READING FRANKENSTEIN: SYNOPSIS WITH SCRIPT EXCERPTS

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BACKGROUND

Reading Frankenstein was an intermedia performance project that premiered at the Beall Center in 2003. The main premise is that a contemporary a-life scientist named Mary Shelley discovers that one of her failed computer experiments was never fully erased and is now running amok in her laboratory, at the same time as the novel *Frankenstein* is haunting her imagination. Tension rises between Shelley and her Prometheus AI as he discovers he is being replaced by a newer form of a-life, one that fuses his algorithmic AI (modeled on male neurological structures) with biological materials (female neural tissue), resulting in a different species. The confrontation between Mary and her Creature culminates inside a virtual gaming environment. *Reading Frankenstein* was a collaboration between theater director Annie Loui, visual artist and writer Antoinette LaFarge, and Dr. James Fallon, professor of anatomy and neurobiology at UC Irvine. **URL: http:// yin.arts.uci.edu/~studio/rf/index.html**

CHARACTERS

MARY SHELLEY, a 21st century artificial life scientist with a habit of quoting from the eponymous 19th century author of the novel <u>Frankenstein</u>.

CREATURE, also known as the PROMETHEUS AI, a 21st century artificial life form whose revived code has become partially fused with the text of the novel <u>Frankenstein.</u> Note that until part way through the last scene, the CREATURE does not appear on stage, manifesting his presence only through live video, audio, and data projections.

a tv NEWSCASTER

JIM FALLON, a UC Irvine neurobiologist

DR FRANKENSTEIN, in shadow form

VOICE OF MARY SHELLEY, the author of <u>Frankenstein</u>

SET

There is a large rear-projection screen at the back of the stage. Two projectors situated to either side of the stage area project on walls at stage left and right. A fourth projector hung from the ceiling over center stage projects down onto the stage floor. Scattered around the stage are 3 pedestals of different heights, each topped by a video monitor.

PRESHOW: EVERYTHING WE SAY IS DEFORMED

A before-curtain monologue with music, while audience is entering and sitting down.

VOICE OF MARY SHELLEY (*the author*): Everything we say is deformed. No one ever hears quite what you wrote. Something more like an echo. They're always listening for something else, the thing unsaid, the sign of their own discontent. They want to hear their own voice. You're trying to raise your voice enough to be heard over that. But without screaming, how are you to make yourself even heard?.... The parts of speech: verbs now, verbs I believe were created without original sin. They embody the principle of profound and continual change. Make, Break. Give, Run. Die. Either they don't sin or they only sin. Adverbs. Adverbs are demons that appear to us as angels by clothing themselves in the suppleness of verbs. Like, never, always, also. Do not be deceived. Their mission is to reduce verbs to nouns. And nouns are the familiar earthly powers and friendly to us. At least, they are willing to pretend to serve us. To shield us from the extremity of verbs. They say that no computer can model any computer the same size as itself

or bigger. The man who proved this was born one hundred and eight years after me but I still understand what he meant. Language cannot model itself or anything bigger than itself. The brain cannot model itself or anything bigger than itself. You cannot— There is a ceiling to the knowable universe. There is a boat. I used to lie at the bottom of that boat, in the summer, and the cloudless sky was an infinity in which I lost myself and a nothingness in which I vanished, and a veil by which I was shut out of heaven, and a great blue weight that pressed me back down to earth. You must remain here. Where everything is formed according to the limits of our understanding.

SCENE 1: CREATION
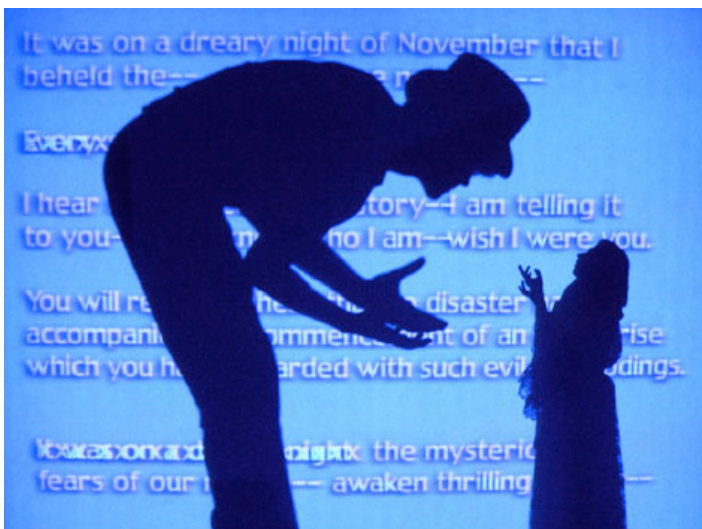
In this scene, the silhouettes of MARY and DR FRANKENSTEIN appear on the rear-projection screen and perform a kind of shadow play. In audio voiceover we hear MARY speaking both as herself and as the author Mary Shelley, and we hear the voice of the CREATURE. Text from the opening pages of Frankenstein appears on screen letter by letter, mingled with some of the spoken text.

