SHAKESPEARE AND RELATIVITY: THE SIGNIFICANCE OF TIME IN THE MAJOR DRAMAS

A Thesis

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By

Ralph Leroy Daggett

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Approved for the Major Department

Charles E. Walton

Approved for the Graduate Council

Laurence L. Boyton

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PREFACE

The general topic of this thesis was suggested to me by Dr. Charles E. Walton, of Kansas State Teachers College of Emporia, during a stimulating graduate course in Shakespeare taken in the summer of 1956. An item in the preliminary reading Dr. Walton outlined was a reprint of an address delivered eight years ago by Dr. Hardin Craig, entitled "Shakespeare and the Here and Now."[1] Although I had had small Shakespeare and less Elizabethan drama, I was struck by Dr. Craig's thought-provoking statements about relativity, and particularly by his reference to relativistic concepts as a possible source of all literary power. My search for an interesting and challenging research problem had ended. I resolved to study the relationship between literary immortality and a relativistic concept of time.

My study is based on these two statements by Dr. Craig:

> ...whether Shakespeare knew it or not, his conception of the here and now must have been within the bounds of a four-dimensional time-space continuum.[2]
>
> The relativistic concept of the time-space continuum may thus suggest an explanation of the power of such

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[1] An address given at the General Meeting of the Modern Language Association in Detroit, Michigan, December 28, 1951.

[2] Hardin Craig, "Shakespeare and the Here and Now," PMLA, LXVII (1952), p. 91.

> writers as Shakespeare and Sir Walter Scott, who are said to be able to make the past live again, endow the dead with immortality, and thus unify all earthly life.[3]

The problem, as I sensed it, would first involve limiting the subject to workable proportions without destroying its validity, and, second, necessitate the exercise of restraint in the application of a subjective approach. The first part of the problem was easy, for it became a simple matter of selecting an author of long-established literary immortality; and, of course, Shakespeare was a logical choice. The second part of the problem was more difficult, for a certain degree of subjectivity is inherent in an inquiry of this nature and is, therefore, unavoidable.

Because there is a dearth of material bearing directly on the problem, I directed my research toward acquainting myself with non-literary concepts of time, especially those of Plato and Einstein, and toward understanding better the thought which lay behind Dr. Craig's statements. I then applied my results to selected Shakespearean plays, using my own interpretations and drawing conclusions wherever they seemed warranted.

From earliest times, perhaps even from the day when man first recorded his thoughts on clay, writers have striven

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[3] Ibid., p. 92.

to produce literature that would live beyond their own life span, if not forever. Present-day writers who dream of producing the novel of the age have their counterparts in writers of ancient civilizations. The goal, though eternal, remains elusive. For to examine and to analyze a work whose timeless qualities are already established is not necessarily to discover the secret of its longevity. Long-continued analysis of great literature discovers common themes and common methods or techniques; and yet, for every literary classic, countless other writings, though similar in aim and treatment, scarcely rise above mediocrity. The question remains: What makes the masterpiece live?

The purpose of the creative writer may be defined simply as the fulfillment of an innate desire to create. Such an oversimplified definition has at the same time historic validity. Early creative artists must surely have worked for love of their labor, and not for profit. Only in comparatively recent times could the creative artist hope to win a fortune for doing, as H. L. Mencken once said, "...what I would have done for nothing, and very gladly, if there had been no reward in it."[4] And even now the financial reward in creative work is not

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4 From a letter to Will Durant.

always proportionate to the degree of excellence, because quality is an intangible that yields to measurement reluctantly, if at all. A prime goal of creative writers through the ages has been the attainment of literary immortality. They seek the formula of the imperishable masterpiece. Aristotle, through his architectonikē, and Hemingway, with his "moment of truth," widely disparate though they are in era and method, concerned themselves with a basically common objective. But by whatever name it be called, and in whatever age it be formulated, the answer is never final.

In such an aura of uncertainty one can feel free to hypothesize. If the hallmark of great literature cannot be reduced to laws or principles, the area from which the distinguishing characteristics arise can be located so that a direction, if not an exact route, is indicated. The hypothesis of this study is, therefore, that the power of the great writer lies in a relativistic concept (of which he may be unaware) of time, and that such a concept is distinguishable in the masterpiece.

So that the problem will have workable proportions, I have applied this theory to a single author. Because validity demands the choice of a writer whose literary

immortality is unquestioned and long established, I have chosen the works of William Shakespeare.

Besides the introduction and conclusion, the study includes four larger units, as follows: (1) a general philosophical discussion of time in its various relationships to mankind; (2) a historical treatment of time concepts, particularly those classifiable as pre-Cartesian, post-Cartesian, and Einsteinian, with emphasis on underlying philosophic and scientific concepts; (3) an analysis of Shakespeare's concept of time evident in his works; and (4) an examination of selected Shakespearean works to relate the time concept to the power of the drama.

Whatever else may be said of the result of my effort, the process by which it was achieved has been a rich and satisfying experience. Besides, it has pointed out to me a literary lode that will not soon be exhausted.

My thanks go to Dr. Walton not only for his assistance, but also for his patient understanding, and to Dr. T. C. Owen for his help with the final reading. I am grateful, too, for the encouragement given by some of my colleagues.

March 23, 1959
Emporia, Kansas

R.L.D.

CHAPTER I

TIME AND ITS SIGNIFICANCE TO MANKIND

Time, no matter how it is conceived of, is tyrannical to a degree; and certainly it affects each human being from cradle to grave--indeed, even from and before conception. To prehistoric man, time existed simply as change. He was conscious of daily and seasonal variations in light and temperature, whether or not he assigned names to them; and, as a reasoning creature, he eventually detected the basic pattern of change. Once aware of that pattern, man had entered, unconsciously, the dominion of time's tyranny. For he knew that to spend the hours of darkness in chosen safety, he must have limited his range of daytime activity to reach his haven before darkness. He knew, too, that in order to extend the range of his operations, he must either find, in advance, additional shelters within the larger area, or accept whatever protection was at hand when needed. With this awareness of change came other restrictions upon man's freedom, among them a necessity for preparations to enable him to endure (or even to survive) widely fluctuating climatic conditions.

That mankind would formulate ideas concerning time was inevitable, for time must have seemed to be the essence

of life itself. And that he would measure it in units consistent with both his observable universe and his mortality was, likewise, a certainty. Once the train of thought concerning time/change was set in motion, moreover, it led man eventually to a realization that changes, or variations in the pattern of change, could beget conditions the effects of which not only would extend far beyond the moment of their creation, but which would also affect man in generations to come--and extend a sway even beyond life itself. These ideas may have occurred to the early man who, stopping at a familiar water hole after long absence, found it dry, the result of a landslide or other natural cause, and who subsequently found it not restored to the previous condition. Thus, he was forced to adjust himself to a condition that arose from an earlier cause. Through observation and reason, he could extend this concept to account for causes which may have occurred before his lifetime and for effects which could possibly extend beyond his lifetime. In such a way was born the first elemental theory of relativity--at least of relativity in the sense of the close dependence of one occurrence upon another. Even after his thinking had reached this point, man was content to leave the consideration of time in its larger sense to the philosopher; for,

to the average man, time was simply a matter of day and night, winter and summer, scarcity and abundance, flood and drought, youth and old age, birth and death.

Ideas are not inheritable, and so throughout the ages, every man has had to formulate his own understanding of time. The project is still continuing to occupy his thought. The man today who develops a complex concept of time, for example, passes through a series of thought stages that may be roughly defined as ignorance, awareness, hypothesis, rejection, and, finally, understanding. The final stage, oddly enough, often incorporates much of what was formulated in the second stage and later rejected as naive or fallacious. An understanding of time is compounded largely of ignorance and awareness, so that the process of understanding is, in effect, a circle. The individual must work his way laboriously through the problem, finding little help in the experiences of his parents, his race, or preceding races. Time does not exist for today's child any more than it did for the earliest of human beings. But he eventually reaches a stage of awareness wherein time begins to restrict his freedom with ever-increasing inflexibility until, at last, he assumes that time is indeed a tyrant from whose rule he cannot escape. With grudging acceptance of this fact, he

organizes his existence within the prison walls of time. At length as he grows old, he sees that his attitude toward time reverts almost to that of his childhood. Tots and ancients, through inability or unwillingness, make small distinction between last week and last year, or between the last decade and the last century.

Popular belief holds that in the innocence of the child and in the wisdom of the aged, truth lies close to the surface. Because popular beliefs have foundations that are often unreliable and almost never scientific, pursuit of this point must be purely subjective. But at least it seems to suggest to one the restrictive nature of the absolute concept of time held by most contemporary and thinking adults since its formulation three centuries ago. Like the modern scientist, the writer who seeks a literary kind of immortality is trying to track down the ultimate nature of reality. His chances for success seem infinitely greater if his far-ranging imagination is unfettered by narrow concepts of space and time.

The pattern in which man's awareness and conceptions of time develop has a broad application in the history of philosophical and scientific thought--in the annals of the eternal search for the nature of reality, through the five stages previously mentioned. And even

the understanding that finally crowns the initial gropings is not final, but tentative, unearthing with it a realization of an ever greater human ignorance. Indeed, all approaches to knowledge or learning are dead-end streets. In the past half century, for example, man has seen tremendous strides made toward revelation of ultimate reality in science; and yet, today, many scientists and philosophers, despite their successes, despair of ever reaching a final answer.

