

Rosapotheosis

*or, the Owl who ate Coyote
which consumed the Fish who
dined on Dragonfly transformed by Autumn*

An Interactive Opera by Mike Roy Design Document

January 23, 2000

- I. Synopsis
- II. Story setting and background
- III. Location Descriptions (the storyworld environment)
- IV. Narrative—description of user interaction
- V. Production
- VI. A Note on History and Theory—Entertainment Environments and Interactive Systems

I. Synopsis

Rosapotheosis, or the Owl who ate Coyote which consumed the Fish who dined on Dragonfly transformed by Autumn is an interactive story based on the Classical Greek Persephone myth set at the closing of the frontier era of the American West. The story takes place in Cerialis, Colorado, a prosperous mining town nestled in the woods above the great basin and range country of cattle ranches on the east slopes of the Rockies in 1899.

Using computer hardware and software specially designed and constructed for this project, the user explores the story of the abduction of Rose Serissima, a hitherto unmagical but very beautiful 16 year-old girl from Cerialis, her life in the spirit underworld and eventual conditional return to the world of the living. The user traverses the story in a sequence of non-human avatars. The story is told in five acts, and there are five levels of avatars (corresponding to the traditional five act structure of Aristotelian narrative). Each avatar provides the user with a very different visual, emotional and kinesthetic experience.

The avatars are real-world creatures with mythological “sponsors” who act as narrators and guides for the avatar/user. As the user progresses through



the avatars—Dragonfly, Fish, Coyote, Owl and Poplarspirit—Rose Serissima’s story is revealed. The project knits together elements and traditions from Theatre, Film, “tales told around the campfire”, Fine Art and Interactive Media (such as computer-based game-playing). The goal of the project is to create an unique emotional connection and relationship between the user (or *interactor*) and the storyworld. To create this intimate relationship the project will be built around a specific physical environment designed to enhance and develop that emotional connection.

Physical Environment—Platform Description.

The interactor will find a small room—a cozy reading nook—containing a comfortable wing-back chair, footstool and side table. This room will be designed and built to look and feel like a turn-of-the-century reading room in a comfortable Western home: a yellow pine floor with a Navajo rug, wall paper and carmel-colored leather upholstery over the mahogany-frame chair and footstool. A soft light falls from wall-mounted glass lamps. Entering the room and sitting in the chair, the interactor finds a lap-sized LCD screen—a booklike object—with easy to hold edges and a contoured back. A leather-wrapped cable runs away from the screen to a brass fitting in the wall. Tiny stereo speakers are concealed in the “wings” of the chair. Turn-of-the-century popular music starts to play as soon as the interactor is seated.

As soon as the user places the LCD screen in their lap the opening screen of *Rosapothosis* appears. The LCD screen is touch-sensitive, and eliminates the need for keyboard, mouse or joystick. The opening screen is a graceful tour of an elaborate Victorian clock which depicts not just time, but the positions of the sun, moon and first-known planets. Users who have already participated in the story will be provided with a shortcut to re-enter the story where they left it, and can go immediately to their story-in-progress.

First time users, however, will get a sense of the mechanics of the interface that controls *Rosapothosis*—touching the screen directly manipulates the images and objects depicted. This physical interaction is designed to be *emotionally* haptic—that is, it should begin to feel to the user that they are directly “pushing around” the image and the characters as an expression of their desire to interact with the piece.

It is an important goal of the project to make the computer apparatus as invisible as possible, collapsing the interface boundary between the user and

the machine in order to enable the user to engage fully with the storyworld on the level of emotional immediacy associated with a book or movie.

The body of the LCD panel is unobtrusive and familiar—it feels like a warm book. For the first time user, the camera gliding around the fanciful clock allows a subtle tutorial; the user will get a sense of how the touch-screen responds and how the touch directs the action. A title sequence with some story exposition is contained within this clock exploration sequence and the sequence ends with the user selecting a time of day to start the story. The start date is fixed at October 31, 1899, All Saint's Day.

Rosapothosis consists of actions taking place in three locales: the streets and alleys of Cerialis, Colorado, a grove of poplar trees in the forest above the town and a secret cavity in the *Aldergrove Mine*, the local engine of commerce.

Cerialis is surrounded by foothills and both farms and timberland are nearby. The Aldergrove Mine is enormously successful and there is frequent train traffic to the town. The Ruby river, which runs right through town, has been partially dammed and a network of flumes in the hills and small canyons around Cerialis provides pressurized water for mining operations. At the bottom of the broad canyon below Cerialis the Great Plains stretch all the way to Illinois.

The interactor is guided through the story through exploration of the simulated physical environment using first-person avatars, who provide narrative voices as well as “eyes and ears” for the user. As the story progresses the user is able to interact with the environment and can alter the flow of events. The user's avatar itself will only be visible to the interactor for specific narrative reasons—the user will discover the nature of the avatars as they explore the world.

Artwork.

The heart of the project is the graphic depiction of the storyworld. The style, character and quality of the artwork is central to the storytelling. Each avatar is a particular creature with specific physical traits and abilities—the visual style of the narrative is bound up with these attributes and shifts dramatically as the interactor changes avatars and spends time exploring the storyworld.

The project will be executed with ‘NPR’ (Non-photorealistic rendering) technologies, an emerging set of approaches to creating computer graphics not based on traditional computer-based quasi-photographic rendering.

The rendering styles to be used in *Rosapothosis* will be drawn from the following traditions:

- Act I.** A blend of Japanese woodblock print and Monet’s late Giverny painting style;
- Act II.** Watercolor;
- Act III.** Pre-Raphaelite (highly colored and ornamented realism, with dramatic nighttime lighting effects);
- Act IV.** Heroic oil painting (after Tiepolo and American early 20th Century landscape artists such as Maynard Dixon and Thomas Hart Benton); and
- Act V.** Fauvism (after Matisse’s late style and its continuation by artists such as Hockney and Thiebaud).

