

*Three Unusual Scientists, by Martha Keltz ~ Studio Editions Drama Publications
Amplitude of Force, The Ambient Medium, The Fulcrum
Copyrights 1992, 1995, 1996, 1999 by Martha Keltz*

Amplitude of Force

A Drama About John Keely

Characters:

John Ernst Worrell Keely, discoverer, inventor

Charles B. Collier, patent attorney

Mrs. Janice Emerling, theosophist

A Spiritual Figure

Wesley Davis, a young man

Time: Late November, 1888

Place: A demonstration area, second floor of Mr. Keely's workshop, Philadelphia, Pa.

Scene: *An area prepared for demonstrations for the public. There are two tables behind which are curtains which section off the back part of the room. The tables are covered with fringed cloth. On one of the tables can be seen a tall, narrow glass jar filled with water and three iron weights. The jar is capped with metal to which is attached a wire. Near the jar is a zither. On the other table is a musical globe with "spiro -vibrophonic" attachment and a harmonica. There is also a small, round table with a notebook and pen, poster boards, shelves with pieces of machinery, globes, wires, etc., and on one wall, models of spiral forms and a seashell with its spiral form revealed.*

At Rise: *John Keely enters. At age 61 he is in vigorous good health, tall, with grey hair and mustache, and a strong, willful chin. He is dressed informally, with dark suit and vest. He is still and looks thoughtfully, purposefully around the room as though to re-orient himself to his surroundings. He briefly examines the machinery, then picks up one of the poster boards and examines it. When he sets this board back down, it can be seen to be an illustration of the*

molecule occupied by the atomic triplet. He sits down with the zither, tunes it and plays "My Old Kentucky Home." After playing this piece, he listens to single notes, then chords, when the musical globe begins revolving. He looks pleased, rises and crosses to the globe, places his hand on the vibrophonic attachment and with intense concentration, causes the globe to stop spinning.

KEELY

You did not favor the melancholy longing
Mr. Foster so simply, yet so mysteriously expresses
In the Key of G, a mood reflecting
My time of imprisonment.
No, it was the harmonious chord of hope
That set you spinning,
And at my touch you were still,
As though to welcome home, with reverence,
The *Prima Materia* stirred
By the concordant chordsetting.

This they cannot understand:
In one person the chordsettings
Have full amplitude in action,
While in another they are suppressed
And rendered latent,
For the latter is governed by self-will,
Whereas mastery of the material world
Can be attained only by the higher self,
Through a yielding
To divine force - differentiation

What they cannot understand they malign.
On the one side, I'm a fraud and a charlatan,
On the other, an attempt is made
To force my secrets from me
Through a court action.
One has only to read between the lines
Of the newspaper articles
To see that many are convinced
Of the integrity of my work.
Were there nothing here of value,
These self-governed would not be clamoring
To take what in truth can never be theirs,
Even though the clearest codices
Be placed beneath their noses.

Still, there is much to safeguard,
For many of the heavier machines
Are inclined to function for anyone
And unloose potentially dangerous forces.
Often did I wonder about this
The past few nights,

When doubts stirred
During the darkest moments
In that bleak cell;
When I could not rest
And felt a new longing
For the spiritual home,
The same longing expressed by Mr. Foster
In his yearning for home;
The same longing expressed by the organist
During the Sunday services
With “*Nearer, My God, to Thee*” . . .
Yet I reminded myself
That an essence of God
Dwells within all matter,
As though He Himself were imprisoned
In the space within the molecule
Not occupied by the atomic triplet,
In the all-pervading ether . . .

There is a pause as he studies the illustration.

Even to the iron bars of my cell

So I was cheered and resolved
To continue my work
That He might be freed,
And so the masses from the fetters
Of a rapacious machine age,
The machine without soul,
Without sympathy . . .
I will not be like those,
Unthinking, uncaring, inactive,
Who, when their supplications
Reach the high Entity, hear:
“Lo! Thou didst not even try,
Knowing that even thy failures
Were acceptable to me.”

Thus the harmonious chord of hope
Must ever resound at the altar
Of this, my laboratory,
Stirring deeds of great effort
And setting the globe spinning . . .

He places his hand on the vibrophone and the globe begins spinning; he removes his hand and it stops.

Or humbly beseeching the sanctity
Of the silence, the stillness

He crosses to the small, round table, begins writing in his notebook, then stops abruptly.

Wait! . . . I had agreed
To give a demonstration.
That must be why I came upstairs at once.
Someone in the rush of faces
The past few chaotic days,
Someone eager for knowledge.
Now, who? . . .
Not the guard surely,
Though I recall his polite interest.
Did he intercede for someone else?
Why have I forgotten? . . .
Something distracted me;
It may have been the sorrowful moaning
From a nearby cell,
Discordant sounds of a troubled soul.
I may have sought to displace this tone
With a higher thought vibration
And in the meantime lost
The joyous source of my agreement.
How easily can sorrow displace joy.
Yet, I did agree
And must be as good as my word.

He rises, removes his jacket, rolls up his sleeves and crosses to a shelf, from which he locates and removes a small copper globe. He is in the process of attaching the wire from the top of the jar to the top of the globe when his lawyer, Charles B. Collier, enters. Mr. Collier is a kindly-looking, well-dressed gentleman who looks somewhat tired and anxious, owing to the recent stressful experiences.

KEELY

Ah, Charles, you're looking tired. You deserve a few days off - I'm going to insist -

COLLIER

And what about you! Your wife told me you were here, though I might have guessed as much. Back to work, I see.

KEELY

It seems I agreed to a demonstration.

COLLIER

A demonstration! After all you've been through?

KEELY

Was it you who referred someone?

COLLIER

Not I, certainly not!

KEELY

Well, it won't be difficult. Things here are in good order, owing to the amount of time I've spent in mere showmanship, I suppose. Now, where? . . .

He searches through the poster boards, eventually retrieving and hanging a sign that says "Visitors are requested not to handle the machinery."

COLLIER

I wanted you to know, the review of your case is scheduled to go before the Supreme Court on January 12th.

KEELY

January 12th . . . that gives us time.

COLLIER

Never, never in the fifteen years I've known you did I think it would be necessary to go to Harrisburg and apply for a writ of habeas corpus to get you out of prison. Had it not been for the support of the other attorneys! . . .

KEELY

The case will be thrown out of the Supreme Court, I'm almost certain.

COLLIER

If they're impartial, they'll recognize you as a victim. A victim of a contrived suit, and a victim of a judge who has made one stupendous blunder after another.

KEELY

The press has prejudiced him against me.

COLLIER

That may be, but it was injudicious to order you to reveal your secrets within sixty days, and when you refused to do this, it was illegal to sentence you to prison for contempt of court. As I've said, a man cannot be imprisoned for contempt of court committed out of court. He can only be fined. Let us hope, John, that the Supreme Court judge knows the laws of this land! Matters simply must take a turn for the better, and if they don't, we've got to file our own suits, both civil and criminal. You're being defamed; you could be destroyed.

KEELY

All I need, Charles, is time. The work will restore my name, especially the success of the motor, which is imminent. And quite aside from the motor, look here, Charles . . . By the increasing simplicity of these objects, you can see the progress I'm making in sympathetic vibratory physics. Notice there is only a small transmitter here. Through the resonance of this globe caused by the tones of the zither, the stream of sympathetic vibration is set in motion along this wire.

COLLIER

There is a Chladni plate inside the globe?

KEELY

Same as in the large globes, yes. I believe you've seen this demonstration of gravity overcome?

COLLIER

Yes. The three iron weights rise to the top of the jar, each responding to a different musical tone.

KEELY

As every mass of matter has its own peculiar chord . . . In the past, however, I used the large transmitter. And here . . . (*referring to the musical globe*) there is no intermediary at all. Directly through the spiro-vibrophone, the music can set the globe spinning, or cause it to stop.

COLLIER

(*Picking up the harmonica*) May I try?

KEELY

Please.

COLLIER

Preferences?

KEELY

Whatever you wish.

Collier plays a few bars of Liszt's "Liebestraum" and the globe begins spinning, at first slowly and then faster. The two observe silently for a time.

COLLIER

How long will it continue?

KEELY

Until it is stopped.

COLLIER

And how to stop it?

KEELY

Try something low and discordant. The very opposite of Liebestraum.

Collier manages some harsh sounds on the harmonica and the globe stops spinning.

This piece will also respond to etheric resonation beyond the range of our hearing. It will respond to certain thoughts and feelings of a lofty nature.

COLLIER

As the Music of the Spheres.

KEELY

And the Word . . . But, alas, to the public, these pieces are not as impressive as the big engine downstairs, and certainly, they're much further from any commercial application.

COLLIER

But they represent progress in the science itself, in the physics of sympathetic vibration.

KEELY

Precisely. How I should like to have a demonstration piece for each of the laws I'm developing! There aren't enough hours in the day.

COLLIER

And what with certain shareholders imprudently demanding immediate results with the motor.

KEELY

Well, as I said, that is imminent.

COLLIER

The degree of hostility towards you is truly unnerving. I was able to experience this firsthand after you had been sentenced, as I was standing outside the courthouse talking to the reporters. It seemed to me then that the odds against you were well-nigh insurmountable. On the one side, the vituperation of the press, and on the other, the ridicule of the so-called scientific professionals. I confess I felt a wave of nausea . . . After my return from Harrisburg, I found a few quiet moments to discuss these matters with my colleagues, and they likewise expressed doubts, noting the deep division of attitudes even among the shareholders. Of course, splits and divisions are only to be expected where private interests are concerned. It's the attack on your person and what you stand for that is so unnerving.

KEELY

I can overlook much because I exist always with the assurance of the reality of higher worlds, and I draw upon these worlds for the fruits of the work you see here. We stand on the threshold of the machine age and it must be demonstrated that the workshop is truly the altar upon which the cosmic intentions for the progress of humanity must be made manifest.

COLLIER

But are the masses today ready for this? From my firsthand experiences, I would say not.

KEELY

The motor can be a good influence amidst the crushing personal aims of selfish industrialists.

COLLIER

But our shareholders are as interested in their own profits as the power-hungry industrialists.

KEELY

Some of them are, yes. Others are like you. They see the need for practical support and profit in what is, after all, a capitalistic nation. But I'm alarmed that you almost became ill through all of this, and I can see a deep tiredness in your eyes. I would again beg you to take a few days off, to rest.

COLLIER

I'll rest to regain my strength, for I'm determined that no further harm shall come to you, and so are my colleagues. Regardless of the private opinions they may hold of the ultimate success of the motor, they will not tolerate the violation of your rights, nor the violation of the laws of this land. Come January 12th, there will be an end to this persecution. Good day, then, John.

KEELY

Good day, Charles. Thank you.

Collier exits.

KEELY

The degree of hostility toward me . . .
So obvious in the moment
Outside the courthouse,
So intense as to cause illness!
Were only one man the source,
The effect would be little noticed,
But let a crowd of men
Generate so dark a dissonance
And hatred is augmented.
The amplitude of force
Is precisely proportionate
To the number of units vibrating
At that particular pitch.
But a far smaller degree
Of sympathy, of love,
Can counter this force,
And Charles is full of goodwill
For earnest seekers of truth,
Of which there must have been
One or two in that crowd.
Thereby was he protected
From more serious effects

He sits down at the small table and writes in the notebook.

Directly proportionate to the number of units vibrating

Mrs. Janice Emerling enters. She is a tall, fashionably dressed middle-aged lady with intelligent features and sharply penetrating eyes.

Keely rises to greet her and they shake hands warmly.

KEELY

Mrs. Emerling, what brings you here today? This is quite unexpected.

EMERLING

Well, I was concerned about recent developments. I wanted to assure myself you had survived them, and what better way than to visit.

KEELY

As you can see, I'm a hearty survivor.

EMERLING

I saw Mr. Collier outside, and he affirmed as much.

KEELY

He's taken it harder than myself, I'm afraid.

EMERLING

Still, there was a wan, faraway smile on his face.

KEELY

He believes the worst is over.

EMERLING

Do you?

KEELY

Frankly, yes.

EMERLING

Well, what could be worse, after all?

KEELY

I could've been hung, I suppose, or given hemlock.

EMERLING

So the human race is advancing. They've only imprisoned you, so far.

KEELY

But, tell me, have you seen Mrs. Bloomfield-Moore?

EMERLING

I saw her at tea yesterday. Her son was present, and indeed he proceeded to engage her in a discussion about you, perhaps because I was there. The question with him is always: should his mother continue her generous patronage when there is as yet no visible success? One is naturally prompted to realize she is using monies which he will someday rightly inherit. She in turn emphasizes the great importance of the work itself, quite apart from any immediate success, and to her this is utmost justification for continued support.

KEELY

She is an extraordinary lady, astute, and with great spiritual understanding. Much appears to be against me, but fate has been kind insofar as it has made possible the emergence of such a patron as Mrs. Bloomfield-Moore.

