# Galileo

March 28 through May 4, 1996

by Bertolt Brecht

Directed by Laird Williamson

Illustration by Caroline Seigel

# Study Guide

prepared by the Education Department of the Denver Center Theatre Company
and contributing writer Sally R. Gass

## Catch Us In The Act.

**Denver Center Theatre Company**

A Division of The Denver Center for the Performing Arts / Donovan Marley, Artistic Director

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In order to find more information about Galileo, Copernicus, the Medici family, Aristotle or Ptolemy, take a trip to your school or local library. There is a wealth of material on these subjects for both adults and children. Ask your librarian for help in finding the books, videos, records, tapes and magazines you need. Become familiar with your library and you will find that a world of information will be at your fingertips. Most libraries are not restricted by their own collections but can borrow from other libraries to satisfy your informational needs. Become a skillful library consumer. Never hesitate to ask questions. Planning is important, however, and the farther ahead you plan, the more time you give your librarian and yourself to find the best resources.

Each show the Denver Center Theatre Company produces has its own unique informational needs. We here at the theatre use the resources of our own and other libraries continually. Without access to information, it would not be possible to do what we do whether it is searching for the costumes of a particular period, defining the language of a specific time, discovering the customs and culture of when and where the play takes place, or finding technical information to produce the special effects on stage. Our people have to be well informed. We also think it's important that we share some of the resources we have discovered with you. In fact, this study guide has taken many hours of research, writing and editing in order to help you enjoy the production you are about to see and enrich your theatrical experience at the DCTC.

*—Linda Eller*
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The SCFD has been recognized as a national model for the enhancement of community quality of life through the arts: cities from California to Pennsylvania have sought to replicate this special funding District. The residents of the Denver Metropolitan area benefit every day from its programs.

# SYNOPSIS OF *Galileo*

**"If we do discover a complete theory (of why it is that we and the universe exist), it would be the ultimate triumph of human reason–for then we would know the mind of God."**

**~ Stephen Hawking[1]**

Galileo is a badly paid lecturer at the University of Padua, which belongs to the Republic of Venice. He lives with his daughter, Virginia; his housekeeper, Mrs. Sarti; and her small son, Andrea. When his student Ludovico Marsili, who has just returned from Holland, tells him about the invention of the telescope, Galileo unscrupulously copies it and presents it as his own invention to the senators of the republic. But this telescope enables him to establish the truth of Copernicus' hypothesis that the earth revolves around the sun and is only one star among others. Asked where God is in this new world, Galileo answers: "Within ourselves. Or–nowhere."

To find more time for research, Galileo accepts the invitation of Cosimo de' Medici, the grand duke of Florence, to become his court mathematician. In Florence, he soon discovers that reason cannot, as he had thought, overcome religious dogma. When he proves that the earth is not the center of the universe, the chief astronomer of the papal college has to admit that Galileo's findings are correct, but the Inquisition forbids the publication of these facts.

For eight years Galileo remains silent and ignores astronomy until he can no longer resist the current research into sunspots. His subversive ideas begin to spread. In 1633, the Medici deliver him to the Inquisition; Pope Urban VIII, himself a mathematician, refuses to protect him. Galileo is shown the instruments of his torture and is frightened into publicly renouncing his theories. For the rest of his life he lives privately with his daughter, Virginia, writing his *Discourses* but still full of cunning.

Brecht's Galileo is not only a revolutionary scientist but a scientific revolutionary, full of relish for the controversial effect his teachings will have. Even the most powerful men in the world will come to seem less important because of his findings.

**"And the earth rolls gaily around the sun,**
**and fishwives, merchant princes, cardinals,**
**and even the Pope roll around with it.**
**The universe lost its center overnight."**
**~ Bertolt Brecht[2]**

Bertolt Brecht, author of *Galileo*

**"Through all the ages, the mind has been regarded**
**as evil and every form of insult from heretic,**
**to materialist, to exploiter; every form of iniquity**
**from exile, to disenfranchisement, to expropriation;**
**every form of torture from sneers, to rack,**
**to firing squad; brought down upon those who**
**assume the responsibility of looking at the world**
**through the eyes of a living consciousness....**
**Yet only the extent to which in chains, in dungeons,**
**in hidden corners, in the cells of philosophers,**
**in the shops of traders, some men continued to think;**
**only to that extent was humanity able to survive.**
**Through all the centuries of the worship**
**of the mindless, whatever stagnation humanity chose**
**to endure, whatever brutality to practice,**
**it was only by the grace of the men**
**who perceived that wheat must have water to grow,**
**that stones laid in a curve will form an arch,**
**that 2 + 2 makes 4, that love is not served by torture**
**and life is not fed by destruction,**
**only by the grace of those men**
**did the rest of them learn to experience a moment**
**when they caught the spark of being human."**
**~ *Atlas Shrugged* by Ayn Rand**

# GALILEO FROM 1564 to 1609

Galileo Galilei was born in Pisa, Italy on February 15, 1564. As a child, he showed unusual skill in building toys, playing the organ and painting. His father, however, encouraged his son to become a doctor, so Galileo studied medicine and the philosophy of Aristotle at the University of Pisa.