The particular qualities of what and how the avatar sees, how the avatar moves in the world and the user’s connection to the avatar through the touch screen is the basis for the emotional connection between the user and the storyworld. The five avatars are described in greater detail in Section IV. below, “Narrative—Description of User Interaction”.

Avatars and Transformation.

The interactor’s migration from one avatar to the next is an orchestrated sequence—a transformation—that underscores the interactor’s position in the story and the progress of the narrative. These shifts correspond to the rising action of the story.

These character transformations will be executed as “classical cinema” montage sequences, and will convey a number of narrative and psychological meanings. The transformation from one avatar to another reflects the progress that the interactor is making in moving through the story and the heightened

tension in the story as well as the consequences of decisions made by the interactor (and the characters in the story) as the narrative progresses.

The transformation montages quickly and unobtrusively convey narrative exposition and establish mood and tone; they also provide a visual and musical coda to the sequence that has just ended and propel the interactor into the character of the new avatar and next set of story events. Each avatar gives the user a new way to experience and explore the storyworld.

The avatars become progressively more omniscient as the user moves through *Rosapothosis*, enabling the interactor to take in more of the storyworld as they spend more time in the environment. Each avatar has its own mythological narrator, giving avatars specific emotional character, physical qualities and connotations with mythical archetypes.

The avatars are:

- Act I.** Iaxai. Iaxai inhabits the body of Dragonfly. He is a musical demi-god, and the finest of poets. He is very handsome; once a human, he was given magical powers when he traveled to the spirit underworld attempting to bring back his wife who died too young. He did not succeed in restoring his wife to the world of the living, and he's been melancholy ever since. Nonetheless, he obtained magical and creative powers from the journey. He likes inhabiting Dragonfly—he can make all the music he likes and no one bothers him.
- Act II.** Barbaverde. Barbaverde inhabits the body of Fish. He is one of the three primary world gods, with powers over all of the creatures of the seas and the rivers, and the ability to transform himself into a horse and live on the land. His is generally ill-tempered and convinced his brothers are having a better time as gods of the earth and the sky than he is, spending all his time in the water.
- Act III.** Dextar. Dextar inhabits the body of Coyote and is a mischief maker without peer. He is ill-kempt and proud of it. He drinks too much and encourages others to do so as well. He has made himself into a clown, in part to ensure that if anyone is laughing, it is *with* not, not *at* him.

- Act IV.** Tyyna. Tyyna inhabits the body of Owl. She is the most rational of goddesses, and the daughter of the sky-god. She encourages prudence and caution, but is ferocious if combat is required.
- Act V.** Poplarspirit. Poplarspirit is mother earth herself, appearing in unlikely places where life can spring from the earth. She is especially fond of ancient trees, but she likes the Poplars because of the sweet water they drink. She is so old she seldom participates in the machinations of the other gods, especially her quarrelsome sons, Skygod, Barbaverde and Qan.

Music and Sound.

I have called this project an Opera, not because the characters will spend all of their time singing, but to convey the sense of a ritualized theatrical experience filled with music. The music and sound design will advance every aspect of the story and will engage and direct the interactor's emotional state for any given point in the narrative. The music will draw from period sources—folk songs, the music hall repertoire, traditional Indian songs and chants, saloon, parlor and church music.

The score will unfold from the interactor's traversal through the story, not necessarily from specific predetermined relationships—so that rather than simply “playing music piece ‘B’ for scene 2”, *Rosapothoosis* will track where the user has been and tailor the music and sound to the user's activities.

The score and the greater sound environment for any given moment in the story will be determined by a number of variables: the amount of time the interactor has been in the piece, the specific location in the storyworld, and the history of recent selections that brought the interactor to a given location. This type of auditory interaction between the computer system and the user will become especially important as the user becomes more involved in altering the flow of events in the narrative.

II. Story setting and background

When the user enters the world of *Rosapothoeisis* it is All Saint's day, October 30, 1899 and fin-de-siecle anxiety permeates the community of Cerialis. The location, era and tone of the story will be quickly established in the title sequence and opening montage.

The physical environment of the "reading room" will start the process of situating and positioning the interactor in a distant world. As described above, the user first sees the storyworld from the location of the clocktower in the middle of Cerialis. The user gets acquainted with the computer interface by manipulating the clock and selecting a time of day to start their exploration of the story. Selecting a time of day has the immediate and satisfying result of seeing the environment change to match the time selected by the user.

The actual narrative experienced by the interactor will be different for each user, and for each occasion the user traverses the story. The dramatic conflict, the basis for the story, however, is the events surrounding the abduction of **Rose Serissima**, and the actions and responses of the people around her.

Rose has been missing for quite some time—over a month—and her disappearance has become a flashpoint for accusations and conflicts over a number of irritants in the town. A whispering campaign is underway to lynch **Black Duck**, a local Indian leader, who seems to spend a lot of time away from the isolation of the nearby reservation.

Maynard Thatcher, a young beermaker not much liked in town (he is the quintessential dude; formal and shrill, with too much education and not enough experience) is smitten with Rose and determined to find out what happened to her.

Maynard left his farming family in Tennessee and came to Colorado seeking his fortune as a miner, but he soon discovered that he hated the cramped tunnels and passages of the mine. Working in the assay office was too repetitive and dull. He turned to his family's trade, brewing, and he loves the feel and smells of the enterprise—the wooden barrels, the bags of hops, malt and grain, the workbench of pipes and valves and the tiny hiss of yeast in the mash. He misses his dotting mother and even his older brothers who alternately indulged him and picked on him.

Maynard's clumsy rescue efforts bring him into immediate conflict with Rose's mother **Sarah Serissima** who is desperate to find her only daughter and considers Maynard both unequal to the task and unworthy of her daughter.