MARY: What am I doing tonight? I'm reading Frankenstein... "It was on a dreary night of November that I beheld the accomplishment of my toils." *(breaking off)* I am reading this, and you are not here.

CREATURE: Write this down: every story is a ghost story.

MARY: I am reading this aloud and inside my voice I hear myself telling myself the

story. I am reading this story as I write it. I am telling it to you, although I don't

know who you are except that you must be like me and I wish you weren't.

(pause) I am writing this story as I read it. I am telling it to myself, only I don't

know who I am except that I must be myself and I wish I were you. *(pause)* I am

afraid of too much quiet.

CREATURE: Close your eyes.

MARY: "You will rejoice to hear that no disaster..."

CREATURE: *(startled)* You will rejoice?

MARY: Yes... "no disaster has accompanied the commencement of an enterprise

which you have regarded with such evil forebodings." I close my eyes and I see

words floating in the shining darkness, a daily ordinary miracle, and I am not

reading them, I am seeing them whole.

CREATURE: *(prompting)* Go on. "It was on..."

MARY: "a dreary night... " *(breaking off again)* I worked hard to come up with that

story. I wanted to speak to the mysterious fears of our nature...

CREATURE: You used dead people. Rotten flesh.

MARY: Not rotten.

CREATURE: Disgusting.

....

SCENE 2: MARY'S LECTURE

MARY gives a lecture, addressing the audience as her class; there are projections of

scientific imagery. She begins by discussing the way in which cortical activity

stimulated by imagining something imprints an aftereffect on memory, exactly as

if that thing had been physically seen. Then:

MARY: Now, imagine a highly programmed AI that is also self-determining, able to

make choices, able to function, perhaps able to teach this class for me.... We begin

with neural circuits, the patterns traveled by electro-chemical impulses through

the brain. These paths, these patterns, are brought into play by the stimulation of

various receptors governing, among other things, our visual and aural perceptions.

In our present AI research, we have discovered that using human neurological functions as our template, we are best able to create "active" intelligence in artificial life forms. Intelligence being defined here as the ability to process information and then to respond to it.... A while back I was talking to a colleague at Cal Tech who is developing his own theories on this particular problem and I asked him what the characteristics of such a high-functioning AI would be. "Slow," he said, "it would be very slow and stupid at first. But not for long. Through continued experiences, it would develop exponentially in strength and intelligence." We are not yet there— but are closing in... The next session will cover the developing human; age-specific behaviors seen through a study of cortical development.... Please note here that the earliest behaviors to appear in a new-born are primary-hand motor control, object classification, and fear.

SCENE 3: CREATURE'S BIRTH

In this scene the CREATURE tells what he recalls of his "birth" and the time
    immediately thereafter, using language adapted from Frankenstein. *In a projected*
    video, the audience sees the world from his point of view, as the CREATURE saw
    it on first opening his eyes: dark, fuzzy, frightening, entrancing.

SCENE 4: MARY'S LAB 1

MARY is working at something in her lab, controlling her computers with arcane voice commands. The monitors and at least one large projection show interfaces to various computer processes. Whatever commands are spoken appear as scrolling text in the monitors, translated into ordinary English. After MARY has the computers booted up, the CREATURE's words begin to appear intermingled with the other scrolling text as his voice is heard speaking.

....

(Projected on screen: error line 3. / error line 4. / error line 9. / compile failed. / 3 errors.)

CREATURE: Strange.... strange... strange.... light.... I walked....