EMERLING

The son left abruptly, I believe to hide a certain embarrassment. As Clara wished to avoid any talk of your imprisonment, which to her is painful, we became engaged in a long discussion about the future, especially about the coming twentieth century.

KEELY

How fascinating. You must tell me about it . . . but first, would you like some coffee, or tea?

EMERLING

You have coffee?

KEELY

Oh, yes! This morning, my wife went back to her usual custom of warming up the workshop by brewing hot beverages.

EMERLING

I would like some coffee, thank you.

Keely exits behind the curtains, and Mrs. Emerling looks curiously around the room. She becomes especially interested in the spiro-vibrophone and in the spiral forms on the wall, touching the seashell gently. Keely returns with two, worn, dented metal mugs and a plate of cookies on a tray.

KEELY

She left some of her delicious, fresh-baked cookies as well.

He sets down the tray on the table.

Yesterday was the ladies' tea, today is the workman's coffee.

EMERLING

These mugs speak of hard work.

KEELY

Do they speak?

EMERLING

Oh, that's only an expression! But tell me, what is the meaning of the spiral forms?

KEELY

You could tell me, couldn't you? Being a most studious and dedicated theosophist.

EMERLING

I have my ideas, but I would so much rather hear yours.

KEELY

We could not exhaust the subject had we all day . . . had we the entire year, in fact! I can only begin by saying that this form is crucial in all of my work. In nature, as in the seashell, or in the cochlea of the inner ear, it may be said to represent - even to be - the contraction and densification of the cosmic, etheric Word. In my machines, the form has to do both with deceleration and acceleration or augmentation. I say it's crucial because it allows balance and control of these mighty, hidden forces, especially in the process of bringing the very vast down to the very small.

EMERLING

What are those steel pins around the . . . ?

KEELY

Spiro-vibrophone. Those are conductors. Among many other functions, they vibrate in response to the dominant scales in music. They too are most effective when aggregated in spiral form. We can only bow our heads in reverence before the awesome, infinite mystery of this form . . . But I'm curious to know, what did you and Mrs. Bloomfield-Moore discuss about the future, about the twentieth century?

EMERLING

Clara is optimistic about the twentieth century. She believes we stand at the gates of a true science, a science which meets, on this very threshold, with the parallel path of religion. The season of harvesting is approaching; the season for gathering the fruit, she believes. (*She gestures towards the poster of the atomic triplet*) The Genii, the all-pervading ether which has made its secret abode, through untold eons, in the unoccupied spaces seen in your diagram, can be released; can fulfill its appointed task in advancing the progress of the human race.

KEELY

Do you agree?

EMERLING

I don't share her optimism about the twentieth century. Only look to the events in our time. Slightly over twenty years ago, we were all enmeshed in the Civil War, which nearly destroyed the foundation of our existence. After untold suffering and sacrifice, the road to peace was again opened, only to be filled with numberless self-seekers who are marvels at exploiting and destroying others and our environment. It is not the scientists who have supported your high calling, but the speculators, whose motives have to do with personal gain. The scientists, who ought to recognize the beneficent value of your work, answer the challenge with jealousy and prejudice. Will all of this change in ten years, for then will the twentieth century be upon us . . . in ten years! You would hand this gift to mankind: co-creator with God. But mankind is immature! How will he use this gift? Has it not occurred to you that spiritual powers are intervening to prevent your inventions from becoming factors in human life, and through human means? . . . The stupidity of the scientists, the indifference of theologians, the hostility of vested interests, the paralyzing influence of the law . . . these things seem very like the operation of the higher controlling powers, acting with a consciousness for the attainment of ends that transcend our narrow calculations. We stand at the gate of the future, yes, but we are compelled to look unerringly to the past. The world is not ready for your work, and the twentieth century - a mere ten years away - how could the twentieth century possibly be ready?

There is a long pause.

KEELY

I have considered what you say from many points of view, and agree in some respects. But your ideas about higher controlling powers raise a most critical question: why was I born? Why am I here now, attempting this work? From where does my strength come? Am I myself not a human agent through which God can express His intentions?

EMERLING

I have no doubt there is a purpose in your life, too, which transcends our narrow calculations.

KEELY

At turning points of time, opportunities arise and new paths open. But choice is involved because man has free will. As I said to Charles just a while ago, the workshop as altar; man as co-creator, must be as visible a choice as the opposite, especially at critical times.

EMERLING

Do you not despair in the loneliness of the path you have chosen?

KEELY

I despair only at how few know their true worth, their true place, how few yield to the influence of the concordant chordsetting. Instead, they are dominated exclusively by the forces of aggregated matter which we usually call the self-will of the outer personality. They behave . . . well, as you and Charles have all too vividly described. Despite this, I would not take a pessimistic view

EMERLING

My pessimism can perhaps be soothed by the certainty both you and Clara feel about paths of choice, or parallel paths meeting at the open gates of a true science, but it cannot be swayed, for it has found root in the realities of our time.

KEELY

My work, too, has found root in our times. The journal, *Scientific Arena*, only last year published some remarkably descriptive and understanding articles touching upon what I call the neutral center . . . And you yourself, my dear friend, can discuss the Genii of the atomic triplet, or the neutral center, over a cup of coffee! . . .

EMERLING

What do you mean by the neutral center?

KEELY

Everything! It is the indestructible unit around which all that we recognize as matter is built; it bears the unthinkable burden of the mass of the universe, for within it, weight or matter ceases, within a molecule as within a planet. The actual neutral center of the earth is infinitely smaller than a billiard ball! It could not be seen with even the most powerful microscope, yet it bears the weight of the entire earth. My machines are all constructed with a neutral center, although the center can only be established when rotation exceeds 100 revolutions per minute . . . I'm currently working on a paper about the neutral center, among about a thousand other projects! All I need . . . is time!

EMERLING

Time to bring infinite space into time.

KEELY

The further I progress, the more mysteries I encounter, calling for yet more factors from our physical world, yet smaller and smaller particles. I must admit, the motor downstairs is the hundredth or so version.

EMERLING

As Clara says, God never hurries. He counts the centuries as we count the seconds . . . Somehow I feel assured that the Genii will not be loosed until He so chooses, and if this occurs through you, and in your lifetime, then I must concede this is His Will, and cannot harm, no matter my own view of present day humanity, and the darkness and dread I sense in regard to the coming century. No, this sense will not change . . . Well I don't wish to take up any more of your time
-

KEELY

Today is no problem. I am essentially recovering.

EMERLING

I'm so sorry. If there's anything I can do to help, please let me know. Our newsletter has a wide circulation and we could publish your paper on the neutral center.

KEELY

Perhaps so . . . Before you go, I would like you to have something for your meeting lodge.

He searches the shelves quickly and finds a conch shell, which he gives to Mrs. Emerling. She is pleased and puts the shell to her ear.

EMERLING

I never hear the sea waves so much as the sea cave. To me, the shell always whispers hauntingly of the need for a secure home in the midst of the vast surrounding sea. As you said . . . the spiral form is the way the tiny creature finds its way from the very vast to the very small, its own path of incarnation. Thank you for this gift, for all your work. (*They grasp hands again*) Be assured . . . there will always be an isle of peace for you in the hearts of genuine theosophists.

She exits.

There is a pause; Keely is lost in thought. He turns again to the zither, sitting down at the table. He listens to B Flat, then plays the higher chords again, watching the globe. However, the globe remains still. He again plays B Flat.

KEELY

Waves of B Flat permeate the air.
The single note on the zither
Is swept away like a dry leaf
In a vortex . . .
While the chords of hope are powerless.

He rises and crosses to the globe, places his hand on the spiro-vibrophone and concentrates, but the globe remains motionless.

Dark moments in the prison cell,
With sorrowful moaning nearby;
Charles pale with worry;
Janice Emerling, who looks,
In her own words,
Unerringly to the past
And with dread to the future;
Thoughts of higher powers
Working against me
Through human means,
Theses are low octaves compounded,
They render the ether dense,
With downward swirling
Vortex forms.
The dark aspect of the spiral,
Which dashes against the rocks.
The Promethean fate

He tries again to move the globe, without success. The room darkens.

All of this renders
The high chord powerless

Above, in response to this mood,
Like a sudden storm,
Color and light fade into greyness.
I find myself thrust into a place

Where most men live today,
Thrust into a greyness darkening,
Into a nothing! . . .
I hear the strident voices,
Not only those of recent days,
But of years ago:
Were you born too soon?
Were you born out of your time? . . .

What will this sudden
Thundering storm
Bring in its wake?
What could this mean? . . .
How can I work?

*He sits down at the table and puts his forehead
in his hands. In a few moments, he looks up and
around.*

In the Nothing is the All! . . .

*The room lightens as a Spiritual Figure
emerges from the darkness. He wears a white
and pale violet gown with flowing, rainbow
colored sleeves. From the Figure arise three
gestures before he speaks: in the first, while
entering, he raises both hands up in greeting; in
the second, both arms expand outward and the
sleeves resemble the wings of a bird; in the
third, the fingers of both hands touch above his
head to form a pyramid.*

FIGURE

Behold! My name is the song
Of an age long passed,
Yet shining in the future
As from the Mount of Olympus.
Listen! Today my song
Is carried in the trees and skies,
And can be seen
As lilac-colored fire
On the arching circle
Of the celestial sphere.

Lo! Didst thou hear,
At the great pyramid,
The starry world sing
To the hearts of men?
Reflections at the apex
Cast as image
Upon a white surface
Revealed the heavenly Word,
Even as script
For the eyes to behold.
Didst thou hear
On the clear surface

Of the light-filled water
The harmonious song
Of expanding circles
Of color,
Created by resonating tones
Of small instruments?

Souls held in their power
The crystalline world emerging;
Then all was lost,
The birthright vanished;
Hidden from all, save few.
The story of Icarus
Was told to the generations:
Man may soar aloft
Only with moral strength!

Thy soul is ever seen
At the apex of the pyramid,
Between two worlds.
Thou hast never lost
Memory of the birthright,
Nor failed to hear
The song of all beings,
Living and non-living.
Thou hast never lost
The secret of the pillars
Wreathed with roses
In the Temple of Pansophia:
The One drawing matter
Up into spirit,
The Other drawing spirit
Down into matter.

Now from the depths of darkness,
Cries from the wounds of chains,
The crux of destiny confronted,
The weight of time borne heavily
In somber garments of the day.

Yet the answers
Are reflected to me
In thine own thoughts and deeds,
Borne up in profound suffering.
Thus will I reflect them back,
As the stars glimmer
In deepest night:

I stand at the threshold
Of the machine age.
Man may be crushed
By the mechanistic view
Of his universe,
Or his laboratory
May become an altar
To manifest cosmic intent.
Witness my life;

Witness what I have lain
At the feet of my brethren,
While my eyes gaze upward
To the Glory of God.
Oh Great God, oh Nature,
Thou Everything from Nothing,
I am Everything in Thee,
And I live in Thine Everything
From Nothing! . . .

You are not like those,
Unthinking, uncaring, inactive,
Who, when their supplications
Reach the high Entity, hear:
“Lo! Thou didst not even try,
Knowing that even thy failures
Were acceptable to me.”

Begin then, as thou didst resolve
At the apex of the pyramid,
Begin the Great Work! . . .

*The Figure forms again in gesture, in reverse
order, the pyramid, the wings and the greeting,
and withdraws.*

*There is again a pause and the mood and
gestures are of deep reverence. Keely then
becomes intensely aware of the atmosphere in
the room, concentrating and moving as though
through substance, at the same time listening.*

KEELY

I would say that Aeolus,
God of the winds,
Touched the room with his breath
When the Spiritual Figure departed.
The air is alive with movement and sound,
Full of significance
Only the centuries could fathom.
I hear the wind
Playing exquisite songs
On the Aeolian harp . . .

Grace is mine in these moments,
And peace fills my heart
Through the tones of the radiance.

Visions of majestic machines!
Pulsating, globular, copper, crystal,
Small wires, silver, gold and platinum,
Light instruments held in the hand,
Yet with immense power
Far beyond anything
Even I can imagine!
Labors of men are felled forever

And economic woes ended.
This is the new city,
The true Philadelphia.

The tasks ahead stagger me!
These words were wise:
Begin.
Only the barest beginning can be made;
It is all beyond success or failure!

Back, back, back!
How it pains me!
All the way back
To the here and now,
Back to the mere beginning,
And no doubt,
Dashed against the rocks!

He sits down in exasperation. Slowly he recovers and looks around the room.

The damp wind
Of this gloomy November day
Curls up against the building;
The wet leaves cling
To the dusty windows
Of this too-small workshop.
Millipedes scurry across the floor
And disappear into the cracks.
Spiders weave webs
In the beams above.
The aroma of coffee
Is still in the air,
And . . . true, a warmth.
My tasks -
What was I doing?
Oh, yes!

He rises and examines the wire connecting the metal top of the glass jar to the small copper globe. He picks up the zither and places it down on the table, then sets the small globe carefully on top of it. He begins searching the shelves, then stops, in thought.