The writer's search for truth, on the other hand, is a corollary of this concept, in a narrow sense. Truth may be said to be enclosed always in an unnatural husk, one that is synthetic or man-made. Truth does not conceal itself; instead, man, with his limited senses, simply cannot perceive of it. And through efforts to overcome sensory weaknesses, man unwittingly builds this so-called husk, at the same time creating the task of stripping it away. This process may require generations or centuries. But even after removing the husk, man may find truth visible but still not really understandable to his limited intelligence. And so the quest for truth is endless.

This constant pursuit of the eternal verities implies either that truth is infinite or that man has had but small success in his quest. Neither implication is

wholly true. Truth must be considered as finite; and man obviously has apprehended much of it, at least in terms of his mental and sensory capacity to do so. Yet, the quest continues because searchers often defeat themselves. In the beginning, the seeker of fundamental truth was armed with little more than his curiosity; but, as each new discovery built a broader, firmer base from which to work, his task became relatively easier, though still formidable.

Modern inquiry into Relativity suggests that writers, like scientists, must recognize that the world is a four-dimensional space-time continuum in which neither space nor time exists as a separate entity. Such an approach to his work should enable a writer to see old truths in a new light and, possibly, to discover new ones. It should, likewise, give to his work a new depth and scope that will lead to new literary potency. Because the concept of the space-time continuum cannot be represented graphically, science explains it through the mathematical symbol. Craig observes that in philosophy, too, there is a tendency to look upon symbols as the principal means (if not the only means) of determining and evaluating truth.[5] And since symbolization is the very heart of

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5 Craig, "Shakespeare and the Here and Now," p. 90.

literature, the author who strives for greatness must employ his symbols to clarify fundamental concepts that transcend the bounds of ordinary communication. Here, then, is the challenge to literary greatness.

CHAPTER II

THE ELIZABETHAN AGE VERSUS THE TWENTIETH CENTURY: THE TIME IS OUT OF JOINT?

One must concern himself with the concepts of time known as absolute and relative, and with the philosophic and scientific forces that shaped them. For such a study, the material herein has been divided into four areas, known as Platonic, pre-Cartesian (Elizabethan), post-Cartesian, and Einsteinian, each arbitrary division representing a historical period. In only one of these periods, the post-Cartesian, was the absolute concept of time dominant. One must assume that the absolute concept of time prevailed only after the life of Descartes (1596-1650), whose ideas provided the soil in which the conception grew; and, further, that concepts of time prevailing before 1600 were at least non-absolute, if not actually relativistic in the Einsteinian sense.

A study of this nature dictates that the Platonic, pre-Cartesian, and Einsteinian materials, because of fundamental similarities, be presented in logical rather than chronological order, and that lines of demarcation be crossed wherever necessary. The general organization involves, first, a consideration of Einstein's theories regarding time and space, to be followed by a discussion

of corresponding concepts in the pre-Cartesian and post-Cartesian periods, and, finally, by a consideration of Platonic concepts bearing upon the general problem. Because the absolute concept of time is commonly understood, and because it plays a secondary role in the study, the present consideration given it is limited to a brief discussion of Descartes and his basic philosophy.

In addition to its scientific import, Relativity comprises a major philosophical system that enlarges and illumines the thinking of major epistemologists like Locke, Berkeley, and Hume. The present study concerns itself more with the philosophical than with the scientific aspects of Relativity, but the affinity between the two demands a general consideration of the steps leading to the formulation of Einstein's theories.

The goal of science has always been to arrive at an understanding of ultimate reality. For two thousand years, Western thought was dominated by the natural science of Aristotle (384-322 B.C.), who believed that the goal lay in reasoning from self-evident principles. He tried to explain <u>why</u> things happen. Modern science dates from Galileo (1564-1642), who originated the method of controlled experiment that now forms the basis of scientific investigation. Galileo tried to explain <u>how</u> things

happen. From the discoveries of Galileo and Newton (1642-1727), the conception of a mechanical universe was evolved. All processes of nature were described in terms of ordinary experience, and these processes could be illustrated by concrete models or predicted by Newtonian laws of mechanics. By the beginning of the present century, scientists had begun to detect in the processes of nature certain deviations from these laws. Though slight, these discrepancies were so fundamental as to disturb the very foundation of Newton's universe. By the 1920's, science had begun to doubt its own ability to explain how things happen, and today there is even doubt that scientific man can ever hope to be in touch with ultimate reality.[6]

Both Locke (1632-1704) and Newton made speculations concerning relativity. In Locke's treatise, "On Human Understanding," the account of the chessmen on the chessboard in the ship's cabin represents one principle of relativity--that of the relativity of position.[7] Newton, also through considerations of motion aboard ship, formulated his principle of relativity of motion, in which he asserted that mechanical laws that are valid in one place

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[6] Albert Einstein and Leopold Infeld, The Evolution of Physics, p. 3.

[7] Lincoln Barnett, The Universe and Dr. Einstein, p. 41.

are equally valid in any other place that moves in a manner uniformly relative to the first. Still other scientific developments, among them the famous Michelson-Morley experiment, preceded Albert Einstein's work in this area.[8]

Newton, and Descartes before him, had argued that space was a substance; and scientists gave this hypothetical substance the name ether (not to be confused with the ether that carries electric and magnetic forces). Although this ether fitted into the Newtonian scheme of the universe, its actual existence had never been proved. In 1881, two American scientists, A. A. Michelson and E. W. Morley, set up an experiment designed to settle the question. It was based on their belief that the movement of the earth through space would create "ether streams," and that a beam of light cast in the direction of the earth's movement would be slightly retarded by the flow of ether. Michelson and Morley built an instrument (composed of an arrangement of mirrors and called an "interferometer") so delicate that it would measure even slight variations in the speed of a beam of light split and cast in different directions at the same time--in the direction of the earth's movement and in the opposite direction.[9] The Michelson-Morley experiment failed,

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[8] Ibid., p. 45.

[9] Ibid., pp. 45-48.

however, in that it did not verify the existence of an ether. It demonstrated that the two beams of light traveled at exactly the same speed. Science now faced a serious dilemma: it must discard the ether theory or the older Copernican theory that the earth is in motion. Scientists advanced many new hypotheses, but rejected them later. The Michelson-Morley experiment was repeated, to yield the same result as before. For the next twenty-four years, scientists sought unsuccessfully for an answer to their problem.[10]

In 1905, Albert Einstein, then only twenty-six, published a paper which not only suggested an answer to the riddle, but also opened a new world of physical thought. The Michelson-Morley experiment had established one indisputable fact: the velocity of light is constant despite the earth's motion. From this data, Einstein reasoned that the velocity of light must be likewise constant, regardless of the motion of any sun, star, or system moving anywhere in the universe. He then broadened this generalization and asserted that "...the laws of nature are the same for all uniformly moving systems," the essence of his Special Theory of Relativity.[11]

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[10] Ibid.

[11] Ibid., pp. 49-50.

Lincoln Barnett points out that Einstein's Special Theory of Relativity simply reaffirms the scientist's faith in the universal harmony of natural law, and that it also tells him to abandon his search for an absolute, stationary frame of reference in the universe. Space, as another great German mathematician, Leibnitz (1646-1716), "clearly saw two centuries before Einstein [is] simply the order or relation of things among themselves."[12]

Eventually, Einstein discarded the concept of absolute time, along with the concept of absolute space. He contended that "...just as space is simply a possible order of material objects, so time is simply a possible order of events."[13] According to Einstein, time is purely subjective, though man makes it an objective concept by referring his experiences to a clock or a calendar. An hour is actually a space measurement: it represents an arc of fifteen degrees in the daily rotation of the celestial sphere. And a year is a measure of the earth's progress in its orbit around the sun.

The common concept of time has meaning only because all residents of the earth use clocks geared to

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12 Loc. cit.

13 Ibid., p. 51.

the same astronomical system. An inhabitant of Mercury (which circles the sun in eighty-eight of the earth's days but rotates on its axis only once in a like period) certainly would have a different "space-measured time." Even subjective words like here and now are meaningless to scientists, for whom space and time have significance only when relationships between events and systems are defined. When a man looks at a star that is thirty light years away from the earth and remarks, "That star is bright tonight," he means that the light rays that left their source thirty years ago were bright. Tonight or now the intensity of the rays at their source may be quite different from that in the image visible at this moment.[14]

A scientist dealing with problems involving complex forms of motion must relate magnitudes found in the systems under consideration. He uses the mathematical laws of transformation to establish the relationship. Barnett explains this transformation by the simple example of a man's walking the deck of a ship: if the man's walking speed is three miles per hour and the ship's speed is twelve miles per hour, the man's velocity with respect to the sea is fifteen miles per hour when he walks forward,

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[14] Ibid., pp. 52-53.

and nine miles per hour when he walks aft. This principle, the simple addition and subtraction of velocities, had been applied to similar problems since the time of Galileo. But the principle fails when applied to problems in which the speed of light is a factor.[15] Einstein, in his original paper on Relativity, dealt with this weakness in the principle of addition (and subtraction) of velocities. He noted that if the principle were used in the case of a moving train and a stationary signal light, the velocity of the light beam relative to the train would be c (constant velocity of light) plus v (velocity of the train) when the train moves toward the signal, and c minus v after the train passes the signal. This application of the principle conflicts with the results of the Michelson-Morley experiment, which had shown that the velocity of light was unaffected by either the motion of the source or the motion of the receiver.[16]

Here, again, Einstein faced a dilemma, in which he must either abandon his belief in the constancy of the velocity of light, or reject the principle of the addition (and subtraction) of velocities. He concluded that the

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[15] Ibid., pp. 54-55.

