LITURGY OF THE WORD

2 March 2014

(Text in **bold face** *should be read by the congregation in unison.)*

Welcome: Good afternoon, ladies and gentlemen, and welcome to the grand opening of the Temple of Science. We are delighted that you have decided to join us today. At this time, please find your seats so that we can begin our worship service.

Procession: "Musica Universalis" *(Arr. Jason Zeh)*
(Please stand)

Call to Worship: Almighty Science, we have gathered in this time and at this place to glorify you. Take these hectoseconds, O Magister of time and space, and perfect them in us, through your Spirit of Progress. May our labor bring forth a new invention in accordance with your principles. For in your name we have gathered, and we petition you. **Amen.**

Greeting: In the name of Science, Technology, and the Spirit of Progress. **Amen.**
You may be seated.

Hymn to Science I: *(Mark Akenside, 1739)*

Science! thou fair effusive ray
From the great source of mental day,
Free, generous, and refin'd!
Descend with all thy treasures fraught,
Illumine each bewilder'd thought,
And bless my lab'ring mind.

But first with thy resistless light,
Disperse those phantoms from my sight,
Those mimic shades of thee;
The scholiast's learning, sophist's cant,
The visionary bigot's rant,
The monk's philosophy.

O! let thy powerful charms impart
The patient head, the candid heart,
Devoted to thy sway;
Which no weak passions e'er mislead,
Which still with dauntless steps proceed
Where Reason points the way.

Give me to learn each secret cause;
Let number's, figure's, motion's laws

Reveal'd before me stand;
These to great Nature's scenes apply,
And round the globe, and thro' the sky,
Disclose her working hand.

Next, to thy nobler search resign'd,
The busy, restless, human mind
Thro' ev'ry maze pursue;
Detect Perception where it lies,
Catch the ideas as they rise,
And all their changes view.

Say from what simple springs began
The vast, ambitious thoughts of man,
Which range beyond control;
Which seek Eternity to trace,
Dive thro' th' infinity of space,
And strain to grasp the whole.

Her secret stores let Memory tell,
Bid Fancy quit her fairy cell,
In all her colours drest;
While prompt her sallies to control,
Reason, the judge, recalls the soul
To Truth's severest test.

First Lesson: Our first lesson comes from the Book of Origins. *(Origins 17:1–8)*

When Aristoteles was forty-nine years of age, the Magister appeared to him and said, "I am the omniscient and omnipotent Science; walk with me diligently and be logical. Then I will make my covenant between me and you and will greatly increase your knowledge."

Aristoteles began to pace around, and the Magister said to him, "As for me, this is my covenant with you: You will be the father of many branches of science. No longer will you be called Aristoteles; your name will be Aristotle, for I will make your work known among many English-speaking nations. I will make you very productive; I will make sciences of you, and philosophers will come from you. I will establish my covenant as an everlasting covenant between me and you and your students after you for the generations to come, to be your Teacher and the Teacher of your students after you. The whole territory of natural philosophy, where you now are regarded as a stranger, I will give as an everlasting possession to you and your students after you; and I will be their Teacher."

This is the word of the Greeks. **Thanks be to Science.**

Hymn to Science II: *(Mark Akenside, 1739)*

Science! thou fair effusive ray
From the great source of mental day,
Free, generous, and refin'd!
Descend with all thy treasures fraught,
Illumine each bewilder'd thought,
And bless my lab'ring mind.

Thro' private life pursue thy course,
Trace every action to its source,
And means and motives weigh:
Put tempers, passions in the scale,
Mark what degrees in each prevail,
And fix the doubtful sway.

That last, best effort of thy skill,
To form the life, and rule the will,
Propitious pow'r! impart:
Teach me to cool my passion's fires,
Make me the judge of my desires,
The master of my heart.

Raise me above the vulgar's breath,
Pursuit of fortune, fear of death,
And all in life that's mean.
Still true to reason be my plan,
Still let my action speak the man,
Thro' every various scene.