Cerialis was a market and supply town for local farms but has developed quickly in the twelve years since **Gilbert Pasco** arrived from Brazil and started the enormously profitable **Aldergrove Mine**. Gilbert's family operated a hugely successful copper mine in Brazil, and he came north to make his own fortune. The Aldergrove now snakes through the hills around Cerialis and produces lead, gold, silver and mercury ores.

The Pasco family dominates the social elite of Cerialis, although Gilbert himself is rarely seen. He built a fine home for his large family, but generally lives in a private suite at the **Olympic Rockies Hotel**, and spends days or weeks in the suite without emerging. Gilbert owns the Hotel, which is Cerialis' largest structure, and the second to be electrified, after the Aldergrove mine complex. Gilbert is fascinated with electricity and is something of an inventor. He is at work on an electric listening device, so that he can hear distant sounds.

Gilbert's sons **Cornell** and **Teal** run the mine operations and spend the rest of their energy trying to outdo each other in bravado and conspicuous consumption. Teal is outgoing and a bit reckless; he prides himself on being a dealmaker. Cornell is precise and manages mining and engineering operations. Each in their own way is terrified of Gilbert. Their mother, **Maria Pasco**, a tiny dark woman with delicate features, seems to live in a world of her own. When she wants to, however, she can light up a crowded room with her charm.

Late in the afternoon of September twenty third, Cornell Pasco finds Rose sleeping in a rolling meadow near an abandoned mine entrance. He is riding his best horse, and is supposed to be looking for flowers and foliage to help his mother make medicinal tea, but he is impatient with the task and instead is idly pursuing birds with his shotgun.

He has not paid attention to Rose before, but as he rides by her he is intrigued. He quietly dismounts and silently goes to take a closer look. She has recently turned sixteen. He's surprised by how beautiful she is. His imagination runs wild over her pure pale skin. Her long honey colored hair curls coyly around her neck. She is barefoot. He has never seen such delicate feet and legs.

Thinking about how he's seen his father with the fancy ladies in the private rooms of the hotel, Cornell bends down to feel her soft skin. She barely stirs. He feels a wild surge of energy and without further thought he scoops her up. He thinks he will protect her, make her his own.

She seems nearly weightless to Cornell as he carries her to the shack that protects the abandoned mine shaft. Rose finally wakes as they pass through the door into the cool damp air of the mine. In the last light before the door swings shut she recognizes Cornell, even with his horse blanket pulled over his head. He looks a little ridiculous, and beyond him she can see his horse grazing peacefully in the meadow. Finally, she starts to scream but before she can find her breath Rose feels herself falling into the earth itself.

In addition to the hotel, Cerialis has a large factory, **Colorado Rope & Cable** which supplies the mine as well as local ranches with all sorts of necessary but unglamorous cable, rope and wire. The factory is owned by **Herman Barclay**, the patriarch of Cerialis' resentful second family.

Centered around the Hotel is a changing mixture of questionable horse-traders, drummers, ore buyers from San Francisco and "back east", gamblers, whores, preachers, remittance men, the occasional union organizer, the entire cast of **Stagecoach** and the sort of ne'er-do-wells who gravitate to boom towns.

Sarah Serissima owns a bakery and is regarded as strange by people in the town, but everyone lines up to buy her bread, which is unquestionably the best around. Sarah spends a great deal of time reading and writing letters. Her correspondence pours into Cerialis from the four corners of the earth. She sometimes sends and receives enigmatic telegraph messages. She has formidable magical abilities, which she generally keeps well concealed.

When asked about the letters and messages Sarah says that she likes to write to her mother "in the old country" every day. This is nonsense, since her mother **Rebecca** lives by herself in a little shack deep in the woods just over the hill from Cerialis. Rebecca, like Sarah, has decidedly strong magical abilities, but since she doesn't spend much time with other people these are not well known.

Sarah and her daughter Rose live above the bakery. They moved to Cerialis when Rose was very young and Sarah has never mentioned Rose's

father to anyone. Sarah is graceful and intimidating; its impossible to tell how old she is. She is by turns as giddy as a girl, as cranky as a duchess and the most placid of old ladies. Not much escapes her notice, and she keeps a watchful eye on her dreamy daughter.

Before dawn, after she's helped her mother punch down the dough from the night before, Rose likes to walk along the Ruby River at the edge of town. This is where Maynard Thatcher has seen her, looking like a faerie specter in the river mist.

A large unskilled labor pool lives in tents, shanties or, if they're lucky, boarding houses sprinkled around Cerialis, providing the manpower for the mine. There are some Scots and Welshmen and many Swedes, Chinese and Mexicans who live in virtual servitude to the mine operators.

At least one of the Mexican families are descended from Spanish Jews who prudently converted to Christianity in the era of Torquemada. **Alberto Salazar** doesn't know exactly what the special knowledge his father taught him means, but he knows it to be secret and sacred, and he is careful to stay away from the mine on Friday nights.

In the steep mountains above Cerialis is a Cherokee reservation. The Cherokees haven't been in the Rockies for very long, they were pushed west along with the American migration. The Cherokees remember the humiliating defeats of the last sixty years all too well and want nothing to do with the white people in Cerialis. But Black Duck, an aspiring tribal leader has taken up the cause of **Tenskwatawa**, a Pan-Indian leader who was martyred in 1813, and in the process has drawn some unwelcome attention to himself.

Black Duck has watched the rise of the ghost dance among the Indians with skeptical interest. He doesn't believe in the promise of the ghost dance, but he is convinced that a grove of poplar trees just outside the fenced boundary of the reservation is sacred to the spirit of Tenskwatawa, and may contain his grave. Black Duck has been quietly trying to purchase this land and revive the spirit of Tenskwatawa's call for Indian unity and independence.

Jasper Whitman owns *Oliver's Mercantile Store*, the town's general store and gathering place. Jasper is one-quarter Cherokee, a fact he has managed to conceal from the people of Cerialis. He has been quietly trying to help Black Duck buy the grove of poplar trees without revealing his ancestry.