[16] Loc. cit.

answer lay in a new transformation rule, which he found in a series of equations developed by a Dutch physicist, H. A. Lorentz.[17] Einstein asserted that, in order to describe natural phenomena in terms consistent for all systems throughout the universe, one must regard measurements of time and space as variable quantities. The equations of the Lorentz transformation accomplish this modification. "They preserve the velocity of light as a universal constant, but modify all measurements of time and distance according to the velocity of each system of reference."[18] Thus, Einstein made the Lorentz transformation, which was developed originally to solve a specific problem and which now has only a historical interest, the basis of a sweeping generalization and a part of the framework of Relativity. By deduction from the truths which he found in Lorentz's equations, Einstein discovered many new truths concerning the physical universe. He then expanded his Special Theory of Relativity into the General Theory of Relativity and climaxed his efforts with the Unified Field Theory, which probably represents man's closest approach to ultimate reality. His progress followed the patterns

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17 Loc. cit.

18 Ibid., pp. 58-59.

outlined earlier (Chapter I); he followed each concept to its apparent end, and then, developing new hypotheses, either surmounted the roadblock or circumvented it. Barnett remarks that Einstein's persistent unwillingness to accept any unproved principle as self-evident enabled him, more than any scientist before, to penetrate deeper into the nature of reality.[19]

The nature of the present study, nevertheless, requires a consideration of one more Einsteinian concept --that of space-time continuum. Einstein saw the world itself as a four-dimensional space-time continuum, inasmuch as he believed reality to exist both in time and space and that the two are indivisible. By simple definition, one may explain a continuum as something that is continuous; its distinguishing characteristic is that the interval between any two points is divisible into an infinite number of arbitrarily smaller steps. According to Barnett, the flight of an airplane from one city to another exemplifies a four-dimensional space-time continuum:

> The fact that the plane is at latitude x, longitude y, and altitude z means nothing to the traffic manager of the airline unless the time co-ordinate is also given. So time is the fourth dimension. And if one wishes to envisage the flight as a whole, as a physical reality, it cannot be broken down into a series

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[19] Ibid., p. 63.

> of disconnected take-offs, climbs, glides, and landings. Instead it must be thought of as a continuous curve in a four-dimensional space-time continuum.[20]

Because time is impalpable, a four-dimensional space-time continuum is impossible to represent by graphic art. However, it can be imagined; and, furthermore, it can be represented mathematically. In any case, scientists can describe the staggering reaches of the universe only by visualizing it as a continuum in three dimensions of space and one of time.

On the other hand, only a thin line separates physics from metaphysics; like scientists, the philosophical thinkers from earliest times have pondered the questions involving the relationships between the observer and reality. Democritus (460?-362? B.C.), the Greek philosopher and exponent of atomism, held that sensations such as sweet and bitter, and cold and warm, as well as all colors, existed only in thought and not in reality. Galileo also believed sense qualities to be purely subjective in character. Locke, in his efforts to discover the essence of substances, divided the qualities of matter into two groups, called primary and secondary. He listed shape, motion, solidity, and all geometric properties as real or

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[20] Ibid., p. 75.

primary qualities inherent in the object; and colors, sounds, and tastes as simply projections upon the sense organs and, therefore, as secondary qualities. Such a distinction, of course, was artificial, a point recognized by later thinkers. Gottfried Leibnitz, the German mathematician, declared that motion, shape, and estension--as well as qualities like color, light, and heat--were simply apparent qualities.[21]

In this way, philosophers and scientists arrived at the conclusion that the entire objective universe of matter and energy, atoms and stars, exists only as the product of the consciousness, "an edifice of conventional symbols shaped by the senses of man";[22] they believed that every object is merely the sum of its qualities, which exist only in the mind. Berkeley (1685-1753) contended that "all...bodies which compose the mighty frame of the world have not any substance without the mind...."[23] Einstein in his theories carries this reasoning to its ultimate limits by showing that even space and time are

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21 Ibid., pp. 20-21.

22 Loc. cit.

23 Loc. cit.

forms of intuition, no more separable from consciousness than are concepts of color, shape, and size.[24]

Because setting is an integral part of the drama, Shakespeare had to consider both time and space when constructing his plays. His works reflect not only an extraordinary interest in time and space, but also an awareness of the inseparability of the two. Although his approach to relativity may have taken a different route from that of the scientist or philosopher, his final arrival at such a concept was made possible by certain aspects of Elizabethan ideology.

Shakespeare lived in an age which knew freedom of thought in a greater measure than did the three centuries that followed his birth. Thinkers of the Renaissance, like Bacon, could take all knowledge for their province; indeed, they felt that the essential relatedness of knowledge demanded just such a creed. Armed with an abundance of newly modified patterns derived largely from the ancients, and working with rules and laws of greater variety and adequacy than those of the Middle Ages, Renaissance thinkers fitted their sensory experiences into what appeared to them to be the best available patterns. They worked with new

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[24] Loc. cit.

freedom, and found satisfaction in so working. According to such Renaissance thought, mind permeated the matter of the body.[25] And the Elizabethan conception of the universe was derived from what was determinable by means of unaided powers of human observation; it was based largely on earthly needs, religious and moral hopes, and individual aspirations.[26]

The Elizabethan Age provided conditions in which quasi-relativistic concepts could flourish without running counter to the accepted philosophy of the times and, therefore, without being conspicuous. If Einstein could have expounded his ideas of time and space to the Elizabethans, it is conceivable that, to a certain degree, he might have been considered an orthodox thinker. Shakespeare's relativistic treatment of time, therefore, was completely acceptable to the playgoers of his day. This is not to say, however, that all Elizabethan dramatists had discernible relativistic concepts of time and space; only to assert that conditions for such thinking were then favorable.

The Elizabethan world was solidly theocentric, "a simplified version of a much more complicated medieval

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[25] Craig, "Shakespeare and the Here and Now," p. 91.

[26] Craig, The Enchanted Glass, p. 7.

picture," which had been a blend of Plato and the Old Testament.[27] Elizabethans had a highly developed sense of order. Tillyard states that mention of this sense of order appears more frequently in didactic prose than in drama,[28] but Ulysses' "degree speech" in Troilus and Cressida (I.iii.75-137)[29] represents one of the better known statements of the concept:

> Troy, yet upon his basis, had been down
> And the great Hector's sword had lack'd a master,
> But for these instances.
> The specialty of rule hath been neglected:
> And, look, how many Grecian tents do stand
> Hollow upon this plain, so many hollow factions.
> When that the general is not like the hive
> To whom the foragers shall all repair,
> What honey is expected? Degree being vizarded,
> The unworthiest shows as fairly in the mask.
> The heavens themselves, the planets and this centre
> Observe degree priority and place,
> Insisture, course, proportion, season, form,
> Office and custom, in all line of order;
> And therefore is the glorious planet Sol
> In noble eminence enthroned and sphered
> Amidst the other; whose medicinable eye
> Corrects the ill aspects of planets evil
> And posts, like the commandment of a king,
> Sans check to good and bad: but when the planets
> In evil mixture to disorder wander,
> What plagues and what portents! what mutiny!
> What raging of the sea! shaking of the earth!

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[27] Eustace M. W. Tillyard, The Elizabethan World Picture, p. 2.

[28] Ibid., p. 7.

[29] Throughout this paper, references to Shakespearean plays are based on The Complete Works of Shakespeare, edited by Hardin Craig.

Commotion in the winds! frights, changes, horrors,
Divert and crack, rend and deracinate
The unity and married calm of states
Quite from their fixture! O, when degree is shaked,
Which is the ladder to all high designs,
The enterprise is sick! How could communities,
Degrees in schools and brotherhoods in cities,
Peaceful commerce from dividable shores,
The primogenitive and due of birth,
Prerogative of age, crowns, sceptres, laurels,
But by degree, stand in authentic place?
Take but degree away, untune that string,
And, hark, what discord follows! each thing meets
In mere oppugnancy: the bounded waters
Should lift their bosoms higher than the shores
And make a sop of all this solid globe:
Strength should be lord of imbecility,
And the rude son should strike his father dead:
Force should be right; or rather, right and wrong,
Between whose endless jar justice resides,
Should lose their names, and so should justice too.
Then every thing includes itself in power,
Power into will, will into appetite;
And appetite, an universal wolf,
So doubly seconded with will and power,
Must make perforce an universal prey,
And last eat up himself. Great Agamemnon,
This chaos, when degree is suffocate,
Follows the choking.
And this neglection of degree it is
That by a pace goes backward, with a purpose
It hath to climb. The general's disdain'd
By him one step below, he by the next,
That next by him beneath; so every step,
Exampled by the first pace that is sick
Of his superior, grows to an envious fever
Of pale and bloodless emulation:
And 'tis this fever that keeps Troy on foot,
Nor her own sinews. To end a tale of length,
Troy in our weakness stands, not in her strength.

This passage expresses a belief that has been a hallmark of philosophical and scientific thought for centuries, a belief in order and harmony. And it aided the poetic imagination by making vivid the idea of a related

universe, with no part superfluous, and by enhancing the dignity of all creation, including its meanest portion.[30]

Elizabethan philosophy included the chain-of-being concept, under the terms of which man dominated the three lower classes. Mere existence was the distinguishing characteristic of the inanimate class (metals, elements), lowest of the three. The next higher class (vegetative) embodied both existence and life; and in the highest class of the three (sensitive), sentience was added to existence and life. Within the sensitive class numerous subdivisions separated elemental forms of life (shellfish) from the more highly developed (ants) and the most highly developed (horses, dogs). Above the three lower classes stood man, who had not only existence, life, and feeling, but also understanding. Man summed up in himself the total faculties of earthly phenomena and was called the little world, or microcosm.[31] In the same way, Elizabethans saw order and rank among the celestials, so that man stood midway between God and the most insignificant creatures.