At the age of 20, he discovered the law of the pendulum while watching a great lamp swing from the ceiling of a cathedral in Pisa. He timed the motions of the lamp with his pulse beat and noticed that each swing took the same amount of time. Later, he suggested the use of a simple pendulum to time the pulse rate of medical patients.

The bronze, *Lamp of Galileo*, hangs in the cathedral at Pisa.

Galileo left the university in 1585 because he lacked money. He abandoned medicine for research in mathematics. During this time, he invented the hydrostatic balance, which was used to find the specific gravity of objects by weighing them in water.

At the age of 25, Galileo returned to the University of Pisa as a professor of mathematics. During this period, he is credited with discovering a famous law of falling bodies. Galileo reasoned that gravity pulls all bodies to the earth with the same acceleration, regardless of their weight. According to an oft-disputed story, he climbed to the top of the Leaning Tower of Pisa and dropped a ten pound and a one pound block weight from the top. Both weights struck the ground at about the same time, proving Galileo correct. But followers of Aristotle opposed this new theory and forced Galileo to leave the University.

In 1592, Galileo became professor of mathematics at the University of Padua. He remained there for 18 years. His fame as the greatest experimental physicist of his time attracted students from all around the world. In 1597, he invented the sector, a type of compass that is still used by draftsmen. In 1609, he began building many telescopes and sold them throughout Europe. He also made larger and more powerful telescopes than had ever been made before.

Galileo's first important observations in astronomy concerned the moon and opposed the teaching of Aristotle. Galileo discovered that the moon was not a smooth sphere shining by its own light. He observed that its surface was marked by valleys and mountains and that it showed only the light it reflected. He studied the Milky Way and said it was a mass of stars "so numerous as to be beyond belief." However, his most sensational discovery was, in 1610, the four bright satellites of Jupiter. He named these Medician stars after the Medici family, who ruled the province of Tuscany where he was born. That same year, he observed the peculiar form of Saturn.

These discoveries added support to the Copernican system theory and brought to Galileo additional fame as well as extreme abuse. Many churchmen and followers of Aristotle opposed Galileo and thought his beliefs were blasphemous and undermined the teachings of the Church. This period of his life, 1609 to 1638, became the basis for Brecht's play, *Galileo*.

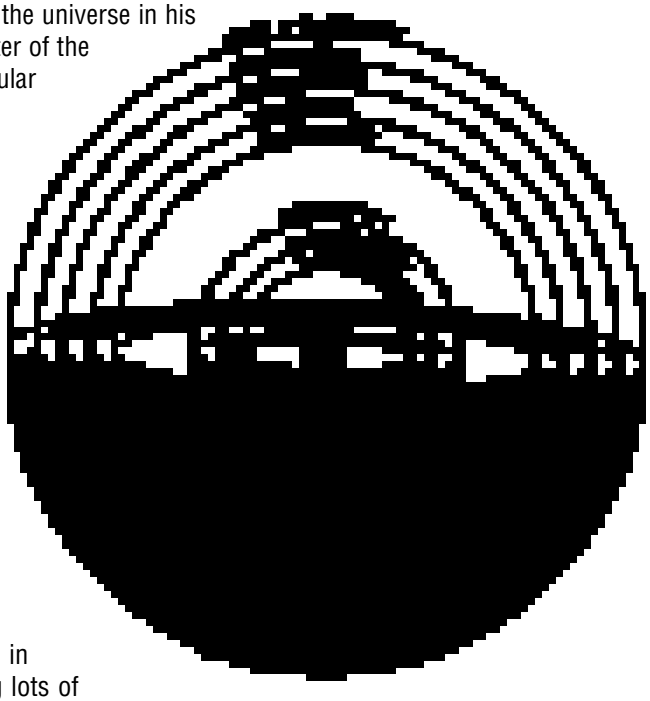
## NOTES

1. Hawking, p. 175
2. Brecht, p. 3
3. Hawking, p. 13
4. Esslin, p. 132
5. Harrop and Epstein, p. 217
6. Harrop and Epstein, p. 218
7. Esslin, p. 132
8. Esslin, p. 133
9. Busha, p. 27
10. Commager et al, p. 88
11. Busha, p. 34
12. Busha, p. 34
13. Brecht, p. 3
14. Fuegi, p. 162
15. Bentley, p. 196
16 Fuegi, p. 163
17. Brecht, p. 62

