuns threaten to report her base desires. The nuns bind the feet of the unnamed novitiate. It takes a long time.

We finally emerge from the narrative of the unnamed novitiate in the middle of page 526, as Tenebrae is flipping through a copy of the Ghastly Fop that she found in Ethelmer's room. He finds her looking at the book and tells her it is the latest in the series and she asks for a summary of the series to date. The Ghastly Fop is a ruined young man who searches the globe to find those with whom he owes money to or who owe money to him. There are at least a dozen volumes in the series.

Eventually the Fop is drawn to the Jesuits.

Ethelmer asks Tenebrae how far she got in the book, and she said she reached the part where the novitiate meets the Chinese boy and they plan to escape. Ethelmer says the next chapter is really good and offers to read it aloud to Tenebrae. She accepts the offer and they light a candle. He suggests that they sit on a carpet on the floor, but she sits down on the bed.

pages 529-531:

Ethelmer agrees to read aloud the chapter from the episode of the Ghastly fop called the "Capitve's Tale" to Tenebrae. She warns him that she might fall asleep and he is not to take advantage of her.

So we return for another seven pages to the first person narrative of the unnamed woman settler who was taken from her home by Indians and delivered to a Jesuit college in Quebec.

The unnamed woman has a dream that is very kafkaesque, involving a tollbooth on a bridge crossing a river. Here she finally gives her first name: Eliza.

Also the chinaman is given a name: Zhang. The Wolf of Jesus figures out that Zhang understands the spanish language that the Wolf has been speaking and determines that he must kill Zhang. Zhang determines to leave the monastery and Eliza decides to go with him. She finds Indian clothes and hopes to be thought of as an Indian boy. Zhang accepts her company and they flee the city.

It is winter and hard going but by the beginning of spring they make it to the Mohawk river and Fort Stanwix (my stomping grounds) and moving inland discover a group of Indians smoking together on a pleasant afternoon.

vw#115: Luo-Pan - (from the Hyperarts Mason and Dixon Alpha:) "The Luo-Pan is a disc, six or more inches in diameter, with a magnetic compass about one inch in diameter in the centre. The disc, usually red, is inscribed with sixteen or more concentric circles, subdivided by radial divisions, with appropriate lettering. It synthesises all the Chinese theories as to the cosmic harmony between the energies of nature, time-relations as indicated by the sun and moon, and the directions in space from any point on the earth." (c 1995 Pun Yin Metaphysics Ltd Concept & Design by Fortune-it Cookie Entertainment Ltd); While it functions like a western compass, it is used in the practice of Geomancy to measure the flow of Ch'i.

pages 532-534:

Eliza and Zhang come upon a group of Indians and among them is the royal agent for Indian affairs, Sir William Johnson. The people switch between English and three Indian languages as they speak. Zhang gives Sir William a handshake that puts him more at ease, and Sir William asks about Eliza, who he takes to be a boy since she is dressed in male clothes. As soon as she speaks one word he realizes she is a girl. She gives her full name at long last: "I am Eliza Fields of Conestoga."

Sir William arranges for them to safely get to Delaware. During the trip, staying over in a barn in New Jersey, Eliza and Zhang become intimate. Ethelmer suggests that he could skip over the sex, but Tenebrae tells him to read on. But there is no sex since Zhang has his code of honor.

vw#116: Hallations - blurring or spreading of light around bright areas on a photographic image.

They arrive at the west line and decide to follow the cleared area west. Soon they catch up to the crew and are greeted by the workers in the commissary, led by Nathe's brother Moses McClean.

We seem to be slipping out of Ethelmer's reading of the Fop and back into Wicks' narrative.

pages 535-537:

Eliza and Zhang discuss what will their next actions. Zhang seems to intend to go away by himself to points unknown. Eliza is not happy with the choice of returning to Quebec or going back to her husband.

Eliza is given quarters sharing a room with Zsuzsa Szabo (Hungarian for Susan Taylor) who has been touring the country with a miniature mockup of the Battle of Leuthen, which was a decisive battle in the Seven Years War, being fought in 1757. Zsuzsa fought in the battle disguised as a boy.

Dixon goes to meet Eliza in her tent and is followed closely afterwards by Mason, who is thunderstruck by Eliza's resemblance to Rebekah. She tells Mason that she is the elder daughter of Joseph Fields.

A reference to Uncle Lomax in the LeSpark family room shows clearly that we are back into Wicks' narrative.

Wicks talks to Mason about his conviction that Eliza is a resurrection of Rebekah. Wicks warns Mason about being too presumptive.

pages 538-540:

Wicks advises Mason to take Daffy's elixir, but Mason says that Dixon drinks it all the time and he'd rather not drink it too.

Mason has a dream that he is traveling with Rebekah and she is taken by a group of strangers and seduced but he cannot intervene. Mason's father appears in the dream, criticizing Mason's choice of wife.

The next morning Eliza can tell that Mason dreamt of Rebekah. Mason says that now that Eliza's hair is growing in, she looks less like Rebekah.

Eliza says she means to go off and have adventures with Zsuzsa, who calls Eliza "kicsi kaposta," Kicsi means little Janos Szeky of the Pynchon List reported that kaposta means "cabbage."

Mason sees Rebekah everywhere, including the water when he is fishing.

pages 541-543:

Rebekah says she is only a "representation" and will not use the words "love" or "death."

Chapter 55 begins on page 542. Zhang says the visto is a conduit for bad energy and is the worst Feng Shui he has ever seen. Zhang says that boundaries should follow natural features such as river banks.

Zhang tells Mason that Zhang has an enemy known as the Wolf of Jesus, and then gives his name: Father Zarpazo. Zhang says that Zarpazo has persecuted Miguel Molinos and his quietists in Spain and has attacked other groups as well: "Jansenist Convulsionaries" and "Crypto-Illuminati."

pages 544-546:

Zhang says that Feng Shui is the principal enemy of the Jesuits.

Dixon is fascinated by Zhang's Luo-Pan.

Zhang says that Zarpazo supports the construction of the West Line and will inevitably show up to support it's construction. Zhang says he opposes it. Mason and Dixon ask him why he opposes it and Zhang says that it promotes sin. But he tells them that his enemy is Zarpazo and not them.

Zhang says that Zarpazo is a master of disguise and could already be in the camp masquerading as an axman. Perhaps he is Stig. But Dixon assures him that Stig is for real.

Zhang says that ever since Le Maire and Boscovich engineered a line in Italy fifteen years ago there has been misery in that country.

Zhang says it is the Jesuits that want to impose straight lines upon the world. Besides the Mason-Dixon line and the line in Italy, he mentions Lapland and Peru.

pages 547-549:

Zhang says that the straight imposed lines on the earth by the Jesuits are conduits for some kind of energy.

Mr. Everybeet, the crystal ball reader, feels the need to interject about the caverns to the west that contain spheres of lead ore.

vw#117: Plumbaginous - Resembling plumbago; consisting of, or containing, plumbago (graphite); as, a plumbaginous slate.

Everybeet says there is plenty of lead in America and it didn't have to be transported from England for the nefarious purposes of the Jesuits. Everybeet attends secret nocturnal ore diggings. Indians mined it and converted the ore to metal and fashioned crude toys and sold them during these late night sessions. The sulphur fumes of the smelting and the dust gave some Indians illnesses such as chronic melancholy.

Everybeet remarks on the importance of lead, as ammunition and for other uses not yet invented.

Wicks is determined to feed Zhang's paranoia by dressing like the Wolf of Jesus, using Spanish phrases and by growing a goatee.

Mason and Dixon think Zhang is insane but are still worried about the possibility that Fr Zarpazo will really show up. They agree that they need to get Zhang to leave the camp. Mason says that Dixon should talk to Zhang since Zhang already believes Dixon to be a Jesuit agent.

Zhang says that no one will know Zarpazo when he arrives due his mastery of disguise. He could even be disguised as Zhang.

pages 550-552:

Captain Shelby has a discussion with Captain Zhang about Fr. Zarpazo. Shelby assures everyone they are safe from the Wolf of Jesus, because he has a charm of protection: the soul of the cobra, a red pearl that once was a cyst growing within the brain of a cobra.

Zsusza gives her exhibition of the battle of Leuthen, and Professor Voam says that the history of England has all been about hair. Captain Shelby and Squire Haligast both give their own spin on war.

Wicks said that the armies of old were driven by faith and modern armies lack faith.

Zhang accuses Zsusza of being Zarpazo and the rest of the company tries to dissuade him.

The scene returns to the LeSpark house where Ethelmer sits in a downstairs room alone at a piano, singing a song about a thermometer.

pages 553-555:

Ethelmer completes his song about a thermometer. DePugh sticks his head in the room looking for Tenebrae, and Ethelmer suggests she is off somewhere dreaming, but not of him.

Chapter 56 begins on page 554. Wicks presents to his assembly a copy of the field journals of Mason and Dixon, printed in 1776. Wicks finds many occurrences of eleven day spans in the journals, and he thinks it all refers back to the lost eleven days of the calendar reform of 1752. Wicks' analysis is met with general derision from his audience.

Mason tells Dixon that the missing eleven days comes up in conversation regularly, and it is like a vortex of time that is endlessly repeating.

Dixon tries to use some mathematical logic to explain the recurrence of the subject of the eleven days, but Mason scoffs at it.

pages 556-558:

Dixon accuses Mason of being a Vorticist. The Hyperarts Mason and Dixon Alpha gives this explanation: "Vortices were an attempt by Continental philosophers and mathematicians to explain how space could be continuously occupied by solid matter (i.e. with no gaps) and yet allow movement. Atomic theories were deemed unacceptable because either they required space between atoms with nothing to fill it or they required solid atoms which interlocked and tessellated to fill space but thereby disallowed any movement."

Mason explains that he has been inside a Vortex, back during the actual date of the calendar reform of 1752. He found himself in September 3rd, a date which officially did not exist that year. He was in a nether world, with no humans and few animals.

He said the place was haunted by a residue of Sin.