An interesting corollary of this sense of order is the fact that today man is considered, in terms of magnitude,

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30 Tillyard, op. cit., p. 28.

31 Ibid., p. 25.

the mean between macrocosm and microcosm. "...This means that a supergiant red star (the largest material body in the universe) is just as much bigger than man as an electron (tiniest of physical entities) is smaller."[32] Moreover, the greatest of nature's mysteries are in "...those realms farthest removed from sense-imprisoned man [the atom and intergalactic space]."[33]

This concept of order was part of the tradition of the Middle Ages that carried over into Elizabethan times. Critics long have interpreted Hamlet's remark, "What a piece of work is a man...(II.ii.316-317)" as a great English version, or expression, of Renaissance humanism. But Tillyard disagrees, thinking it purely a medieval tradition with Shakespeare simply placing man in a traditional cosmic setting between the angels and the beasts.[34]

Craig characterizes Elizabethan writers as anachronistic:

> They felt fewer differences than we do between Roman times and the modern world. They accepted the Romans almost as brothers and frankly pictured them in terms of Elizabethan life.... The ancients and the men of the Middle Ages had done the same thing.[35]

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[32] Barnett, op. cit., p. 24.

[33] Loc. cit.

[34] Tillyard, op. cit., p. 1.

[35] Craig, The Enchanted Glass, p. 212.

It is within the bounds of this study to suggest that such lax Renaissance handling of time was not so much careless treatment of details as it was an attitude toward time, or at least an indication of the greater freedom in which pre-Cartesian writers worked. The awareness of the essential relatedness and inseparability of all things, while by no means restricted to a single era, had less opportunity for existence during the post-Cartesian period (1600-1900) than in any time before or since. This awareness enabled Shakespeare and others to develop a perspective that was in keeping (anachronistically) with the later world concept of a four-dimensional space-time continuum. Harbage observed that

> they /Shakespeare's Greek and Roman plays/ are not tragedies but segments of a larger tragedy--the fall of an ancient civilization. His English histories, in contrast, may be considered segments of a comedy, and some such conception underlies the common impression that no individual king but England itself is always their hero--England which was riding the crest when Shakespeare wrote.[36]

In this ability to see the continuum, while dealing with only a small segment of it, lies much of Shakespeare's literary power. It is an ability that derives from relativistic sympathies, more easily to be acquired in Shakespeare's day than for the next three centuries. But the

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36 A. Harbage, As They Liked It, pp. 158-159.

breadth of patterns and the freedom with which the Renaissance thinker worked were short-lived,[37] for the French philosopher, Rene Descartes, propounded ideas that were to change the science of these next three centuries. He preferred thinking to reading, because, he asserted, the investigation of any problem should be dominated not by what others have thought, nor by conjectures, but by what one himself can see clearly or infer with certainty.[38] So-called scientific method had its beginning in Descartes's idea of a kind of universal mathematics that applies to all kinds of investigations. He tried to reduce every science of natural phenomena to a branch of mechanics.[39]

Along with Descartes came the dominance of the concept that the mind and the soul are something different from the material world; and for three hundred years, thereafter, science set soul and mind in a different compartment. This new world, basically materialistic, was the only world about which scientists believed knowledge possible.[40] It marked the beginning of an era in which

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[37] Craig, "Shakespeare and the Here and Now," p. 88.

[38] Rene Descartes, The Philosophical Works of Descartes, trans. by Elizabeth S. Haldane and G. R. T. Ross, I, pp. 5-8.

[39] Ibid., pp. 81-130 ("Discourse on Method").

[40] A. N. Whitehead, Science and the Modern World, p. 115.

parts of knowledge were isolated and analysis was rife; and this engrossment with fragmentation and analysis gripped the fields of the humanities and the social sciences as well as those of physical and biological science--indeed, the entire field of higher learning.[41]

During this period of extreme specialization, physical science regarded time as a one-dimensional continuum, and dealt with it as absolute. It seems certain that the Elizabethan concept of time was less definitive and less restrictive than the one that reigned until the Twentieth Century.

> To the extent that time was less separable from environmental space and less formally conceived of, it would be more in accordance with Einstein's theory than was the conception of time that prevailed in the centuries that followed the Renaissance.[42]

Craig points out that his own special interest in the relativistic doctrine of the time-space continuum is in "...the concept of a nexus between the two continua, a nexus of present place and present time--of 'here-and-now.'"[43] The four-dimensional space-time continuum, consisting of three co-ordinates of space and one of time,

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[41] Craig, "Shakespeare and the Here and Now," p. 88.

[42] Ibid., p. 91.

[43] Ibid., p. 90.

represents physical reality; whereas, the concept of the time-space continuum, which consists of three co-ordinates of time and one of space, is in the province of the non-physical or immaterial and, therefore, more elusive in nature. Craig suggests that, as an aid to understanding, it might be helpful to suppose that Plato made his discoveries of ideas or archetypes in the time-space continuum, even though he did not know of its existence.[44] A. N. Whitehead further asserts that physical science in the Twentieth Century is nearer to Plato's doctrine of The Receptacle than at any time since Plato's death:

> The space-time of modern mathematical physics, conceived in abstraction from the particular mathematical formulae which applies [sic] to the happenings in it, is almost exactly Plato's Receptacle. It is to be noted that mathematical physicists are extremely uncertain as to what these formulae are exactly, nor do they believe that any such formulae can be derived from the mere notion of space-time. Thus, as Plato declares, space-time in itself is bare of all forms.[45]

Of Plato's seven main notions, The Ideas and The Receptacle provide insight into the general aspects of relativity. They are happily more easily assimilated by the non-technical mind than are the doctrines of the

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[44] Ibid., p. 91.

[45] Whitehead, Adventures of Ideas, p. 154.

physicist or the mathematician. Whitehead, in his interpretation of the scattered Platonic references of which the doctrine of ideas is composed, states that since

> ...any selections are either compatible for joint exemplification, or are incompatible, [then] the determinations of compatibilities and incompatibilities are the key to coherent thought, and to the understanding of the world in its function as the theatre for the temporal realization of ideas.[46]

Plato insists that ideas, viewed in the abstract, are static, frozen, and lifeless. They receive life and motion only when entertained in a living intelligence, which Plato termed the Psyche, or, as now translated, the "soul" (but not the same "soul" as the English word to which Christianity has given associations not present in Plato's concept of Psyche). By actively grasping ideas, the Psyche impartially conditions the whole process of the universe. It is the Supreme Craftsman, and on it depends the degree of orderliness that exists in the world. There are also "finite souls of varying grades, including human souls, all playing their part in conditioning nature by the inherent persuasiveness of ideas."[47] While denying that his Supreme Craftsman is omnipotent, Plato declares that the influence of the entertainment of ideas is always

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46 Ibid., pp. 151-152.

47 Loc. cit.

persuasive, and has power to produce, if not perfect order, at least whatever order is possible.[48] The idea of freedom existed long before it bore fruit; it assumed life and motion through many Psyches over a long period of time before it became a reality, but it existed in The Receptacle throughout the centuries.[49]

Plato's notions of Harmony and of Mathematical Relations are simply special examples of the general philosophic concept of

> the general interconnectedness of things, which transforms the manifoldness of the many into the unity of the one.... There is the one all-embracing fact which is the advancing history of the one Universe.... This community of the world...whose essence is process with retention of connectedness...is what Plato terms The Receptacle.[50]

In further defining The Receptacle, Whitehead summarizes a passage from Plato's Dialogues, with the insertion of such terms as "personal unity," "events," "experience," and "personal identity" for certain of its own phrases as follows:

> In addition to the notions of the welter of events and of the forms which they illustrate, we require a third term, personal unity. It is a perplexed and

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48 Loc. cit.

49 Ibid., Chpt. IV, "Aspects of Freedom."

50 Ibid., pp. 153-154.

> obscure concept. We must conceive it the receptacle, the foster-mother as I might say, of the becoming of our occasions of experience. This personal identity is the thing which receives all occasions of the man's experience. It is there as a natural matrix for all transitions of life, and is changed and variously figured by the things that enter it; so that it differs in its character at different times. Since it receives all manner of experiences into its own unity, it must itself be bare of all forms. We shall not be far wrong if we describe it as invisible, formless, and all-receptive. It is a lucus which persists, and provides an emplacement for all the occasions of experience. That which happens in it is conditioned by the compulsion of its own past, and by the persuasion of its immanent ideals.[51]

The general science of mathematics concerns itself with the investigation of patterns of connectedness; notions of quantity and number are dominant themes only in some special branches of mathematics. One can never safely overlook the essential connectedness of things. "This is the doctrine of the thoroughgoing relativity which infects the universe and which makes the totality of things as it were a Receptacle uniting all that happens.[52]

Against this background of the Platonic version of relativity, the meaning of the term "nexus" is more easily defined. Nexus is the link between present place and time on the one hand, and the two continua of space-time and time-space on the other. As here used, nexus means a group

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[51] Ibid., p. 189.