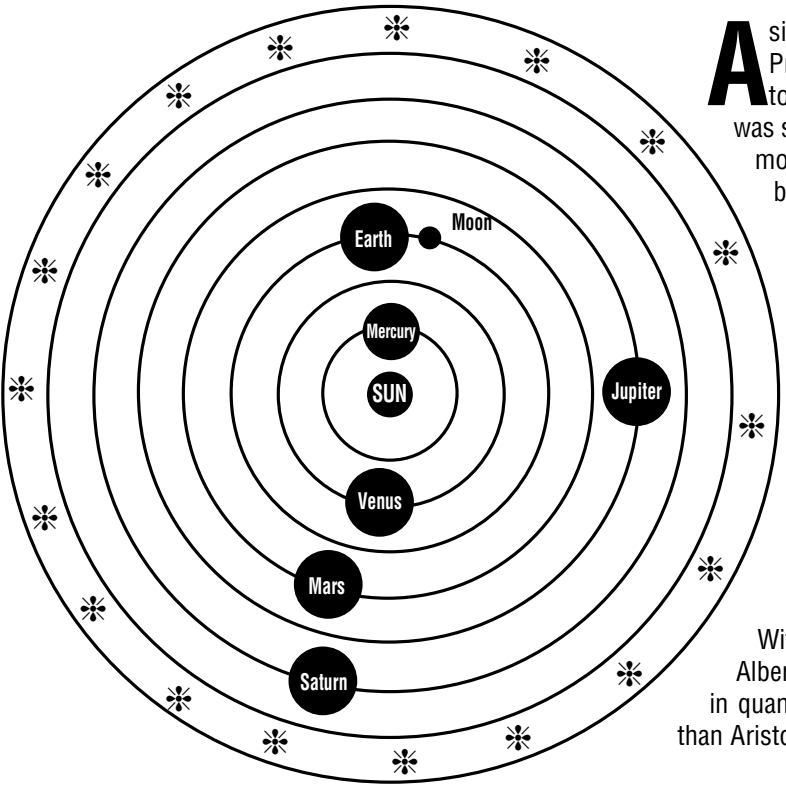
# THE CHANGING PICTURE OF THE UNIVERSE

**"Had I been present at the creation, I would have given some useful hints for better ordering the universe."**
**~ Alfonso the Wise (1221-1284)**

As long ago as 340 BC, the Greek philosopher Aristotle wrote about the universe in his book, *On the Heavens*. Aristotle thought that the earth was the center of the universe and that the sun, moon, planets and stars moved in circular orbits about the earth. He believed this because he felt, for mystical reasons, that the earth was the center of the universe and circular motion was the most perfect. This idea was elaborated upon by Ptolemy, an astronomer in Alexandria, Egypt, in the second century AD into a complete cosmological model. The earth stood at the center, surrounded by eight spheres that carried the moon, the sun, the stars and the five planets known at that time: Mercury, Venus, Mars, Jupiter and Saturn. What was beyond the eighth sphere was not part of man's observable universe.



Ptolemy's model provided a reasonably accurate system for predicting the positions of heavenly bodies in the sky. But in order to predict these positions correctly, Ptolemy had to make an assumption that the moon followed a path that sometimes brought it twice as close to the Earth as at other times. That meant the moon ought sometimes to appear twice as big as at other times! Ptolemy recognized this flaw, but his model was generally accepted. It was adopted by the Christian church as the picture of the Universe that was in accordance with the Scriptures, for it had the great advantage of leaving lots of room outside the sphere of fixed stars for Heaven and Hell.




A simpler model, however, was promised in 1514 by a Polish Priest, Nicholas Copernicus. (Fear of the church led Copernicus to circulate his model anonymously.) His idea was that the sun was stationary at the center and that the earth and the other planets moved in circular orbits around the sun. Nearly a century passed before the idea was taken seriously. The two astronomers–Johannes Kepler, the German, and Galileo, the Italian–started publicly to support the Copernican theory, despite the fact that the orbits it predicted did not quite match the ones observed. The death blow to the Aristotelian/Ptolemaic theory came in 1609. In that year Galileo, looking at Jupiter through a telescope, saw it was accompanied by several smaller satellites or moons that orbited around it. *This implied that everything did NOT have to orbit around the earth as Aristotle and Ptolemy had thought*. At the same time, Johannes Kepler modified Copernicus' theory, suggesting that the planets moved not in circles but in ellipses. The predictions finally matched the observations.

With the research of Isaac Newton and the theory of gravity, Albert Einstein and the theory of relativity, and the recent advances in quantum physics, we now describe the universe much differently than Aristotle and Ptolemy did.