They're both right! . . . Both Clara and Janice are correct about the twentieth century. There will come what each anticipates: a true science combined with earnest spiritual endeavor, and horrible occurrences we dare not dwell upon, for some men will choose the former path, while others, rejecting God, will fall into a veritable hell

He continues searching the shelves, then finds a small, flat cylindrical shaped disk which he places carefully on the tuning pins of the zither. Thus satisfied, he adjusts the sign which he had earlier hung on the curtain, touches the poster, and returns to his notes.

Shortly, a young man, no more than 21 years

old, enters hesitantly, cap in hand.

DAVIS

Are you Mr. John Keely?

KEELY

Yes . . .

DAVIS

My name is Wesley Davis. If you'll recall, no visitors were allowed into the prison on Sunday, so the gatekeeper conveyed my note to you, and you agreed to a demonstration of your machinery.

KEELY

Ah, yes! . . . Wesley Davis.

DAVIS

(Handing Keely the note) Here's the note, sir, with your signature.

KEELY

So it is . . . *(Reads)* ". . . Galileo was thrown into a dungeon when he said the world was round . . . please show me how your machinery works. I'm also an inventor and want to help in any way I can." So, you're an inventor? What have you invented?

DAVIS

Nothing very much . . . a propeller for aerial navigation. But the design is still crude.

KEELY

Aerial navigation . . . the propeller waits for the motor, and the motor the source of power, the thrust or charge that will overcome gravity.

DAVIS

I've followed your work for several years; I'm convinced you have something authentic in this unknown force of nature. A costless motive power - think of it! We could fly in the air at will - travel to Europe and back in days, at no cost! . . .

KEELY

Not through engines operated by pressure and exhaustion, by expansion of steam or other gas. Discard all thought of such engines here, the power I utilize is that of sympathetic vibration generated through a wire - a wire! Look here, Mr. Davis - you see this wire? *(Referring to the top of the jar)*

DAVIS

Made of what material?

KEELY

Silver, the harmonic, gold, the enharmonic, and platinum, the dominant. Do you know music?

DAVIS

I play the trumpet, but not very well. But why gold, or silver?

KEELY

You will need time to understand, but we can begin today. It's significant you have a special interest in aerial navigation, for I planned a demonstration to show the overcoming of gravity.

DAVIS

This jar of water?

KEELY

Think of ships under water! The same principle holds for water and air, but depends on neither water nor air, for the triune wire is sympathetic with the polar terrestrial stream, which is the true source of power for any navigation. In order for me to demonstrate levitation through air, however, other small instruments - with gyroscopes - are required. We can progress to that, if you're interested.

DAVIS

Oh, I'm interested!

KEELY

Good. Now, observe if you will . . . there are three iron weights in the jar, each of a slightly different weight, one to two pounds. Each of the weights will respond to a different musical chord, its own chord. Every mass has its own chord, you'll learn. As I play the three chords on the zither, watch carefully as the three weights rise in turn.

DAVIS

What is this? (*Referring to the small disk.*)

KEELY

That's a transmitter.

DAVIS

But it's not attached to anything.

KEELY

It certainly is! It's attached to the tuning pins.

Keely first plays a higher chord on the zither, and the top weight rises inside the jar. He plays a similar chord and the second weight rises, and lastly, he plays a third chord and the third weight begins to rise, but stops in the middle of the jar.

It's possible to stop one of the weights halfway up with a similar, but inexact chord.

He plays another chord and the weight continues its journey to the top.

DAVIS

Amazing! Could you now lift off the cap and remove the weights?

KEELY

No. I tried that once and crash went the weights through the bottom of the jar. Now I'll bring them down . . .

He plays three lower chords and the weights sink.

DAVIS

What would happen if you left them at the top?

KEELY

They would just stay there.

DAVIS

Forever?

KEELY

(Laughing) No, who would want them to stay there forever? What practical purpose would that serve? Now the size of the structure is unimportant; the heaviest can be as easily controlled as the lightest. Picture, if you will, a vessel, the aerial navigator, over two hundred feet long and over sixty feet in diameter, tapering at both ends to a point, made of polished steel and capable of being driven under the power of depolar repulsion at a rate of three hundred miles per hour . . . As I explained, the transition from this demonstration to the levitation of massive bodies requires more instrumentation. I have some machinery downstairs I believe would interest you.

DAVIS

It certainly would! I feel . . . well, unbounded enthusiasm for everything I see here. When I walked through the door I felt I'd been here before; I'd seen this before. Yet I know I never have . . . My propeller . . . well, I feel it might somehow fit in here; that it would be at home. Believe me, I'd like to learn all I can.

KEELY

Just as your note cheered me in prison, your youthful enthusiasm strengthens my resolve to continue.

DAVIS

How could they ever have imprisoned you! It's like Mr. Collier said to all those reporters outside the courthouse: the persecution of Keely is a criminal conspiracy; the judge has been the mouthpiece of the mob and has crucified Keely as a fraud.

KEELY

You were in the crowd outside the courthouse?

DAVIS

Yes, sir, I was, and I stood there appalled by what I was witnessing. I said to myself then and there: this man does have something valuable. I want to learn what it is, maybe even help in some way.

KEELY

The amplitude of force . . .

DAVIS

Amplitude of force, sir?

KEELY

The degree of hatred can become intensified, proportionate to the number of units vibrating - in this case, the number of hostile individuals in the crowd. But if only one person counters this effect through sympathy then there comes a strong protective force. You have already been most helpful.

DAVIS

Do you think so?

KEELY

We must learn to bring these latent powers into consciousness; it is imperative in this work. Let's go have a look downstairs, shall we?

Davis nods and the two start to exit when the globe begins spinning. Keely turns and observes it silently for a few moments, then crosses to it and places his hand once again on the vibrophone. Slowly, the globe ceases spinning.

DAVIS

Why did that globe begin spinning?

KEELY

Because hope is in the air! I've been burdened with this thought of late: what if I should die before I complete this work? But you, and others like you, bring hope . . . hope that this work will be carried into the future! . . . And that's why the globe was spinning.

They exit.

End of Drama

NOTES

This play has been written as factually and as true to John Keely's biography as possible. The character and dialogue of John Keely are drawn in large part from his own writings and from descriptions of him and his work by his contemporaries. Charles B. Collier was Keely's patent attorney and his role and portions of his dialogue are based on contemporary newspaper accounts. Clara Bloomfield-Moore, mentioned frequently in the play, was one of Keely's strongest supporters.

The play has many fictional aspects, but these are based in fact. Janice Emerling is a fictional portrayal of a contemporary theosophical figure, R. Harte (*Disintegration of Stone*). Wesley Davis is a fictional character based on a newspaper account of a young man who was laudatory and sympathetic and attempted to visit Keely in Moyamensing Prison.

SOURCES

Universal Laws Never Before Revealed: Keely's Secrets, compiled and edited by Dale Pond, Delta Spectrum Research, Inc., Inola, Oklahoma, 1990, 1995.

From *Keely's Secrets*:

Disintegration of Stone, by R. Harte
Etheric Force Identified as Dynaspheric Force, by Clara Bloomfield-Moore
Mr. Plum's Visit to Keely's Laboratory, from *Dashed Against the Rocks*
Pyramids, Telescopes and Light, by John Keely
Levitation, by John Keely
Amplitude of Force, by John Keely
The Chord Settings of Life, by John Keely
The Dynamics of Mind, by Henry Wood
The Neutral Center, by John Keely
Keely's Trexar - A Superconductive Wire, by Dale Pond

OTHER SOURCES

Lecture, "First International Keely Symposium," Dallas, Texas, 1987, by W.A.M. Leys.

". . . Pillars wreathed with roses in the Temple of Pansophia," "Oh, Great God, Oh Great Nature, Thou Everything from Nothing," "The beginning of the Great Work," and "Prima Materia," are from old Rosicrucian charts published recently in *A Christian Rosenkreutz Anthology*, edited by Paul M. Allen with Carlo Pietzner, Rudolf Steiner Publications, Blauvelt, New York, 1981

Unpublished contemporary newspaper accounts in chronological order, Dale Pond.

The illustrations, including the cover, are based on photographs published in *Keely's Secrets*.

* * * * *

An early version of this play was written in 1979, but it was unsatisfactory and was not saved. Through the years, references to Keely were noted and studied and the task was taken up again and completed in 1992, with many thanks to Dale Pond and the Keely Society for making the above materials available.

Three Unusual Scientists, by Martha Keltz, Copyright 1999

The Ambient Medium

A Drama About Nikola Tesla

Characters:

Nikola Tesla, electrical engineer, inventor, discoverer

Kolman Czito, assistant

Joseph Dozier, carpenter

Julie Stevens, a sixteen year old girl

Spiritual Figure, representing Jupiter

Time: October, 1899

Place: Tesla's laboratory at the foot of Pikes Peak,
near Colorado Springs, Colorado

Scene:

The laboratory set is abstract, while props, furniture, etc. are realistic. At the back of the entire stage are two large, slightly concave-shaped flats with an opening between, which provides an upstage-center entrance. The flats and the backdrop behind them form, in light and shadow, a large T; they are alive with colors throughout the play and are mediums for lighting (lightning and electrical) effects. In front of the right flat stands the giant Tesla coil, part of the magnifying transmitter. The coil has a center mast which is attached to the ground; the mast has a tapering spire which must be imagined to extend upward through an automatic opening in the ceiling. Around the mast is the secondary coil and between the right flat and the secondary coil, the fence-like primary coil curves round, realistic at the extreme right, but fading out abstractly as it nears the upstage opening. (See illustration. The actual primary coil encircled the secondary coil and was 52' in diameter.) At right are some wires, tools and a wooden box. At the extreme down-right is a switchboard with several small switches and one large switch, and meters. The up-left flat has an abstracted window. At left there is a platform on which is a table and two folding chairs; on the back of one chair is Tesla's jacket. On the table is a telephone (with its own generator). At the extreme down-left and separated from the set is a playing area which must be imagined to be outside of the building. As well as at

upstage-center, entrances and exits are at right and left.

At Rise:

The stage darkens and distant thunder is heard. Mild lightning is seen as blue and white flashes through the window and on the flats and stage. Responding to the sound of the distant storm, Nikola Tesla appears at the center entrance. He carries a glowing lamp which illumines his features. He crosses to the table, sets down the lamp - which goes out - then crosses to the front, where light fades up on him. Tesla is 43 years old, tall and thin, and is well-groomed, with dark hair and mustache. He has an aquiline nose and his blue-grey eyes are deep-set and thoughtful and not lacking in warmth and humor. He is well-dressed, with dark vest and trousers, white shirt and dark tie. He looks out front.

TESLA

Here is a storm not unlike
The awesome display last July,
When the skies were filled with strange light.
On that empowered evening
I sent electrical vibrations
Toward the remote boundaries of the earth,
And as a wall reflects an echo,
The earth replied.
Stationary waves reflected from afar,
A discovery of great significance;
The earth is revealed as a conductor.
I knew then that electricity
Could be transmitted without wires.

A pause as he listens.

This storm will subside.
Tonight the theater may be here;
Limbs of fire may grow here
Which we can use as we so will.

The stage lightens.

The storm passes quickly; the sun re-emerges.
However we obtain our sources of energy,
We should consume no materials,
But assure our progress in harmony
With the natural elements.
Only think of the windmill and the waterfall;
The electric molecule. Lightning?
We must utilize the elements
Of the surrounding atmosphere,
Or the ambient medium.
Above all, we must utilize
The deepest, most hidden aspects
Of the ambient medium,

The formative life principle,
That tenuous substance
Just beyond the grasp of most men -
That common, yet hidden force,
The most efficient form of energy
For the true progress of man.
It will happen, for it is a great truth,
And has been my lofty goal
Through many years of labor.
Still, all the discoveries of my labor
Seem mere parts of this greater whole,
Mere fragments stilled in time and space:
Turbine engines, air compressors, oscillators;
Vacuum tubes, light bundles, refrigerators;
Wireless telegraphy and stationary waves;
Wireless transmission of electricity...
I progress and fall back;
Advance and am hindered
By fate, by retarding forces,
Perhaps to the good.

With yet further mysterious answers
To the questions of the ultimate goal,
Fate has brought me here,
To the rarefied mountain atmosphere
Of Pikes Peak, where
Inspired by frequent storms,
When twelve thousands discharges
Have occurred in two hours
Less than fifty kilometers
From the laboratory,
I make new discoveries
And prepare high voltage experiments.
Lightning bolts, those gigantic trees of fire,
Inspire and lure me
Further along the way towards
The efficient use of the formative forces.

He crosses to the right and inspects the wiring on the primary coil. Kolman Czito, his assistant, enters from the center. Czito is appropriately dressed in workman's clothes. He is stocky in appearance, with a serious, though friendly demeanor.

TESLA

Did you have enough light back there, Czito?