Hail! queen of manners, light of truth;
Hail! charm of age, and guide of youth;
Sweet refuge of distress:
In business, thou! exact, polite;
Thou giv'st Retirement its delight,
Prosperity its grace.

Of wealth, pow'r, freedom, thou! the cause;
Foundress of order, cities, laws,
Of arts inventress, thou!
Without thee what were human kind?
How vast their wants, their thoughts how blind!
Their joys how mean! how few!

Sun of the soul! thy beams unveil!
Let others spread the daring sail,
On Fortune's faithless sea;

While undeluded, happier I
From the vain tumult timely fly,
And sit in peace with thee.

Second Lesson: Our second lesson comes from the Letter to the Americans.
(Americans 4:17–32)

So I tell you this, and insist on it in the name of the Magister, that you must no longer live as the common people do, in the futility of their thinking. They are darkened in their understanding and separated from the life of Science because of the ignorance that is in them due to the softening of their minds. Having lost all rationality, they have given themselves over to sentimentality so as to indulge in every kind of art and literature, and they are full of imagination.

That, however, is not the way of life you learned when you heard about the empirical method and were taught in it in accordance with the knowledge that is in Techne. You were taught, with regard to your former way of life, to put off your old self, which is being corrupted by its deceitful imaginings; to be made new in the attitude of your minds; and to put on the new self, created to be like Science in true skepticism and objectivity.

Therefore each of you must put off fantasy and speak realistically to your neighbor, for we are all inhabitants of one Universe. “In your ignorance do not make up explanations”: Do not let the Earth complete a single rotation while you are still ignorant, and do not give the metaphysical a foothold. Anyone who has been painting must paint no longer, but must work, doing something useful with his or her own hands, that he or she may have something to contribute to the global economy.

Do not let any unscientific talk come out of your mouths, but only what is helpful for instructing others according to their misconceptions, that it may benefit those who listen. And do not impede the Spirit of Progress, by which you were carried toward the promised Utopia. Get rid of all emotion, feeling and sentiment, instinct and intuition, along with every form of subjectivity. Be logical and dispassionate with one another, enlightening each other, just as through Techne Science enlightened you.

This is the word of the bourgeoisie. **Thanks be to Science.**

Acclamation: *(Arr. Roy Baldwin Phillips)*
(Please stand)
Magnificat, magnificat
Magnificat anima mea Studium
Magnificat, magnificat
Magnificat anima mea

Good News Lesson: Our Good News lesson comes from the Book of René.
(René 1:1–14)

In the beginning was the Word, the *logos*, and the *logos* was with Science, and the *logos* was Science. The *logos* was with Science in the beginning. Through *logos* all things were understood; without *logos* nothing was understood that has been understood. In the *logos* was the intellect, and that intellect was the light of all humankind. The light shines in the darkness, and the darkness has not overcome it.

There was a man sent by Science whose name was René. He came as a witness to testify concerning that light, so that through him all might understand. He himself was not the Enlightenment; he came only as a witness to the Enlightenment.

The true Enlightenment that gives light to everyone was coming into the world. The light was in the world, and though the world was made through it, the world did not recognize it. The light came to that which was its own, but its own did not receive it. Yet to all who did receive the *logos*, to those who believed in the Enlightenment, it gave the right to become citizens of Modernity—citizens born not of the supernatural, nor of *ethos* or *pathos*, but born of Reason.

Through the Enlightenment, the *logos* became material and made its dwelling among us. We have seen its glory, the glory of the multitudinous Technology, which came from the Scientists, full of knowledge and expertise.

This is the word of the Rationalists. **Glory to you, O Reason.**

Lecture
You may be seated.
(See Part 2 of this document for transcript of lecture.)

Please stand as we affirm our faith in the words of the Creed:

I believe in Science as the greatest instrument ever devised for understanding the world.