**"Today we still yearn to know why we are here and where we came from.**
**Humanity's deepest desire for knowledge is justification enough for our continuing quest.**
**And our goal is nothing less than a complete description of the universe we live in." ~ Stephen Hawking**[3]

# TIMELINE

**1609** Shakespeare wrote *Cymbeline.*
El Greco and Rubens were painting.
Henry Hudson explored Delaware Bay.
**1610-11** Ben Jonson was writing.
*King James Bible* was published.
**1612** Shakespeare wrote *Henry VIII.*
John Smith published a map of Virginia.
Tobacco planted in Virginia.
**1613** House of Romanov founded in Russia.
**1614** John Webster wrote *The Duchess of Malfi.*
Sir Walter Raleigh wrote *The History of the World.*
Santorio Santorio studied metabolism and perspiration.
Pocahontas married John Rolf in Virginia.
**1615** Inigo Jones became England's chief architect.
French explorer, Champlain, found Lake Huron.
**1616** War between Venice and Austria.
Shakespeare died.
Galileo was called before the Inquisition.
**1618** Francis Bacon created Lord Chancellor in England.
Bernini, greatest sculptor of the Baroque period in Italy, was at work.
Johannes Kepler published *Harmonices Mundi* stating the 3rd law of planetary motion.
**1619** William Harvey announced his discovery of the circulation of the blood.
First African slaves in North America arrive in Virginia.
**1620** Pilgrims land at Plymouth Rock.
Van Dyck and Velasquez were painting.
**1621** Parliment charged Francis Bacon with corruption.
Dutch West India Company was chartered.
**1622** Molière was born in France.
Papal chancellery changed the beginning of the new year from March 25th to January 1.
Richelieu was created Cardinal by Louis XIII in France.
**1623** *The First Folio* of Shakespeare was published.
Maffeo Barberini became Pope Urban VIII.
New Netherlands in America organized as a province.
**1624** England declared war on Spain.
Virginia became a crown colony.
Dutch settled in New Amsterdam.
**1626** Facade of St. Peter's in Rome was finished.
Santorio measured human temperature with thermometer for the first time.
Peter Minuit, director of Dutch West India Co., bought Manhattan island from Indians for $24.
**1627** Rembrandt and Hals were painting.
Johannes Kepler compiled the Rudolphin Tables, giving places to 1,005 fixed stars.
**1629** Colony of Massachusetts founded, led by John Winthrop who became first governor.
**1630** Boston replaced Salem as the capital.
Beginning of High Baroque period in Italy.
Beginning of public advertising in Paris.
**1631** Earthquake in Naples; eruption of Vesuvius.
English mathematician William Oughtred proposed symbol "x" for multiplication.
**1633** Galileo forced by Inquisition to abjure theories of Copernicus.
Dutch settle in Connecticut.
John Cotton became a religious leader in Boston.

# COSIMO II DE' MEDICI

The Medici were the Italian family that long ruled Florence and later Tuscany during most of the period from 1434 to 1737. It provided the church with four popes and married into the royal families of Europe (most notably France). Three lines of the Medici family successively approached or acquired positions of power. In Florence, they first gained prominence in the city in the early 13th century as merchants and money-lenders and they entered public life in the 1260s. Through its extensive European commerce and banking, the family became one of the richest in 15th century Italy and it supported the popular faction against the ruling aristocrats in Florence. Cosimo de' Medici the Elder, a shrewd politician, established Medici dominance in Florence from 1434. His grandson Lorenz the Magnificent perfected Medici control and made the family one of the most powerful in Renaissance Italy.

The differences between these three collateral lines are due essentially to circumstances, for there was an extraordinary persistence of at least three hereditary traits: not being soldiers, they bribed their adversaries; they courted favor with the middle and poorer classes; and finally all were consumed by a passion for arts and letters and for building. The Medici family built beautiful buildings and established large libraries. The family was more than a beneficent and ostentatious patron of the arts; it was also enlightened and consequently, was probably the most magnificent such patron that the West has ever seen. Florence became an art center under their rule. Michelangelo and Raphael were among the great artists helped by the family.

Cosimo II de' Medici (1590-1621) belonged to the junior branch of the Medici family that ruled Florence. He was the son of Ferdinand and became Grand Duke in 1609. He was a patron of Galileo and appointed him as his personal philosopher and mathematician along with the title of Professor of the University of Pisa, although the latter was without any teaching obligations. Galileo dedicated the satellites of Jupiter to him, later called the "Medicea sidera," and also gifted him with a proportional compass.

**1634** Oberammergau Passion Play given for first time.
**1635** Frescobaldi, Italian organist, composed works which later influence Johann Sebastian Bach.
Boston Latin School, oldest secondary school in North America, founded in Massachusetts.
**1636** Roger Williams established colony of Rhode Island
Harvard College founded at Cambridge, Mass.
**1637** John Milton wrote his poem "Lycidas".
Japan prohibited Christianity, foreign books and European contact.
French traders settled at Saint Louis.
**1638** Galileo wrote his *Discourses.*

# BRECHT AND THE EPIC THEATRE

**"The theatre must become a tool of social engineering a laboratory of social change." ~ Bertolt Brecht**[4]

The artistic climate in which Brecht grew up was that of early 20th century avant garde. This was the period of surrealism and the attack upon the form and sensibility of 19th century art in both its romantic and naturalistic manifestation. It was also the period of expressionism, aimed at creating artistic images of man's inner feelings, thoughts and fantasies. In its themes, expressionism also shared in the social and political revolt against middle-class sensibility that was at the root of the avant garde.