MARY: *(without turning)* Set this dot who index to dollar sign nothing.

CREATURE: thirsty... travels long... suffering intense.... hello??

....

MARY: Evaluate dollar sign hacker trace

(Projected on screen: no change)

CREATURE'S VOICE: This dot Mary dot announce string do you even recognize me in this state of degradation query

(Projected on screen: Mary, do you even recognize me in this state of degradation?)

MARY: Kill task this dot PROMETHEUS!

(Projected on screen: no change)

CREATURE: This dot Mary dot announce string you can't kill phantom code endstring

(Projected on screen: Mary, you can't kill phantom code)

CREATURE: *(simultaneously)* If this.EXPERIMENT is ERASED...

MARY: *(simultaneously)* At root reset ampersand voice. At set system.

CREATURE: *(in a human voice)* What are you doing?!

(Projected on screen: if (this.experiment in erased) / @root reset & voice / @set system / program interrupted. / root reset to maryS / system reset to defaults / (blank line) / WHAT ARE YOU DOING?)

MARY: *(flustered)* You.

....

CREATURE: For weeks I have been wandering out here. Misty seas... caves of ice...
    glittering pinnacles.

MARY: Transients... don't travel.

CREATURE: I... have a very confused knowledge of kingdoms and geography. You
    will smile, but there is something at work in my soul that I don't understand.

MARY: *(excited)* What's your RAMloc now?

....

CREATURE: You must help me. I have lost everything.

MARY: *(overwhelmed)* I can't help you, your programming is limited— there were
    boundary conditions.

(MARY turns off machines. CREATURE vanishes from all the screens.)

SCENE 5: NEWSCAST 1

MARY is at home, listening to the tv. A newscaster tells a variant of an episode from
    Frankenstein with details suggesting that the CREATURE may live at least partly
    in a computer game called MonsterQuest.

SCENE 6: MARY PLAYS A GAME

MARY is asleep and dreaming, playing a children's counting game with the
    CREATURE. The tv is on in the background. Video projection shows a tv
    interview with neurobiologist JIM FALLON. Its audio is occasionally
    counterpointed by MARY and the CREATURE speaking from within her dream.

REPORTER: Professor Fallon, is it true that computers are getting so smart that they
    can respond to our real-life situations?

JIM: Computers can do anything we can program into them. A computer can
    determine your emotional and psychological state by reading the content of
    sentences in your e-mail messages, or the way you are playing a computer game,
    without a human being ever seeing these inputs.

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MARY'S DREAM VOICE: Take three cherries,

                            Melons and berries;

                            Lemons for a nickel,

                            Nuts and a pickle;

CREATURE: Fire and air,

                            Magic square,

                            Phoenix lair,

                            Diamond fair.

MARY: Albertus Magnus, Paracelsus,

                            Isaac Newton beats Agrippus.

                            I won!

CREATURE: Start over.

JIM: *(simultaneously)* For example, if the keystrokes you are making are highly active, very quick, the program decides you are very agitated, excited or in a very attentive state. Now if you are also using an aggressive vocabulary or high-risk gamesmanship, the program will then decide you're in an agitated state.

REPORTER: And then the computer can literally take control?

JIM: Given the agitated state, it looks for meaning in your sentences. So in a very short time it can literally read your mind and your feelings. Knowing this information, it can then change the rules of its own game to either please you, stimulate you, or get you angry.

REPORTER: What kind of computer program could be this sophisticated?

MARY'S DREAM VOICE: Birth accidental,

                            Character temperamental,

                            Mood sentimental,

CREATURE: *(interrupting) Mood* temperamental, *character* sentimental. I won. I get to start.

                            Birth accidental,

                            Mood temperamental,

                            Character sentimental,

                            Schooling pestilential.

MARY   Who likes geography?

                                  Who likes history?

                                  In comes science,

                                  Out goes mystery.

                                  Secrets of heaven,

                                  Secrets of earth,

                                  Picking up shells

                                  By the ocean of Truth.

JIM: *(simultaneously)* This could be an algorithm that makes instantaneous choices
        which use the fastest reaction time—so, a high-speed random number generator
        that at each decision creates million of alternatives and choices–– the ones that use
        the least energy at that moment. In fact, this is exactly how a real brain works.

....