I believe in innovative Technology, by which all people shall be assured the rich life in goods and leisure that the genius and natural resources of our planet make possible.

I believe in the Spirit of Progress, the Temple of Science, the international fellowship of Scientists, the objectivity of knowledge, the pre-eminence of materiality, and the fact of biological determinism.

Amen.

Intercessions: At this time let us present our petitions to Science.

For the human race,
That we might acknowledge one another as organisms with 99.9% of our genetic material in common,
Science, **record our petition.**

For those who are ill,
That the miracle of modern medicine might heal their bodies, brains and psyches,
Science, **record our petition.**

For those who are hungry,
That their nutritional requirements might be met through genetically modified crops,
Science, **record our petition.**

For Scientists across the planet,
That they might devise rigorous experiments and disseminate their findings with precision and accuracy,
Science, **record our petition.**

For Technologists from every arbitrarily defined political unit,
That they might develop innovative products in order to improve upon nature and boost economic growth,
Science, **record our petition.**

For all researchers at the University of Kansas,
That we might pursue our Strategic Initiatives with diligence and perspicacity,
Science, **record our petition.**

For the Temple of Science, its magisters and evangelists and all its members,
That we might staunchly defend our faith in the face of persecution by artists, Thespians, Luddites, and post-modernists,
Science, **record our petition.**

Almighty Science, the fountain of all knowledge,
you know our needs before we ask
and our ignorance in asking:
have compassion on our nescience
and give us those things
which for our incompetence we dare not,
and for our limited perceptive faculties we cannot ask
for the sake of Techne, our Magister.
Amen.

O Science:
O Science
Which orders the Universe
Hallowed be Thy precepts.
Thy validity be recognized
Thy logic be absolute
On Earth as it is throughout the Cosmos.
Give us this day our empirical data
And correct our miscalculations
As we correct those who miscalculate around us.
And let us not slip into human error
But deliver us from metaphysical "rationale"
For Thine is all matter, and all energy,
Throughout the space-time continuum.
Amen.

Sharing of the Facts:
The fruit of the Spirit is knowledge, information, facts.
If we live in the Spirit, let us walk in the Spirit.
Please share the Facts with those around you at this time.

Announcements
Hours for individual worship, meditation, and reflection

Monday–Wednesday	8:30 a.m.–4:30 p.m.
Thursday	8:30 a.m.–9:00 p.m.
Friday	8:30 a.m.–1:30 p.m.

Panel on Friday at noon
Dr. Caroline Chaboo, assistant professor of ecology and evolutionary biology, KU
Marguerite Perret, associate professor of art, Washburn University, Topeka
Dr. Mark Rich, interim pastor at Trinity Lutheran Church, Lawrence
Tweeting
@science_temple
#toslawrence

Benediction: Now to the Technology that is able to do immeasurably more than all we ask or imagine, according to its power that is at work within and around us, to it be glory in the university and in our society throughout all generations, for ever and ever! **Amen.**

Recession: "Musica Universalis" *(Arr. Jason Zeh)*
(Please stand)

Dismissal: Go in knowledge to serve the Progress of humankind. **Thanks be to Science.**

LECTURE

As you know, the first five chapters in the Book of Science, our sacred text, recount the birth of science in the cradle of Western civilization: ancient Greece. These five chapters are known collectively as the Pentagon, in honor of the Greeks' outstanding contributions to geometry. No one knows exactly why the Greeks started to look at the world in a different way, but the fact remains that they instigated a revolution in thought by seeking explanations for observed phenomena in the natural world rather than the supernatural. This reliance on reason rather than superstition laid the groundwork for modern science and technology, thereby ensuring centuries of Western dominance in the economic and political spheres.