Brecht accepted the revolutionary spirit of the theatre of his time, but he rejected the production of the 19th century German theatre–bombastic classics, photographic realism and drawing room comedy–as "culinary theatre" to be consumed for emotional titillation or after dinner entertainment.[5] He also opposed drama when its themes were inner-directed or of psychological concerns. The aesthetic of Brecht's theatre was to show and demonstrate the economic, social and political condition of man–and, therefore, serve as an instrument for the political education of the masses.

Brecht's politics were Marxist. The Marxist concept of a pattern in human history–the inevitability of the class struggle and progress towards the victory of the pro-letariat–struck him as realistic. Life was no longer static and incapable of being changed by human effort; all causes, all effects, all relationships are dynamic and susceptible to improvement. History was the outcome of human struggle, and the laws governing these were known. Brecht clung to this belief and rejected psychological or emotional explanations for man's behavior–a principle that was to have a crucial effect upon the nature of his theatre.

Alienation, otherwise known as "distancing," is probably the most important and most misunderstood part of Brecht's dramatic theory.[6] To Brecht, dramatic theatre based upon Aristotelian principles was a way of fooling people into the acceptance of their condition.

**"(It) strives to create terror and pity in the spectator, to purge his emotions, so that he emerges relieved and refreshed. It achieves this by conjuring up an illusion of real events, drawing each member of the audience into the action by causing him to identify himself with the hero to the point of complete self-oblivion."**[7]

Brecht took the Marxist position that emotions have a class basis; the form they take is individual and specific, not universal. It was not emotion per se that Brecht objected to, but the empathy that it produced. For him, empathy was giving oneself up to the emotions of a theatrical occasion; sharing the emotional state of the character to the degree that his/her emotions become "real" and erase all consciousness that one is at the theatre. For Brecht, this kind of empathy suspended the person's capacity for critical thinking of the social reality behind the emotional state.

Brecht directed his alienation or distancing effect toward breaking that empathy. It was not to attack or offend the audience. Brecht wanted his audience to be at one with the event, in such a way that the interaction raised its critical consciousness. The actors share their ideas and attitudes with the audience in order that they may come to perceive true social and political reality. A critical attitude is not a negative one; it is socially active and practical. This alienation has the function of freeing old attitudes from the stamp of familiarity, and draws attention to the familiar by showing it in a new light.

The achievement of alienation underlies Brecht's whole theory of "epic theatre." Epic theatre is about the social condition of man; it reports and comments upon various aspects of that condition. It moves in an episodic manner; each episode is complete in itself and the spectator can reflect upon this if he/she is not anxious to press on to an end. The purpose of epic theatre then is:

1. To make the spectator a critical observer who must make decisions.
2. To present the world as an object and to do this through informative demonstration.
3. To focus on the process, not the outcome for the play.
4. To explore the social determinism of the individual,

   showing the historical nature of human misfortune, the changeable order of nature, and the ability of man to create a better environment and a better man.

**"Audiences should be made to think." ~ Bertolt Brecht**[8]

Censorship is an effort by government, religion or private organizations to keep people from reading, hearing or seeing whatever they please. It is also the official suppression, restriction or punishment of free expression.

# CENSORSHIP

**Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances. ~ Amendment I (1791) of the Constitution of the United States**

It is most often applied to speeches, books, plays and movies that might be dangerous to the government or harmful to public morals. Particularly, works of art, kinds of dancing or clothing are subject to a personal censorship and can result in an organized community furor. Some form of censorship always exists in a dictatorship and in any country during a war.

Political censorship is most often practiced under dictatorships or monarchies. The aim of political censorship is to prevent any criticism of the government, which might result in the overthrow of the government or its leaders. The outstanding example of this situation was Nazi Germany, where the government censored all forms of communication. Political censorship is prohibited in democratic countries like the United States, but, in fact, has occurred. Congress has en-acted several laws tantamount to repression, the first of which were the Alien and Sedition Acts of 1798. At that time, war with France appeared imminent and the need was felt to oust "dangerous" aliens and to impeach those individuals who might write or speak "with intent to defame" the government, Congress or the President. These Alien and Sedition Acts delineated the first legislation, which seriously threatened freedom of speech and freedom of press in the United States. The Acts expired in 1801 and President Thomas Jefferson was quick to pardon everyone who was convicted under them.[9]

Military censorship, necessary during wartime, is designed to keep from the enemy valuable information about troop or ship movements, weapons or military inventions. Military censors read letters written by all military personnel and clip or blot out information that might be valuable to the enemy. Government documents can be labeled as Top Secret or Classified. Military censorship can also be practiced in peacetime. In the 1950s the Atomic Energy Commission kept strict control over scientific pursuits and the scientists involved in them for fear that national security might be compromised. Much of what was kept secret was already obsolete or had been duplicated by other countries. Professor Robert F. Bacher, a former AEC Commissioner, acknowledged that legitimate restrictions were needed. But he added: "The veil of secrecy has a tendency to spread like a fog and cover all sorts of other subjects as well."[10]