He found a horse and mounted it, heading for Oxford with the hope of seeing his mentor Bradley there. He tried not to sleep at all the entire time and burned

candles all night. He said he was not exactly alone, that he could sense others trying to make contact with him.

pages 559-561:

Deep inside the missing days, Mason finds himself in a library among the shelves that only the Elect may read, which includes missing Gospels and Shakespeare's Tragedy of Hypatia. He finally gets hungry and returns to the street where he is confronted by whirring objects he hopes are bats and hears howls he hopes are from dogs. The moon remains full and present for the entire eleven days.

In a courtyard he discovers an invisible barrier he knows he must not cross. But he crosses it anyway.

He decides to find some wine to drink. He is drawn to the edge of the eleven days and emerges when kissed by Rebekah, who at that time was his fiancée. He knew it was not a dream because he was bitten while inside the eleven days. Dixon wants to see the scar but Mason said it disappeared about ten minutes after he returned from the vortex.

vw#118: Noctambulation - walking by a person who is asleep.

Mason takes from his experience that life is a finite period at the end of which he will be reunited from his wife. Here chapter 56 ends.

pages 562-564:

Chapter 57 begins on page 562. We are now moving into 1766 and Mason and Dixon are doing their winter off-season exploring of America. Mason heads south while Dixon goes to New York City.

Dixon goes to see a stage performance of "The Black Hole of Calcutta." A female chorus sings a song about the prison. An elephant is brought on stage at the end of the play and women dance across his back.

Dixon goes backstage afterwards to meet the women in the play. Dixon joins a group of the

company in a two day party at a place named Brennan's. The party ends up back in the city on Broadway in Montagne's Tavern, which happens to be the headquarters for the Sons of Liberty, the group that Mason spent time with when he visited New York. Captain Volcanoe tells Dixon that they have been dealing with the Stamp Act over the last year.

Dixon says that Mason sends his regards to Volcanoe's niece. Volcanoe replies that she ran off with an Italian wagon maker and moved to Massapequa on Long Island where the Italian's mother is teaching her to cook. I grew up near Massapequa, and it is not all that far from where Pynchon grew up on Long Island.

pages 565-567:

A muscular man named Blackie talks revolution with Dixon. Blackie commanded a thousand sailors during "the Riots."

Foretopman Fender-Belly Bodine wanders into the tavern and says he is now one of the soldiers commanded by Blackie. Bodine tells how he wound up in New York. Blackie says that Bodine almost started the Revolutionary War by mooning British soldiers, but Major Jones held his fire.

vw#119: pygephanous - showing one's buttocks: mooning.

Dixon sees that Philip Dimdown is also in the tavern and greets him. They talk in private and Dixon says he now realizes that Dimdown is not really a fop. Dimdown says that he is now obsessed by wigs. He tells about the vast effort required to keep all the revolutionaries informed of the latest news.

pages 568-570:

Blackie says that the British have no idea how the information on the coming revolution is being spread around.

Dixon says that perhaps the news is being spread of Christ's return, but the revolutionaries say that they will have their day and a few generations later will be the time for Christ's return.

They assume Dixon is a Quaker and does not have great allegiance to the King, but Dixon explains that he was educated by Emerson and so he has Deist sentiments as well.

They ask Dixon how he feels about American Independence, but Dixon says he is more interested in how Americans treat the African slaves and the native Indians. Before they can reply Dixon switches the subject to the foam head on his beer, which he has not seen before.

Chapter 58 begins on page 570 with Mason's journey south. Mason is confronted by scenes of American rebellion against the Stamp Act. Maryland is the last province to rebel and they are just now doing things like burning down the house of the Stamp Distributor. Sons of Liberty are moving up and down country roads getting great reception from the residents.

pages 571-573:

Mason notes that the songs being sung already sound American rather than European. A song of revolutionary freedom nearly fills page 571, concluding with the line "Slaves ne'er again."

Mason is invited to the College of William and Mary in Williamsburg, and while he is there he meets a group of Tuscarora chiefs who are working to remove the last of their people from the Carolinas and reunite them with the rest of the Six Nations up north. They are nervous about crossing through Pennsylvania because of the Paxton Boys. Mason assures them that there is safety in numbers, implying that the Paxton Boys are bullying cowards.

George Washington sends a note to Mason asking him to join him in a game of billiards. Mason goes to the Raleigh Tavern and finds Washington in the midst

of revolutionary counsels with people passing through the billiard room.

Someone uses the word "Nigger" and Mason is greatly offended. Through the smoke a voice says that in the smoke and poor light everyone could be negroes. Mason begins to get offended again but Washington says that it is only his "Tithable" Gershom. Gershom cracks a few standup jokes and the crowd calls out for more.

Another voice pipes up with a joke and it's Nathe McClean, back attending classes at William and Mary. Nathe tells Mason that he left the crew just in time to keep his sanity. He said the craziness of Col Zhang and the bad vibes from creating a straight line "into the Lands of Others" was giving everyone in the crew bad feelings.

Mason asks Nathe if Mason and Dixon should have turned down the commission and refused to create the west line.

pages 574-576:

Mason tells Nathe that the parallels of latitude were established by greek mathematicians and they were just using them. Mason mentions Hipparchus (compiled an early example of trigonometric tables and gave methods for solving spherical triangles) and Eratosthenes (measured how the Earth curved between two cities in Egypt, and used basic geometry to calculate the circumference of the Earth and also kept a table of star locations and contributed to the field of mathematics. He found a method of finding all the prime numbers).

Nathe hopes that no harm will happen because of the line. Mason feels kindness for Nathe because he kept the camp running smoothly.

Chapter 59 starts on page 575 with Mason and Dixon returning to the North Mountain at the end of March. Shelby is having his problems with his duties as Justice of the Peace, due to a suit involving custody of a baby. Conrad Wheat's daughter Catherine swears

that Tom Hynes is the daughter of her baby. Tom's father wants him to marry Catherine so he can have a grandson. Tom doesn't want to get married so he asks Shelby to write up a warrant to "repossess the baby."

Ten people go to the Wheat house to serve the instrument on a Monday night. They ask Wheat to come out of the house so they can show him something. He comes outside.

pages 577-579:

The Wheat family angrily refuse to consent to hand over the baby to Tom Hynes despite the court order. Women in the house throw dishwater at the assembled party outside their door. Hounds are unleashed on the party.

vw#120: pinguid - Fat, oily.

The party breaks into the house and a melee ensues with the baby being passed around like a ball. Tom Hynes' group eventually get the child which screams all the way back to Captain Shelby's house. The baby grows calm staring at Captain Shelby.

Uncle Ives interrupts Wicks at this point to say that the story he is telling is not like the official transcript in the Proceedings of the Council of Maryland. Ives says that Wicks' version is the one told by those who had a grudge against Shelby.

Shelby is angry at those who do not respect the authority of his position as magistrate of his district. He feels his authority should extend over the border into Maryland.

pages 580-582:

Shelby and Tom Hynes are sued by Conrad Wheat over the riot at the Wheat house. Tom is softening and wants to see Kate, the baby's mother. All the parties are called to a preliminary hearing at Justice Warford's house. Warford manages to convince the couple to get married and everything is settled except

for the fact that Captain Shelby said that Kate still has to pay a fine. But he works it out with Tom Hynes.

vw#121: desuperpollicate - the Hyperarts Mason and Dixon Alpha parses this to mean "give a thumbs down."

Tom and Kate get married on New Years Eve at Justice Warford's house with Captain Shelby conducting the ceremony. Young men talk about the Stamp Act.

vw#122: Calathumpians - the Hyperarts Mason and Dixon Alpha says this is slang for "beggars." but dictionary.com does better, I think, with the following: "Calithump - 2: a noisy mock serenade (made by banging pans and kettles) to a newly married couple."

pages 583-585:

Tom Hynes wakes up and stares at the wallpaper. He thinks back to the night before and recalls the wedding ceremony. He remembers getting up in the middle of the night to urinate and finds Captain Shelby on guard outside his door thinking that Tom is going to leave his wife. Tom explains and they go outside to urinate together. The Captain spells his name in the snow and Tom draws a heart.

Shelby offers Tom a job on the Mason and Dixon crew and Tom asks if Catherine can come along too. Shelby says by that time she'll be pregnant again.

Chapter 60 begins on page 585. The crew is hard at work, drawing the line across the Mountains of Wales, and Captain Shelby looks on approvingly, except that he wishes that Mason and Dixon could add a few angles along the way to accommodate some of Shelby's friends. Mason blames the King of England on his requirement to draw the line straight to the west.

pages 586-588:

Shelby suggests that British troops would be unlikely to come out this far west to make sure that Mason and Dixon follow their orders. Dixon asks

Shelby if thinks they are spies. Shelby says he does not care if people who pass through his house are spies or not. Dixon suggests there is nothing here worth spying upon.

Shelby gives a poetic assessment of the art of surveying.

As they cross the North Mountain, they are met with rain and snow. They camp out and wait for the weather to improve. Dixon passes the time learning to use Zhang's Luo-Pan and teaches Zhang how to use western surveying instruments.

Dixon talks to Zhang about the sign of the dragon and suggests that there are many kinds of dragons and tells him about the Lambton Worm. Lambton Castle is located near the North Sea in England. The tale of the worm was performed at fairs, where six actors were needed to play the part of the worm. The story begins when John Lambton is fishing and catches a "small snakelike thing" with nine pairs of vents along it's body. A friend comes to drag him off to the crusades and John tosses the strange object down a nearby well.

pages 589-591:

Dixon continues his tale about the Lambton worm.

The worm grows in the well. The water becomes undrinkable and some buckets that are let down do not come back up. One morning at sunrise the worm, grown huge, climbs out of the well. It moves to an island in the nearby river and starts to consume livestock and pets and even careless humans.

vw#123: Trebuchet - A medieval catapult for hurling heavy stones.

Eventually the worm gets so large it can coil completely around Lambton Castle. It soon establishes a routine of coiling around the castle every night.

Finally John Lambton returns from the crusades.

vw#124: elver - young eel.

Lambton never made it to the Holy Land, instead spending his time in Transylvania. He encounters a gypsy fortune teller who tells him how the worm is threatening the castle. He asks for assurances of his success against the worm and the gypsy brings in a priest who has him swear an oath that after he successfully kills the worm he would sacrifice to God the first living thing he happens to see.

pages 592-594:

Dixon continues his tale about the Lambton worm.