Henry Flaherty is a former lawman, who publishes a Cerialis newspaper “when he feels up to it”, and is a regular crank on the subject of “Free Silver”, a burning economic issue of the day. Followers of the Free Silver movement believe that the financial hard times that have persisted since the 1880s will give way to prosperity if silver is allowed to be traded independently of the price of gold.

The Free Silver movement has support across an unlikely constituency—it is supported by the union organizers who rattle around the shanty town at the edge of Cerialis, and also by some of the wealth ranchers like **Deckland Smith**. Deckland styles himself a cowboy, but he lives more like a feudal baron, in a huge house on the prairie below Cerialis.

Henry Flaherty likes to hear himself talk, and is quick to remind people that Rose has disappeared before, although never for so long. Last year around this time Maynard found her late one evening walking along the path that leads to the Cherokee reservation. She had been gone about a week. She couldn't explain where she'd been, and would only say that “she was gathering flowers”.

Autumn has come especially hard this year and as the days grow shorter and colder bitter accusations swirl around the missing girl. Sarah would prefer to keep the matter quiet and look for Rose herself, but popular opinion says that something must be done. People whisper about strange events in the mine and on the reservation. Sarah wanders the streets at night and only rarely opens the bakery.

Today is All Hallows eve, and the children prepare to celebrate. Maynard has produced a special batch of autumn ale and carefully hand-letters advertising signs to put in the saloons. Mothers gather the largest turnips from their gardens and help the children carve them into small hand-held lanterns with spooky faces. When the adults gather to buy candles at Oliver's Mercantile Store there is ugly talk of finding and hanging Black Duck.

Every day Sarah combs the woods hoping to find Rose. Deep in the forest high above the town she has found a grove of Poplar trees with a tiny spring where she likes to stop and have some water for herself and her horse. She has spent many hours here and feels at home in the grove. Lately she has felt another person in the grove, but she has not quite seen anyone. She means to ask her mother about it, but Rebecca has gone off on one of her walking trips and there's no telling when she'll return.. Last week Sarah

stopped at the grove and called for Rose and began to sing the lullaby she cooed to her daughter when she was a baby. It felt as if the woods were singing with her.

She has come back to the grove to see if the spirit that seemed to sing with her will tell her anything about what happened to Rose. Today, however, there is a surprise. An ugly new path has been sloppily cut into the grove and a bunch of men who look like cowboys, not woodsmen, are working at clearing the grove. She feels personally attacked, but holds back, watching to see who is in charge of the destruction.

Sitting in a wagon in fancy clothes is Deckland Smith. He's having the cowboys find and mark matching trees so he can build a gigantic fancy new parlor for his house.

Sarah nudges her horse into some brush where she won't be seen and considers what to do. The men are noisy and preoccupied, so its unlikely she'll be noticed right away. While she is wondering if she should stop them or if they know something about Rose, she notices a rustling in the woods next to her. Where there were only leaves and trees, now Black Duck is standing next to her. He's humming her lullaby from last week.

Black Duck tells her that if she will help him stop the tree cutting he will help her find Rose. Sarah ponders this. Black Duck must know things about the woods she does not. But is he mocking her with the song, and should she trust him?

Having cleared some of the shrubs and brush the cowboys start swinging their axes, and seeing the Poplar trees cut Sarah is enraged, as if she's taking the blows herself.

She bolts her horse out of her hiding spot and reaches the cowboys in a few bounds. She looks witchy on her black horse with a black cloak trailing behind her. The men drop their tools, they are so started and frightened. "She's a witch" one mutters, and "...an Indian" says another. Deckland is not so impressed. The men have all stopped working and he's annoyed. He recognizes Sarah as the crazy lady who makes the bread his wife likes.

She stops in front of Deckland and annoys him by speaking so quietly and gently that he can barely hear her. She stares up at him expecting an answer, but he didn't hear a word and his ranch hands are

starting to look cowardly. Deckland spits out the tobacco he was chewing. He leans forward and says to Sarah with mock politesse "Pardon me, ma'am, would you say that again?"

"These trees do not belong to you. You must stop cutting them down," Sarah says. "And who do they belong to?" replies Deckland. "They belong to no one, but they are special to me."

Deckland bursts out laughing, and taking his cue, the nervous cowboys do as well. "Well boys, these are special trees" taunts Deckland to his workers. "Perhaps the Lady would like to join me in selecting the first tree to be cut?" A bit too late Sarah notices that the cowboys have started to close ranks around her. They have formed a loose circle and are moving towards her, having realized that they outnumber her, even if she is a witch.

III. Location Descriptions

Rosapothosis takes place in three principal environments. The environments will be constructed as 3-dimensional computer models, and the interactor will be able to explore the nooks and crannies of these virtual worlds in real time. Setting and environment are part of the mythology of the American West, and function like supporting characters in the drama. The depiction and visual style of the settings will change according to which avatar is guiding the interactor, but their apparent reality anchors the project and forms the basis for the user's entry into the story.

Sacred Grove

On a gently falling bench in the mountains above Cerialis is the grove of poplar trees that are sacred to several characters in the story. The trees form a rough circle around a clearing. Ruby Creek, the main tributary to the river, meanders across the northwest edge of the circle. The course of the creek is blocked by a rock outcropping that creates a clear still pond just inside the boundary of the grove.

To the south of the grove the hills start to fall away steeply to the valley where Cerialis spreads along the river. The forest is especially dense outside the grove of poplars, with fir, hemlock, aspen and pine trees covering the terrain. The grove itself is about two hundred feet across and the tallest poplars have reached heights of over one hundred fifty feet.

From the treetops there is a commanding view of Cerialis, but the grove is set too far back from the shoulder of the mountain to see much of the valley from the ground under the trees. In fact, once inside the grove, one is almost totally enclosed, as if in the nave of a circular cathedral.