Most censorship of public morals is accomplished by churches and other private organizations. This kind of censorship applies only to members of the group, but powerful organizations can sometimes put pressure on the government to ban the things which the group finds distasteful. In our own history the sturdy character and strong moral principles of early Puritans contributed heavily to the development of self-government in the United States, yet some of their laws were extremely repressive. Puritans banned drama and religious music. They inhibited the reading of certain types of books and poetry and excluded the observance of Christmas, which was associated with paganism. The Salem witch hunts showed Puritanism out of control and resulted in the downfall of some of its influential leaders. Yet, the Puritan ethic still has persisted for centuries.[11] In our own century, moral censorship has been exerted by our government over the arts. In the 1930s, Senator (then Judge) William Hays criticized motion pictures as being immoral and urged the major movie studios to set up a production code. This code, which was enforced through the 1950s, was initiated and administered in concert with the Catholic Church and its League of Decency, so religious doctrine spilled over into the area of artistic free speech. Lately, the National Endowment for the Arts has been a target of congressional maneuverings because of its grants to controversial artists such as Robert Mapplethorpe and Andres Serrano. The NEA's most vocal critic is Senator Jesse Helms who introduced legislation to cut NEA funding and prohibited federal funding of art that could be considered obscene. Recently, at a presidential summit, the TV industry agreed to set up a ratings system on their programs to forestall a stricter and less "network friendly" system. It is hoped that this with the V-chip will allow parents to shield their children from sex and violence on television. Does this spell censorship? And since programming is driven by audience numbers, what impact will this action have on the industry? Is this action "de facto" censorship?

Intellectual censorship is rare, yet there are instances where the scientific community was not completely adverse to practicing a bit of repression itself. The case of Immanuel Velikovsky, physician and psychologist, is an excellent example. In the 1950s, Dr. Velikovsky wrote two books, *Worlds in Collision* and *Earth in Upheaval*, which proposed the theories that "cosmic catastrophes" and "terrestrial cataclysms" caused drastic changes in orbits and structures of planets. Both books became best-sellers. Yet some American scientists attempted to suppress and censure the books, while others criticized the content severely. The scientists threatened the publisher, Macmillan, with a boycott against their textbooks, so the work was withdrawn and handed over to Doubleday and Co., which did not publish textbooks. Recent discoveries from man's space explorations have caused scientists to reexamine Velikovsky's theories and to validate some of them. According to one editorial: "Dr. Velikovsky's offense seems to be that he writes better than most scientists–and expounds a theory of astronomical activity which differs widely from orthodox theories."[12]

Censorship has always been with us and very likely always will be. From the ancient Spartan rulers prohibiting certain forms of poetry, music and dancing in 500 BC to the proposed suppression of remarks made by Denver cab drivers in 1996, censorship is usually based on what is agitating society at the moment.

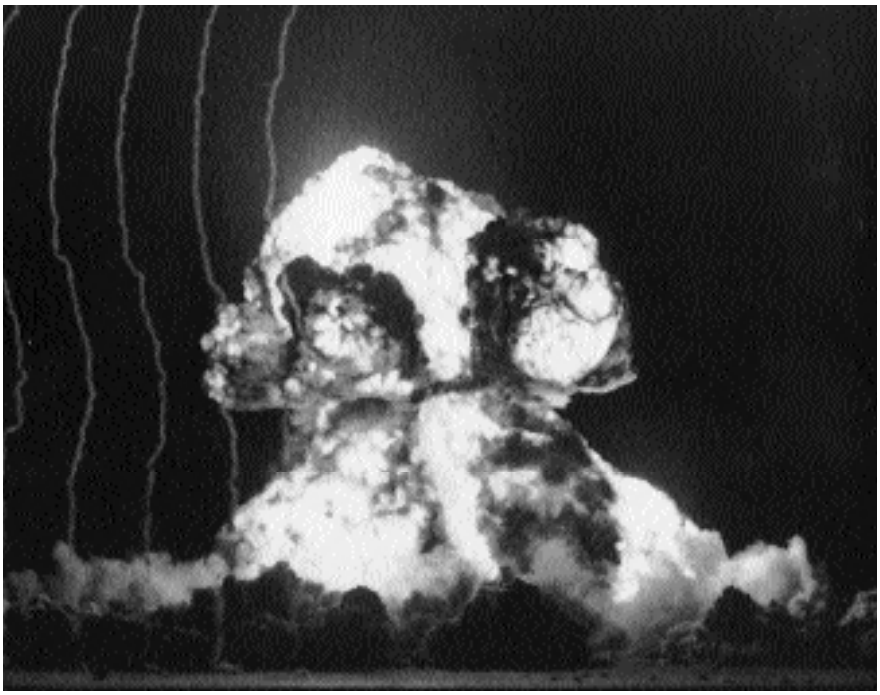
**"Liberty, to be secure for any, must be secure for all—even the most miserable merchants of hatred and unpopular ideas."**