[52] Ibid., pp. 157-158.

of occasions considered only in respect to the basic property of immanence, or inherence, even though the group may not otherwise possess common relevance. The term "nexus" assumes neither special order nor indeed any order beyond that demanded by mutual immanence. Capable of extending itself either spatially or temporally, a nexus can comprise sets of occasions that are co-existent, and it can comprise sets that are relatively past and future.[53] Thus, a nexus of present time and present place becomes a link between connected occasions whenever and wherever they may have occurred, and in the light of the general connectedness of all things, it is a compound of the past and the present--and, in special instances, of the future.

Materials in this chapter define terms and concepts; and, even more important, they show a series of relationships that must be considered as vital elements in the hypothesis. Besides an explanation of such necessary terms and concepts as absolute time, relativistic time and space, nexus, The Receptacle, space-time continuum, and others, the chapter points out that Relativity has a philosophic aspect in addition to its scientific phase, and that its meaning is broad rather than narrow.

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53 Ibid., pp. 202-203.

Establishment of the relationships between the thinking of Plato and Einstein, between Platonic and Elizabethan philosophy, and between philosophic Relativity and scientific Relativity must precede interpretation of Shakespearean drama in terms of Relativity. From this point forward, the word time will be used basically in its relativistic sense and should be so construed whether or not accompanied by a direct reference to that effect.

CHAPTER III

SHAKESPEARE'S RELATIVISTIC CONCEPTS

The basic materials of the dramatist are people and their actions expressed through the medium of words. In the sense that they are equally available to all dramatists for study, people are common property. Acting situations, though seemingly complex and varied in drama, can be grouped into a small number of basic patterns, a number often calculated at fewer than twenty. And the words of any language, whether they be many or few, are the common property of all writers who choose to employ them. The peculiar quality that imparts immortality to the greatest literature is probably, therefore, to be found not so much in the combination of plot, character, and word as in the characteristics of the force that welds the three together. Part, at least, of Shakespeare's genius must lie in the fact that he had a talent for welding the past and the present into both plot and character, so that he achieved a universality with a special meaning. This talent, it is proposed, derives from his relativistic concepts of time and space.

One of the more familiar passages from Shakespeare is Jacques's speech on the Seven Ages of Man: "All the

world's a stage,/ And all the men and women merely players... (As You Like It II.vii.139-140)." It contains a key to the relativistic aspect of Shakespeare's concept of time. Although comparisons of life or the world to a stage, and references to the Seven Ages of Man are quite common in literature (Shakespeare himself uses them often[54]), John Hankins has noted that "Among the numerous analogues to the world-stage and to the ages of man, I have observed only three that show them in association with each other."[55] This fact appears significant in itself. The fuller meaning of Jacques's statement, however, depends upon the Duke's speech that precedes it:

> Thou seest we are not all alone unhappy:
> This wide and universal theater
> Presents more woeful pageants than the scene
> Wherein we play (II.vii.136-139).

Taken together, these two speeches present an idea that lends itself to both a narrow and broad interpretation. In its broader aspects, this "world-stage" is the scene of a drama for which the curtain went up with creation and for which it will fall only with the end of time. "This wide and universal theater" is Plato's one Universe; it is the

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54 For other examples, see The Merchant of Venice I.i.77-80, 2 Henry IV I.i.154-156, Macbeth V.v.24-26, King Lear IV.vi.186-187.

55 John Hankins, Shakespeare's Derived Imagery, p. 21.

"community of the world...whose essence is process with retention of connectedness." Obviously, the "woeful pageants" are not necessarily coexistent with "the scene wherein we play"; instead, they represent actions that have occurred since the curtain rose and that are related to present action because they are a part of the eternal drama.

A single example of writing that lends itself to such an interpretation does not, of course, prove the author a relativist. Shakespeare's work, however, abounds with items that are either relativistic per se, or seem born of relativistic thinking, suggesting not only that his concepts of time and space must have been what one may call Einsteinian, but that his technique was "slice-of-time" rather than the so-called "slice-of-life." He must have envisioned life as a cylinder of infinite proportions, composed of space and event surrounding a core of time. Whereas the "slice-of-life" method would involve a cross-sectional cut, Shakespeare's technique required cutting a longitudinal section, exposing the totality of things. Working in such a manner, whether by deliberation or instinct, Shakespeare could give to his plots the quality of a case history of the ages; and he infused his characters with traits not of individuals nor of races,

but of four-dimensional mankind. Thomas DeQuincey referred to King Lear in describing the meaning of power in literature:

> When, in King Lear, the height, and depth, and breadth, of human passion is revealed to us, and, for the purpose of a sublime antagonism, is revealed in the weakness of an old man's nature, and in one night two worlds of storm are brought face to face--the human world, and the world of physical nature--mirrors of each other, semi-choral antiphonies, strophe and anti-strophe heaving with rival convulsions, and with the double darkness of night and madness,--when I am thus suddenly startled into a feeling of the infinity of the world within me, is this power, or what may I call it?[56]

In assaying the power of this scene, DeQuincey has practically placed relativity into the scales. Lear represents what might be called four-dimensional man. Shakespeare seems to have based the character--at least in this particular scene--neither on man nor king, nor yet on several men or several kings; instead, he lets Lear represent all manind, weak and strong alike, as it has struggled with blind courage not only against the elements, but also against self-generated misfortune. When the old king, weak though he is, defiantly faces the storm and shouts: "Rumble thy bellyful! Spit, fire! spout, rain!...let fall your horrible pleasure; here I stand, your slave...but yet

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56 Thomas DeQuincey, "Letters to a Young Man Whose Education Has Been Neglected," London Magazine, March, 1823.

I call you servile ministers...(III.ii.14-21)," Shakespeare has made him express the spirit of the man in dim ages past who first conquered his fear of lightning. Lear is kin to the man who, sweating and toiling to pile sandbags high enough to curb the raging flood, pauses to defy the rain-charged clouds. It is within the concept of relativity to say that there is a connectedness between Lear and a Churchill who figuratively stood on the coast of England and hurled a challenge at the mighty Nazi on the opposite shore: "We shall never surrender...."[57] Hamlet also may be classified as a four-dimensional character compounded of all sensitive men who have faced grave problems and who have been torn between conflicting emotional forces. The occasion of his problem is the nexus between the tormented souls of the present and those of all time.

In delineating character, always Shakespeare seems conscious of the unity of mankind, of "the general interconnectedness of things, which transforms the manifoldness of the many into the unity of the one."[58] Shylock's plea for mercy in The Merchant of Venice (III.i.54-76)

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57 From an address in the House of Commons after the evacuation of Dunkirk in World War II.

58 Whitehead, Adventures of Ideas, p. 153.

exemplifies this trait, for Shylock certainly speaks in behalf of unity when he asks:

> ...hath not a Jew hands, organs, dimensions, senses, affections, passions? fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a Christian is?

The same general concept is expressed by Edmund in King Lear (I.ii.1-22) when he says:

> ...Why bastard? wherefore base?
> When my dimensions are as well compact,
> My mind as generous, and my shape as true,
> As honest madam's issue?

And in the same play, Lear himself echoes the thought in his remark to Edgar who, clad only in loin-cloth and blanket, shivers in the hovel, a refuge from storm:

> ...Is man nor more than this? Consider him well. Thou owest the worm no silk, the beast no hide, the sheep no wool, the cat no perfume. Ha! here's three on 's are sophisticated! Thou art the thing itself: unaccommodated man is no more but such a poor, bare, forked animal as thou art... (III.iv.105-115)

And in the same vein is Antony's remark that "...our dungy earth alike feeds beast as man...(Antony and Cleopatra I.i.35-36)."

During the grave-digging scene in Hamlet, both Hamlet and Laertes give expression to the theory of a general interconnectedness between all things. After replacing Yorick's skull, Hamlet suggests to Horatio

that imagination can trace the dust of an Alexander even to a stopper for a bung-hole:

> ...Alexander died, Alexander was buried, Alexander returneth into dust; the dust is earth; of earth we make loam; and why of that loam, whereto he was converted, might they not stop a beer-barrel?
> Imperious Caesar, dead and turn'd to clay,
> Might stop a hole to keep the wind away:
> O, that that earth, which kept the world in awe,
> Should patch a wall to expel the winter's flaw!
> (V.i.229-239)

Later in the same scene, when he speaks of his dead sister Ophelia, Laertes says:

> Lay her i' the earth:
> And from her fair and unpolluted flesh
> May violets spring!

Hamlet expresses a similar thought when he says:

> A man may fish with the worm that hath eat of a king, and eat of the fish that hath fed of that worm.
> (IV.ii.28-30)

The prologue of The Winter's Tale and that of King Henry the Fifth are additional examples of the relativistic mood in Shakespeare and of his concept of the nexus. In the Chorus of The Winter's Tale (IV.i), he has Time say:

> ...since it is in my power
> To o'erthrow law and in one self-born hour
> To plant and overthrow custom. Let me pass
> The same I am, ere ancient'st order was
> Or what is now received: I witness to
> The times that brought them in; so shall I do
> To the freshest things now reigning and make stale
> The glistering of this present, as my tale
> Now seems to it...what of her [Perdita] ensues
> I list not prophesy; but let Time's news

Be known when 'tis brought forth. A shepherd's
daughter,
And what to her adheres, which follows after,
Is the argument of Time.