CZITO

When the sun came out, yes, as the ceiling's partly opened. I wish you hadn't boarded up the back window, though. Every boy in town is disappointed.

TESLA

This is no place for boys. There are dangers here. If my warning signs have no effect, I must take unkind measures. Have you finished inspecting?

CZITO

Yes, the storage batteries and the transformer.

TESLA

Good. Since I cannot predict exactly what will happen when you close the switch tonight, we at least have the assurance our equipment is in perfect working order. Only look at this primary coil - because my workers are well-paid, they reward me with excellent work.

CZITO

You say, you cannot predict exactly what will happen tonight... what is your inexact prediction?

TESLA

Ah, Czito, be brave as always!

CZITO

And trusting as always.

TESLA

I've told you of my experience last summer, when I discovered stationary waves. The earth is a container filled with electrical fluid, as is the cosmos, and resonance causes this fluid to solidify into motionless waves, which in turn act as conductors. Hence, energy can be transmitted without wires, without loss, in any amount, to any distance. You've witnessed my wireless experiments lighting lamps with energy sent through the earth, the oscillator working at only five per cent of its capacity. Tonight, however, the full capacity of this giant will be used, and twelve million volts or more of power will be forced into the area contained within the diameter of the primary coil, then thrust back up through the tower to the top of the mast.

CZITO

To the copper ball?

TESLA

Yes, the copper ball which Mr. Dozier and myself placed atop the mast. This will release the excess power and create the first manmade thunder and lightning ever, leading to the possibility of controlling thunder and lightning in the future. I'll admit, in this conducive high altitude, I couldn't resist this bold experiment, this attempt to take hold of the greatest visible power of the ambient medium, though it cannot yield the commercial results my supporters expect. It is necessary at times to place the progress, the evolution of humanity above commercial interests and personal ambitions. We must attempt the passage through this mighty gate of lightning to arrive where other secrets lie... whether or not Jove approves of our boldness and so leaves us with our lives remains to be seen. This, Czito, is my inexact prediction. You are with me?

CZITO

Of course, sir. And thank you for your explanation.

TESLA

I ask you not to repeat it to anyone.

CZITO

I will not, sir.

TESLA

I've never doubted your loyalty, Czito. Now, shall we remove these items from the stage of what may be tonight's cosmic drama?

Czito picks up the wires and tools; Tesla picks up the box and places it on the table.

By the way, was there no mail delivery this morning?

CZITO

Oh, I forgot to tell you, our boy's down with a cold. I'll run into town -

TESLA

That won't be necessary. I plan to leave early in hopes of catching some rest for tonight. The mail can wait.

Czito exits right. Tesla opens the box, removes a specimen of quartz crystal and holds it up to the light.

In the crystal
We have clear evidence
Of the existence
Of the formative life principle,
And though we cannot understand
The life of the crystal,
It is none the less a living being...
There may be other living beings
Present in our world,
In the very midst of us,
Yet of such constitution and life manifestation,
That we are unable to perceive them.
Likewise, there must be similar
Living minerals
On our nearest planets,
Venus and Mars,
And intelligent beings
Who may be seeking
To communicate with us.
How might the signals
I have heard here
Be otherwise explained?
The distinct, rhythmic
One-two-three pattern
Can only mean intelligence.
This intelligence permeates the universe,
From the crystals,
Through the circling planets,
To the ordered stars.
Yet, how much can we perceive?
I am inclined to believe,
But a fragment of the whole,

Stilled in time and space,
As are my materialized inventions.

He places the crystal back in the box. Joseph Dozier enters from the left. The elderly carpenter, white-haired and ruddy-complexioned, is warmly dressed.

DOZIER

Well, Mr. Tesla, you'll be pleased to know the repairs on your station in town are completed.

TESLA

Very pleased, Mr. Dozier.

DOZIER

And instead of phoning to tell you, I decided to walk up here. Needed the exercise.

TESLA

Your visit is opportune and welcome; we're enjoying a few hours of repose. Sit down.

Both sit down at the table.

DOZIER

You're not very warmly dressed, are you? Colds are going around.

TESLA

I'm quite comfortable. Not warm dress, but correct and repeated hygiene will ward off germs.

DOZIER

There are no germs here. I hardly recognize the place, usually piled to the ceiling with equipment.

TESLA

You can have a good look at your carpentry work for a change.

DOZIER

Glad to see the building is still standing! Your idea of bracing on three sides against the wind seems to have worked, though I had my doubts. So, I understand tonight's the night you'll defy the gods? Exceed the limitations imposed upon our species?

TESLA

I cannot say your question is exaggerated.

DOZIER

Well, I wish you the best from the bottom of my heart, and in fact, I'm confident you'll have success.

TESLA

One step will be significant, and who knows where it might lead. Just before you arrived, I was thinking of the signals that keep coming through on my large receiver. One-two-three, one-two-three, just so simple. Yet it could lead to communication with another planet! I've anxiously formulated how I might reply, but am far from any solution.

DOZIER

Certainly we're not alone in the universe, nor so separated from God as we believe. You know, we never had the opportunity to finish our conversation at the hotel the other night. I was fascinated when you said you had met Swami Vivekananda in New York.

TESLA

Oh yes, that was in... 1896 I believe. I met him at a party, and once or twice personally, and attended several of his lectures. I was amazed to learn that the Vedas described the forces and mechanisms of the universe as I understood them. Are you familiar with Sanskrit?

DOZIER

Very little, but please continue.

TESLA

You see, what I often call the ambient force or energy is called Prana in Sanskrit, and matter is called Akasha. I took up quite a serious study of Eastern science and it has been most helpful. As well, I believe it harmonizes with what *should* be the aspirations of our age.

DOZIER

Who taught you about the forces and mechanisms of the universe, which you recognized in the Eastern teachings?

TESLA

No one. I had the usual Western education and was in fact studious to the point of illness on more than one occasion. It must have been my efforts, my good intentions that rewarded me. No words, no books, no teachers led to my understanding. It was an experience.

He rises.

I was working in Budapest at the time, in 1882. For some years I had been visualizing direct-current machines, and imagining that the flow of current, if altered, could be far more effective. I had strained my inventive capacities to the limit on this problem and still had not arrived at any solution. Well, one day I was walking through the city park. The sun was setting and reminded me of the glorious passage from Goethe's *Faust*:

The glow retreats, done is the day of toil;
It yonder hastes, new fields of life exploring;
Ah, that no wing can lift me from the soil
Upon its track to follow, follow soaring!

A glorious dream! -
Though now the glories fade.
Alas! The wings that lift the mind no aid
Of wings to lift the body can bequeath me.

The solution came like a flash of lightning. I drew with a stick in the sand the diagrams that illumined the mysteries of the rotating magnetic field. My mental images were sharp and clear and had the solidity of metal and stone. When

I looked again at the sky, now filled with stars, I saw the universe as a great symphony, the harmonies played on a scale of electrical vibrations with a vast range of octaves. Pulsing throughout all was the luminiferous ether. What did I experience in those moments... what neither books nor schools can teach, what words can only feebly describe.

There is a pause.

DOZIER

Why, I am moved almost to tears... And I can see the young idealist in you still, with your great plans for a better world. Free electricity flowing through the ground and the air; light and fuel available anywhere; machines, not men, to fight wars. But I'm an old man and my old eyes have witnessed, time and again, greed, the quest for power, moral corruption, cruelty, ambition... How will the power stations realize their profits?

TESLA

Power stations can profit until they become simpler and safer, then they may be established and operated by the communities they serve. As to immorality, I tend to view this as a physicist would, as a frictional or negative force retarding the forward movement of man. The Christian religion, which is no more idealistic than I am, has the best solution: food, peace, work. The challenges of our times - the aspirations of our age - will require the best resources of all religions.

DOZIER

What you say makes sense, and I couldn't disagree. I can only hope the world will take up your ideas.

TESLA

I still have much to learn, much to accomplish. Speaking of work and hope, I am reminded of another poem by Goethe:

Daily work - my hand's employment,
To complete is pure enjoyment.
Let, oh let me never falter.
No! There is no empty dreaming:
Lo! These trees, but bare poles seeming,
Yet will yield both fruit and shelter.

Julie Stevens appears at the up-left window and taps on it. Both men turn.

TESLA

Who in the world?...

DOZIER

It's Miss Julie Stevens.

TESLA

I've managed to keep the boys away, and who comes up here but a girl!

He crosses to the window and Julie holds up the mail.

DOZIER

She's brought the mail.

TESLA

(Gesturing) Come round through the front!

Julie disappears from the window. Tesla crosses to center.

TESLA

While we're on the subject of hope, perhaps I should put up a new sign, in large red letters, to read: "Abandon hope, all ye who enter here!"

DOZIER

From Dante, eh? Seems negative to me.

TESLA

To a purpose - to a purpose.

Julie enters from the left. She is a sixteen year old girl and wears a jacket, long skirt and ankle boots. Her light hair is held up in the back with a bow-ribbon.

JULIE

Hello, Mr. Tesla, Mr. Dozier.

DOZIER

Hello, young lady. Mr. Tesla feels you should not come up here. There are dangers. High voltage equipment.

JULIE

Everything looked so peaceful and quiet, a touch of snow on the ground. I thought you might like to have your mail, sir.

TESLA

(Taking the mail) Thank you, Miss Julie. But next time, be sure to phone first.

JULIE

Promise.

TESLA

Here's a letter from Mr. Johnson, the *Century Magazine* editor.

Julie looks curiously around, then points towards the coils.

JULIE

What might that be?

TESLA

Those most definitely *are* the coils of my magnifying transmitter.

JULIE

Could this be causing the sparks that come up through the ground, frightening our cows and horses?

TESLA

There are still a few problems to be worked out.

JULIE

(Looking up) This is the ceiling that opens and closes?

DOZIER

Now, Miss Julie, Mr. Tesla doesn't have time to answer every one of your questions.

TESLA

Oh, I don't mind. In fact, I'll show you how the ceiling works.

He places the mail on the table and crosses to the switchboard at the extreme down-right.

It's now partially open.

He closes one of the small switches and the stage darkens.

Let's not remain in the dark too long.

He closes another small switch and a rhythmic humming is heard while a soft, diffuse white light fills the entire stage.

JULIE

Why, what a strange, beautiful light... Where is it coming from?

TESLA

The ambient force.

DOZIER

Where are the lamps?

TESLA

No lamps are needed. I'll show you something else.

He crosses to the wooden box and from this box he removes a small box with a lid. He places this box on the table and carefully opens the lid.

What I have in this box cannot harm you, so don't be alarmed.

From this box he removes a ball of red fire.

DOZIER

(Rising from his chair) What? -

TESLA

This is contained fire, contained force.

He passes the ball back and forth from hand to hand, then touches his sleeve with it.

It burns nothing, you see? Take it in your hands.

Dozier takes the ball of fire into his hands and looks at it with amazement. He presses it against his sleeve.

Harmless. Return it to me, please.

Dozier returns it and Tesla puts it quickly back into the small box and closes the lid.

How I wish I could contain ball lightning like this! I can create ball lightning at will, but it cannot resist rolling down to the ground, where it sings everything it touches, then fizzles out.

He places the small box into the larger one, then removes a tube with a wire attached to a small storage battery. He holds up the tube, presses a button on the battery, and the tube glows with light.

This is really quite simple. The tube is filled with a gas which diffuses the light. I've also made it phosphorescent.

He turns the tube off and returns it to the box. He then picks up one of the letters and opens it.

Let's see what Mr. Johnson has to say. He writes the most amusing letters.

DOZIER

There is certainly enough light.

TESLA

(Unfolding the letter and smiling) "Dear G.I."

JULIE

G.I.?

TESLA

Great Inventor. He's sure I've been working too hard as usual; that I've not been taking the time to relax and enjoy life.

He's sending a photographer up from the Denver newspaper... he wants pictures for our *Century Magazine* article. Fortunately, we're ready. He ends with a question about Miss Julie.

JULIE

Me?

TESLA

Yes, I told him I had recommended the piano piece for you: Schumann's *The Prophet Bird*. He says it's very difficult. How are you coming along with it?

JULIE

A bit more practice, then I'll play it for you.

TESLA

By the way, what does *The Prophet Bird* prophesy?

JULIE

That must be something I don't know.

DOZIER

I don't think *The Prophet Bird* prophesies anything. Schumann intended nothing profound.

TESLA

The title alone is significant. Take a moment to think, your answer will be important.

JULIE

I'm not sure what the bird prophesies. The music sheet says that the tender song of the bird is interrupted by the dark, menacing tones of the hunter.

There is a pause as a certain sadness comes over Tesla.

TESLA

You see, Mr. Dozier, she alludes to what you also said to me but a few moments ago: matters may go wrong because the world is immoral.

DOZIER

Your Croatian folk-soul is peeping through.

TESLA

Birds are important symbols in the folk poetry, yes, and I've always been very fond of them. (*To Julie*) Have you ever had a dovecote?