In the forest understory are dense shrubs—manzanita, bear's breath, small dogwoods and the inescapable ceanothus. In the spring lilac, columbine and iris all appear in sunny spots. The forest floor is covered with a rich carpet of needles, leaves and short grasses which support vast colonies of beetles.

The air is cool and crisp here—it is almost 7,000 feet above sea level. When the mine is especially active smoke drifts up the valley and turns the autumn sky a delicate hazy gold. The poplars themselves are ghostly, with smooth pale bark and expressive limbs thinly distributed in tidy spirals around the trunk. The fat, heart shaped leaves cast the most graceful of shadows, and in the autumn seed pods appear which open to fill the air with silky threads.

Following the little creek upstream the fertile soil begins to disappear and the treeline is quickly reached. The Ruby disappears underground in an impressive granite fold less than five kilometers northwest of the grove. Downstream the creek joins other small streams which quickly tumble down the slope to form the main fork of the Ruby river as it heads toward Cerialis.

Not far to the east of the grove is a large meadow, part of the same bench that sits under the grove. The Aldergrove mine runs up and down the hills here and the meadows and surrounding hills are dotted with abandoned mine entrances and equipment shacks.

Cerialis

The center of Cerialis is dominated by the Olympic Rockies Hotel, a Victorian manifestation of the Aldergrove Mine's good fortune. Gilbert Pasco, the mine's owner, is fascinated with electric light and has installed rare and expensive light bulbs along the perimeter of the roofs and porches. The hotel is crowned by a clock tower, an elaborate device that not only displays the time, but also the phases of the moon, the day and date, and the locations of Mars, Venus and Jupiter. This is the clock that the first-time user manipulates when entering the storyworld for the first time.

Except for the hotel, the main street is an otherwise unpretentious place, with a few old stone-faced buildings, a brick courthouse and lush park.

The town looks much the same as other American towns of five or six thousand souls at the turn of the century, although it projects a strong Western flavor. There are not yet many overhead wires, just enough to bring telegraph service to the hotel, and gas street lights burn only along Main Street.

The broad valley created by the Ruby River runs north-south, so the setting sun quickly disappears behind the hills on the west. The houses of Cerialis' wealthier citizens (there aren't that many) are clustered around the park and give way to progressively smaller wood frame cottages and bungalows as distance increases from the town center.

Uphill from the town center is the shanty town that houses the poorest mine workers. The town has extended to both sides of the river, so there are a number of bridges crossing the Ruby. The busiest bridge crosses from the center of town to the Colorado Rope & Cable factory.

Downstream from Cerialis the river turns sharply west, creating a bulge in the land. The mine headquarters is built into this rocky outcropping, which also holds the train station. Much to the relief of the finer housewives of Cerialis, you can't see the mine from the middle of town, although it's a great nuisance that the rail station is so far away.

Below the mine buildings and their vast piles of tailings, far to the east of town, the mountains quickly give way to gently rolling hills covered with tall grass. Most of this land is already fenced and jealously guarded by the cattle barons who live on the plains below town.

Not many years earlier these plains were tall grass prairie and were mostly empty, so large that even the great buffalo herds were hard to find. Now they are filling up with railroads, plowed fields of corn and telegraph wires.

Tarosso

Tarosso is Cornell Pasco's name for the section of the mine where he's taken Rose, and where he has created his own little fiefdom. He chanced upon the natural cavity when directing the cutting of a new tunnel in search of a useless vein of lead. The tunnel led to an immense cavern with a nearly flat floor. The cavern is dimly lit by an unseen source, or by torches, if decent

illumination is needed. Bats flutter through the higher parts of the cavern and occasionally wander close to the triangular shaped floor.

The cavern is so large it houses a tiny village complete with peasants, fields and orchards. Ruby creek drifts into the cave from an even deeper unseen source, makes a winding path across the floor and makes a curious exit through a deep fold of rock near Cornell's tunnel (the only exit to the rest of the mine). In the creek's floodplain are crabbed-looking fruit trees arranged in neat rows.

There is a sullen stone building which houses Cornell Pasco's apartments. A hastily added wood structure and terrace is where Rose is held. Since there's nowhere to go and no mortal way out, no bars are necessary. Next to Cornell's "palace" (as his workers snidely call it) is a small carriage house sheltering his horses and his beautifully maintained black coach.

Here is the strange way Ruby Creek exits Tarosso: the water creeps and flows into the air above its banks, as if it can't wait to escape the area. It starts gradually, but by the time the creek reaches the granite boulders that separate Tarosso from the world above ground, the surface of the stream climbs two meters above the floor of the cavern.

Cornell has constructed another tunnel through the thick wall of the Ruby's water to allow passage from Tarosso to the ordinary mine area. Cornell has installed an angry old man and his dog to keep watch of this waterproof tunnel, keeping the workers inside Tarosso and the curious out. A few incautious workers have bribed the watchman for a peek inside the mysterious cavern with its wall of rushing water. Cornell then makes sure that they don't leave again.

Past the entrance of Tarosso the Ruby fans out into an irregular pool overhung with dense, multi-trunked black-leafed alder trees. The air here smells of salt and rot. There don't seem to be any other trees like the alders anywhere around the mine or Cerialis, and Cornell wonders if his father knows of the trees, or if the old man simply named the mine after his own fancy.

A series of seat-high stones are set in the ground around this pool, and workers gather here to initiate new arrivals. Only Cornell comes and goes from Tarosso as he pleases. Once workers arrive here they never leave, but sleep in the meadows under the twisted fruit trees.

IV. Narrative—experiencing *Rosapotheosis*

After getting settled into the room environment and getting comfortable with the touch screen the first-time user sees an opening montage which becomes an interactive sequence inviting the user to select the time of day in the storyworld. Once the user selects the time of day the opening sequence concludes with brief opening titles.

At the end of the title sequence the user is positioned as a Dragonfly hovering around the pond at the sacred grove (although the identity of the avatar isn't explicit). The narrative description below is a brief synopsis of the conflict, method and mood of the interactive arc of the story. The details of the story will depend on the interactor's traversal through the storyworld, but will be drawn from the character descriptions and story elements described above in Section II (pages 7 – 13).