In the prologue to Act I of King Henry the Fifth, The Chorus asks the spectators to use imagination in order to bring space and time together within the confines of the theater:

...A kingdom for a stage, princes to act
And monarchs to behold the swelling scene;
...For 'tis your thoughts that now must deck our kings,
Carry them here and there; jumping o'er Times,
Turning the accomplishment of many years
Into an hour-glass...

Certainly the thought here expressed is based on the interconnectedness of all things. And again in the prologue to Act II, one observes a similar thought:

Linger your patience on; and we'll digest
The abuse of distance; force a play;
The sum is paid; the traitors agreed;
The king is set for London; and the scene
Is now transported, gentles, to Southampton;
There is the playhouse now, there must you sit:
And thence to France shall we convey you safe,
And bring you back, charming the narrow seas
To give you gentle pass; for, if we may,
We'll not offend one stomach with our play.
But, till the king come forth, and not till then,
Unto Southampton do we shift our scene.

Here, the Chorus is emphasizing the interrelatedness of activities on either side of the Channel, as England and France gird for war.

The Chorus in the prologue to Act III begins in this manner:

> Thus with imagined wing our swift scene flies
> In motion of no less celerity
> Than that of thought...

Spectators are asked to suppose that they have seen the king embark at Hampton pier; to behold the ship-boys climbing the ropes and adjusting the sails while the shrill whistle gives order to a confusion of sound; to think that they stand on the shore and behold a city dancing on the "inconstant billows"; and at the same time to imagine England "guarded with grandsires, babies and old women"; to see a siege; and to suppose that the French ambassador carries his king's offer to Harry, that Harry refuses it, and that the gunner touches off the cannon.

And in the prologue to Act V, the Chorus says:

> I humbly pray them /those who are familiar with the story/ to admit the excuse
> Of time, of numbers and due course of things,
> Which cannot in their huge and proper life
> Be here presented...and omit
> All the occurrences, whatever chanced,
> Till Harry's back-return again to France;
> There must we bring him; and myself have play'd
> The interim, by remembering you 'tis past.
> Then brook abridgement, and your eyes advance,
> After your thoughts, straight back again to France.

All of these passages reflect Shakespeare's recognition of the innate connectedness of things. Whenever the limitations of his medium prevented his presenting all the details

of groups of occasions, he abridged them so that his audiences could see the forests, if not the trees.

Shakespeare himself has led readers to regard some of his later plays as triumphs of time, whereas in reality they represent a victory of human event over time. The Winter's Tale and Pericles fall into this classification.[59] In fact, the idea of time's victory even appears as the subtitle of the novel upon which Shakespeare drew for his subject in the former play: Robert Greene's Pandosto, the Triumph of Time.[60] The Winter's Tale and Pericles are in many respects much alike. They cover periods of time of similar length, and they treat time in similar fashion. The Time Chorus of The Winter's Tale, previously referred to, is used to bridge a gap of sixteen years between the abandonment of Perdita and her reappearance as the foster-child of a shepherd. In Pericles the story-teller Gower, who appears at the beginning of each act and in the epilogue, serves as a Chorus to abridge time. In the epilogue, Gower summarizes the victory of human event over time:

> In Antiochus and his daughter you have heard
> Of monstrous lust the due and just reward:
> In Pericles, his queen and daughter, seen,

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[59] Craig, "Shakespeare and the Here and Now," p. 91.

[60] Craig (ed.), The Complete Works of Shakespeare, p. 1216.

> Although assail'd with fortune fierce and keen,
> Virtue preserved from fell destruction's blast,
> Led on by heaven, and crowned with joy at last:...
> In reverend Cerimon there well appears
> The worth that learned charity aye wears:
> For wicked Cleon and his wife, when fame
> Had spread their cursed deed, and honour'd name
> Of Pericles, to rage the city turn,
> That him and his they in his palace burn;
> The gods for murder seemed so content
> To punish them; although not done, but meant...

Antony and Cleopatra provides further evidence of Shakespeare's sweeping concept of time, of his ability to project action or event against a cosmic background. Ethel Seaton, in introducing her study of parallels between the imagery of this play and the Book of Revelation, observes:

> It has been a commonplace of criticism to admire the play's splendour of style and to attribute it in part to the frequency of "cosmic imagery," of unusual ideas and astonishing conceptions, expressed with a brilliance unparalleled even in Shakespeare.[61]

She points to several passages in the play, particularly within the last two acts, which seem to have been inspired by the Book of Revelation. For example, in IV.xii, when the guards find Antony self-wounded but not yet dead, she notes this conversation:

> Second Guard: The Star is fallen.
> First Guard: And time is at his period.
> All: Alas and woe.

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61 Ethel Seaton, "Antony and Cleopatra and the Book of Revelation," Review of English Studies, XXII (July, 1946), p. 219.

> Antony: Let him that loves me strike me dead.
> Second Guard: Not I.

She next points to these parallels in the Book of Revelation:

> There fell a great star from heaven (Revelation viii.10).
> And /he/ sware...that time should be no more (Revelation x.6).
> Woe, woe, woe, to the inhabiters of the earth (Revelation viii.13).
> And in those days shall men seek death, and shall not find it; and shall desire to die, and death shall flee from them (Revelation lx.6).[62]

Cleopatra likewise speaks in a manner suggesting biblical inspiration. An example is her description (for Dolabella) of her dream of "Emperor Antony" (V.ii):

> His face was as the heavens; and therein stuck
> A sun and moon, which kept their course, and lighted
> The little O, the earth...
> His legs bestrid the ocean; his rear'd arm
> Created the world; his voice was propertied
> As all the tuned spheres, and that to friends:
> But when he meant to quail and shake the orb,
> He was rattling thunder. For his bounty,
> There was no winter in't; an autumn 'twas
> That grew the more by reaping...

In the following passage from Revelation, Miss Seaton points to similar imagery:

> And I saw another mighty angel come down from heaven, clothed with a cloud: and a rainbow was upon his head, and his face was as it were the sun, and his feet as pillars of fire...and he set his right foot upon the sea, and his left foot on the earth, and cried with a loud voice, as when a lion roareth: and when he had

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62 Ibid.

> cried, seven thunders uttered their voices...And the angel which I saw stand upon the sea and upon the earth, lifted up his hand to heaven, and sware... that there should be time no longer (Revelation x.1-6).[63]

She cites numerous other parallels, including one between Revelation (viii.12) and Cleopatra's outburst at the sight of the dying Antony (IV.xiii.9-11), and one between Antony's declaration of his limitless love for Cleopatra (I.i.17) and Revelation (xxi.1), the latter two containing the phrases "new heaven" and "new earth."[64] And she concludes that, in any case, "...the visions and phrases of the most mystical of the Scriptures...create the illusion of a vast extension of time and space, already dramatically extended to the full."[65]

The Book of Revelation--dealing as it does with the interrelation between what was, what is, and what will be--certainly treats time in a broad sense, and may be said to have relativistic overtones. Its imagery is particularly suited to the use of a dramatist whose concept of time is in the mood of relativity; and Shakespeare appears to have used it not merely for its aesthetic quality, but also for its efficacy in producing a desired result.

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63 Ibid.

64 Ibid.

65 Ibid.

Shakespearean references to time presented herein have been selected from a multitude of examples as representative of the dramatist's long-held attitude toward time in plays written over a period of twenty-one years (1595-1616?). An expanded list would still fall into the general pattern delineated by these selected items, and would additionally point to the conclusion that Shakespeare was a relativist. Time and death had a special significance for Shakespeare, as all his writings (including the Sonnets) indicate. While composing the second part of King Henry IV, he was especially concerned with the domination of life by time, though it was not an exclusive preoccupation. Nor was it philosophical interest in an abstract problem. It was, rather, "part of his emotional and imaginative apprehension of life."[66] Knights asserts that inasmuch as Shakespeare's expression of his concern for time coincided with "remarkable development of his dramatic power we might presume...it had for him a special significance."[67] It seems logical to presume also that there is a definite connection between Shakespeare's literary power and his relativistic treatment of time.

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66 L. C. Knights, "Troilus and Cressida Again," Scrutiny, XVIII, 2 (Autumn, 1951), p. 156.

67 Ibid.

CHAPTER IV

THE INSUBSTANTIAL PAGEANT

Once the evidence of Shakespeare's relativistic concept has been assembled and weighed, there remains the question of how it was developed. Tracing developmental aspects of his attitude toward time--like discovering the attitude, in the first place--resolves itself into a matter of probing the plays. But the task of tracing the development of this attitude proves at once more difficult than that of discovering it. The relativistic concept of time, by its very nature, does not lend itself to measurement by degrees; for such a concept either is or is not relativistic. Nor does one acquire the concept in any manner except <u>in toto</u>. Still another facet of the problem lies in the fact that Shakespeare, who never definitely declared himself on the principles of writing, possibly did not consider his attitude toward time as any more important to his craft than, say, his attitude toward place, plot, composition, or character. Nevertheless, the plays do provide evidence to support the conclusion that he became increasingly conscious of time as his career progressed, and that, possibly, this mounting interest was related to a search for greater dramatic

power, although this last conclusion must be considered as speculative. If Shakespeare had consciously (and admittedly) tried to improve his work through what may be called a relativistic approach, one might objectively so study the results and perhaps accurately appraise them. But he did not make such an effort; moreover, because he wrote for a livelihood, he probably had little time for experimentation.