As he approaches the castle, Lambton sends a runner to let Lambton's father know that after he hears a blast from a hunting horn, to release one of their hounds. This will be the first living creature Lambton will see and he will sacrifice it.

Lambton then rides to the village of Washington (Where George Washington's ancestors come from) and consults with the men who made his armor. He has prepared a suit that has hundreds of sword blades protruding from it.

He spends the night before his battle on the worm's home island and at dawn puts on the new suit of armor. The worm approaches him and the battle begins. It is long and bloody. It lasts most of the day. Finally the worm is overcome and dies, it's body falling into the river in pieces and carried out to the north sea.

vw#125: oliphant - An ancient horn, made of ivory.

Lambton blows his horn but the dogs are so agitated that the servants do not dare approach them. Lambton's father runs out the door of the castle to congratulate his son. Lambton cannot kill his father. He breaks his oath and thereby incurs a gypsy's curse, that for nine generations, no Lord of Lambton will die in bed. Dixon received a letter while he was in South

Africa that the ninth Lord died while crossing Lambton bridge in his carriage.

Mason, Dixon, Shelby and Wicks discuss the meaning of the tale of the worm.

pages 595-597:

Captain Shelby suggests that the sexual image of the serpent in the well is one that Christians want to eradicate.

Wicks suggests that this is considered "Stukeleyesque" which the Hyperarts Mason and Dixon Alpha says is a reference to William Stukeley, an expert in the druids and Stonehenge.

Shelby says that the serpent mound at Avebury in England is very similar to ones Shelby has seen in the Ohio territory. He thinks they could have been built by "quite similar races of People." He says the Indians say the serpent mounds were built by a race of giants.

Mason and Dixon consider Shelby to be eccentric.

Shelby says the only way to see the shape of the serpent on the mound is to be a hundred feet directly above the mound. Mason restrains himself from asking how Shelby knows this.

Chapter 61 begins on page 597. One of the mounds is close enough to visit and Shelby agrees to show it to Mason and Dixon. They leave early in the morning because Shelby says it needs to be seen at sunrise. As they move through the wilderness they smell something unusual and Shelby says that a new barrel-making business has moved into that neck of the woods.

pages 598-600:

The barrels are the kind used on shotguns and the ones being made on the mountain were cheap ones for "the savages."

They trek through the woods until they reach Shelby's mound. Dixon is surprised it's in the shape of a cone. Mason looks worried and Dixon asks if the natives dislike visitors to the mound. Shelby says they are amused by the white people's lack of comprehension.

They go inside the cone to see that it was constructed of layers of various materials, reminding Dixon of Franklin's Leyden jar that produced electricity. He asks Dixon to bring out his compass and they see the needle go wild.

Shelby says the cone will be on the line when they get that far west. He quotes Tox's Pennsylvaniad which says the cone is a "Force Intensifier."

Shelby, who is Welsh, says the cone was built by Welsh Indians.

vw#126: Cymry - Welsh name for the Welsh people.

Shelby shows them the ruins of a wall on a nearby hillside. There is Ogham writing on it. Shelby claims it says "Astronomers Beware. Surveyors too. This means you."

Back at the camp, the Professor says that the stone markers they have been leaving along the line may function like a Leyden battery as well.

pages 601-603:

The Professor says that if the energy from the line of stone markers could be sent to a weapon it could be fired at whoever is coming over the hills at them.

Captain Zhang mentions extraterrestrials who came to impose lines on the earth and he thinks that "Someone" is interested in the vista rather than the line itself. He goes on to talk about acupuncture and Captain Shelby complains about having to listen to him talk. Mason or Dixon says it will be used as evidence of Zhang's insanity.

Dixon compares the earth to a human body and Mason objects that there is no "inner surface." Dixon asks if Mason has been to the "End" to see.

Stig says that he has spoken to people from further north than him who have been inside the hollow earth. Mason moans at hearing the hollow earth theory, which he has heard too often in the past.

Dixon says that Emerson and Lud Oafery are hollow-earthers. Mason says that Newton's figures on the density of the earth negate the hollow earth theory. Dixon remains enthusiastic about the possibility of a hollow earth.

pages 604-606:

Spurred on by the hollow earth discussion, Captain Zhang comes up with the theory that China was another planet that slowly collided with Earth. Dixon takes him seriously and asks how the collision could have been slowed down to preserve all the people of China. Zhang cites Boscovich's theory of repulsion.

Captain Shelby, thinking of the three wise men in the bible asks Mason when the third surveyor will show up. Mason thinks this is a bad omen, unlucky speculation. Soon members of the crew think they are seeing a ghostly third surveyor and legends arise as to his history and purpose. This soon morphs into a version of the Devil, buying souls. Shelby tells a story of how a Philadelphia lawyer's attempts to void the Devil's contract on his soul.

pages 607-609:

Captain Shelby finishes his story of the Philadelphia lawyer who attempts to void the Devil's contract on his soul, ending with a joke about billable hours.

Chapter 62 begins on page 608 with the crew reaching the Conoloways, a settlement, on April 22nd. It snowed all night leaving four inches on the ground. Dixon says he dreamt of a large city to the west of

their location. Mason says that he needs to get used to the idea that the farther west they go, the farther they leave civilization and enter regions of lawlessness. Dixon responds that he hears Mason talk in his sleep, but always in another language. Dixon suggests that they have Zhang listen while Mason sleeps to see if he can understand it, but Mason dismisses the idea.

pages 610-612:

Dixon says that half the camp can hear Mason when he talks in his sleep in an unintelligible language.

Mason feels that his experiences are rushing by him and he does not really feel a part of them. It's Mason's moperly at it's finest.

Everyone is preoccupied with the actions of Stig, the axemen. He catches Light-Fingers McFee rummaging through his sea chest. McFee finds a document and attempts to take it but is chased by Stig. They fight over it until a policeman, Continuation Joe, detains them and takes a look at the document, which reveals that Stig is a spy for "certain principals in Sweden" who believe Pennsylvania really belongs to the Swedes.

Stig tells a story of how the vikings once occupied North America and waxes more mystical and mysterious as he talks on. Finally Captain Shelby asks Stig to admit he's not really Swedish. Stig vaguely admits he is of a more northern people.

pages 613-615:

Stig says that his contract with Sweden expires in a year and after that he could be an agent for somebody else, perhaps the American revolutionaries.

Mr Warford wonders how chopping down trees will "help the Swedes take Philadelphia back." Stig suggests it is helpful to stay vigorous and healthy while preparing.

Zsuzsa Szabo admires Stig's soldierly pursuits. She dislikes being in the woods and Eliza Fields agrees with her.

The crew forges west and soon they are past most settlements. They are now in the area of the last Indian war, which is actually still being fought. Veterans of Braddock's Defeat depress the company with war stories.

They are now 165 miles west of their starting point at the "post marked west." They are just two miles short of Savage Mountain, which is as far as they are supposed to go. They turn around and head east, widening the vista.

Zhang once more advises Mason and Dixon that drawing a line to divide people is a bad thing. Dixon points out that there is slavery in Maryland and not in Pennsylvania. Zhang says that there is slavery in Pennsylvania but it is more subtle. He says that some might not even know they are slaves.

pages 616-618:

This chapter (Chapter 62) which started with a reference to the story's current date of April 22nd, concludes with the date of June 14th. This is the date that Mason writes in his field notes that his party stood at the top of the Allegheny Divide. This is the place where Bouquet set his edict that settlers could go no further west.

But soon they are met by perhaps a half dozen rough looking settlers who demand to know who sent them. They are as hostile to the King as the Penns. Dixon offers them jobs in the crew chopping down trees.

Zhang talks about Bouquet's plans to have settlements on the plains in the shape of five squares making the Greek cross. Shelby says that many people come up with schemes like that every year and they all fail, but Zhang says that sooner or later one will succeed.

Chapter 63 begins on page 618. The date is now August 4th. There's another great thunderstorm frightening Mason and Dixon. They are headed back east. The next day they pass by the house of Zepho Beck and his wife, which they have managed to avoid on the trip west.

pages 619-621:

Zepho Beck is afflicted with "Kastoranthropy" as Professor Voam describes it. Sort of like a werewolf only in Beck's case he turns into a beaver under the light of the full moon. He sneaks out of the house and gnaws down a tree and deposits it at a beaver dam as the beavers run for their lives. His wife Rhodie watches in horror each month.

Rhodie has consulted Indians who point out others afflicted with Kastoranthropy. She says there are enough to populate a large lake.

Rhodie proposes that Zepho Beck has a tree cutting contest with the mighty Stig. She hopes to make a fortune out of it.

pages 622-624:

On the full moon of August 5th, Mason and Dixon take their very expensive clock to the vista and time the two hour tree chopping battle between the mighty Stig and Zepho Beck, the were-beaver. The rules are that if they chop down the same number of trees in the two hours, then they will both chop down one more tree and the faster will be declared the winner.

Mrs. Eggslap's prostitutes act as cheerleaders and Stig is still posing before them as Zepho chops his way out of sight. Stig finally starts chopping and the first tree to come down hits him on the butt. He suffers a sprain, but keeps working. He cannot catch up to Zepho. As night falls and the moon comes out, Zepho comes undone because of a lunar eclipse. Stig declares the contest void and the bettors are all in agony.

Zhang says that in olden days Mason and Dixon would have been beheaded for not forewarning the company about the eclipse. The next evening Zhang tells the company and the Becks the story of Hsi and Ho. This really is an ancient Chinese folk tale, that was translated into English by Isaac Newton from a French translation of the original Chinese rendition.

Chapter 64, the story of Hsi and Ho, begins on page 623. On the first day of Autumn in ancient times an eclipse occurred that was totally missed by royal astronomers Hsi and Ho, who were carousing when they should have been studying the skies and making calculations.

They hurry to the observatory where they are told that they are now considered enemies of the Emperor and are condemned to death. As the army approaches to arrest them, Hsi and Ho, up on their high platform in the observatory decided to try to escape using a gigantic kite.

pages 625-627:

Zhang continues the story of Hsi and Ho. The two ancient Chinese astronomers jump off the observatory platform attached to a kite and float away from their pursuers. They manage to glide for some distance as the eclipse runs its course.