JULIE

No. I've seen them.

TESLA

Homing pigeons are common in the country of my birth and are used for many practical purposes. When I was a boy, I would wonder: could man ever equal the flight of the pigeon, so natural and simple - though a pigeon must learn to fly. Could man ever duplicate the homing instinct of this bird? Pigeons - all birds - are a daily miracle, reminding us daily of a possible future existence.

A glorious dream!...
Alas! The wings that lift the mind no aid
Of wings to lift the body can bequeath me....

DOZIER

We had best start back to town, young lady, Mr. Tesla will need to rest for his work tonight.

TESLA

I have enjoyed your visits, and thank you again for the mail.

JULIE

You're welcome. I'll miss this light.

TESLA

Perhaps this light is in your future.

DOZIER

I will pray for your success and your safety tonight.

Mr. Dozier and Julie exit at left. Tesla crosses to the right and gazes at the coils.

TESLA

Could the world fail
To accept this,
My best invention,
The magnifying transmitter,
Which matches the electrical
Constants of the globe?
This great advancement
Will annihilate distance
And interconnect
The various systems,
Requiring no changes
In existing equipment.
Why has a shadow
Suddenly intruded
Upon the integrity
Of my work?

A pause.

I will permit no ominous note,

No prophet bird nor menacing hunter
To disturb the sanctity
Of my laboratory.
Resistance?
A mass that resists
The forward movement of man,
Once set in motion,
Greatly aids his progress.

He crosses to the switchboard and closes the small switch; the humming and diffuse white light fade out. In the dim light, he crosses to the chair and puts on his jacket. He picks up the lamp from the table, which goes on, and hearing something, he stands very still, listening. He then crosses to the extreme down-left area and looks out front, as lights fade on the stage.

The patches of snow
Harden on the ground;
Dusk is quickened
By the grey clouds
On the horizon.

He listens.

The same storm
Which passed by here
Vents in the distance.
I can hear thunderclaps,
Five-hundred and fifty miles away...
Above, the pale moon
And a few stars
Are visible.

He turns toward the right and looks up.

The copper ball reflects
The waning twilight.

He again looks front.

In the future, the night skies
Will everywhere glow
With the diffuse white light,
And electricity will be available -
Even to the world's remotest hamlets -
Free for the taking -
Free!....

He exits left and all lights fade out.

As the light fades up slightly, Kolman Czito enters from the left. He wears a warm jacket and carries a sign. He crosses to the switchboard and closes a small switch, but the stage remains only dimly lit. He crosses to the up-left window and hangs the sign

on a hook. The sign, in red letters, reads: "Abandon hope, all ye who enter here." He then crosses to the table, picks up the wooden box and exits at right. Nikola Tesla enters from the left. He wears evening dress: a Prince Albert coat, a derby hat, gloves, and boots with thick insulator soles. He is carrying the lamp, but when he sets it on the table, the glow remains because the atmosphere is dark. He is observing the sign as Czito enters from the right.

TESLA

Quick work on the sign. Shouldn't it be turned towards the outside?

CZITO

I just thought you might like to see it.

Czito turns the sign over and the word "Hope" is printed on the reverse side.

You're never without hope.

TESLA

Well stated.

CZITO

I know you prefer evening dress for important occasions, but when I saw you looking at the sign, your features gaunt and shadowy, I thought, it's Mephistopheles.

TESLA

If I were Mephistopheles, we would be assured of success. As it stands, I'm a mere mortal, so we remain in uncertainty and jeopardy.

CZITO

We're as ready as mortals can be.

TESLA

It seems so. On the way up, I checked the wires connecting us to the electric company and they seemed secure. I regret we must depend on outside sources for help.

CZITO

At least they supply the power free of charge.

TESLA

If I have my way, free power will be the rule, not the exception. Well, I suppose it's time to proceed with our experiment.

CZITO

May Jove permit you to pass through the gate of lightning; may you arrive where other secrets lie.

TESLA

May we both survive! Man the switchboard, Czito.

Czito crosses to the switchboard.

Open the ceiling.

Czito closes the small switch and the ceiling opens.

A clear, perfect sky.

Tesla crosses to the left.

I shall stand here for now. You will close the master switch the first time for one second only. After I step outside, you will close the master switch and leave it closed until I tell you to open it. Understood?

CZITO

Understood.

TESLA

Both times I will say: *Now, close the switch.* Are you ready?

CZITO

(Placing his hand on the large switch) Yes, sir.

There is a pause as both men gather strength. Tesla's face is grim.

TESLA

Now! Close the switch!

Czito pulls the large switch forward. The meters jump; there is a sharp snapping sound above; blue and white flashes appear on the stage; a Medusa's head of fire (which can be created with strobe and fluorescent lighting) appears on the secondary coil. Czito quickly pushes the switch open.

TESLA

Did you see that? Eerie fire crowned the coil; electricity snapped above!

Tesla's face is transformed with rapture.

CZITO

I expected the explosion of a short circuit.

TESLA

There was no short circuit! It can be done, Czito! The gate is opening!

Tesla crosses to the outside area at down-left. Again there is a pause, a gathering of strength. Tesla turns right and looks up.

Now! Close the switch!

Czito again pulls the large switch forward. The same effects occur, now with thunder above as well. The intensity increases; a ghostly blue light fills the room.

Marvelous! Lightning bolts are shooting out of the copper ball! Look at the size of them - at least one-hundred feet from the mast! Listen to the thunder!

The effects increase in intensity. Czito removes his hand from the switch, but remains ready to open it. However, the signal does not come from Tesla, who remains enraptured by the spectacle. The lightning begins to occur in staccato snaps. Czito is clearly frightened.

TESLA

Needles of flame - sparks - everywhere! The sulphurous odor of ozone fills the room. Sublime! We are rending the curtain! There is the path, and beyond - I cannot begin to describe what I see!... All that we know is nothing - nothing!....

He raises his hands upwards and appears to be grasping hold of the lightning. Suddenly there is a blackout, and only the dim light and the glow of the lamp are visible. Tesla is stunned and remains disoriented for a few moments.

TESLA

Czito!

He crosses to center.

Czito! Why did you open the switch?... I did not tell you to open it! Close it again, quickly!

CZITO

(Pointing to the switch and meters) The switch is still closed. Both meters register zero.

Tesla crosses to the switchboard and examines it.

TESLA

What did I say? We have to depend on others - others! And they will disappoint us! The power from the electric company is dead! They have cut off my power! They cannot do this to me!... Czito, call up the powerhouse, tell them

I must have my power back at once!

*Czito opens the switch, then crosses to the phone.
Tesla follows him.*

CZITO

(On the phone) Hello?... Operator, put me through to the electric company. *(Pause)* They're having a power failure. Well, the phones are working!... Yes, yes, the electric company!

A pause.

Hello? Is this the powerhouse?

He gives the phone to Tesla.

TESLA

This is Nikola Tesla. You have cut off my power! I must have it back at once! You must not cut off my power!...

There is a pause, then Tesla sighs in exasperation.

(To Czito) He's cursing at me. *(Into the phone)* I'm sorry, I'm very sorry to hear it. Can you give me another generator?

Another pause.

All right, all right! I'll send someone over to have a look at it. Yes, right away.

He hangs up.

We overloaded the dynamo; their generator's on fire. The entire town is in darkness.

CZITO

Our equipment withstood a heavy short circuit, but theirs couldn't... So they have a standby generator, but they won't let you use it?

TESLA

No. Can you go over and see how much damage was done?

CZITO

Certainly.

TESLA

You can help them tonight, and also, offer our assistance tomorrow. We'll want another generator as soon as possible.

CZITO

I'll do what I can.

TESLA

Take the lamp.

Czito picks up the lamp.

CZITO

I'm sorry...

TESLA

Make them sorry, Czito. Show them a thing or two.

CZITO

I'll show them I work for the best.

Czito exits left. Tesla removes his hat and sets it on the table, then crosses to the switchboard and closes a small switch. He observes the room for a few moments, then opens the switch.

TESLA

We are powerless even to summon the kindly light of the ambient force.

He crosses back to the table and sits down, removing his gloves slowly.

Moments ago the highest goal was within my reach. As the thunder and lightning increased, so did my understanding. How sublime it was! How close! - how close I was to perfect illumination, only to have been thrown back into darkness... by the incompetence of others! What a fine figure I must appear now, barely able to see my hands in front of me, looking above to the faraway glimmer of the stars for all my light...

With sudden weariness, he places his elbow on the table and supports his chin in his hand. He closes his eyes. A few moments pass and the stage further darkens. Then, the humming sound is heard and the white light fades up slowly. Tesla opens his eyes and observes the light.

From the upstage opening, the Spiritual Figure enters, folding his arms over his chest. He wears a gold-orange garment and is surrounded by a warm golden light. He crosses to the center, where he stands tall and straight. With a circular gesture, he raises both hands to his forehead so that the middle fingers of each hand touch, then he moves both arms outward in an expansive encircling gesture before slowly relaxing them.

FIGURE

Sublime is my realm,
Called Jupiter.
Illumined thought
And the power of the present
Are within my sphere.
I dissolve the day's problems

In the amber fire of twilight,
And in the morning's
Cool radiance,
Bring solutions.

Behold, at daybreak, the future;
Behold Jupiter
Bringing into conscious thought
What stirs unbeknownst
In the depths of night,
Given life by forms
Of unrecalled memories
Seeking expression,
Seeking to be formed anew
In daylight's freedom.

Within each live memories
Of a distant time
When the tree of humanity
Was one, and strong,
And drew life joyfully
From the surrounding atmosphere.
But the tree bent and broke,
The branches fell, became
Rooted to the earth;
The whole fragmented.

Yet the whole lives in each,
Some tall and firm, as Tesla,
Others weak and brittle.
"Lo! These weak,
But bare poles seeming,
Yet will yield both fruit and shelter."

Happily would Jupiter renew
The forces of old
Through the work of Tesla,
And reveals a secret
Of that tenuous substance
Beyond the grasp of science:
The ambient force will emerge
In direct proportion
To the emergence
Of selfless love,
Love made manifest
In deeds of men.
Today, the new seed -
The star of this power -
Is often seen in the heart
As a dove longing for flight,
A symbol of promised peace,
And God's sacrifice.

Tesla's light has strength
Through unique deeds
In the past,
When souls became aware

Of the forming powers
Of thunder and lightning,
Electricity and magnetism.
Then, with limbs becoming perfect,
He helped build
The world of matter
With God-given
Selfless forces,
Cosmic forces
Now manifest in each
Fragmented branch -
In seed form -
Through the sacrifice.

As a plant grows
With seeming magic
In a loving atmosphere,
So will the ambient force grow
In the true heart center
Of the microcosm,
Expanding beyond space and time,
The substance of a new universe.

In the inventor's words,
Man will unlock the earth's
Immense imprisoned energies;
Place in his service the fierce
Devastating spark of Prometheus;
Tame the thundering bolt of Jove;
Create and annihilate material substance,
And stand beside his Creator,
His destiny fulfilled.

*The Spiritual Figure again touches his forehead,
expands his arms up and outward, crosses them
over his chest and exits through the upstage
opening.*

*After a pause, Tesla rises from the chair and crosses
to the center.*

TESLA

I fell asleep.
How long did I sleep?
Tongues of fire
Surrounded me
And a figure emerged
In visionary form.
I am no prey to illusions!
But what I glimpsed
During those moments
Through the gate of lightning
Seemed to resonate
In my half-conscious state.
A radiance intoned;
Answers poured forth,

Clear as quartz crystal,
Yet they elude me now.
I must remember!...

I feel so... inadequate,
So lacking in perfection,
Though I am the supreme
Perfectionist...

Truly in this momentous
Incomprehensible experience
There was an ominous note.
The prophet bird...
The immorality of the world,
Greed, quest for power,
Ambition, cruelty,
A world that is not ready...
And within me,
The prophet bird,
In the shadow of the hunter
And lacking the strength of wing,
Cannot take flight.

My confidence would be shattered
Had I not glimpsed a path
During those moments
When Jove placed his power
Into my hands,
A path between
The dark, cold world without
And human weakness within.

My confidence in fact
Is strengthened,
For I was likewise granted
A vision of the fruits
Of my experiments here:
The world-system power plant -
I see it clearly! -
Gigantic towers on the continents
Making possible the transmission
Of limitless energy;
World transmission of typed
Or handwritten characters,
And, yes, the interconnection
Of all telephone and telegraph exchanges.
And thank you, Mr. Dozier,
The art of telautomatics
Will enable machines,
Not men to fight wars.
These are not ideals,
They are truths,
And they will become realities
Through toil and sacrifice.

*The white light begins to fade, and Tesla, observing
this, suddenly remembers the power failure. He*

crosses to the telephone and picks it up.

Operator?... Is there still a power failure in town?... The electric company, please. Hello? This is Nikola Tesla. Is my assistant there? Let me speak with him, please. Czito? How long have you been there? About an hour?... How does it look? Chaos, eh?... Well, they're incompetent! Tell them I'm on my way. No, that won't be necessary, I'll manage. How?