Dragonfly.

The touch-screen controls give the user control of flight with Dragonfly characteristics—hovering is allowed, but not too much altitude. A gust of wind can redirect flight. The timescale is severely altered for Dragonfly—what would take 3 minutes in “real world” time takes about 30 minutes in Dragonfly time. So the group of people in the grove appear more like a tableau than people in the middle of a bitter argument, which is the case.

As Dragonfly explores the world, music and sound effect cues give emotional descriptions of the objects and characters in the grove—which at this moment is Sarah confronting Deckland Smith, the rancher intent on cutting down the sacred grove of poplar trees. Dragonfly's vision is extremely Panoramic, and since Dragonfly tends to stay close to the ground, people, animals and foliage loom large in the field of view.

Dragonfly's mentor is Iaxai, a demi-god who loves music more than anything, but has little to communicate verbally. Instead, musical themes for each of the characters in the scene are introduced as Dragonfly approaches them. Sarah's theme is especially important, because we will eventually hear it in three variations—her own plus the “young” variation (for her daughter Rose) and the “old” variation (for her mother Rebecca).

If the user hovers in one place for too long (say 15 seconds) Dragonfly starts moving automatically. If Dragonfly stays away from the pond and waterfall for too long an “automatic” flight sequence returns him closer to the water.

The characters in the sacred grove move exceptionally slowly, but they aren't static. Depending on how long Dragonfly explores the world more of their actions are revealed. The opening part of this scene can be found on pages 12 and 13 above.

Exploring the environment around the water is especially beautiful for Dragonfly—the world looks like a Monet painting or Japanese woodblock scene. Since physical objects appear to move very slowly, water pouring and splashing looks like a delicate ballet or abstract avalanche.

The Dragonfly sequence (or first act) of the drama establishes some of the conflict and introduces the user to the beauty of the storyworld and the importance of music in telling the story.

Once Dragonfly has explored enough of the water to have seen his own reflection, he is now ready to be caught by Fish and become Fish food. After a random time delay of 10 to 100 seconds Dragonfly will get eaten by Fish and...

TRANSFORMATION

the user's avatar changes to Fish.

Fish.

Having been eaten by Fish, the user now sees the world through Fish's eyes—Fish becomes the user's avatar. Fish can only locomote through the water, but can explore throughout the length and breadth of the Ruby River. Fish has better motor control than Dragonfly, and can occasionally jump out of the water and see through the water plane, but can't stay above the water long or jump too often. Fish can get caught in currents and be "forced" to head in a particular direction.

Fish sees the underwater world as a delicate watercolor painting, but through the water membrane the world has a shimmering fragmented quality, like a mosaic. Water itself is mostly invisible to Fish—it only appears where water intersects air (when the surface of the stream or pond is visible, or as bubbles in the water).

Timescale for Fish is altered, although not as drastically as for Dragonfly, but at something like at a 5:1 ratio (in contrast to Dragonfly's 10:1 time ratio). Like Dragonfly, Fish can explore the world, but not do much to

influence it, and like Dragonfly, Fish hears themes and sound effects that establish character, tone and mood.

The section of Ruby creek where Fish caught Dragonfly runs all the way down to the town of Cerialis, but right now Fish will explore the underground cavern upstream. If the user doesn't do this of his own accord, Fish will do it anyway, although the user will retain some "local control" of the specifics of the route. As the river moves upstream it disappears underground into the vast chamber of Tarosso.

The river enters Tarosso high in the air, giving Fish a fine view of another tableau-like scene: Rose Serissima wandering the groves and orchards within the mine chamber where she's being held by Cornell Pasco and his helpers. The angry old man and his dog hover near the above-ground river and allow no one to pass between Tarosso and the mine itself, unless they pay to enter. As Fish nears these characters their musical themes are heard.

As Fish enters Tarosso he is joined by his helper/narrator, Barbaverde, who is not seen but is definitely heard. Barbaverde can and will give advice to Fish. He can also give Fish some magical powers, but they're always in the service of Barbaverde's own appetite. Barbaverde has been trying to seduce Sarah again, ever since the time some weeks ago when he turned himself into a horse while she happened to be inhabiting the body of a mare. Barbaverde would like to have Fish help him with this and other important tasks.

While he's going on about Sarah, Barbaverde manages to explain to Fish some of what's been going on in the story—it's a chance to catch up on a little backstory and glean some exposition. Barbaverde is a willing, even loquacious, narrator but the user only gets his version of events, and then only the parts that are of interest to Barbaverde.

The user will have learned who most of *Rosapothoeisis'* dramatis personae are by the time Fish has explored the characters in the mine. After Barbaverde has introduced the characters in Tarosso to the interactor, Fish will get caught in a strong current of the Ruby river and be returned to the surface of the earth. Fish can pause at the sacred grove or keep going downstream towards the town of Cerialis.

The characters who were in the sacred grove are now gone, although Sarah or Black Duck may still be there. After a fairly small time interval (1 or 2 minutes) Fish will "automatically" head downstream towards the town. Although the creek widens, slowing its waterspeed, more streams and

tributaries join it, so that both the volume of water and its speed increases, giving Fish a bumpy ride. There are a few mine flume diversions along the banks. Stopping near any of these Fish will get eaten by Coyote, who's always hungry and...

TRANSFORMATION

the user's avatar changes to Coyote.

Coyote.

After Coyote eats Fish, the user is now positioned in the Coyote avatar. Coyote takes a good long drink of water and gets a look at his own reflection. Coyote is a little vain.