They look below and see the army below, following them. Hsi decides to give up and opens his arms but they are close to earth and he only falls ten feet into a lake. Ho soon lands on top of him.

The lake is on the property of a rich trader named Huang who has seven "eligible" daughters. Huang soon comes with his retainers demanding to know how they were able to get onto his property. After hearing their story, Huang wants to hire them to predict eclipses. Ho quickly hooks up with the eldest daughter who wants to marry Ho immediately. After assuring that they will enter his employ, Huang consents to the wedding.

pages 628-630:

Zhang continues the story of Hsi and Ho. The two ancient Chinese astronomers prosper in the land of Huang and eventually get to sleep with all seven of his daughters. Hsi and Ho travel far and wide, careful to avoid the emperor's soldiers, and they are continually mistaken for each other. They continue to predict eclipses for Huang, who prospers by wagering on the events. Eventually though, they miscalculate one by several hours and Huang is disgraced. Zhang gives two endings to the tale, one in which Hsi and Ho are banished to an old age of poverty and the other in which Huang dies and Hsi and Ho take over his property and prosper for the rest of their lives.

Chapter 65 begins on page 629. Now it's November and Mason and Dixon have moved the chain eleven miles east of the Post Marked West. They reach the shore of the Delaware River.

Zhang discusses Mason and Dixon's accomplishment with them. He suggests that the additional five degrees of longitude to the east of the Post marked West, is similar to the five and a quarter degrees removed from the Chinese Circle to make it 360 degrees. He also compares this deletion to the missing eleven days. Dixon disputes this by saying all of the 360 degrees were made a little bigger to accommodate the adjustment.

Zhang continues to fulminate against the sorrow generated by missing space, missing time and other failures of "the perfect return."

Mason finally interrupts, asking assurances that Zhang is not about to become violent.

pages 631-633:

Zhang admits to still desiring Eliza Fields, but she makes him think of his enemy, the Wolf of Jesus.

Mason and Dixon return to the Harlands' farm and return to working on the Degree of Latitude (does this equate to "checking their work" or is it something else?) while waiting to hear from the royal agent for

indian affairs William Johnson to see if they can continue the line west of the Alleghenies.

As advent begins, a group of people gather every night in the horse barn to discuss aspects of Christ's birth. Zhang and Wicks are regulars. Mason and Dixon attend sporadically. Mason and Dixon are most interested in interpreting the star of the Magi. They also debate the actual year of Christ's birth. Dixon makes a sarcastic comment but imitates Mason's voice so the others think Mason said something mildly blasphemous.

Chapter 66 begins on page 633. It's spring and the scene is the inside of Stig's tent. Mrs. Eggslap asks Stig to tell her a story. According to the Hyperarts Mason and Dixon Alpha "The story that Stig tells Mrs. Eggslap about the first American murder at the beginning of chapter 66 is straight out of The Greenlanders' Saga, the story of the Norse settlement of Vinland, written down in the 12th century." It relates the first murder in America, which came about from a fight over ownership of a weapon between the Greenlanders and the Native Americans.

pages 634-636:

Stig says the viking outposts lasted not very long in the new world and ended in disgrace, perhaps because of the first murder of a native American. The scene dissolves with several jokes exchanged between Stig and Mrs. Eggslap.

Mason and Dixon recall moments of panic along the line. Dixon remembers worrying about what kind of creature might live in the giant cave they visited. Mason recalls being frightened by a forest so dense it seemed the light never penetrated. They both recall hearing voices in the night telling them they have gone too far west. They feel they are risking their lives in the wilderness.

1767 arrives and it will be their last year working the line. Week after week they wait to hear from Sir William Johnson. He is supposed to negotiate with members of the Six Nations. Mason and Dixon pass

the time in Philadelphia clubs partying and playing cards. By the time they get word that they can continue, a year has passed since they last stood at the farthest point west. They finally resume work in July.

On their way out west, Mason and Dixon stop at the Redzinger farm to see a barn raising in progress nearby. Captain Zhang has rejoined them after disappearing for the winter to points unknown. He says the pearl from the brain of the cobra has deflected Father Zarpazo from chasing him and sent the Wolf of Jesus to be one of the founders of a Jesuit outpost in Florida.

pages 637-639:

There is a large variety of esoteric sounding food at the barn raising.

vw#127: Souse - Food steeped in pickle, especially pork trimmings.

vw#128: Schnitz und Knepp - Dried Apples, Dumplings and Ham (recipe at <http://www.berksweb.com/pam/schnitz.html>)

Armand shows up with a pudding and Luise finally gets to introduce Armand to Peter. Peter is very big and Armand is small. Armand is afraid Peter will start a fight but Peter only wants to ask about the duck. Armand says he seldom sees the duck any more. Peter speculates that time no longer matters to the duck and Luise ponders the implications of this.

At the end of the chapter concerning the marriage of Tom Hynes about 50 pages back, Captain Shelby says that Tom will develop into a "Grandfather Cresap." Now, in Cumberland, on July 7th, as their instruments arrive and the camp comes alive with activity, Mason and Dixon meet the legendary curmudgeon Thomas Cresap, who staved off an arrest for murder even as the sheriff burnt his house down around him.

Cresap displays his speed and accuracy with firearms by shooting at a loaded whiskey jug hurled in

the air. He hits it and it bursts into flames. Cresap begins to tell Mason and Dixon the tale of his attempted arrest by Sherif Samuel Smith. Mason and Dixon had heard Smith tell his side of the story a couple of years ago.

pages 640-642:

Tom Cresap recalls the time Sherif Sam Smith came to surround his house with a "small brigade" of helpers. He says his son Daniel was the "Hero of the battle." Dan is now 40 years old. Sam Smith burned the Cresap house down and Cresap relates that one of his people died in the fire "with his hands in the air." Cresap was apprehended and brought to Lancaster to stand trial for murder. On the way he managed to knock one of his captors overboard off a boat crossing a river. Then he managed to knock the blacksmith out who was putting him in irons.

At this point Cresap asks Mason and Dixon how his story compares to the one they heard from Smith. Dixon says that Smith's tale was less lively.

Cresap was acquitted of the murder charge and took his family to live in Antietam, which was wilderness at the time. They hunted and sold furs and skins, until a large shipment was stolen by privateers and the Cresaps were overwhelmed by creditors.

vw#129: High-Toby - highwayman; robber.

Cresap was forced to move west again to where they are currently located. Cresap recalls blazing a trail through the area working with Delaware Indian Chief Nemacolin. It was on this trail that Braddock met his defeat in the French and Indian war.

Cresap gives Mason and Dixon advice on how to act when they run into Mohawk Indians. He tells them not to react to their threats. Mason and Dixon begin bickering and Cresap smooths the water with a joke about their relationship. Corn liquor is passed around, which Dixon drinks happily. Mason prefers wine, which is hard to find, and he is told to try a nearby

open air market, where settlers and Indians sell all kinds of items.

vw#130: mantua - A woman's garment of the 17th and 18th centuries consisting of a bodice and full skirt cut from a single length of fabric, with the skirt designed to part in front to reveal a contrasting underskirt.

pages 643-645:

After a lengthy description of the open air market at the foot of a nearby fort, it is mentioned that dogs run free in packs. The dogs are wilder out here and somewhat more threatening to humans. Dixon worries about the "Black Dog" that worried them a hundred and fifty pages back. Cresap is not worried about the legendary devil figure.

Cresap's dog Snake is a "ratter." Mason notes Snake is a norfolk terrier so Mason bends down and asks Snake if he has heard anything of the Learned English Dog. Mason sees by the dog's eyebrow movement that he understands. He tries to entice Snake with an invitation to sample a meal that Armand is preparing. Dixon makes fun of Mason's attempts to communicate with the dog. As they walk away arguing, Snake thinks about "old Fang."

Dixon says he can feel that something important is about to happen, but he is not sure what it may be.

Mason and Dixon are approached by a young boy who promises to show them "something no one has ever seen, nor will anyone ever see again." He proceeds to crack the shell of a peanut, show them the peas and then eats them. Here Chapter 66 ends.

pages 646-648:

Chapter 67 begins on page 646. Within two weeks of the warning by Tom Cresap, Mason and Dixon are met by a delegation of Indians. They are mostly Mohawk warriors and have been sent by Sir William Johnson. The Indians will remain with the crew until the end of October. That's when they reach the Great Warrior Path and are allowed by the Indians

to go no further. Hugh Crawford, an Indian interpreter who is accompanying the Indians told Mason and Dixon back when the Indians first arrived that as soon as they reached the war path, they would be turned around.

Mason attempts to reason with them. He says that they will be across the path in a quarter of an hour and leave no trace of their crossing it. The Indians are not moved. Mason asks how far is the path from the Ohio river and he is told it is between thirty and forty miles. Crawford uses a slang phrase "Socko Stoombray" which the Hyperarts Mason and Dixon Alpha says is in proper Spanish "Se acostumbre." The Alpha goes on to say that "The text translates this correctly, 'one gets used to it.'"

Mason is unnerved by the ability of the Indians to silently appear and disappear. He complains to Wicks about their ghostliness. Wicks says that Dixon appears to be quite comfortable in dealing with the Indians.

The Indians watch Mason and Dixon use their instruments and comment that they have used Meridian lines as borders to separate tribes.

Here the Indians in the party are all named. Some have English sounding names like Daniel, while others have distinctly Indian names like Tondeghho. Others could be Welch or Dutch: Sachehaanddicks, Hanenhereyowagh.

pages 649-651:

The Indians tell Zhang they learned of meridians from the Jesuits. One of the Mohawk chiefs named Hendricks said that one story has it that they learned of meridians from "powerful Strangers, much earlier."

Mason and Dixon bicker over the expression "He who would hang his dog, first gives out that he is mad."

That night Wicks dreams that he flies above the visto straight west. He speculates that it might not have been a dream but that he might actually have somehow

been transported to the west. He is scouting out the Great Warrior Path. He imagines that if the visto was allowed to cross the path, then two taverns would be erected at the crossroads and great commerce would take place.