Under these circumstances, one must study the complete developmental aspects of the subject before reaching any conclusion. This approach, rather than that of an argumentative process, is used, here. Examination of the plays in the order of their production* reveals, as has been previously mentioned, that Shakespeare's concern with time increased as he grew older (a natural tendency, perhaps?), and that time itself played important roles in some of his later dramas. The material that hereafter follows, then, is presented with the premise that Shakespeare was, first, a working playwright whose primary interest was in the contemporary success of his product, and whose course occasionally was as likely to follow the demands of Elizabethan audiences as the

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* Chronology throughout this paper is based on The Complete Works of Shakespeare, edited by Hardin Craig.

dictates of his own artistic conscience. These factors of practicality probably disrupted what otherwise might have been a distinct pattern.

Shakespeare's extraordinary concern with time, and his aptitude for handling it dramatically, appeared early in his career. In King Henry the Fifth, Shakespeare shows significant skill in the handling of time. This play, though essentially a series of disconnected scenes, has a high degree of unity, achieved partly by the centering of interest upon King Henry himself and partly by the using of the choruses to abridge intervals of time.[68] Whether by design or accident, this device treats time as relative; it appears to recognize time both as a continuum and as an inseparable adjunct to space and event.[69]

Titus Andronicus, like many of Shakespeare's plays, came from a variety of sources. Shakespeare took the original crude story and developed the plot as revenge drama, adding his own dramatic touches to those characteristic of the period.[70] Critics consider his

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[68] Craig (ed.), The Complete Works of Shakespeare, p. 737.

[69] See Chpt. III.

[70] Craig (ed.), The Complete Works of Shakespeare, p. 368.

product superior to the source. This superiority had roots in more than one area of the bard's genius: part of it lay in his skill with words, part in his superb dramatic technique, and some in his sense of characterization. But an unusual sense of the relationship between the components of drama--a sense born of a relativistic outlook on life--transcends these individual abilities and welds them into a single force. This force was already at work when Shakespeare wrote Titus Andronicus.

One of Shakespeare's great characters, Sir John Falstaff, appears in 1 Henry IV and 2 Henry IV and in The Merry Wives of Windsor. The significance of the multiple appearance of this "first great synthetic character in modern drama"[71] is that he seems to be a part of Shakespeare's concern with time, or at least a by-product of it, cast in the mold of relativity. Falstaff is "inconsistent but has the inconsistency of life itself."[72] He suffers the ravages of time with high good humor, if not with outright grace. His reply to the Prince's reminder that he owes God a death typifies his attitude: "'Tis not due yet; I would loath to pay him before his

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[71] Ibid., p. 676.

[72] Loc. cit.

day. What need I be so forward with him that calls not on me (1 Henry IV, V.i.126-129)?" This remark embodies, besides the time factor, some of the Elizabethan concept of order and degree.

Shakespeare may have suffered a kind of disillusionment sometime during his middle age (1602-1608); at least it is obvious that several of his plays written at this time abound in disillusion, irony, and melancholy. In three of them--All's Well that Ends Well, Measure for Measure, and Troilus and Cressida--illicit love plays an important part. The attitude of pessimism seems to extend into Hamlet, Macbeth, and King Lear.[73] But it did not altogether obscure his relativistic leanings, as Hamlet and King Lear demonstrate.

Othello typifies Shakespeare's dexterity in the use of basic human emotion as a theme. Analysis of his plays dealing with jealousy, as well as with ambition (Elizabethan concept) and other emotions, shows his skill at relating them to motive without extracting them from the fabric of general interconnectedness of Platonic relativity.

Timon of Athens, although a less noteworthy example of Shakespeare's work, provides a link in the

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[73] Ibid., p. 802.

hypothesis of this study. The play, which falls into the category of those based on disillusionment, lacks dramatic effectiveness. Placing responsibility for this weakness in the play's lack of human involvement, Craig suggests that Shakespeare may have felt that "the issue /of disillusionment/ was cosmic, that it went beyond the bounds of human intercourse."[74] He adds that if Timon of Athens is an attempt at a play that develops a theory, Shakespeare "found that such a theme, to be dramatically effective, must treat the interrelationships of men and, divorced from these, has no dramatic meaning."[75] Craig observes further that Shakespeare may have lost interest in the play and abandoned it in "its present uneven and incomplete form."[76] These reflections are significant. They indicate, first, that at times Shakespeare consciously attempted to interpret life on a scale approaching relativity. They also lead to the assumption that despite the apparent success of this approach in King Lear, Shakespeare either must have been dissatisfied with his technique at that stage of its evolution, or

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74 Ibid., p. 1018.

75 Loc. cit.

76 Loc. cit.

unwilling to apply it to Timon of Athens (assuming that the plays were written in that order). Craig's reasoning is significant also with respect to the use, in Antony and Cleopatra, of cosmic imagery from the Bible (Cf. Chapter III). The poet's handling of such imagery may well represent another step in what was, after all, a conscious search for an effective technique for presenting cosmic issues.

Macbeth sheds still further light on the author's concern with time. Of several significant allusions, one seems particularly pertinent. It is Macbeth's reply to the news of the Queen's death:

> She should have died hereafter:
> There would have been a time for such a word.
> To-morrow, to-morrow, and to-morrow,
> Creeps in this petty pace from day to day
> To the last syllable of recorded time,
> And all our yesterdays have lighted fools
> The way to dusty death. Out, out, brief candle!
> Life's but a walking shadow, a poor player
> That struts and frets his hour upon the stage
> And then is heard no more: it is a tale
> Told by an idiot, full of sound and fury,
> Signifying nothing (V.v.17-28).

This passage, set in the framework of Jacques's familiar exposition on the world-stage, has overtones of existentialism. But the tenor of the passage stems basically from Shakespeare's intent to treat time as man's master.

Critics have referred to one of the late plays, The Winter's Tale, as "another illustration of

Shakespeare's ability to find unity in a wide diversity. Nowhere, for example, is there greater variety and vigor in characterization of individuals."[77] Shakespeare's use of the Time Chorus in this play has been commented upon earlier.

Although many of the plays indicate that Shakespeare was acutely aware of the deeper meaning of time, his handling of it does not fall into a clearly traceable pattern partly because, as a working playwright, he could not utterly ignore the wishes of the playgoing public. But in his treatment of cosmic issues, there is some evidence of experimentation, which culminates in one of his last plays, The Tempest. Shakespeare seems to have skimmed the element of time from all of his preceding dramas, refined it, and poured the precious remainder into The Tempest; for this play stands as a superb example of relativity in literature and contains what remains to be discovered about Shakespeare's relativity.

In The Tempest, wherein Shakespeare juxtaposes the natural and the supernatural, one finds the highest form of Shakespearean relativity. It is the more

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77 Ibid., p. 1216.

significant, in the present study, because it represents one of the last efforts of this gifted dramatist. Although the exact date of the play's composition is disputed (as is the matter of which of the plays was written last), scholars generally agree that it is the last drama that Shakespeare wrote alone, if not indeed his final play. Certain elements within the play, which lend themselves to symbolic interpretation, have provided some basis for the contention that it is his last work. Those who regard The Tempest as Shakespeare's farewell to the stage believe that Prospero represents the playwright himself, that Prospero's magic is the poetical gift, and that the magician's laying aside his mantle symbolizes Shakespeare's forsaking the drama. Each of the characters, then, becomes a symbol that fits into the total scheme--for example, Caliban has been said to represent the "vulgar public." Creative writing, by nature, evokes varying responses among readers; and certainly no one can deny the credibility of the foregoing interpretation. But its validity, on the other hand, may be questioned.

Among the arguments against this interpretation, the strongest is that it is foreign to the spirit of Elizabethan popular drama, and even to the nature of

Shakespeare himself. In Elizabethan plays, the playwright rarely alluded to a colleague (except, perhaps, satirically), and almost never to himself. For the popular stage, allegory was as unsuited then as symbolism is now.[78] Shakespeare characteristically holds no secrets from his audience--in fact, he frequently revealed to his audience circumstances which the players themselves were not aware of; and when he violated this audience rapport, as he did when he withheld the knowledge that Hermione was still alive (The Winter's Tale V.iii), the effect on the Shakespearean scholar is one of complete surprise.[79] One may argue that revealing the so-called symbolism of The Tempest is one thing and that confiding simple secrets of plot is quite another, but such an argument can never be satisfactorily resolved. The best evidence seems to indicate that if Shakespeare had intended to equate The Tempest with his own career, he would not have masked his intent.

Why did Shakespeare compose this play, if not to symbolize his career? Many scholars (including Craig)

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[78] Elmer Edgar Stoll, "The Tempest," PMLA, XLVII (September, 1932), pp. 704-705.

[79] Craig (ed.), The Complete Works of Shakespeare, p. 1217.

see the real significance of the play in its portrayal of ideal power and justice in the world, and they believe that he had no other motive in composing it.[80] Craig points also to the fact that the play contains subtle suggestions of the contrast between primitive life and civilized life.[81] Shakespeare's relativistic approach to the subject of power and justice entails recognizing the essential relatedness of all things and treating them as inseparable parts of a continuum. Under this concept, certainly, both primitive life and civilized life are aspects of ideal power and justice. The relativistic approach to literature demands that the writer consider his subject in depth as well as in scope--or, as has been suggested in this study, that he never lose sight of the continuum while viewing the segment. In The Tempest, perhaps more than in his other works, Shakespeare demonstrates this attitude; in it he presents the distillation of his relativistic thinking.

In bringing together the natural and the supernatural, Shakespeare has created what Coleridge described,

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[80] Ibid., p. 1248.