Coyote navigates the environment as Fish and Dragonfly have done. Coyote's range of motion is less fluid than Fish or Dragonfly—he usually trots along the ground, although unlike the previous avatars, he can remain motionless for as long as he wants. Coyote works pretty much in “real time”—there is neither a lot of time compression or expansion, and so (for the first time in the piece) it's easy for the user to overhear conversations. Visually, Coyote's world is realistic—more or less “photographic”, although he has far better night vision than either film or people. No matter what time of day it's been up to now, Coyote is only awake from dusk to dawn, and the time of day will be within those parameters.

Coyote's range of travel is limited to the places where an ordinary Coyote can go, so he stays low to the ground, unless there's something for him to climb up on. Coyote isn't invisible, although he's good at staying hidden. If Coyote makes too much noise or just gets too close to the action he can be seen by a person or a dog and get chased away. If he gets chased into an open area he can be attacked by people or just picked off by a predator.

Coyote introduces a new level of interaction—he can effect events in the storyworld, not just observe them (although he may be better off if he remains subdued). Coyote's narrator is Dextar, who is always on the lookout for a good time, music and wine but especially mischief.

Coyote sticks to the back ways and alleys of the town. He has acute hearing and is good at seeing into windows without beings seen. Dextar is a far more active narrator than either Barbaverde or Iaxai and frequently urges the interactor to make mischief. Coyote helps the process by providing the

user with ample opportunity to interact with many of the beings and objects in Cerialis—he would like nothing better than to hide things, put things in places they don't belong, let people out of jail, spook the horses so people can't get where they're going—nothing that irrevocably changes the outcome of the narrative, but actions that create confusion and disturbance.

With Coyote's help, beer barrels burst so that all of Maynard's special autumn ale has to be consumed at once and many people find themselves unexpectedly drunk; Maynard finds he's suddenly emboldened to search for Rose, respectable women find themselves thinking longingly about the stable hands.

If there's an opportunity for mischief Coyote will tell the interactor verbally and then display a "thought bubble" (a mind's eye insert view) on the screen depicting a suggestion of the mischief. This depiction may be misleading, or if acted upon, may simply have unforeseen consequences. Selecting the "mind's eye" thought bubble cause the action to happen; doing nothing causes the "mind's eye" to disappear and disables the option for the next few minutes.

As Coyote cruises around town this evening there's plenty going on. It's Halloween, and children are out trick-or-treating, but much else is happening—

Maynard would like to find Rose;

Rebecca, returning from her journey, was caught outside in the cold weather and has been invited into the Barclay house where she is teaching the children some fantastical and dangerous magic tricks;

Sarah is with Black Duck, who might be in jail or may have escaped; together they are figuring out how to put a curse on the crops of Deckland and the other ranchers;

Deckland is ravenously hungry, but no matter how much he eats he can't seem to get full and he's growing skinnier and smaller;

For the Salazar family it's the Sabbath and they need to offer their prayers in secrecy;

At the hotel, Teal Pasco is gambling a little too vigorously and getting a little drunk. He sings a sad song he's written about a girl he says he loves but his brother has already taken;

At Oliver's Store Henry Flaherty is found to be stealing fancy writing pens and end up in jail for the night. There's a lot of jokes at his expense about "free silver". As always, Henry has a lot to say, and he's always ready to blame others, although in this case, he has no idea that he might be justified in blaming some of his troubles on Coyote. Henry has a lot of theories about what's happened to Rose, most of which are unintentionally comical.

With so much possibility for mischief, eventually Coyote will eventually overstep himself and anger someone who can do something about his meddling, like Sarah or Rebecca.

If Coyote pisses off Sarah or Rebecca they will put a curse on him and the user will be sent back to the Fish or the Dragonfly avatar, depending on the seriousness of the transgression, or just the capriciousness of the goddess.

If the user gets sent all the way back to Dragonfly avatar the user has to spend enough time in the lily pads to find another Dragonfly and mate before getting eaten by Fish again.

If the user is returned to the Fish avatar Barbaverde will expect much more of the user and is unlikely to be nice about it. The user will need to help Barbaverde arrange a horse race or create a serious storm. Eventually Barbaverde will get disgusted with Fish and send the user back to the Coyote avatar.

In the course of making mischief as Coyote, the user will have learned most of Rose's story up to the moment—she is being held in the mine by Cornell Pasco—Rebecca and especially Sarah are trying to locate her, and between them they have spun a series of curses and spells that threaten to bring down the destruction of the world of men itself—already the fields and trees are bare and lifeless.

It's *fun* being Coyote though, and eventually the user gets too bold, or just gets caught in the open, and gets attacked, carried off and eaten by Owl and...

TRANSFORMATION

the user's avatar changes to Owl.

Owl.

Owl likes order and is not especially fond of Coyote. Once Owl overtakes Coyote the user enters Owl avatar. The world of Owl looks somber, majestic and grand, like an allegorical oil painting by Tiepolo or Maynard Dixon. Where Dragonfly's and Fish's sense of time was expanded, Owl's is compressed, so much so that many small motions and incidental movements simply disappear. Owl's narrator is Tyyna, the most rational of guides, and she has the ability to make time elastic if it suits her purpose to concentrate on something.

Having eaten Coyote, Owl takes a look at Cerialis from the air and heads off to the forest to digest. She enters the sacred grove and becomes aware that someone is calling to her—it is her father the Skygod, who urgently wants her to resolve the dispute over Rose. Skygod is deeply troubled over the success of Sarah and Rebecca's spells. Owl flies on into Tarosso to see what has happened to Rose.

Within the mine Owl finds Cornell and delivers an ultimatum: he must release Rose or face the loss of his emerging empire and wealth. Cornell doesn't want to let Rose go, but she's a pain in the ass—she won't eat and all she does is mope around the grounds of the orchards. Cornell tells Owl that Rose is free to leave, so long as she hasn't taken anything from Tarosso, not even a single bit of stone.

Owl watches while Rose is informed that she is free to go and two of Cornell's helpers make a last effort to keep her in Tarosso—they ornament the grounds to appear utterly enchanting, with magical lanterns, lay a lavish banquet under the trees along the river and call up fine music. Cornell tells Rose she is a fool to leave this place and offers again to make her his wife and mistress of a wealthy and powerful empire, but she again refuses.