**Justice Hugo Black**

# THE CHANGING FACE OF "GALILEO"

**"In time you may discover everything that there is to discover and that the advances you will make will only carry you further away from humanity. The chasm between you and humanity can become so great one day that your cries of joy about some new achievement may be answered by a universal cry of horror." ~ Bertolt Brecht[13]**

Bertolt Brecht began writing his first version of *The Life of Galileo* in 1936. At that time the Soviet Purge Trials were going on in Russia. One of those being tried was a devout Marxist, Nicolai Bukharin, who had been a trusted supporter of Stalin, but now was accused of conspiracy with foreign powers, terrorism, assassination and a projected coup d'etat. Although Bukharin recanted his criticism of Stalinism, he was convicted and executed in 1937. In sympathy with Bukharin, Brecht made Galileo a victim; both a hero and a coward, a thief of other people's ideas, but someone of enormous originality.



No sooner was the first version of *Galileo* finished than it began to take on a new layer of meaning. From Berlin came the news that Albert Einstein's former colleagues, Otto Hahn and Fritz Strassman, had split the atom. In America, the Danish scientist, Neils Bohr, duplicated the same experiments at Columbia University. By August 1939, pacifist Albert Einstein wrote to President Roosevelt that the danger of the Berlin experiments was so great that America should conduct a crash program to build an atomic bomb. Although Brecht was only vaguely aware of the implications of these experiments, he revised *Galileo* to suggest that physics itself could become deadly to the human race. The quotation at the beginning of this article is testament to this fact.

That same year, 1939, Hitler was greeted jubilantly in Austria even though he had his opponents murdered; Prime Minister Chamberlain of England sought to placate Hitler in Munich to buy a few more years of peace; and in America, Congress created its own kind of Inquisition, the House Un-American Activities Committee. Thus, the subject of the play became the universal struggle against repression. The human condition of the man, Galileo, faces choices so profound and compelling, that he elicits fear and pity in the audience. This was a far cry from Brecht's theory of "alienation" in the theatre.

In 1945, Brecht was in exile in Los Angeles when the atomic bomb was dropped on Hiroshima and Nagasaki. When he learned of J. Robert Oppenheimer's cry as he watched the first test explosion: "I am become death, the destroyer of worlds," Brecht took a bleak view of scientific progress.[14] Now working on a major production of the play with Charles Laughton in the title role, Brecht, with Laughton's permission, began to prepare an English version that would reflect a negative view of Galileo as an "intellectual prostitute." The play became a "tragicomedy of heroic combat followed by unheroic capitulation, and the ending of the later version is of the harrowing sort common in tragicomedy when it achieves greatness: no noble contrition, no belated rebellion, but savage, misanthropic self-hatred."[15] This new version had a darker tone, but when it was produced in July 1947 in Los Angeles, and then later in New York, Brecht himself was morally outraged that the audiences who saw the play seemed not to be morally outraged by Galileo's behavior.[16]

In 1955, Brecht began directing a production of *Galileo* in Berlin. He stressed to the actors the necessity of seeing his play not as a historical work from long ago, but as one of a most pressing contemporary urgency. He would always stop rehearsals when the actors reached this line: "I do not hope to prove I have been right up to now, opposed to all dogma, whether it be Copernican, Papist, Stalinist, or even perhaps Brechtian."[17] No matter how many revisions, Galileo, as Brecht created him, is a massive, memorable and modern figure.

# ACTIVITY PACKAGE

## 1. CENSORSHIP

**Definitions:**
*Internal censorship*-The process of excluding from consciousness those ideas and feelings that would be intolerable in other than symbolic form.
*External censorship*-To alter, delete or ban completely after examination.

**Questions to think about and discuss:**
1. Who has control of truth and knowledge? Discuss the moral and ethical implications of your answer.

2. What forms of censorship do you encounter every day at home, school, work?

3. There is a new trend in schools toward school uniforms. Is this a form of censorship?

4. When you close your eyes at a horror movie, have you censored the movie?

5. If the Government dictates truth through the censorship of opposing ideas, is this dangerous?

6. Could censorship of scientific ideas be accomplished by big industry or government?

7. Can moral issues be controlled through censorship? Discuss the case of the use of germ warfare, the disposal of toxic waste. Do you think the genetic quality of an individual can be dictated?

8. Is the separation of church and state a form of censorship?

9. How do you decide what to censor from your own life? Does it bother you that sometimes you cannot avoid some things that you wish to censor?

10. How much influence should another person have to censor experiences from your life?

11. What is the difference between self-induced censorship and others imposing censorship, as in banning books and foul language?

12. Is holding back a thought or opinion censorship or discretion?

13. How do you define what should be perceived as discreet, tasteful, fitting or appropriate?

14. Is all censorship bad? If not, how do you define its limits and to whom do you entrust this power? Where do you draw the line?