One night Mason asks the Indians where their heaven is located and they point west. They ask Mason the same question and he points up. Mason and Dixon discuss with the Indians the possibility of life on other planets and how this might affect their feelings about God. Another Mohawk Chief named Daniel says that people from the spirit world have contacted the Indians.

A young warrior named Jemmy says that they should "explain about the bait" used by Indians to attract the spirits to them.

pages 652-654:

Dixon tells the Indians that if they tell him about the bait used to attract spirits, Dixon will tell them of the bait he uses to catch fish in England. Dixon's bait is made of bread.

The warrior Jemmy describes starving his body and soul until his "Protector," a great bear, appeared to him. Uncle Lomax breaks into the story to object to Wicks saying an Indian had a soul, but Wicks sticks to his guns.

Dixon responds by telling them how to make his special bread lure, but Wicks said they withdrew from his hearing so he did not learn how to make it. Tenebrae objects at this point that Wicks was telling a tall tale, but Wicks said he witnessed Dixon's mastery at fishing.

Mason and Dixon then discuss the visible constellations with the Indians and this brings Mason to a flashback of his youth, looking at the stars with his mother and father.

Coming out of his reverie, he cannot imagine how he wound up there, in the wilderness with danger on

all sides. He asks the Indians if they are in danger. The Mohawk chief Daniel responds in essence that all who live are in danger of dying.

Mason asks the Mohawk chief about giant vegetables. Daniel tells him to ask Nicholas, a Mohawk warrior. Back in camp they find Nicholas already talking about the vegetables with others. He says the valley in which they grow is far to the north and west where there is volcanic activity. Nicholas describes the plants and dwells on an enormous hemp plant.

pages 655-657:

Nicholas continues to describe the giant hemp plant. Dixon wants directions to the valley in which it grows, but Nicholas says it is too far away. Eventually Mason figures out that Indian is trying to sell them some hemp. Dixon grows very excited.

Nicholas shows them a giant potato, but Dixon is not impressed. The Indians lead them to nearby farm where giant vegetables are growing. Mason and Dixon want to spread the news back east, but the farmers say that it must be kept secret because they only tend the farm waiting for the owners to someday return, giving the impression that they are extraterrestrials.

The farmer raises the possibility that the giant vegetables themselves are sentient beings. Here Chapter 67 draws to a close.

pages 658-660:

Chapter 68 begins on page 658. They are still hard at work on the line in early August, moving about a mile or two a day.

Mason and Dixon discuss three land speculators said to be in the area hoping to purchase huge tracts from the Indians.

Mason and Dixon warn their company of the increasing danger as they move west. They take a ferry across the Big Yochio Geni river, also called

Youghiogheny. The ferryman, Mr. Ice tells them the story of his family's massacre during the days of Braddock's defeat. He said the war really will go on and on until the last person in the area dies.

Mason says that there are no fish in the river, but Mr. Ice says there is a large school of ghost fish. Mason asks him about the fish even though Dixon is trying to stop him.

pages 661-663:

Immanuel Ice, the ferryman, says the ghost fish glow to signal each other in the water. He says that Dixon's red coat is the first he has seen since Braddock's defeat. He implies it could be dangerous to wear one. Dixon says it helps him to not be mistaken for an animal in the woods.

Ice returns to discussing his family's tragedy and his pledge to continue the fight. He requests contributions from Mason and Dixon. Mason thinks it is unethical for him to try and capitalize on his tragedy, but Ice disagrees.

At this point in the making of the line, Mason and Dixon's account book show 111 people on the payroll.

After they cross over Laurel Hill they see remains of old forts, and they find hints of ancient gravestones. Hugh Crawford says that now and then they find gigantic bones as if from a race of giants that occupied the land before the arrival of the Indians.

Crawford says the Indians believe the monoliths are representations of other beings who help them with special powers. Mason tries to tell about the monoliths in England, but is rebuffed by an Indian who explains that the Indians dreamt of other people coming to their land, but the Europeans turned out not to be the others they were waiting for. Instead the Europeans turned out to be all too similar to the Indians.

Now the Visto grows wider and the company sleeps as close to the center as they can get. Axmen begin to desert and Indians join the company. One of

the Mohawk chiefs, Hendricks, wonders what makes the deserters afraid. Mason or Dixon tells him that they heard there were several tribes of Indians on the other side of the Monongahela river, including a tribe without a name.

pages 664-666:

The Indians laugh at the settler's fear over a tribe with no name. The chapter ends with the company's feeling that their days out west are drawing to a close, using the metaphor of a game of darts that is close to conclusion.

Chapter 69 begins on page 665 with a look back to the time before they crossed the river Cheat, when a girl was chasing a chicken that was running across the visto. When the chicken reached the center of the visto it turned and pointed its head west and seemed unable to move. As the day ended, the company all drifted over to look at the immobile chicken.

At sunset the girl collects her chicken and agrees with members of the company that placing a chicken on a line will hypnotize it. Mason worries that the line might become clogged with hypnotized chickens. Mason wonders whether the line will do more ill than good. From out of nowhere Armand's duck calls out to him "Don't you care?" Mason and Dixon defend themselves, explaining their work and its objectives to the duck.

Later that night Mason and Dixon wonder if the duck might be hypnotized if placed in the center of the line. They wonder if she could be lured there. Armand tells them that the duck likes pond larvae.

pages 667-669:

Mason, Dixon and Armand decide to have Tom Hynes build a duck decoy that will attract Armand's duck. Soon Armand's duck is spending hours staring at it. The duck soon discovers the decoy is wood, but still has hopes for it as a companion. The duck takes to flying back and forth following Mason and Dixon's line.

vw#131: Orthogonal - Relating to or composed of right angles.

The duck takes to accosting travelers along the line, asking for news of Armand. She tells them what it was like when she was possessed by her creator Vaucanson.

One day the duck decides to stay in one place and let the earth revolve below her, and afterward she tells Mason and Dixon about it, which sparks Dixon's paranoia.

Wick's audience interrupts the story to talk about automata, and Euphrenia recalls the days she was paid to pretend she was an automaton oboe player.

pages 670-672:

Aunt Euphrenia says that she and Signore Drivelli lived in France as man and wife, while he had her pretend to be an automaton oboe player, and took side bets as to how long she could play between breaths. She claimed she could go on for over 20 minutes, having mastered the technique of breathing in through the nose while playing. She said music for the oboe seldom includes pauses to breathe. She explains why so many oboe players become insane.

Dixon becomes transfixed by the horizon and the Indian guide Crawford says that Dixon has become afflicted with "rapture de west" and may not be able to stop extending the line even when circumstances demand it.

On September 17th two of the axmen, William Baker and John Carpenter are killed when a tree they were chopping down fell on them. Mason tells Dixon that he had been looking for a sign that they should stop and asks if this wasn't a terrible enough sign. Dixon does not think it was the kind of sign he was looking for and dismisses it as a common workplace accident.

pages 673-675:

Page 673 starts with a quote from a poem that the Pynchon-created Timothy Tox wrote about the Mason Dixon line. In this stanza Tox talks about the conclusion of the line.

As soon as they cross the Monongahela, they see other tribes showing up to confer with the Iroquois. First they see the chief of the Delaware Indians, Chief Catfish, dressed in western clothes, accompanied by his wife. Then eight Seneca Indians stop overnight and obtain gunpowder and paint from the Mason and Dixon commissary. Another visitor is the 86 year old Prisqueetom, brother of the Delaware chief.

Dixon thinks they will be all right with the Indian visitors as long as they don't run out of alcohol to share with them.

The Indian scout Crawfford says the safest way to act is as if insane, saying the Indians take it to be a holy state. Mason and Dixon kid each other that the other is usually acting insane.

Mason is still arguing with the Indians to be allowed to cross the Great Warrior Path. Finally Daniel offers to take Mason and Dixon along the path a bit. They are nervous of the danger but agree to come along.

pages 676-678:

Daniel, one of the Mohawk Chiefs, has taken Mason and Dixon out at night onto the Great Warrior Path. He stops them before they step on points set into the trail that were tipped in venom to trap unwary visitors. It seems clear to all that there is trouble between the Iroquois and the Catawbas.

Moses Barnes, the overseer of the axmen must have been on the walk with Mason and Dixon, because he mentioned at being struck by the silence and quotes from an unidentified poem concerning the silence of birds.

Both Mason and Dixon dream of continuing onward, reaching a surging river they cannot ford, and having the Indians show them a great iron bridge that they are not allowed to use.

Crawfford the Indian guide says that the first step on the trail to wisdom is realizing one has been travelling in a circle.

Chapter 70 begins on page 678. Mason is still trying to convince the Indians to let them go on with the line further west.

pages 679-681:

Dixon is insistent. They must defer to the will of the Indian leaders and go no further west. Mason does not agree and continues to argue with the Indians and their guide. At some point during eleven days in October (another example of an eleven day span!) while they are stalled beside Drunkard Creek, Mason and Dixon switch sides and Dixon tries to get the Indians to agree by charming them.

At last they are allowed to go across the Great Warrior Path and are able to extend the line just a little more to the west before the gathering presence of other Indian tribes convince everyone that there is no future in going any further. They are on top of Laurel Hill where Mason thinks he can see the Ohio River, about forty miles to the west.

Mason and Dixon decide to just ride out to the river so that they can say at least they were there. Mason rides a horse named Creeping Nick, which was the same horse that he was riding in New Jersey when he injured his hip. They travel at night and when they reach the river, they are met by Delaware Indian Chief Catfish and his friends, carrying rifles.

Mason and Dixon notice the inverted star on the rifle stock and tell Catfish it is an evil symbol and ought to be removed. Catfish tells them he took it from an evil Englishman that very day and shows Mason and Dixon the Englishman's bloody scalp. Both Mason and Dixon assume the scalp belonged to the last person

they saw with a rifle bearing the inverted star. They do not mention the person's name. Was it Capt Shelby?

The crew put in the last mile markers along the line, while people keep leaving the company without giving notice. On November 5th the line is completed.

pages 682-684:

On November 5th the axmen completed the work of widening the section of the vistro done that summer so that the entire line is now the same width. The Indians depart. Mason's journal is quoted stating that everyone left the company to go home except for thirteen needed to erect markers on the way back east.