Looking doubtfully around in the dim light.

I'll summon the ambient force, that's how!

He hangs up the receiver, then puts on his gloves.

Others! Just depend on others and they'll disappoint you every single time!... Yes, Czito, tell them Nikola Tesla is on the way, and Nikola Tesla will get it right!

He puts on his hat and exits left.

After his exit, the diffuse white light and the golden light fade up again and are momentarily at full power before slowly fading out.

End of Drama

NOTES

The Ambient Medium is historically accurate and, in large measure, uses Tesla's own words and ideas, especially from *The Problem of Increasing Human Energy*, an article in preparation in 1899 and published in 1900. For example, he writes in that article, "We can conceive of organized beings living without nourishment and deriving all the energy they need for the performance of their life-functions from the ambient medium. In a crystal we have the clear evidence of the existence of a formative life principle, and though we cannot understand the life of a crystal, it is none the less a living being."

Tesla's meeting with Swami Vivekananda in 1896 is described in a paper by Toby Grotz entitled *The Influence of Vedic Philosophy on Nikola Tesla's Understanding of Free Energy* (see Sources section).

Kolman Czito was Tesla's assistant and operated the switch for the experiment described in the play. Joseph Dozier was the carpenter who built the laboratory near Colorado Springs. "Occasionally (Dozier and Tesla) discussed matters that bordered on the occult. Tesla did not dare to speak of such things openly with many people. Always he denied taking any stock in mysticism. It was a strange world that scoffed at so many mysteries which he could explain." □ - Hunt/Draper. Julie Stevens was the daughter of Hoyt Stevens, who managed the Alta Vista Hotel, where Tesla stayed in Colorado Springs. "Tesla enjoyed hearing Julie's music lessons. He made a mental note to buy a book of Schumann for her and to urge her to learn *The Prophet Bird*." - Hunt/Draper.

The Spiritual Figure is inspired by the content of spiritual science and Goethean science. Tesla was a great admirer of Goethe, having learned *Faust* by heart.

SOURCES

The Problem of Increasing Human Energy, With Special Reference to the Harnessing of the Sun's Energy, by Nikola Tesla, published in the *Century Magazine*, Volume LX, 22, 1900.

My Inventions, the autobiography of Nikola Tesla, published serially in the *Electrical Experimenter* magazine in 1919.

Man's Greatest Achievement, by Nikola Tesla, published in *Keely's Secrets*, by Dale Pond, Delta Spectrum Research, 1990.

The Influence of Vedic Philosophy on Nikola Tesla's Understanding of Free Energy, by Toby Grotz, a paper from *The Tesla BBS*, Theoretical Electromagnetic Studies and Learning Association, Craig, Colorado.

BIOGRAPHIES

Prodigal Genius, The Life of Nikola Tesla, by John J. O'Neill, David McKay Company, 1944:

"For (Tesla), the harmonies of the universe were played on a scale of electrical vibrations of a vast range in octaves," page 84.

"The earth can be visualized as an extremely large container holding a fluid," page 182.

"Czito expected the quick flash and explosive blast of a short circuit a second or two after the switch was closed," page 184.

"...the place filled with the sulphurous odor of ozone," page 185.

Tesla: Man Out of Time, by Margaret Cheney, Laurel Books, Dell Publishing, 1981:

"...(Tesla) creates a ball of leaping red flame... it does not burn. He lets it fall upon his clothing, on his hair, into your lap, and, finally, puts the ball of flame into a wooden box," page 3.

"...Tesla sometimes signed his notes to (Robert Johnson) with such frivolous names as Nicholas I, or the initials "G.I."

(for Great Inventor),” page 135.

“When the station was completed an even more ominous quotation from Dante’s *Inferno* was posted at the door: Abandon hope all ye who enter here,” page 135.

Lightning in His Hand, by Inez Hunt and W.W. Draper, Omni Publications, 1964, 1977:

“(Tesla) was positive that it was a definite attempt at interplanetary communication (from either Venus or Mars)... a message with a distinct one-two-three pattern,” page 121.

“Czito noted that Tesla was a gaunt Mephistopheles that night,” page 130.

“...a Medusa-headed fire glowed around the secondary (coil),” page 130.

* * *

Permission has been granted from all of the above sources for the use of the portions noted.

The illustrations are based on photographs in the *Century Magazine* article of 1900, *The Problem of Increasing Human Energy*.

The Fulcrum

A Drama About Walter Russell

Characters:

Walter Russell, artist, sculptor, scientist, poet, musician, philosopher

Terry Neelson, young friend of Walter Russell, editorial assistant at Harper Brothers

Lydia Thompson, influential art critic

Clara Gabrilowitsch, musician, daughter of Mark Twain

Two Messengers of Light, a man and a woman

The Spiritual Body of Mark Twain

Time: Mid-afternoon, May, 1933.

Place: Anteroom of Walter Russell's studio, Carnegie Hall, New York City.

Arrangements for lyre of the Mark Twain Memorial Music by Timothy M. Hellane.

Scene:

A warm room with a sloping ceiling suggested at left and a high ceiling at right. At upstage center is a wide entrance-way to the studio itself, with a red curtain on brass rings pushed-off to the left. Warm gold and red colors can be seen beyond the entrance-way. Up-left a low, wide cabinet with locked glass doors sits against the wall; inside the cabinet are two shelves of books and manuscripts. On top of the cabinet, on a display easel, is a large drawing of the Mark Twain Memorial Statue sketch model. On the wall above the cabinet are framed portrait drawings. On a pedestal somewhat downstage at left is the white head of Mark Twain. At right is a round table and two chairs; on the table is a beret, a small zither or box-harp, a newspaper, a teapot on a warmer, and cups. On the back of one of the chairs is a light-brown jacket. Above the table on the wall are paintings or colored illustrations of the "octave light wave" and the "cross section of the octave wave." Above the entrance-way is a diagram of the wave, "four pairs of tones centered by a zero of rest." Down-right, perfectly balanced in position on the stage with the head opposite, is a pedestal with the small white figure of the reclining

Tom Sawyer. On the floor is an oriental carpet. As well as at upstage center, there is an off-stage entrance and exit at the left of the anteroom.

At Rise:

Walter Russell appears at the entrance-way and pauses there, observing the Mark Twain head. He is 62 years old, of medium build, and is wearing a casual white shirt, khaki-colored slacks, and brown shoes slightly spattered with plaster. His hair is gray, the top of his head bald; he has a gray mustache and a Vandyke beard; warm and lively brown eyes sparkle and sometimes flash behind round-rimmed glasses. After pausing at the entrance-way, he crosses to the Mark Twain head.

WALTER RUSSELL

From the distance of a few steps
This head resembles Mark Twain.
Looking closely, no, this work
Has not the likeness of the first,
With its delightful and humorous,
Yet mean little quality,
The mortal personality captured.
Here is the spirit of the man,
The essence of immortality revealed...
The spirit is not easily recognized.
I had to discard my first attempt;
I had to die in my clay
That I might be resurrected
In the spirit of Mark Twain.
The creator is in his creation,
His creation is he;
Our Creator is in us,
And we are He....

Clara is due to visit me soon;
She is so fond of the first piece,
Will she recognize her father,
As though descended in spirit
Into this more anomalous clay form?
Or will she be disappointed?

He turns toward the memorial statue drawing on top of the cabinet.

How might she react to my final design
For the Mark Twain memorial statue,
The sketch model of which
I am now completing in my studio?
Will she understand that here,
A portrayal of the author
Surrounded by his characters
Is in essence
The Creator centered in His creation,
Centered in stillness and perfect balance,

Like a fulcrum,
A fulcrum from which levers extend
On opposite sides.
What she cannot fail to see
Is that I have succeeded
In a work said to be impossible,
And I have succeeded because I know
A fundamental law of the universe:
All opposites are, in every case,
Extensions of the centering equilibrium,
The fulcrum which is always in balance.

Clara has a certain intuition, but most...

His voice rises in pitch.

They see and yet they don't see!
Man does not see God in man!
He is still in his jungle,
And from the dense jungle
He cannot find his way to the mountaintop.

He crosses to the table and picks up the newspaper.

In Europe, the peoples are jubilant
With the emergence of new leaders
Who presume to have the answers
To National and world crises,
Yet no fruits can be gathered
From this splintering of the One.
A harvest of disaster and death only
Will come of the sowing of seeds
Of selfishness and greed.
The world must suffer to understand
The simplest of universal principles,
The unity of man with man
And with God.

He sets the newspaper down.

The answer is giving... *giving!*

And I long to give to the world
The inspired words of my *Divine Iliad*,
The secret of light,
The still, magnetic light of the Father...

He looks at the painting of the octave light wave.

But I must wait and watch,
Like Homer's shepherd, on the hilltop,
"... by the outworks of battle.
Below, in the jungle,
One warrior carries off another,
Like a lion catching up a goat,
Despite the guard of the hounds,
Holding it high from the ground

In its jaw...
Above, the shepherd's watchfire blazes,
As when in the sky
The stars about the moon's shining
Are seen in all their glory,
When the air has fallen to stillness
And all the high places of the hills
Are clear...."

My *Divine Iliad* must wait....

There is a change of mood as he sits down at the table, pours a cup of tea and sips from it. He gazes right and upwards.

Though it is mid-afternoon,
And the sun beams upon the table,
The teapot, and the unpleasant headlines
Of today's paper,
My thoughts have, by a strange bend,
Found their way to images
Of starry skies,
And comforting, peaceful watchfires.
A quite natural bend, it appears,
For I seek to rest; to decentrate
After two hours of intense work.

He picks up the zither.

Music is always very helpful
Toward decentration...

He plays the tone "F" on the zither several times, listening carefully.

In the music of the spheres,
F is our earth tone...

We begin with our earthly self,
Rise at the center, or the fulcrum,
To the highest that is in us,
And return again to the earth,
To the tone F,
Though now at the opposite pole
Of experience...

Slowly I begin to hear
And express in tone
The form that I am molding
In physical life.

When waves of light vibrate,
Sound extends from them....

Terry Nealson enters from the left. He is a light-haired man, around 30 years old, with wide-set, soft, questioning eyes. He is dressed for a workday, with a light jacket and tie, but his style is

distinctly casual. He stops at left, hesitant, reluctant to disturb Walter Russell. In a few moments, Russell looks up.

Ah, my young friend, Terry.

TERRY

I'll hope you'll forgive me for just appearing like this, I know it's unexpected. Am I disturbing you?

RUSSELL

Not at all, I was momentarily resting.

TERRY

Then I've come at the worst possible time.

RUSSELL

On the contrary...

He places the zither on the table and rises to greet Terry.

I'm delighted to have a visitor. But, mid-afternoon? You are not at work?

TERRY

Oh, I'm at work, and on a very important assignment.

RUSSELL

Indeed? To my studio?

TERRY

I've brought someone with me. She's waiting in the hallway. Lydia Thompson. Have you heard of her?

RUSSELL

The art critic, yes, and very influential and powerful.

TERRY

Well, she called Harper Brothers not long after lunch, and as I'm a friend of yours, they put me on the phone with her right away. She's planning to write a devastating article about you; she feels Harper Brothers never should have commissioned a, quote, "inexperienced, incapable, obscure, even bizarre sculptor," unquote, to do the Mark Twain statue. Of course I was at once drawn into an argument with her, vehemently defending you. To make a long story short, I convinced her to come and meet you; to look at your work before she wrote the article. I tried phoning.

RUSSELL

I was so engaged in my work, I don't recall hearing the telephone.

TERRY

Will you forgive me this unpleasant intrusion?

RUSSELL

There is nothing to forgive, my friend. You are to be praised; you have acted in the proper manner, and with the best interests of Harper Brothers and myself at heart.

TERRY

I care about you, Mr. Russell. Harper Brothers - that's only a job.

RUSSELL

I will see the lady, however, you must tell her that I am expecting a visitor, Mrs. Clara Gabrilowitsch, the daughter of Mark Twain.

TERRY

I'll tell her; she'll likely be impressed.

Terry exits, left.

RUSSELL

Well, well, from my humble studio I travel in spirit with the shepherd to the mountaintop, but never forget, the jungle beast paws at the door the whole time.

Terry re-enters with Lydia Thompson. Lydia is a thin, intense lady with dark eyes, and stylish, though somewhat severe dark hair. She has a sophisticated and artistic manner and style of dress, which suggests her wealth and influence. She looks around the room with both disdain and surprise.

TERRY

Mrs. Lydia Thompson, may I introduce you to Mr. Walter Russell.

She does not offer her hand.

RUSSELL

Mr. Neelson tells me you have some questions about myself and my work.

LYDIA

Oh, plenty of questions, and I doubt you'll have the answers.

RUSSELL

But your presence here shows you're willing to give me the benefit of the doubt, and this is considerate of you. May I show you around this room and the studio?