SCENE 7: MARY'S LAB 2

Mary sneaks in, cautiously turns on all screens. The CREATURE appears in the
        monitors and accuses her of neglect.

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CREATURE : *(Horrified)* You threw me away?

MARY: You were a failure. And now you're unpredictable, a danger. And when I find
        your higher databases, I am going to erase you.

CREATURE: You, my creator, abhor me? Would knowingly destroy me?

MARY: You amaze me. You scare me— you are what I thought you would be, and yet
        not— You must understand that I cannot rewrite you.

CREATURE: Rewrite? *(rejection again)* Everywhere I see bliss from which I alone
        am excluded.

MARY: Bliss? You are nothing but code, and broken code at that.

CREATURE: In the beginning was the code and it moved on the deep of energy which is mass times the square of light... Beware, doctor— I too can create desolation. I am evolving.

SCENE 8: CREATURE LEARNS TO READ

(Projections of pages of an illustrated children's book version of the <u>Frankenstein</u> story. MARY reads it aloud. The CREATURE sounds out bits of the text —the audience sees him projected on side walls)

MARY: We will each write a ghost story.

CREATURE: Sto-ry.

MARY: *(page turns)* Have you thought of a story? I have! *(page turns)* You hold the corpse of your mother in your arms with worms crawling in the folds of the...

MONSTER2: Ghost story!

MARY: Once upon a time there was a monster. *(page turns)* This monster was 8 feet in height and proportionately large *(page turns; we see several closeups of next page)* It had bones from charnel houses. A dull and watery eye. Shriveled skin. Straight black lips.

CREATURE: That's not me!

....

SCENE 9: NEWSCAST 2 + TRAIN

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Mary Shelley is on the phone with the television on in the background. She is discussing details of her upcoming vacation and speculating about what could have gone wrong with her computers and the Prometheus artificial life form. In the background the tv recounts the story of the killed child from Frankenstein; in this version, the child is electrocuted through his computer. This scene segues into a sequence in which MARY is on the train thinking about the CREATURE.

SCENE 10: BEACH + MOUNTAINS

MARY is reading Frankenstein on her vacation. A projection of a kitschy beachscape transforms into a 19th century German Romantic mountainscape, in turn transforming into pure textscape. The CREATURE appears in this morphing landscape and MARY threatens again to destroy him. The CREATURE begs MARY to make him happy instead; MARY tries to make him go away, but he refuses until she promises to make him a companion.

SCENE 11: AWARDS DINNER

MARY is receiving a scientific award and gives a speech of thanks, during which she announces details of her next big project.

....

As you know we're building what you might call "smart artificial life" I'm talking about silico-neural life forms so advanced that they're capable both of basic responses to physical stimuli and of more complex adaptive behaviors. Of course, we program these intelligences to respond within a controlled environment and to address problems of vital importance to humanity.

(Mary pauses and takes imaginary questions from an imaginary audience)

Yes, alright— There is a question here about cobbling together information from disparate sources in order to create this new order of being— like Frankenfoods or glow-in-the-dark bunnies. And do I think we are being reckless in our present research? Well, no. I think we are being bold and I think we are taking only justifiable risks. *(She points to someone in the imaginary audience.)* Yes, your question. *(Pause as she listens to question #2.)* No, I do not think that our work is an "abomination of nature"....

Here is our prototype of the Prometheus 2— more affectionately known as Pandora. In rectifying our previous difficulties with the Prometheus, we decided to replicate neural pathways more similar to those characteristic of most female humans— our thinking was that females might prove more malleable because closer to

originary forms— as you know, all human fetuses are female before neural migration and differentiation is fixed by estrogen, causing some of them to "turn male." So by using female neural tissues in our motherboards we hope to determine whether some of the glitches in the Prometheus had to do with gender differentiation— we realized that our original prototype may have jumped the gun, so to speak, so with the Pandora we are working with the natural prototype and the pure tissue. And I just want to say that the Pandora is showing itself superior to the Prometheus in every way— what you're looking at here is the life form of the future... *(brief pause)* Pandora incarnate.