[81] Loc. cit.

in his discussion of The Tempest, as dramatic improbability.[82] Coleridge suggested that a genius might occasionally employ an improbability merely to restrict the interest of an instrumental scene so that it does not create an impression that is disproportionate to the entire illusion.[83] But the relativistic concept of Shakespeare's work does not demand an explanation for things outside the pale of human experience; it suggests, instead, that the "improbable" is at least possible, if not probable. A contemporary critic remarks that

> ...The Tempest is...his /Shakespeare's/ ultimate achievement in presenting the natural world and the supernatural side by side, in stressing the essential validity of each, and in echoing the ineffable sphere-musics that arise from their harmonious interplay.[84]

One who accepts Shakespeare's relativity must interpret The Tempest against an infinite cosmic background into which are blended the natural and the supernatural, the celestial and the mundane, the real and the unreal--all things. And in so doing, he at once discovers the subtleties of relationship which Shakespeare has achieved in the play. Prospero, for example, is a link

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82 W. G. T. Shedd (ed.), The Complete Works of Samuel Taylor Coleridge, IV, p. 73.

83 Ibid., p. 74.

84 Nelson Sherwin Bushnell, "Natural Supernaturalism in The Tempest," PMLA, XLVII (September, 1932), p. 698.

between the natural and the supernatural, the subhuman (Caliban) and the superhuman (Ariel), justice and injustice, power and weakness, and reality and fancy; he represents wisdom, civilization, controlled power, ideal government, and justice; he is The Receptacle, the matrix within which and from which all aspects of power and justice develop. His responsibilities are those of a parent for a child, of a monarch for a subject, of the wise for the ignorant, of civilized man for primitive man, of a nation for a colony, of the privileged for the under-privileged. Many of these facets of Prospero's role in the play are either expressed or implied in the following conversation between Caliban and Prospero (I.ii.331-351):

> CALIBAN: This island's mine by Sycorax my mother,
> Which thou tak'st from me. When thou camest first,
> Thou strokedst me and made much of me, wouldst
> give me
> Water with berries in't, and teach me how
> To name the bigger light and how the less,
> That burn by day and night; and then I loved thee
> And showed thee all the qualities o' th' isle,
> The fresh springs, brine-pits, barren place and
> fertile.
> Cursed be I that did so! All the charms
> Of Sycorax--toads, beetles, bats light on you!
> For I am all the subjects that you have,
> Which first was mine own king; and here you sty me
> In this hard rock, whiles you do keep from me
> The rest o' th' island.
> PROSPERO: Thou most lying slave,
> Whom stripes may move, not kindness! I have used thee,
> Filth as thou art, with humane care, and lodged thee
> In mine own cell till thou didst seek to violate
> The honor of my child.
> CALIBAN: O ho, O ho! Would't had been done!
> Thou didst prevent me; I had peopled else
> This isle with Calibans.

These few lines describe the total concept of power and authority. With the substitution of general words for some of the key words in Caliban's speech, it might represent the complaint of a barbarian to a Greek, of a heathen to a Christian, of an American Indian to a Caucasian, of an African to a European imperialist, of a teen-ager to a parent, of a laborer to a supervisor, of primitive man to civilized man--in fact, the possibilities are endless. The idea expressed in this passage is not only the theme of the play, but also a paragon of Shakespearean relativistic thinking; it is a continuum of thought with an infinite number of segments and ramifications.

Other aspects of power and justice presented in The Tempest have their roots in the ideology of the age, but they also reflect Shakespeare's philosophy. Gonzalo's description of an ideal state, for example, blends Elizabethan concepts with Shakespeare's own ideas:

> I' the commonwealth I would by contraries
> Execute all things; for no kind of traffic
> Would I admit; no name of magistrate;
> Letters should be known; riches, poverty,
> And use of service, none; contract, succession,
> Bourn, bound of land, tilth, vineyard, none;
> No use of metal, corn, or wine, or oil;
> No occupation, all men idle, all;
> And women too, but innocent and pure;
> No sovereignty.
> ...All things in common nature should produce
> Without sweat or endeavor. Treason, felony,

> Sword, pike, knife, gun, or need of any engine
> Would I not have; but nature should bring forth
> Of it own kind all foison, all abundance,
> To feed my innocent people.
> ...I would with such perfection govern, sir,
> T'excel the golden age (II.i.147-168).

The speech in which Prospero renounces his magic (V.i.33-57) --the one which has often been construed as Shakespeare's farewell to the stage--expresses Elizabethan ideas that are logical to the plot and to the Elizabethan playgoer. Prospero has achieved the Elizabethan ideal: he has earned a place in a higher order (heaven), where he will rule under ideal conditions. He breaks his staff and drowns his book for the practical reason that he will no longer need them. This idea is implied also in Prospero's account of the extraordinary things he has already achieved through relatively weak instruments (V.i.33 ff.); under perfect conditions, therefore, he will need no instrument.

In the episode in which Caliban takes Trinculo and Stephano to Prospero's cave, Shakespeare implies that civilized man, like his primitive brother, often confuses the symbol of power with power itself. Trinculo is fascinated with Prospero's gown; to Caliban the gown is simply "trash" or "luggage."

Freedom, like power and justice, is always relative. Shakespeare stresses this fact through the

attitudes of Ariel and Caliban. The "mooncalf," like uncivilized or uneducated man, is incapable of distinguishing between the degrees of freedom. In order to achieve what he considers to be freedom, he would willingly subjugate himself to a less benevolent authority. As the only inhabitant of the island from the time of his mother's death until the arrival of Prospero and Miranda, Caliban had enjoyed comparatively complete freedom. On the other hand, Ariel, who had been imprisoned in a tree by Sycorax until freed by Prospero, accepted the authority of his savior in exchange for eventual freedom. Both Caliban and Ariel longed to escape the authority of Prospero. After his return to Milan, Prospero would miss Ariel even though the airy spirit would not miss him. Caliban, the spirit of the earth, was to discover that his freedom would be less desirable in fact than it had been in anticipation.

Shakespeare explored many facets of life, and his particular concern for some of them led to a recurrence of certain ideas in his plays. In The Tempest he presents the crystallization of his thinking on some of his favorite topics. Among these is the idea of mutability, which received much consideration in Hamlet. Ariel's song (I.ii.396-403) represents the epitome of this concept:

> Full fathom five thy father lies;
> Of his bones are coral made;
> Those are pearls that were his eyes;
> Nothing of him that doth face
> But each doth suffer a sea-change
> Into something rich and strange.
> Sea-nymphs hourly ring his knell--

A corollary of this concept is to be found in Prospero's musing on the transitory qualities of ignorance and understanding or reason (V.i.64-68 and 79-82).

In The Tempest, Shakespeare supplied additional answers to another question that had long occupied his attention: "What is man?" Through Miranda, who, as a child and a young adult, had seen no man but her father, Shakespeare implies that from a detached viewpoint, mankind is noble (I.ii.416-418) and beautiful (V.i.181-185). Through Trinculo he echoes his more familiar comments on mankind:

> What have we here? a man or a fish? dead or alive? A fish! He smells like a fish, a very ancient and fishlike smell, a kind of not-of-the-newest poor-John. A strange fish! Were I in England now, as once I was, and had but this fish painted, not a holiday fool there but would give a piece of silver. There would this monster make a man. Any strange beast there makes a man. When they will not give a doit to relieve a lame beggar, they will lay out ten to see a dead Indian. Legged like a man! And his fins like arms! Warm, o' my troth! I do now let loose my opinion, hold it no longer: this is no fish, but an islander that hath lately suffered by a thunderbolt...(II.ii.24-36).

Stephano's drunken comments on the nature of Trinculo and Caliban (II.ii. 56 ff.), who he thinks are one, exemplify

additional Puckish contemplation of man's insignificance and close relationship to the lower forms of life. Shakespeare expressed similar views in other plays, notably King Lear (See Chapter III). But all of his thinking on this topic fails to produce an answer more specific than the one he reaches in The Tempest: man is relatively mean or noble according to the nature of the measuring device and according to his circumstances at the moment of measuring.

Most of Shakespeare's recurring meditations, as reflected in the plays, stem from his attempts to solve the supreme problem: the ultimate nature of reality, or life. Like the philosopher and the scientist, he probably discovered that a final answer is beyond man's comprehension. Shakespeare's closest approach to an answer is to be found, possibly, in these words of Prospero's:

> You do look, my son, in a moved sort,
> As if you were dismayed. Be cheerful, sir.
> Our revels now are ended. These our actors,
> As I foretold you, were all spirits and
> Are melted into air, into thin air;
> And, like the baseless fabric of this vision,
> The cloud-capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,
> Yea, all which it inherit, shall dissolve,
> And, like this insubstantial pageant faded,
> Leave not a rack behind. We are such stuff
> As dreams are made on, and our little life
> Is rounded with a sleep. Sir, I am vexed.
> Bear with my weakness. My old brain is troubled.

> Be not disturbed with my infirmity.
> If you be pleased, retire into my cell
> And there repose. A turn or two I'll walk
> To still my beating mind (IV.i.145-163).

In any attempt to perceive of reality, there is success in the mere recognition of inscrutability. It seems certain that Shakespeare attained this degree of success, and that the achievement was made possible through relativity. At the same time, he conceived some of his dramas in the framework of relativistic philosophy; and because his art seems to have reached its highest form in those plays wherein relativity is most apparent, one may conclude that there is a high degree of correlation between relativity and literary excellence. And because many of Shakespeare's plays are still considered literary masterpieces, it seems logical to conclude, further, that they owe their durability to relativistic qualities.

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