## RESEARCH BEFORE OR AFTER THE PLAY

Aristotle-his hypothesis that the sun rotates around the earth

Copernicus-refutation of Aristotle's theory about the sun and earth

Kepler-first astronomer to openly uphold Copernicus' theories

Pope Urban VIII

Descartes-his ideas that the mind is not limited and therefore can encompass free will and reconcile science and religion

Galileo

Inquisition-who was an inquisitor, reasons for Inquisition, why was Galileo brought before it

Protestant Reformation-its influence on the search for heretics

## THE PLAY *GALILEO*

*This section assumes the reading of the play.*

Epic theatre is defined in several ways by various authorities, but a study of various explanations from Brecht himself reveal the following:

1. Unlike classical tragedy with its unities, epic theater has free manipulation of time and space and may even allow flashback.

2. The story is unsensational; it may even be a well-known one, restructured for the theatre.

3. The emphasis, instead of being on a tragic ending, is on a series of episodes that the audience can recognize because they are plotted to parallel life.

4. These episodic scenes are intended not to lead an involved audience to empathize with the actor—through pity and fear to a catharsis—but to allow a relaxed audience first to have fun and then to make discoveries on their own of things that are not at first obvious to them.

5. Such drama requires not a tragic hero who loses his life for a cause but a sage, or wise man, who is developing a well-rounded character whose experiences and actions reveal the contradictions of human nature and of modern society.

6. The actor portraying such an "unhero" must understand and communicate the situation before the audience receives it to prevent their empathizing with his character..

7. The ultimate aim is that through observing an already familiar situation, the audience will be led to doubt and to dissatisfaction with things as they are. This becomes then a very cerebral theater, one which leads to study and contemplation after the stage door is closed.

Claude Hill, in *Bertolt Brecht* (Boston: Twayne Publishers, 1975) explains how the modern playwright blends modern scientific methods with the theater:

> **In contrast to the pure scientist who is mainly concerned with the nature of things, the theater is concerned with the actions of men. It must show them in as scientifically valid a way as possible, and this, in turn means in the light of Marx, who was the first and most influential thinker, to apply scientific methods to the social world (p. 156).**

*Divide the class into six groups for analysis of the play. Assign responsibilities as follows:*

| | | | |
|---|---|---|---|
| Scene 1 | whole class | Scene 8 & 9 | group 4 |
| Scene 2 & 3 | group 1 | Scene 10-12 | group 5 |
| Scene 4 & 5 | group 2 | Scene 13-15 | group 6 |
| Scene 6 & 7 | group 3 | | |

### *Have groups analyze:*

1. IRONIC EVENTS AND STATEMENTS.
   Example scene 1: Galileo steals idea for telescope lenses from the Dutch rather than developing it himself.

2. DETAILS RELATED TO HISTORY.
   Example scene 1: Galileo writing in Italian, the language of the people rather than in Latin, the language of the Church. Ludivico reveals that the well-educated man should know something about science.

3. DETAILS RELATED TO EPIC THEATER.
   Example scene 1: The irony that Bruno was killed not because he promoted Copernicus' theories, but because he wasn't a Venetian citizen. Examine modern parallels.

Assign each group to present the scenes that they have studied. They should relate the historic details they have found and then present the scenes in play-reading fashion. After all scenes have been presented, discuss as a class the features of epic theatre Brecht has exemplified in this play or have the class create an epic scene using Brechtian Principles. The scene should be based on a current news story or issue.

## THE CHARACTER GALILEO

1. How does Brecht's transformation of Galileo as a person who recants to avoid pain change one's idea of the hero image usually connected with drama?

2. Many critics make a point of the fact that Galileo was not fighting the church, because he stayed true to his faith throughout and was never declared a heretic. He was, however, fighting authority, the force that could dictate to him what the limits of his activities would be. What modern parallels can you cite?

3. Sometimes tradition becomes a kind of authority and can result in unfair practices and laws. Cite modern examples where truth vs. traditional belief has been handled without open hostility at first but later resulted in a confrontation such as Galileo had with the church.

4. Cite examples in which truth has triumphed without violent confrontation on a large scale.

5. Why does confrontation often replace open communication?

*6. Galileo* is a disturbing play—as is all epic theatre—for it demands that one examine carefully the social world in which he/she lives and then admit what he/she has done or has failed to do to change it. As we jump from Galileo's day to the present, what situations disturb us?

## CREATE A POEM OF GALILEO

a. line one: his name and title or occupation
b. line two: his relatives
c. line three: four adjectives describing him
d. line four: three things he admires
e. line five: three things he fears
f. line six : three things he wishes to accomplish
g. line seven: his address
h. line eight: his last name
i. line nine: dates of his birth and death

Example:

**Edward the First**
**Eldest son of Henry III, husband of Eleanor of Castile and Margaret of France**
**Vacillating, powerful, vengeful, just.**
**Admirer of justice, Scotland and the Crusades.**
**Fearful of Scotland, rebellion and the papacy.**
**Wishing to accomplish subjugation of Scotland, a reliable parliament and a stable throne.**
**London, England**
**Longshanks**
**(1239-1307)**

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