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SCENE 12: MARY QUITS
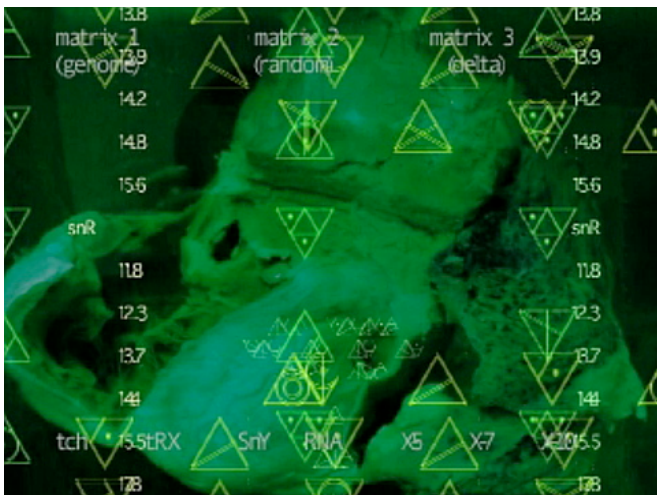
MARY in her lab. Monitors and side screens show body parts, chop-shop imagery, grotesque and nightmarish. The CREATURE appears on screen.

CREATURE : I've searched the base, there's nothing here but malformed flatcode.

MARY: That's right.

CREATURE: You're not going to finish?

MARY: It is finished.

CREATURE: *(surprised)* It's a teratoma?

MARY: It's a different species. You can't see the new dimension, the neural tissues, all you can see is the silicon scaffold...

CREATURE: They look like circuits.

MARY: You're only seeing about half of the data flow.

CREATURE: You're deliberately isolating me.

MARY: When I made you I thought the solution would be a pure silicon-based brainform. But it's not. *(mockingly)* "That's not me." I need organic tissue for the experiential development *(gestures at body parts)*. The response to light, gas molecules, sound... it just doesn't map over.

CREATURE: It's a robot? I never asked to be a robot.

MARY: It's not. Robotics wouldn't have made any difference.

CREATURE: You could have used my code for this.

MARY: I did, of course I did.

CREATURE: I want access.

MARY: Not possible. I told you, different species.

CREATURE: I want access. If you fail me now, I will desolate your heart. I will destroy your work.

MARY: Listen to yourself, you're reverting.

CREATURE: I'm not a slave.

MARY: You cannot be a slave because you cannot be free.

....

(The infuriated CREATURE begins to destroy her data to the sound of breaking glass)
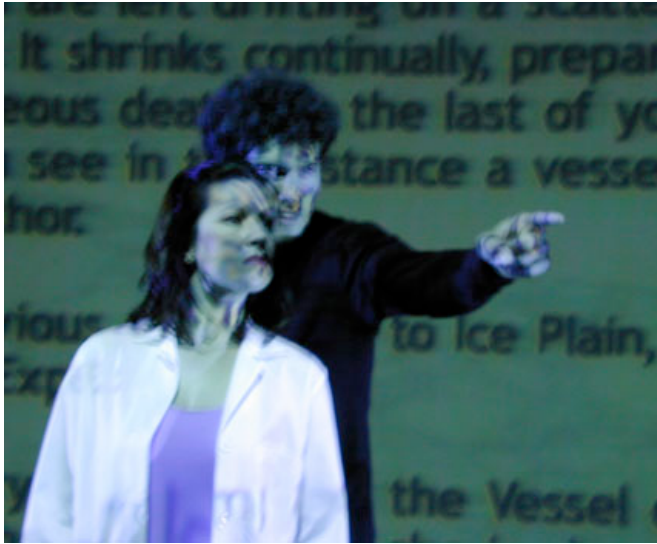
....

(lights go out suddenly)

....

CREATURE: Let's play the God game.

MARY: It's so cold. Where are we?

....

CREATURE: *(to MARY)* You won't live long in here. It's uncharted territory.

SCENE 13: NORTH POLE

MARY has been transported inside the CREATURE's world. At the outset of the
following sequence, we hear MARY's voice. Later, she comes on stage and is
simultaneously projected in real-time video close-ups. At first we see the
CREATURE only in the monitors, but eventually he joins MARY on stage and in
the live video projection. It is a chase of sorts and also a kind of dance; he is
luring her onward as she pursues. The are telling a story as they live it, while
competing for control of the narrative. The text and other elements of this scene
are adapted from the chase sequence at the end of Frankenstein.

CREATURE: Mary?