Today's first lesson came from the Book of Origins, the first chapter in the Book of Science. In the lesson we were introduced to Aristotle, or Aristoteles, as he is known in Greek. Aristotle was born in 384 BCE in Stagira, northeastern Greece. He moved to Athens at age 17 to study in Plato's Academy, where he remained for 20 years, until Plato died. Then Aristotle moved to Assos (present-day Turkey) where he began his investigations into marine biology. In 343 BCE he moved to Macedonia to tutor the boy Alexander (later Alexander the Great, an early demonstration of the intimate connection between knowledge and political power).

Our story picks up in 335 BCE, when Science revealed itself to Aristotle at age 49. In response to this revelation, Aristotle moved back to Athens and established his own school, the *Lyceum.* His followers (literally!) were called Peripatetics, after Aristotle's practice of walking around while he philosophized. Aristotle wrote prodigiously—perhaps as many as 200 treatises, of which 31 are known to us today. Among the most important of his writings is the *Organon*, in which he lays out for the first time the rules of logic and argumentation, as well as the structure of the scientific method and the basic principles of epistemology. The Organon serves as the third chapter in the Book of Science. Aristotle's other works can be divided into three categories:

- theoretical sciences (mathematics & natural philosophy [physics, biology, astronomy])
- practical sciences (politics & ethics)
- productive sciences (applied sciences: agriculture, engineering--forerunners of technology)

Aristotle is significant to us primarily for his efforts to systematize and categorize all knowledge, demonstrating the importance of systematic inquiry. He was also one of the first to emphasize reliance on the empirical method, in contrast with Plato's distrust of visible things in favor of heavenly Forms/Ideas. Aristotle made major contributions to

empirical biology with his detailed plant & animal observations and taxonomy. He sustains a vital legacy as one of most influential people who ever lived: he contributed to almost every field of human knowledge in existence during his lifetime. In fact, during the medieval period, Aristotle was known as "The Philosopher", and science in the West consisted almost solely of commentaries on his treatises.

We now skip to our Good News lesson, which comes before the New Testament lesson in chronological order. The Good News Lesson picks up after the end of this medieval period of scientific darkness, when few advances were made in knowledge due to the dominance of Christian religious thought and supernatural explanations of the world. The four chapters of the Good News open the New Testament in the Book of Science. The Good News, of course, is the Scientific Revolution of the 15th–18th centuries CE, during which time modern science emerged as an autonomous discipline, distinct from both philosophy and theology. Developments in mathematics, physics, astronomy, biology, and chemistry dramatically changed the way humans understood nature and society. Perhaps most importantly, science came to be understood as having utilitarian aims: *scientia sit potentia,* or "knowledge is power", as the motto of our Magisterium says. This led to the addition of Technology as the second element of the Trinity.

The four chapters of the Good News were written by four scientists who contributed revolutionary ideas during this period (and whom we honor as saints):

- St. Francis Bacon, proponent of empiricism and father of the modern scientific method; also was a strong believer in technology
- St. Galileo Galilei, astronomer who championed the theory of heliocentrism and invented a powerful telescope
- St. René Descartes, philosopher and mathematician who emphasized the importance of reason in seeking knowledge
- St. Isaac Newton, physicist and mathematician who laid the foundations for classical mechanics and co-invented calculus

Today's Good News lesson was taken from the Book of René. Descartes, as we discussed above, was one of the first to insist on the predominance of reason above all other forms of thought. He was born in 1596 in France, but spent most of life in Dutch Republic. Descartes is most famous for saying *Cogito, ergo sum* ("I think, therefore I am"). He believed that the senses could be deceptive, and therefore insisted on systematic doubt as the only way to achieve true knowledge.

Descartes thought that all truths were linked, so finding one truth and proceeding by logic would open the way to all science. He further developed the implicit link between "logic" and "word" (non-visual representation) implied in the Greek word *logos*—

ultimately he thought all truths were essentially mathematical. Descartes believed that humans were capable of achieving all knowledge—that *everything* can be known. Like Aristotle, he has a powerful legacy as the person who laid the foundations of modernity by shifting the debate from "what is true" to "of what can I be certain". This is a fundamentally anthropocentric approach to the world; human beings in Descartes's view are "self-conscious guarantors and shapers" of their own reality. Descartes is also notable for inspiring the rationalist (continental) branch of the Enlightenment.