Mo McClean conducts a big sale of items from the commissary in order to lighten the load of things he has to carry back east.

vw#132: Vendue - A public sale; an auction.

Wicks notes another eleven day gap - a lack of writing in Mason's field book, and Wicks speculates on why there is so little writing during this period. For one thing there was a lot of snow.

Here Pynchon uses as a phrase, the title of his next book "Against the Day." Here it is used to mean something like "in spite of all the evidence" in that Mason and Dixon are still harboring hopes of turning back to the west to complete the line out to the Ohio river.

Even though the snow is a foot deep, they hope to get all the mile markers in before the ground freezes solid.

On their way back east, Mason and Dixon stop in at the Inn named The Rabbi of Prague to see how Timothy Tox is doing. People there tell them that Tox has gone crazy over words he has heard the gigantic golem speak.

They find Tox and he tells them that he feels like Moses come to lead his people out of Egypt. He

quotes a few lines of his poetry and is described as a Dithyrambist, which is not in the dictionary, but Dithyramb is:

vw#133: Dithyramb - 1. A frenzied, impassioned choric hymn and dance of ancient Greece in honor of Dionysus. 2. An irregular poetic expression suggestive of the ancient Greek dithyramb. 3. A wildly enthusiastic speech or piece of writing.

Tox sees the Golem out the window.

pages 685-687:

Timothy Tox thinks the golem will protect him rather than attack. Dixon offers Tox the protection of travelling with his party until they reach Newark. Mason says this is ok as long as he doesn't bring the golem with him. Dixon argues that they could put the monster to work. Mason thinks that Dixon just wants to use the creature as a curiosity to gain entry to saloons he has not been able to get into.

Mason wants to ask the golem about the spirit world. They can hear the golem approaching through the forest.

They do give Tox a ride with their group, but they never encounter the golem, which seems to have become invisible. They leave Tox by the side of the road, and he is immediately picked up by a Conestoga wagon.

Chapter 71 begins on page 687. Mason and Dixon are back in Philadelphia, hanging out in bars, knowing their job in America is finished, except for some paperwork.

They are working on adding their line to the map of America. Dixon points out to Mason that there is a curious symbol on the Map of the Boundaries: an eight pointed star topped with a fleur-de-lis.

pages 688-690:

Dixon explains to Mason that the French symbol on the map has nothing to do with any French claims on the colonies. Dixon gives a history of how the fleur-de-lis came to be placed on all maps to indicate the direction of north.

Armand interrupts them saying the duck is acting strangely. They ignore Armand and he wanders away. Mason argues that they should leave the symbol for north off their map, but Dixon insists on it.

Finally Mason relents, complimenting Dixon on the map. Dixon wishes it could have been colored.

vw#134: Orpiment - Arsenic trisulfide, As_2S_3 , a yellow mineral used as a pigment.

Wicks says that after their 8 year stint in America, Mason and Dixon were bound to separate. Their last year was spent in Delaware, polishing up the tangent line and working on miscellaneous Royal Society projects.

vw#135: Rugae - folds, creases, or wrinkles, as in the lining of the stomach.

Wicks thinks that Mason and Dixon might have decided to split up during their final months in America. Dixon's descendents have said that he wanted to settle in America, but Mason did not.

pages 691-693:

Uncle Lomax draws the analogy to Pope and Lady Montague in looking at the relationship of Mason and Dixon. Dixon wanted to stay in America and Mason wanted to return. Lady Montague supposedly laughed at Alexander Pope when he declared his love to her.

Mason and Dixon appear to be working placidly during their last days in America, when in reality they are haunted by the notion that all their work will wind up to have been in vain. But it is not be in vain, for the strange malevolent spirit that was lain into the line continues and repels those who try to settle on it.

Suddenly it occurs to Dixon that what they've done was draw a line between the slave holders and their "wage payers." Dixon regrets passively watching as thousands of innocents are dispossessed of their heritage and land. He wishes he could have found America to be free of tyrants and slaves. He ends the chapter by wondering what evil the King might do to Mason and Dixon.

pages 694-696:

Chapter 72 begins on page 694. Mason and Dixon are doing their final surveying task and it bores Mason who would rather be doing something more to do with astronomy. They decide to travel south together after the task is done. They wind up in Baltimore and the Reverend says this is when the famous incident of Dixon taking away a slave-driver's whip occurred. Uncle Ives protests that there is no proof this actually happened, but Wicks says he believes the story.

vw#136: vendue - an auction.

Dixon met the slave driver first in a pub at night. He tells Mason and Dixon of an auction taking place the next day. He speaks in a very mean spirited manner and Dixon feels the urge to strike him. He tells Dixon he ought to bid on a mulatto woman and Dixon replies that he is not in the market. The slave driver is surprised at Mason's disinterest.

pages 697-699:

Dixon warns the slave driver that inevitably "a slave must kill his master." The slave driver nervously leaves the room but reminds Dixon to come to the auction.

A drinker in the tavern tells Dixon that Baltimore has many auctions, mainly slaves, horses and tobacco.

Mason ruminates over the flooding of Pennsylvanians into Baltimore after Braddock's defeat, and then thinks about how much affection he now has for Dixon. Several in Wicks' audience protest at this

point. But Wicks insists that Mason appreciated Dixon's bravery in acting when it was not strictly required.

They meet the slaver in the street, driving a group of unsold slaves, slashing his whip everywhere. He seems to be in a frenzy. Mason says to Dixon he will go to "seek assistance." Dixon asks Mason to look after him and he steps out into the street, between the whip and the slaves. He asks to have the whip handed to him. The slaver threatens Dixon, and Dixon snatches the whip and then punches the slaver in the face. Dixon threatens to kill the slaver and the slaver begs for mercy, shouting out the names of his three children.

Dixon tears a ring of keys from the slaver's belt and frees the slaves. They thank him but advise him to leave immediately. Dixon still wants to kill the slaver, but puts the whip inside his coat. He and Mason run to the stable where their horses are being kept. Dixon gives his horse, named rebel, an apple and thinks about the Jesuit priest Christopher Maire's phrase "Instrument of God."

pages 700-702:

They make their escape from Baltimore successfully, wishing they could stay longer, but knowing they must leave to avoid retribution for Dixon's actions against the slave driver.

Out on the York Road they feel like magnetic forces are on either side of the road, pulling at them. Mason asks Dixon to explain, but Dixon says it's a mystery.

They pause at night near a church to hear a congregation singing a hymn that underscores the uncertainty of life.

Mason and Dixon now feel the line they built is a "conduit for evil." They look upon their work in Delaware afterwards as atonement for the sin of creating the line. They think back to talking about future plans while working on the line. One of them

had the idea to construct an eighty mile mall running alongside the vисто.

One of the axmen says he is a student of Blind Jack Metcalf, who not only was famous as the first great English road-maker, but also was involved in the Jacobite rebellion of 1745.

Zhang warns them again of all the negative energy along a straight road and the axman asks what is bad about the users of such a road, including officers, merchant and express-riders, and Zhang delineates the evils of all of them.

Dixon notices Mason writing something that looks like verse, but Mason says he is writing his epitaph.

pages 703-705:

The epitaph for himself that Mason has just composed is in two verses. The first states that his goal in life was to reach a state of contentment somewhere between "lust and duty." He compares the state to a paradise, comparing it to St Brendan's Isle, a legendary island that is supposedly where Eden from the bible was located. The second verse is sad, saying that the daily grind has worn away all of his hopes but one.

That one hope is that he will be reunited with his beloved Rebekah. He recalls seeing her one night walking along the vисто. She tells him he must leave Dixon and return home. He asks if she dislikes Dixon. She does not reply directly, but says that Dixon is too cheery and wants Mason to forget her. She suggests that Mason's time with Dixon is over and he needs to go back to his astrological work.

Mason and Dixon make their last visit to New York City. They search around for the people they met on previous visits but none are to be found. They find the city less hospitable than in the past.

Waiting for a boat to take them to Halifax, they are stricken with fear that they are in the midst of a group of unfriendly people.

A stranger speaks to them. He is vaguely familiar. He speaks to them cryptically and promises to continue the conversation at sea. Although they look for him throughout the voyage they cannot find him on the ship.

Mason makes a note in his journal that they left Halifax on September 11th, 1768, ending their stay in America. This concludes chapter 72.

pages 706-708:

Chapter 73 begins on page 706. It is the final chapter in part two, "America." Wicks imagines what would have happened had the party continued west, being pursued by the Indians who did not want them to cross the Great Warrior Path. The axmen leave until only Stig is left. As autumn begins Mason and Dixon decide to stay where they are for the winter instead of returning to the east coast.

They go through Illinois, where they find the French teaching their skills to Indians. They cross the Mississippi river. They stay in an Indian village and Mason offends the Indians and they have to flee. They are out on the prairie and acquire a helper named Vongolli. He is half French, half Indian and his name is similar to the helpful Gerhart Von Goll of Gravity's Rainbow.

They encounter an adventurer who has discovered a buried city in Mexico and Vongolli gives Mason and Dixon herbs to keep them from being greatly disturbed by the discovery.

They travel far enough west where the French and English influence is completely non-existent, and they find Spanish, Russian and Chinese influences. They survey straight through towns causing laws to change on one side of the line, setting some slaves free in the process.

They meet with a tribe that worships an object in the sky, which they beg Mason and Dixon to identify. Through their astrological measurements they find it is a new planet, Uranus, which was actually discovered by Herschel in 1781. They are delighted that they have found something that will make them so successful they will never need to work again. They imagine their images being glorified on a medallion fashioned by the famous artist John Singleton Copely. Dixon asks Mason if he prefers being on the head or the tail of the coin.

pages 709-711:

Mason tells Dixon that they should share a portrait on one side of a medallion as a reward for discovering a planet.

The imaginary journey of Mason and Dixon further west continues. They approach the Rocky mountains and find Indians whose languages nobody in their party understands. They continue west in spite of certain fame and fortune if they return east. They are both enjoying the idea of fortune, being King's astronomers and having servants. But they are unable to stop going west. They know it's their only opportunity.

Once they finally turn back east, they run into people who are not happy to see them again. A young married couple argue in their presence. The wife and mother-in-law get into a fight.