LYDIA

Let's begin with the foremost reason I've been persuaded to come here today: your proposal for the statue.

RUSSELL

The work is well beyond the proposal phase; it steps gracefully into our three-dimensional world.

LYDIA

And that's impossible.

RUSSELL

It might normally be impossible -

LYDIA

Mr. Neelson admitted that he tried to discourage you in this attempt.

TERRY

That's how I got to know him and his work.

LYDIA

He said you painted portraits - (*glancing at the framed portraits*) difficult enough in itself, yet adding another figure to a two-dimensional work makes it twice as hard.

RUSSELL

Four times as hard.

TERRY

The difficulty arises in the ratio of the square. But in three dimensions, the difficulty arises in the ratio of the cube.

RUSSELL

Which means it is eight times as hard.

LYDIA

Yet you propose -

RUSSELL

Not propose.

LYDIA

To include twenty-eight figures.

RUSSELL

The author surrounded by twenty-seven of his characters, yes.

LYDIA

No trained sculptor has ever succeeded in doing this, much less an untrained one.

RUSSELL

I am in full agreement with you, my dear lady, that it would normally be impossible; I have said this. However, I have succeeded, not because I know or don't know, sculpture, but because I know the true nature of electricity and light.

LYDIA

Electricity?

TERRY

And light....

RUSSELL

Would you like me to explain further?

LYDIA

Explain what sculpture has to do with electricity, please.

RUSSELL

Terry can help me, yes?

TERRY

I'm not so sure.

RUSSELL

The more we try to acquire or express such knowledge, the less will the world suffer...

He crosses to the drawing on the cabinet. Lydia removes a small notebook and pencil from her shoulder purse and proceeds to take notes.

This drawing probably appears to be a well-balanced work of art and nothing more, but it contains an open secret; it expresses a fundamental, universal law. I have placed the author at the center, or on the fulcrum. This is the position of God in our universe, the still, magnetic light of the center. God is light. Extending from the center are divisions of the light. These divisions are electrical. All matter is electric. The light always divides into two equal and opposite forces which thrust away from each other.

He points to the diagram of the wave, above the entrance-way.

The two opposite forces reach a zero point or a point of rest at the outer poles, then they can only return to the center, where they cease to be two in their unity, their oneness. They then divide again, but this time their positions are interchanged or reversed. Nature turns its waves inside-out and outside-in in a continuous spiral flow of direction. Positive, negative; generation, degeneration or radiation. What else, Terry?

TERRY

Compression and expansion; inhalation, exhalation.

RUSSELL

Concentration and deceneration; centripetal action and centrifugal reaction. Life and death...

TERRY

Separateness is illusion, electricity but a division of the light. Light is all.

RUSSELL

All are One. All of the characters, you see, are part of the one author, as we are but extensions of the One God, only seemingly separate. This law I have described is expressed in a single, resounding wave of light, as in my diagram, or in a human being or a group of human beings, or in a giant spiral nebulae. The understanding of this fundamental law enables the memorial statue to step into our sphere of three dimensions. So while it's true I have been a sculptor for only a few years - since the age of fifty-six - I can accomplish what seems impossible because I am aware of the electrical nature of the material universe, and have been evolving this awareness since, well... 1921, actually, May of 1921. How it all happened... that's another story I could not discuss at this time. It is written down, but... it must wait.

There is a long pause, with Walter Russell and Terry in hopeful anticipation of a positive response from Lydia. But she says nothing and a glint of hatred can be seen in her eyes. She crosses to the head of Mark Twain.

LYDIA

This doesn't look anything like Mark Twain.

Russell and Terry exchange disappointed glances and Russell crosses to Lydia.

RUSSELL

As the Greek dramatists of old so tangibly expressed, our features are but masks and sometimes layers of masks, concealing the true Self. In this instance, I have removed the mask. Were I to portray your true Self, Mrs. Thompson, how might you appear?

LYDIA

(Uneasy, then rigid) Nonsense! You have a bad likeness, no more, no less. By the way, though Harper Brothers has commissioned you to do this work, the characters you depict look nothing like the book illustrations.

TERRY

I discussed this at length with the editors, and they finally agreed with Mr. Russell that a mere copying of the illustrations would not be a work of art.

LYDIA

But what is in their best interests, a so-called work of art or an authentic memorial of their publications?

RUSSELL

I suggest we have a cup of tea on this lovely afternoon, and I have not time to talk much longer.

TERRY

(To Lydia) As I mentioned, he is expecting Mrs. Gabrilowitsch -

LYDIA

But I've only seen a drawing, I haven't seen the model.

RUSSELL

Would you be so kind, Terry, as to show the lady my studio and the sketch model? Mr. Neelson will be as good a guide as I, if not better.

TERRY

Please come this way, Mrs. Thompson.

RUSSELL

Take all the time you wish.

Terry and Lydia exit through the entrance-way.

What profound sadness
We must feel
To witness the Self
So shrouded in darkness;
To see no hand extended
For guidance to the light.
Man is essentially good,
But the evil in him
Springs from fear
For the safety and security
Of his body, and from
Greed for the satisfaction
Of bodily desires
I recall hearing this woman
Described as a harridan....

But within the darkness
The higher Self *is* present,
And within the body
Is the record of all that happens.
If our action is a good action,
The reaction is a good one,
But if the action is unbalanced
We must pay for it
As the day follows the night,
Though it take ten reincarnations
To achieve that balance.

He turns toward the right and gazes at the illustrations above the table.

To have material abundance,
This desire has rightly fueled man's progress.
But a new day is dawning;
Material abundance will no longer
Be dependent upon matter!

He crosses to the table and puts on his jacket.

The transformation by a new science
Will take much time,
But it can begin now.
A beginning is a reversal of direction.
To reverse the direction
Of the downward plunge
Is to begin to climb
Into the heights....

Clara Gabrilowitsch enters from the left. In her late 30's, she has full, wavy dark hair and large dark eyes. She is more solid than plump, and with her full upper lip, somewhat resembles her father. She dresses conservatively, in a spring coat and hat.

Mrs. Gabrilowitsch.

CLARA

Mr. Russell's wondrous studio! ...

She crosses to the right, noticing the illustrations.

Look at these extraordinary paintings! ... What does it mean? -- Oh, what a useless question.

RUSSELL

Certainly not. The first is the octave light wave and the second is the cross section of the octave wave.

CLARA

What is the octave wave?

RUSSELL

The secret of creation.

CLARA

Looking at these pictures, one can easily imagine so....

She notices the Tom Sawyer sculpture.

Oh, how charming... Tom Sawyer, of course. My father would love this. A reclining child, as though sharing a quiet moment with a friend, reflective, yet... his deeper gesture seems directed toward the future.

RUSSELL

I hadn't quite thought of it that way....

CLARA

The future is in this figure, and certainly in the pictures.

She notices the drawing of the sketch model and crosses to it. She avoids looking at the head.

Look at this! ... My father with his characters! It's absolutely marvelous! But I wonder (*with a little laugh*) does he really deserve such a monument?

RUSSELL

Pardon?

CLARA

Forgive me for saying so, but I remember the frailty of his last years, and in his younger days, the endless offensive remarks. We always heard the coarse versions; they were refined in the books.

RUSSELL

All part and parcel of his great humor.

CLARA

We shall always love him and shall always be grateful for the opportunities he gave us. The fame, the travel, my piano lessons... Yet, familiarity... I wouldn't go so far as to say "breeds contempt," just a bit of chagrin. And now a monument. I have such mixed feelings.

RUSSELL

(After a pause) This portrayal of Mark Twain also represents the creative human being, or man centered in his creation. And because you're a musician I should like to challenge you to detect in what way this concept resounds; to understand, even hear its music, for there is music or tone in all creation.

CLARA

(Stepping back and studying the drawing) Tone in all creation... Well, it's rather linear, with four columns... It reminds me of a staff - in music. The heads could be notes.

RUSSELL

You're the first to recognize so.

CLARA

What an idea! It seems completely original, so original, Mr. Russell, you may have trouble being understood.

RUSSELL

Trouble at this very moment. The art critic, Lydia Thompson, is in the next room.

CLARA

Lydia Thompson... She is not the person to write about or judge your work.

RUSSELL

Then perhaps she won't.

CLARA

I shall speak with her. We can leave together; perhaps stop in a cafe. I was noticing, by the way, his very high position in relation to the others. He is, then, the highest note?

RUSSELL

High F, yes. May I play the piece for you?

CLARA

Please.

RUSSELL

I have a modest instrument with me today, but the elements will not fail to respond to its humble tones, as the sun shines on the tiniest flower in the field.

They cross to the table and sit down, Russell placing the zither or box harp on his lap.

The concept - and the statue - is essentially an expression of the tone F, the earth tone, and its variation amidst the different characters, aspects of the author's own self, his image being, as you noticed, the highest expression of F, and little Tom Sawyer the second highest.

He plays the composition of single notes. (The playing of either of the arrangements is optional.)

CLARA

A simple composition, yet musically advanced, and subtle, involving the listener almost in a mystery... Why does the music remain within the realm of the earth and not seek celestial heights? Because a sculpture is of clay?

RUSSELL

Because clay is earthly, yes. Also because Mr. Clemens was earthy, was he not?

CLARA

Yes.

RUSSELL

He was not at home in religious or spiritual spheres, though his work points to the great benefit of kind deeds. A religious assertion could not have the value of the simple gesture of giving, and I could only agree with him... In fact, we had a conversation about it once. Love as the very heartbeat of the universe, and irrevocable law.

CLARA

I believe you were very influential in his work.

RUSSELL

I and a few friends, yes. But, my dear...

He places the zither on the table.

We have not accomplished the purpose of your visit today, and that is for you to look at the new head.

CLARA

The first was so pleasing to everyone - we believed it divinely inspired. My husband said it was a noble conception. My father's biographer, Albert Paine, pronounced it perfect.

RUSSELL

I know. Paine said to me, "If you touch it again, I'll murder you."

CLARA

It was a perfect likeness; we could not imagine it better.

Walter Russell rises, crosses to the statue of Tom Sawyer and gently touches it.

RUSSELL

You saw the future in Tom Sawyer because it is a work of art. Had Tom Sawyer lived, I suppose I would have bound myself to the material facts: exact shape of features, anatomy of facial muscles and such. This is what I did with Twain, I saturated myself with photographic images. But is photographic likeness an artwork, with life? No, though everyone insisted it was masterly. Well, the clue came when an intimate friend of Twain's stopped by to see it. He had missed the preview. After pronouncing it a faithful likeness, he said, "You have even caught that delightful little mean quality which made him chuckle with a sort of cruel pleasure when he tore some of his victims to shreds with subtle satire..." I had my clue... Feverishly, without fatigue, I went back to work on the new head. Now, Clara, tell me what you think.

Clara rises and slowly crosses to the head, finally observing it carefully. In a few moments tears pour from her eyes, which she wipes with a handkerchief.

I had seen what was wrong; seen what I had not seen before. The spiritual essence of the physical man stood before me. I believe you recognize the spirit....

Clara turns away from the head. There is a long pause.

CLARA

The spirit, yes... there seems no memory, no image from the past. I feel - from him - a deep pain, as though there's an unhealed wound. Not the sort of grief one experiences with loss, rather the pain of having been amiss somehow, with no chance of putting matters aright... only an endless regret or remorse. My father had a very successful life, didn't he?

RUSSELL

You have glimpsed the spirit, but it is shrouded in afterlife qualities of the soul. His life was, yes, enviable to many.

CLARA

It was outwardly a good life; I mentioned the fame and travel. But he had to travel and speak in order to pay his debts.

He lost his entire fortune on a typesetting machine, a machine that hasn't been completed to this day. There were other bad judgments... but these failings are not the source of his pain.

RUSSELL

You are more sensitive than I supposed.

CLARA

Could I endure the pain of complete understanding? No wonder we were so happy with your first work.

RUSSELL

Progress is not without pain.

CLARA

You are right to be content with this...

She looks at the portraits on the wall at left, and again at the head.

Though it is not quite of the past, as are these other portraits.

RUSSELL

They are so many renditions of the masks we wear. Twain is unmasked....

Terry and Lydia re-enter and Lydia crosses at once to Clara.

LYDIA

Why, it's Clara Gabrilowitsch!... Looking simply divine in a new spring coat and hat! Whatever brings you here today? (*Referring to the head*) To look at this?

CLARA

Yes -

LYDIA

It's not a good likeness; it doesn't take a critic to see that.

CLARA

It depicts my father in spirit.

LYDIA

You really believe so?

CLARA

Walter Russell knew my father very well, and he influenced my father's writings, especially the very noblest aspects of his writings.

LYDIA

No? ... Why, I'm astonished.

CLARA

Mr. Russell is so many-sided - and fully the master in each of his endeavors.

RUSSELL

You'll have me blushing.

LYDIA

Well...

She looks at Terry, Russell and Clara in turn.

Considering he began sculpture at a late age...