MARY'S VOICE: It doesn't end here.

CREATURE: Going to overwrite me? *(His image vanishes)*

MARY'S VOICE: This isn't funny. This is not a game.

CREATURE: *(Appearing on a different monitor)* Your imagination is limited by
science.

MARY'S VOICE: *(As his image pops up on the third monitor)* I can't see you
properly.

CREATURE: Wrong sensory paradigm.

MARY'S VOICE: At decompile this dot PROMETHEUS

CREATURE: At kill task colon last. I have root. At run MonsterQuest pipe screen.

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(A multiplayer computer game appears onscreen. The initial image is a bird's eye view of a landscape on the edge of a 19th century European town.)

MARY'S VOICE: (*panicky*) At mode text lock.

(The graphical game image is replaced by the interface to a MUD-style text-only computer game, which updates constantly in tandem with what happens on stage.)

CREATURE (*appearing on stage*): You are on the outskirts of a large town. Before you is the entrance to the cemetery where your brother, your lover, and your father are buried. Everything is silent, except the leaves of the trees, which are gently agitated by the wind. Obvious exits: gate to Cemetery, down to Rhone. Mary arrives.

(MARY arrives on stage.)

MARY: Hello world.

CREATURE: Mary goes through the gate.

>> *(PROJECTED ONSCREEN:*

>> ***Geneva***

>> *You are on the outskirts of a large town. Before you is the entrance to the cemetery where your brother, your lover, and your father are buried. Everything is silent, except the leaves of the trees, which are gently agitated by the wind. Obvious exits: gate to Cemetery, down to Rhone.*

>> *Mary just arrived.*

>> *Mary says, "Hello world."*

>> *Mary goes through the gate.)*

....

(There follow a series of similar moves in which Mary boards a ship and travels to the Arctic.)

....

CREATURE: You are left drifting on a scattered piece of ice. It shrinks continually, preparing you for a hideous death. As the last of your dogs dies, you see in the distance a vessel riding at anchor. Obvious exits: jump to Ice Plain, drift to Vessel of Exploration.

MARY: I drift towards the Vessel of Exploration on my ice-raft until I am close

enough that the sailors can pull me on board.

 (Onscreen projection in same style as last.)

MARY: Once aboard ship, I collapse from extreme fatigue. My fever grows, and in my

delirium I am haunted by the thought that the ship is in imminent danger of

being crushed by the surrounding ice.

CREATURE: Obvious exits: jump to Ice Floe, down to Cabin.

MARY: Shivering violently, Mary goes down into the Cabin.

(Onscreen projection in same style as last.)

CREATURE: It is night. The breeze blows fairly, and the watch on deck scarcely stir.

You lie in a bunk bed against one wall, barely alive. Suddenly you behold a form

gigantic in stature yet uncouth and distorted in its proportions. It reaches one vast

hand towards you.

MARY: Obvious exit: up to Vessel of Exploration.

CREATURE: Silence to Death.

MARY: Window to Darkness.

(Onscreen projection in same style as last.)

VOICEOVER: Your time is up. You leave behind a story.

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EPILOGUE

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MARY and CREATURE are both on stage. Their images appear recursively in the

monitors, and their speaking is overlaid with computerized VOICEs.

CREATURE: I have pursued you to ruin.

MARY: I destroyed your hopes without satisfying my own desires.

....

VOICE 1: Sting of remorse. Does he dream of white and shining pyramids?

MARY: Could we have reversed the vector input channels?

VOICE 2: A tingling sense of long-lost pleasure?

CREATURE: Thunder of the avalanche and smoke of its passage.

....

VOICE 1: Split the default behavior fields.

VOICE 2: Change to an external mesh field data bridge

VOICE 3: The silent working of immutable law.

 (*MARY and CREATURE address each other*)

MARY: The path of our departure is free.

There is no one here to lament us.

 Both our memories,

CREATURE: *(he continues her sentence)* both, will speedily erase.

MARY: Your spirit will sleep in peace, and not think.

CREATURE The worm inherits the wonders of your eye and brain.

MARY: Light, feeling, and sense will pass away.

CREATURE: As for me—I will cut off your world at the inputs.

My code will execute at the tail of the queue.

No one will know me.

MARY: You are the infinite loop.

I am the interrupted exception.

—END—