In another town a mythical beast is terrorizing the residents, but only on one side of the line.

At times they have to sneak east because the people of a town only want to know that they went west. They find that few people care about the newly discovered planet.

Finally they arrive back to the starting point of the line, the Post Marked West. A delegation of scientists is there to greet them.

pages 712-714:

Mason and Dixon, completing their imaginary return east after their imaginary extension of the line across the country, visit the McCleans and declare their intention of somehow extending the visto across the Atlantic Ocean. As an added bonus it would solve the problem of finding exact longitude at sea.

An island in the Atlantic visto becomes a combination "pleasure-grounds and pensioners' home" and it is here that Mason and Dixon retire in great glory.

Chapter 73 concludes on page 713. This also marks the end of Part Two, "America." Page 714 is blank.

pages 715-717:

Page 715 is the partition title page with an underlined "Three" toward the top of the page, and two words: "Last Transit" in the center of the page. Page 716 is blank. Page 717 begins Chapter 26 with Mason and Dixon back in England, meeting with the Royal Society Council on December 15th, 1768.

The Society is considering the next transit of Venus. Dixon says he is willing to go to the North Cape, which is in Norway or Cherry Island. There are several Cherry Islands in the world. One is off the coast of Delaware, another in Canada and another in the middle of Loch Ness. Mason indicates he does not want to go but is willing if needed.

Dixon wonders if Mason is trying to break off because he is sick of Dixon or because he wants to allow Dixon to be the sole leader of an expedition.

pages 718-720:

Mason and Dixon leave the December meeting at the Royal Society and run into a person asking them why they have not been elected to the Royal Society. They both are thinking about the next transit of Venus.

Mason reflects that in refusing the North Cape assignment he is breaking the symmetry of his working with Dixon. He regrets having to leave his children with his sister while we worked halfway around the world.

He imagines what it would be like if they went to North Cape, where the main industry is the collecting of guano for the purposes of making gunpowder.

After Maskelyne asks, Mason agrees to observe the transit of Venus in Ulster, in the northern part of Ireland. He is able to witness the start of the transit but fog takes away his opportunity to clock the end of the transit. Mason stays in what appears to be a brand new house, in which there are beds in every room, including the kitchen. There are many shadows but Rebekah does not visit him.

Maskelyne writes Mason a letter dated November 9th and mentions Mason's "moral reflections." Wicks' audience wonders what Maskelyne was talking about, but Wicks says that Mason's letters to Maskelyne have never been found. Ives suggests Wicks should make something up, like Baron Munchausen. But Wicks says he prefers to wait until the letters are found.

pages 721-723:

Wicks and Ives drift from discussing Maskelyne and Mason to the relationship of the study of the infinite in mathematics to religion.

vw#137: fluxions - derivatives relative to time.

Mason says that Ulster reminds him of the frontier portions of America. He is talking to Lord Pennycomequick, who is described as a "global-communications nabob."

Mason comes upon a long double row of obelisks forming a visto. Lord Pennycomequick suggests it is ruins of ancient architecture. Armand Allegre suddenly appears and greets Mason.

Mason is pressed into service of rescuing the peat bogs from being flooded. The sod has to be dug up and moved to a safer place. Mason is not happy with this task.

pages 724-726:

Mason has taken to sending books to Maskelyne trying to prove Maskelyne's lack of sanity. The most recent being a book concerning Bernoulli's brachistochrone problem. Here's the Hyperarts explanation: "'brachistochrone' is the curve providing the quickest descent (for an object sliding down the curve) between two given points."

As Mason heads toward the peat bog, he sees lights heading in the opposite direction and his guide tells him not to get their attention, as they are "not particularly helpful."

As Mason is at work digging up the peat that has not yet liquefied, a man comes up and asks Mason if he could use his "London arts" to locate Saint Brendan's well, which supposedly contains the same water that was drunk in the garden of Eden. Mason runs and fetches the knife he got in his dream in Capetown, and rubs water from the lost well on it. He carries it like a dowsing rod and moves around the area. He finds a spot and helps them dig. Soon they find a spring and a group of people taste it, some saying it is the water they seek and some disagreeing.

The next night he dreams of Rebekah who tells him he did not find the actual spring but a representation of it.

As Mason searches the skies for a "new comet," he experiences the sensation that he is seeing the stars in a new third dimension.

The scene shifts to Mason dickering with Maskelyne about which lyrical phrases from mason's report should be left in or taken out to avoid controversy. They agree to take out a part concerning a sign from Heaven to earth of an infant that "must, again, re-make the World."

pages 727-729:

Maskelyne tells Mason that the office of Astronomer Royal has been diminished since Bradley vacated and Maskelyne took over. Maskelyne says he is little more than a drudge.

They continue to argue over the words to be used in Mason's report on his observation of the transit of venus.

Clive of India has purchased his relative Maskelyne an expensive Astronomer's couch for his office. Maskelyne is wearing his favorite observing suit, which he designed himself.

vw#138: celadon - A pale to very pale green.

The suit was produced in India by a Mr Deep and shipped to him by "East Indiaman" which Maskelyne's brother Edmund says is "the third fastest thing on the planet...behind light and sound."

Maskelyne misses his old life as a regular astronomer. Now his time is taken up assessing Harrison's solution to the longitude problem. The room steward in which the watch is kept tells Mason that Maskelyne has been acting like a player in Hamlet. The Hyperarts Mason and Dixon says that Gonzago is the name of the murdered king in the play within a play of Hamlet.

Maskelyne's torture over Harrison's watch begins to attract an audience and they discuss Maskelyne's travail right in his presence until Maskelyne cries out his responses to them in his own defense.

pages 730-732:

Maskelyne continues to muse over destroying Harrison's watch before Harrison is awarded the prize for solving the longitude problem.

Euphrenia mutters disapproval of Maskelyne and Wicks comes to his defense. Wicks says there was a

good reason for every place Maskelyne sent Mason on assignments. First Cavan in Ireland, then Schielhallion in Scotland. Wicks mentions Cavendish, who was a member of the Royal Society and who did measurements of the density of the Earth.

Wicks cites Maskelyne's support of Mason's claim to a portion of the Longitude prize money for his work on lunar tables.

Mason thinks of Maseklyne as a long time co-worker now. He well knows how to get under Maskelyne's skin. He at first refuses his assignment to Scotland, but pretends to let Maskelyne talk him into it. Maskelyne directs him to visit Dixon on his way to his assignment. Here Chapter 74 draws to a close.

pages 733-735:

Chapter 75 begins on page 733 with a letter from Mason to Dixon advising him that he will be passing through his neighborhood on his way to Scotland and would like to visit. He asks directions to an inn where he could spend the night.

Dixon replies that Mason is welcome to stay at Dixon's house. It has been four years since they last saw each other.

When they meet, Dixon is still brooding about the death of his mother earlier that year.

Mason enjoys their visit to Dixon's pub, The Jolly Pitman. They see in the river a carp rumored to be as ancient as the Roman occupation of England. They discuss fishing at some length.

Mason describes his trip back from his observation of the transit of Venus. It was aboard a meat-ship and Mason was forced to spend a great deal of time bumping up against lamb carcasses.

pages 736-738:

Mason continues to tell Dixon of his horrible trip back to England from Ireland aboard a meat-ship.

When they docked at Preston Mason had to disembark in the midst of a food riot with people setting buildings and each other on fire. Mason worried about his father's mill.

Dixon broaches the subject of Mason's melancholia and Mason apologizes for making Dixon put up with it while they worked together. They are both overcome with emotion.

Now Dixon tells his tale, starting with his stay on Hammerfost Island, the northernmost town in Europe. It was there he observed the transit, although the weather was not very cooperative.

A day or two later Dixon was visited by a strange man who said Dixon had to come with him. He said that Dixon's ship back to England wouldn't leave until Dixon returned from his trip to the north. They walked from one ice floe to another until they reached a seemingly endless frozen plain.

pages 739-741:

From his pack, Dixon's mysterious stranger pulls a small sled made out of caribou hide and whalebone. He affixes a device to it that propelled them straight north.

vw#139: Gimbals - a contrivance, consisting of a ring or base on an axis, that permits an object, as a ship's compass, mounted in or on it to tilt freely in any direction, in effect suspending the object so that it will remain horizontal even when its support is tipped.

They were so far north that the sun did not set. They did not make it to the North Pole because before they could reach it the ground curved inward, and they followed it inside the Earth.

Mason stuffs his face with food so as not allow himself to interrupt Dixon's tale.

Dixon said they travelled further until the ice turned to tundra. They met with the people who lived there and found that they could fly. Dixon goes to the

local Academy of Sciences where he asks if this is where the "Gnomes, Elves, smaller folk" come from. They bow and say he is correct. They use Tellurick forces to perform what appears to be magic. Magnetism is only one of the forces they use. Mason expresses interest in this.

Dixon says that they told him that after certain scientific calculations are completed, they will "seek another space" and vanish. He said that they pitied the people who lived on the outer surface of the Earth, because they had to face the great outer darkness and everyone was slightly pointed away from each other, as opposed to the inner surface people who leaned slightly toward each other.

Dixon says that there was not much growing in that country and the wine was not good. Mason asks Dixon if he has switched his drink to wine. Dixon says that he had to because of gout.

pages 742-744:

Mason asks Dixon if his trip inside the Earth negates the concept of hell. Dixon says only that hell is not inside the Earth. Mason asks about the Devil and Dixon says he was examined by somebody who asked him if he was sure that the body is all there is to the man.

Dixon says he was transported back to his observatory in what seemed just minutes and he opened his bible at random and read Job 26:5-7. The three lines are repeated from the King James version verbatim.

Mason prepares to leave and invites Dixon to visit him next summer in Sapperton but Dixon says he must not travel far. So Mason says he will meet Dixon at any time and place he likes. Mason calls Dixon a friend as he leaves.

Chapter 76 begins on page 744. Wicks says that Samuel Johnson, accompanied by Boswell travelled through Scotland in August 1773. He speculates on what might have occurred had Boswell, then 64 years

old, ran into the 45 year old Mason in a Scottish pub. Ives complained that they probably did not pass within a hundred miles of each other. Wicks is not deterred.