The best horses are drawn up to carry Rose back to Cerialis in Cornell's fine carriage when an old groundskeeper notices Rose and the commotion. He hurries up to Cornell and tells him that he saw Rose eating a pomegranate just that morning. Rose tries to ignore this, but her chin, which she had covered with a scarf is stained red from the pomegranate juice.

Cornell howls with laughter—she has taken something from him, even if only a piece of fruit. With Rose in the carriage, ready to leave, he tells Owl that Rose can leave but she will have to return each year to eat another pomegranate.

Owl flies back to the sacred grove where Sarah is waiting, having been told that Rose is about to be returned to her. Much time has passed in the ordinary world since Owl delivered Skygod's message to Cornell, and the progress of Sarah and Rebecca's curses and spells is startling.

Owl flies and surveys the barren world. The rivers hold barely a trickle of water. The earth is indeed bare, the trees stripped of leaves, the fields dry and brown. Out in the rancher's country many cattle have died and their skeletons litter what is now a desert.

Owl hears Rose's carriage emerging up from the earth and something astonishing starts to happen—the earth begins a rebirth. The rivers start to fill with water, and green shoots begin to appear in the desert. Birds emerge and the trees begin to fill with leaves. By the time Rose and Sarah are united springtime storms have come and gone, filling the earth with water, the fields with fat green buds of grain and the trees with fruit.

Owl settles into a very old tree to watch the completion of this explosion of blue and green. The user drifts outside the first-person avatar and the camera turns to see her lulled to sleep with the thanks of the Skygod and some magnificent music. When she wakes there is another

TRANSFORMATION...and the user is now positioned within the Poplarspirit avatar.

Poplarspirit.

Poplarspirit is so old her narrator is the earth herself. Poplarspirit's image of the world is as spare and precise as a Matisse gouache cut-out collage. Time is so compressed for Poplarspirit that a three month season takes only a few minutes, and hardly any traces of human activity cloud her vision at all. As Poplarspirit, the interactor watches the cycle of death and rebirth that follow Rose's annual journeys from the ordinary world to Tarosso and back again.

V. Production

Rosapothothesis will be produced as a Master's thesis project at the USC School of Cinema-Television from January to June, 2000. As an academic project it will be problematic to produce, execute and implement all of the devices, designs and components of the project outlined in this design document. Instead, the project will be made as a prototype, with the goal of having a fifteen to twenty minute interactive immersive experience prepared by the end of the production schedule.

The primary computer models for the project will be executed by Mike Roy; Nik Nikolaidis will edit the montage sequences and produce the sound design and music recording. Software, hardware and interactivity design and engineering will be divided between Mike and Nik, and the construction of the reading room environment (to be portable and collapsible for shipping and storage) will be Mike Roy's responsibility.

The production methodology will consist of creating *3D Studio* models of the three principal locations—the Sacred Grove, Cerialis and Tarosso. The user will interact with the model spaces through *Nemo* software. *Nemo* appears to be able to create the camera interactions as well as the time compression animation effects.

In addition to *3D Studio*, modeling tools such as “Tree Storm”, “Tree Professional” and “Seascape” will be extremely useful in creating the natural environment.

The two principle areas of technical investigation will be the creation of the touch-screen interface and the post-*Nemo* rendering process. *Piranesi* is an off-the-shelf rendering software package that appears to be able to process images in the way I have described in the design document. Further research will be needed to determine how to implement the (post-*Nemo*) rendering process.

The production will actively seek assistance from computer animators and modelers, musicians, software engineers, screenwriters and actors. I will also actively seek financial and logistical support from industry and philanthropic organizations, and particularly hope to obtain hardware donations for items such as the touch-screen.

VI. History and theory—Entertainment Environments and Interactive Systems.

The project is designed to build upon the historical context of shared story-telling experience. An important factor in shaping the audience's pleasure in a shared story is the experience and enjoyment of the participant's physical surroundings. Such settings provide an architectonic promise of contemplation, adventure or catharsis.

In the Classical Greek theater the performance grew out of popular religious festivals, and particular forms of staging, architecture and dramatic literature evolved from the shared group experience. In the 1930's "golden era" of Hollywood, going to the lavish and elaborate movie palace was part of the promise of the escape of an outsized adventure; in "campfire circle" tale-telling the participants are gathered in an intimate group, but exposed to and subject to the unpredictable natural world; in fine art venues like museums and galleries the viewer is positioned to enter into an intensely internal imaginative experience within a room crowded with strangers having their own independent emotional experiences.

Interactive media has not yet evolved a distinct physical environment which exploits the aesthetic promise of the interactive narrative itself. In fact the media is so new that not much attention has yet been paid to the setting of the activity. To the extent that interactive games have a progenitor, it's the midway at the carnival. Not surprisingly, many have observed that arcade-style games (like first-person shooters) are best experienced in a game arcade, a spin-off of the midway shooting gallery.

The internet as interactive media is really a visual extension of the telephone. It has taken the form of interactive catalogs (in cases like Amazon.com) and textual or visually-based information services (in cases like weather.com or Yahoo!). Like the telephone, the computer/internet interface can be placed in any convenient location in the user's home or workplace without diminishing the functionality, utility and meaning of the experience.

Rosapothosis is designed to both open up possibilities for the expressive potential of interactive media and to create a physical environment that supports and compliments that expressive potential. The project is

designed for a single user (at least for the present) and its closest media cousin may be the novel (both textual and graphic) rather than the motion picture or television.

The reading room environment I have proposed for this project is a prototype for an optimized interactive media delivery system and could be used for a variety of storyworlds, not just ***Rosapothoeosis***. Future iterations of the project would certainly be enhanced by networking the “reading stations” so that interactors could participate in a story environment as members of a group.

#####