TERRY

Fifty-six.

LYDIA

And I've certainly some intriguing notes here: an open secret... all matter is electric... Twain at the fulcrum... God is light.

RUSSELL

And love.

LYDIA

What is a critic to do with "God is light and love?" Is art religion?

RUSSELL

Religion, art and science must be fully reunited if humanity is to survive into the next century.

TERRY

He has done this, he has united religion, art and science.

LYDIA

Three, and three again... against one! What's that cubed? Lydia Thompson can take as well as give.

RUSSELL

We mean you no harm.

LYDIA

Don't be naive. In social situations, people do little but harm one another. The world is a jungle. And don't tell me how humanity is going to survive; tell me how I'm going to survive, and not into the next century but now and today and

tomorrow.

CLARA

This is all getting so heavy... Let's stop talking about survival and start talking about... indulgence. Lydia, dearest, there's a small cafe up the street; they have the most wonderful coffee and desserts. Let's go! I'll tell you more about my father.

LYDIA

Sounds splendid to me!

CLARA

(To Russell) I shall be back soon to look at the model.

RUSSELL

Very well, good day to you both; and thank-you again, Mrs. Thompson, for giving me the benefit of the doubt.

LYDIA

(Giving Russell a long look) Good day....

*Clara and Lydia exit at left, and after a pause,
Russell and Terry laugh.*

TERRY

Speaking of doubt, if I have any doubts about my efforts, I have none about Clara's.

RUSSELL

What do you imagine Lydia will write?

TERRY

(Suddenly somber) Nothing.

RUSSELL

Nothing? Nothing indeed?

TERRY

What she has seen and heard contradicts her opinion, and when we were in the studio, I could sense deep conflicts within her, especially when she wrote "God is light" in her notebook. I predict she'll initiate what could become a far-reaching conspiracy of silence.

RUSSELL

Conspiracy of silence? ... It shall be for the best. I've some thoughts - I should say *effects* rather - relating to what has transpired here this afternoon. Consider how much unhappiness, how much pain, has been revealed: your admission that your livelihood - a mere job - means little to you; Lydia's nearly complete immersion in a ruthless world; Clara's disappointment with her father's failings; my struggles, of course, to elicit even a tiny ray of spirit from the elements of clay. On a world scale, we have today's headlines. Endless misery erupts and will continue to erupt from humanity's entanglement in matter. The new science, Terry, will free man from dependence upon matter! Allow me to refer to my *Divine Iliad*....

He removes a key from his pocket, crosses to the cabinet, unlocks it, and removes a manuscript. He carries the manuscript to the table and he and Terry sit down. Reverently, he opens the manuscript.

So, conspiracy of silence? I knew. Why do you think I told her so much? Was she ready to hear? Let us again be reminded: I first began to write down the message of *The Divine Iliad* in 1921, but it must not be published until after 1946, and may barely be understood for generations after that. Why so far in the future? As a result of humanity's cruelty there will come world carnage on an unprecedented scale. This terrible suffering might be avoided if the unity of man with man and with God could be understood and put into practice. But does this happen? Were the new science given out too soon, it would be used for selfish, destructive purposes rather than for the good of man.

There is a pause of preparation, then he reads.

“See thou no more with outer eyes alone, for thou hast knowing eyes to void the illusions of thy sensing... Throughout long aeons man has walked his earth with eyes of outer seeing, giving belief to that earth of his body's sensing. Throughout his new aeons he must walk with eyes of inner seeing and know Me... I am a patient God. I patiently await awakening man...”

He looks up from his reading.

Behold, I am within all things, centering them; and I am without all things controlling them, but I am not those things which I center in them and control in space surrounding them...

He turns to another section in the manuscript.

For you, Terry, the science of the future...

He reads.

“*The Two Electric Desires*... Electricity is the servant of Mind. It does all the work of creating this light-wave universe in unfolding-refolding sequences which Mind desires. The universal Mind has two desires... creative expression, concentration, separation from Oneness; desire for rest, deceneration, voidance of multiplicity into balanced Oneness... The electric expression of the two desires is reflected in the pulse beat of the universe. One pulsation compresses through centripetal action; the other expands through centrifugal reaction...”

There is a pause; Russell appears to be listening.

Shhh... Whisperings....

Two figures enter from the center entrance-way, the Messengers of Light. The first, a woman, wearing a white garment of flowing, radiating veils, crosses to the left and stands in front of the head. The second, a man, wearing a somber black garment, crosses to the right and stands in front of the Tom Sawyer sculpture.

MAN

I am the in-folded future.

WOMAN

I am the unfolded past.

MAN

Positive electricity is the father-light.

WOMAN

Negative electricity is the mother-light.

MAN

I gravitate toward a point of rest which centers all creating things.

WOMAN

I radiate toward planes of the One Light at rest which bound all wave fields of motion.

MAN

I wind the light of motion into dense solids around points of still, magnetic light, compressing...

WOMAN

I unwind the light of motion from dense solidity to tenuous vacuity, expanding...

MAN

Positive electricity pulls inward spirally...

WOMAN

Negative electricity thrusts outward spirally...

MAN

Gravitation is the male principle of Creation. Gravity refolds toward the seed.

WOMAN

Radiation is the female principle of Creation. Radiation unfolds from the seed.

Walter Russell stands.

MAN

The principle of rhythmic balanced interchange between father-mother lights of gravitation and radiation is fundamental in all creating things.

WOMAN

It is the principle of two-way equal giving which manifests the quality of Love in the Light of the One.

RUSSELL

Man will lose his attachment to matter - he will find eternal life in the Light!

The Spiritual Body of Mark Twain enters from the entrance-way and crosses to center. His garment is

*- from below upwards - green, peach, gold and
yellow in color.*

SPIRITUAL BODY

I hear Him intone:
I am man, Self-creating.
I am God, Creator of man.
I am father of my Self.
I am Son of the living God.

I was Mark Twain,
Who plumbed the depths
Of earth and water.
The heights I knew not,
For I was born and died
On the perihelion
Of the comet.

The rivers of my life
Were traversed
In the darkness
Of the sense world,
And whilst the stars
Glimmered softly
Upon my outer life -
Woe! They might now
Be lost forever
To my spiritual gaze,
Were it not for Him!
Woe! Mark! Twain!
Plumb the depths,
Plumb the depths -
Yet nary a book of mine
Was the measure of man
Nor the measure of Him
Who is on the fulcrum.

My hands closed upon
The touch of gold;
The colors delighted my eyes.
Yet the inner eye
Would ne'er gaze now
Upon the warmly spiraling,
Inwardly drawing,
Outwardly manifesting
Infinitely changing
Sun-gold Being
Of the heavenly sphere,
Were it not for His life
And His death
On the cross -
On the fulcrum.

Fathom my fate beyond,
Had my work not been
Of good will...

The unworthy
Cannot traverse
The still and moving,
Holy celestial rivers.
For me, the locks are open,
Yet, can I pass
Through the gates
When shadows from below
Rise up and cling to me;
When voices full of pain
Pierce the bliss
Of the radiance?
Books of mine
Did but little
To lighten and relieve
The darkness and pain...
Woe! Man!

MAN

Look to Him who gives you inward strength.

WOMAN

Look to Him who gives you love beyond your measure.

MAN

Who from the fulcrum limits your contraction into the darkness, warming your cold.

WOMAN

Who from the fulcrum limits your expansion into the light, cooling your bliss.

SPIRITUAL BODY

(To Russell)
Through His sacrifice
He has borne my life in matter.
If you help free man
From attachment to matter,
His burden will be the less.

I hear Him intone:
I am man, Self-creating.
I am God, Creator of man.
I am father of my Self.
I am Son of the living God.

He begins to withdraw.

Woe! Mark! Twain!

He withdraws back through the entrance-way.

MAN

See thou no more with outer eyes alone.

WOMAN

Thou has knowing eyes to void the illusions of thy sensing.

MAN

Throughout new aeons man must walk with eyes of inner seeing.

WOMAN

Awakening man is he who knows the light of God in him.

MAN

He is within all things centering them.

WOMAN

He is without all things controlling them.

MAN

But He is not those things which he centers.

WOMAN

Nor those things he controls in surrounding space.

MAN

He who would find rest must return to Him, be Him.

WOMAN

Be fulcrum of His own power.

They each move to the center, cross, and withdraw through the entrance-way.

After a long pause, Russell turns back to Terry.

TERRY

You were reading, and seemed to hear something. You rose, then said, "man will find eternal life in the light."

RUSSELL

And so will Twain, despite himself! ... Before the afternoon shadows lengthen...

He closes the manuscript.

Why don't we take a walk over to Harper Brothers. Shouldn't you be getting back to work?

He carries the manuscript back to its shelf and locks the cabinet. Terry rises from the table.

TERRY

Will you share with me what you have experienced?

Russell crosses to the table; picks up his beret and puts it on.

RUSSELL

My good friend, why does your job mean so little to you?

TERRY

I'm never permitted to make important decisions.

RUSSELL

But you help in decision-making.

TERRY

Well, yes....

RUSSELL

No work is trivial or unimportant. Did I ever tell you the story of Toscanini's son?... Someone once asked him: "What was the highest point in your father's life?" The answer was: "Every point in it is his highest point. He lives gloriously and fully every moment of his life, whether conducting an orchestra or peeling an orange."

They exit, left.

End of Drama

NOTES

This drama is as historically accurate as possible in regard to time and place, the creation of the memorial statue, Clara Gabrilowitsch's visit, and Walter Russell's paintings, sculpture, music, science and philosophy. Some aspects are fictional or imaginative: the studio likely did not have an anteroom; the second sculpted head of Mark Twain was colossal in size; Terry Neelson and Lydia Thompson are fictional characters, although the conflicts they dramatize were discussed by Walter Russell in some of the sources listed below. Clara's character, her relationship with her father, Samuel Clemens, and his depiction are based partly on the biography of Albert B. Paine, cited below.

SOURCES

Published by *The University of Science and Philosophy*, and used with their kind permission:

The Sculptor Searches for Mark Twain's Immortality, by Walter Russell, 1991.

The Electric Nature of the Universe, Walter Russell, 1991.

The Secret of Light, Walter Russell, 1947, 1994.

A New Concept of the Universe, Walter Russell, 1953, 1989.

The Message of The Divine Iliad, Volume I, Walter Russell, 1948, 1971.

The Man Who Tapped the Secrets of the Universe, by Glenn Clark, 1946, 1989.

Twilight Club Lecture, 1956, Walter Russell on cassette tape, Swannanoa.

The Mark Twain Memorial Music, by Walter Russell, provided by The University of Science and Philosophy, with original arrangements for lyre by Timothy M. Hellane, 1996.

Mark Twain, A Biography; The Personal and Literary Life of Samuel Langhorne Clemens, Volumes III and IV, by Albert Bigelow Paine, Harper Brothers, New York, 1912.

The Iliad, Homer.

* * * * *

The position of the two Messengers of Light on the stage - left and right, past and future, white and black - and their lines, *I am the in-folded future* and *I am the unfolded past*, are ideas drawn from *The New Experience of the Supersensible*, by Jesaiah Ben-Aharon. "Unfolded time is dark, opaque and seedlike, because it is still unmanifested physically... The time cliff on the left (bright, expanded) is the luciferic, conserving the past as temptation. The time cliff on the right side is the darkened suppressed future, made heavy and impenetrable by Ahriman. Only the Christ-impulse in the etheric time-body of man can make both cliffs consciously graspable." from *Notes and References*, Chapter 4, published by Temple Lodge Publishing, London, 1995.

The verse lines "warming your cold," and "cooling your bliss" are influenced by Rudolf Steiner's verses *For The Dead*.

The illustrations are based on photographs from the above cited publications of *The University of Science and Philosophy*.

Special thanks to Dr. Timothy A. Binder and Shirley C. Smith for their generous help and assistance during the research phase of *The Fulcrum*.

Hymn for The Mark Twain Memorial Music, by M. Keltz

At second staff:

Hear my hymn O
All that be
Of my written word:
My hope is that
God be seen in
Thee.

Var. 1
Hear my hope for
Just one word
Resounding within each book:
Hear my hope that
God's voice shall be
Heard.

Var. 2
Turning pages
Be thou still
At the moment
When His will
Brings far greater
Light to thought than
My words can.

Var. 3
May the heart be
Filled with love
As the soul to
Heaven yields,
And through glory
Revealed above
New eyes turn round
To earthly fields.

* * * *

Hear my hymn for
All who read
In the earthly book:
My hope is that
God's form they shall
Heed.

Var. 1
Hear my hope for
Just one tone
Resounding from mountains high:
Hear my hope that
God's voice shall be
Known.

Var. 2
Whirling rivers,
Whisp'ring air,
To man's touch shall

All give care,
When his touch is
Filled with God's own
Will, God's will.

Var. 3

May the world be
Filled with love
As the earth with
Heaven binds,
And through glory
Revealed above,
Future turns round
And the past finds.