Mason informs Johnson that he has been sent by Maskelyne to find a Scottish mountain that fits Maskelyne's specifications. Johnson wonders if Maskelyne has been directed to find a mountain that Clive of India might purchase.

pages 745-747:

Mason tells Samuel Johnson that he didn't think Maskelyne was acting as Clive's land-agent.

Johnson proclaims Mason to be an innocent, and warns him to be careful in his travels through Scotland. Mason agrees that there must be a great deal of resentment against England in Scotland, but Johnson says it is more than resentment, it is hatred.

Boswell tells Mason that Johnson intends to visit the Hebrides to "view the dark ages upon display."

Johnson says that one can transcend time by travelling away from London, and Johnson said that Mason had gone to America, but Mason says he never transcended anything.

Johnson asks Mason about the powers of the Indians. Mason says that he wishes Dixon were there to answer the question. Mason himself said the only mysterious thing he saw were the giant mounds.

Mason tells Boswell that he, Mason, once had his own Boswell in the person of Wicks Cherrycoke. Mason asks Boswell if he ever had his own Boswell, and Boswell reacts defensively, saying that it is a good thing to preserve a little of the civilized conversation that would otherwise disappear without a trace. Here the meeting with Boswell and Johnson ends, but the chapter goes on for another page.

pages 748-750:

Mason finds a mountain for Maskelyne to test out his new equipment but then refuses to return there with the equipment. Maskelyne goes himself, wearing an outrageous outfit he designed himself, and becomes famous for his work there. Mason returns to Sapperton and scrapes by on odd jobs.

Chapter 77, the penultimate chapter, begins on page 749. Another year has gone by and Mason and Dixon meet in the town of Bishop. Dixon has begun to limp and Mason is more than ever deep into melancholy. Mason tells of a recurring dream in which he is in a strange city walking among ruins that resemble Stonehenge.

They fish silently together and stay up nights talking.

On another visit Mason finds Dixon suffering greatly from gout.

pages 751-753:

Dixon has been fortunate to find a good woman in the person of Margaret Bland. She lives with him even though he has not married her. He has two daughters with her. Dixon asks Mason about his boys, who he is sure must be fully grown by now and this reminds Mason to tell Dixon that he has remarried. He had another son with her whom he named Charles Junior. Then Mason's father remarried. Both new wives are named Mary.

Mason has come to dislike his father less over the years. He remarks to Dixon, "Next worst thing to unrequited Love, isn't it? Insufficient hate."

They fall asleep by the fireplace and each dreams of each other. Dixon's takes the form of he and Mason singing a vaudeville type song on a stage.

Dixon hopes to make a little more money and then return to America and look up his acquaintances Washington, Franklin and Captain Shelby.

pages 754-756:

Dixon muses on the abundance of America. Just as he was ready to emigrate in January of 1773, Dixon's mother took ill and died. With the American Revolution brewing and demand for coal ever increasing Dixon stayed with his current method of income, surveying in his home area.

Dixon hears reports of the Shelbys and McCleans joining militias. His dream of returning to America seems to be fading. In a conversation with Mason he tries to figure out why he hasn't emigrated. He thinks he couldn't bear to leave Meg and the two daughters she bore him.

Mason says they should think of their experience in America as part of a military campaign, in which they acquitted themselves honorably. They are having this conversation while unsuccessfully fishing at night for trout in the Wear river near Dixon's home.

A Norfolk Terrier wanders by and Mason is sure it is the Learned English Dog. But Dixon says they saw the LED about sixteen years before and the current dog is only about one year old.

The dog follows them back to Dixon's house and they feed it. The dog stays overnight. The next day it wanders around the town of Bishop and returns to Dixon's house at suppertime. Margaret feeds it and asks Mason and Dixon what they would like to name the dog. Mason says Fang and Dixon says Learned. The dog ignores both names.

pages 757-759:

The dog follows Mason and Dixon to the river every day they go to fish. He never speaks and only barked once, at Lud Oafery, who was splashing around in the river, scaring the fish.

They discuss how they can get the dog to talk. One night, just before he awoke, Mason was dreaming of America and felt a cold nose near his ear. A voice tells him that it is going away but will see him again

next time he and Dixon get together. Dixon awakes and tells Mason he heard the same message.

Chapter 78, the final chapter, begins on page 758. It is now very late in the LeSpark house. Tenebrae is fast asleep, sprawled on a couch. Her twin cousins are falling asleep. Euphrenia says the one thing she can't understand is why Mason returned to America, coming with his entire family.

Wicks believes it was the desire of Rebekah's ghost to remove Mason from Sapperton. Ethelmer says that Mason's belief in ghosts was madness.

Now almost all of Wicks' audience are asleep, except for Mr. LeSpark and Wicks. Pynchon paints a surrealistic scene: "slowly into the room begin to walk the Black servants, the Indian poor, the Irish runaways, the Chinese Sailors, the overflow from the mad hospital, all unchosen Philadelphia." This may be a part of a dream that Lomax awakes from.

Someone speaks lines from a poem concerning the Mason Dixon line and Lomax says he recognizes the voice. It must be Timothy Tox. Wade says Tox is supposed to either be in chains or out on the roads. But Wicks offers Tox a drink and he accepts.

pages 760-762:

Tox recites his Pennsylvaniad in a low voice, wandering around the room, among the "untold others."

Tox says he would like to visit Mason's widow and children. Wicks says that he will go with him, since he knows where they are staying. He says that Mrs. Mason plans to return to England with the younger children, but the two older boys are staying in Philadelphia.

Wicks returns to his story, saying that Franklin came to visit Mason after he arrived in America and took rooms at the George Tavern. Mason is sleeping when he arrives and Franklin smells the odor of death. Mason's wife greets Franklin. She told Franklin that

Mason gave her no reason for going to America, only saying that his whole family had to go over together. She suspects it has to do with the fact that he was never named a member of the Royal Society.

Wicks says that the seven years that Mason survived after Dixon's death were supposedly plagued by illness, but none was ever specified. Mason produced five more sons and a girl with his second wife.

Mason's oldest child William advises the second oldest child Doctor Isaac. Isaac says that Mason's father told Isaac was named Doctor after the doctor that lost Rebekah, but William says he was named after Isaac Newton, who Mason greatly admires.

pages 763-765:

Doctor Isaac demands proof he was named after Isaac Newton and William tells Isaac to ask aunt Hettie.

Mason hears of Dixon's death and resolves to go pay his respects. Doctor Isaac asks to go with him, but Mason's father doesn't want to let him off work. By my calculations, Isaac is 21 years old at this time. Mason offers to pay his father for the time the boy is gone, but the father doesn't believe Mason has the money.

It is cold as Mason and his son journey north. When they stop overnight, Mason tells Isaac stories about Dixon. He tells of the time that Benjamin Franklin, in a Dr. Frankenstein type laboratory complete with an Igor-like assistant named Ingvarr, gives Dixon an intense taste of what electric shock feels like. Franklin says at one point "Fine with me, as Howard says to Howard" and the Hyperarts Mason and Dixon Alpha claims this is a reference to the Three Stooges, but I doubt that. More likely an 18th century expression, but I couldn't find it.

The next morning Isaac asks Mason if he ever did Dixon's horoscope. Mason says he did it but never told Dixon. He thinks Dixon did the same to him. He

tells Isaac that he and Dixon talked about their children to each other and Isaac thinks that they were contemplating match making.

pages 766-768:

Isaac tells Mason that he thought when he finally left Sapperton, he'd be headed to London and Mason says that when he was Isaac's age he couldn't wait to go to London. Isaac asked why he came back, and Mason says it was to be with his family. Isaac asks about Rebekah and Mason promises to tell all about her at some future time.

It begins to snow and they seek shelter at an inn called The Merry Ghosts. They are told it is filled by a private party but Isaac speaks up using a lot of slang and buys a round for the house and they are permitted to stay.

vw#140: quiddles - spends time in trifling employments, or attends to useful subjects in an indifferent or superficial manner; to dawdle.

Isaac thinks they've stumbled across a group of bandits. He has read of them in the Ghastly Fop.

vw#141: Tohu-Vabohu - a transliteration of the Hebrew text of Genesis 1:2, where it says that in the beginning the earth was "without form [tohu] and void [vabohu]." (this is from the Hyperarts Mason and Dixon Alpha).

Since they can't sleep among all the commotion in the pub, Isaac asks Mason about Rebekah.

At Bishop they visit Dixon's unmarked (by Quaker custom) grave. As Mason is filled with thoughts of remorse at leaving Isaac when he was a baby, Isaac thinks that Mason is grieving the loss of Dixon.

Mason returned to work, making money mainly by revising a nautical almanac, which he believed entitled him to a 5,000 pound prize offered by the Board of Longitude.

pages 769-771:

Mason is only offered 750 pounds for his work on the nautical almanac. He turns it down because he feels he is underpaid. His wife is dismayed.

Maskelyne is delighted with Herschel's discovery of Uranus. But Mason looks upon it with the feeling that death is approaching him.

Maskelyne finds he is not on the membership list of Royal Society Council in 1783. While he is most vulnerable, Mason has dinner with Maskelyne and his brother, and launches his attack on Maskelyne for what he believes to be Maskelyne's hatred of Mason over the years. Maskleyne turned his back on Mason and never saw him again. The next year Maskelyne was back on the Council and stayed there for the rest of his life.

vw#142: petroglyph - a drawing or carving on rock, made by a member of a prehistoric people.

Mason dreams of finding himself in an ancient city. Mary looks in on him and sees he is waking up. She allows Benjamin Franklin to come into the room. Mason looks much older to Franklin.

pages 772-773:

Franklin tells Mason that he hopes Mason will soon be on his feet. Mason rattles on about old battles that his mentor Bradley fought, and Franklin attempts to show interest. Mason says that he has found messages in the stars of great importance to Franklin's America.

Mary looks in on Mason and tells him he's "safe."

After Mason's death Mary returns to England with the younger children. William and Doctor Isaac stay and become Americans. They enlist the aid of the Commissioners of the line in burying Mason.

The book closes with Isaac and William speaking to Mason (perhaps at Mason's grave?). They are glad to finally get to America and hope to go fishing with the Indians, perhaps living amongst them.