The Age of Enlightenment, also known as the Age of Reason, which occurred during the 17th-18th centuries CE, was a high point in the history of our faith. The Enlightenment was closely tied to the Scientific Revolution. It emphasized reason and individualism over tradition, with the aim of reforming society through reason and advancing knowledge through the scientific method. The Age of Enlightenment promoted scientific thought, skepticism, and intellectual interchange. Regarding this last point, the Enlightenment fostered a new kind of long-distance intellectual community known as the "Republic of Letters." This was a self-proclaimed community of scholars that transcended national boundaries; it involved the circulation of handwritten letters between experts and prominent figures (nobility) to discuss and debate the newest ideas.

Our final lesson comes from one of these letters, the Letter to the Americans, a text whose existence emphasizes the crucial role the United States has played in elevating the status of Science to the exalted position it deserves. Even before the founding of the United States, the territory of the New World inspired important scientific thinkers. For example, St. Francis Bacon wrote "The New Atlantis" (the final chapter in the Book of Science) to document his vision of a technological utopia in North America. Many of the United States' Founding Fathers—such as the scientist and statesman Benjamin Franklin—were notable Enlightenment thinkers and active citizens of the Republic of Letters. They saw the birth of a new country in the New World as a chance to implement many of their ideas about how reason and scientific thought could serve as the basis for a comprehensive political and economic system. Thus the United States became, as the 20th century author John Gunther put it, "the only country deliberately founded on a good idea."

In today's lesson, we see how the anonymous Enlightenment author of the Letter to the Americans urged citizens of this new country to adopt a new way of living in keeping with the ideals that had brought them there. The letter shows a keen awareness of the Romantic heresy that was alive at that time and consuming continental Europe. Romanticism was an artistic, literary, and intellectual movement that originated at the end of the 18th century CE. A reaction to the Age of Enlightenment and the scientific

rationalization of nature, Romanticism emphasized the importance of feeling, emotion, imagination, and fantasy. The lesson we heard today talks about the necessity of suppressing emotion and imagination, and letting logic dictate actions and behavior. It also makes explicit the connection between Science and capitalism: “Those who are painting should paint no longer, but do something useful to contribute to the global economy.” According to this text, the greatest sin is to pursue something for its own sake, instead of for its utilitarian value. This is a sin against the third member of our trinity, the Spirit of Progress.

The Spirit of Progress, also known as the Idea of Progress, is the theory that advances in science, technology, and social organization can better the human condition. It constitutes the belief that people can have increased happiness in terms of:

- quality of life (social progress)
- economic development (modernization)
- application of science and technology (scientific progress)

The Spirit of Progress first manifested itself towards the end of the Enlightenment, in the 18th century. It had many American adherents, among them Benjamin Franklin, Thomas Paine, Thomas Jefferson, and John Adams. The major American contribution was the idea that history was not exhausted, but that it could begin again in New World. This was essentially a democratization of progress, making it open to anyone regardless of birth or socioeconomic status. The notion that America is a highly favorable place for people seeking progress in their own lives constitutes the American Dream. The idea that progress is not just possible, but *inevitable* is still the basis of U.S. culture.

And that brings us to the present, today, right now, as we are gathered here to celebrate Science, Technology, and the Spirit of Progress here in Lawrence, Kansas. I know that many of you are already believers, and we rejoice today in our common faith, but some of you may still be uncertain about your beliefs. I encourage you to explore the Temple of Science, including our online presence, and to visit with me or other members of the congregation to hear about the marvelous works Science has done in our lives. When you bring your full reason and intellect to bear on the situation, I am confident that you, too, will soon come to see the true nature of our faith.

Are there any questions?

Thank you for your attention.