

What we learned from semiotics:<sup>1</sup>

First, we take as an example the novel titled by Umberto Eco:

**The Name of the Rose**

I again exclaim my attitude:

*The beauty of a rose is not a quality of the Rose,  
it is a quality of the observer interpreting process.*

When you see a rose you interpret, there is a rose.

You presume that something, a conceptual object, gives you the perception.

It is obvious, that there are some geometrical *primary qualities* in Nature that causes you to see a rose.

You see the example object as an icon for the concept category roses, which you then name the Rose.

You categorise your experience with this rose by the name Rose, as a symbol of the physical object.

Your perception of a rose is a complicated process. When you in that process experience beauty, it is that interpretation that emerges as the *quality of beauty*. This we categorise as a *secondary quality*.

I learned from a Danish biochemist Jesper Hoffmeyer who wrote some semiotic philosophical works e.g. [1], that there is a fundamental principle, short formulated as:

Every living cell has an inside and an outside.

This principle I extend to every *entity* in Nature including what we call elementary particles and is formulated as: The energy captured internally in any *entity* structure obeys the same *primary qualities* as all the external structures of the universal Nature.

An outstanding question is a black hole an *entity* or just a *primary quality* structure?

Problem of the classical physics:

The concepts ideas of mass and force were by Newton presumed as *primary qualities*.

In the 20<sup>th</sup> century's quantum mechanics and relativity space-time theory, they seem to be *secondary*.

In this book volume, I have tried to avoid or eliminate the effect of these concepts of mass and force and only let them emerge as *secondary qualities*.

Only the geometrical aspects and counting the times in cyclic frequency energy oscillations is presumed fundamental *primary qualities* as an a priori of physics.

---

The analytical result of this book seems to be that the *a priori law of physics* is

*Kepler's Second Law*, now fundamental saying:

*Any plane angular development is a chronometric constant unit  $\hbar = 1$ .*

<sup>1</sup> I was introduced to semiotics by physicist Peter Voetmann Christiansen by first following a graduate course in Eco-Physics for my orientation followed by a course in Response Theory [34] as a part of my major exam in 1981 for graduation from UCPH in 1983.

**Content**

<b>Content</b>	<b>vii</b>
<b>Preface</b>	<b>xvii</b>
<b>Prologue</b>	<b>xix</b>
<b>I. The Time in the Natural Space</b>	<b>23</b>
<b>1. The Idea of Time</b>	<b>23</b>
<b>1.1. Primary Quality</b>	<b>23</b>
<b>1.2. Quantity</b>	<b>24</b>
<b>1.3. The Causal Action</b>	<b>24</b>
1.3.1. Logic and Numbers	24
1.3.1.2. The Number Sequence	24
1.3.2. Time, Action, and Sequence	25
1.3.2.1. Extension of Time	26
1.3.3. Quantity in Time	26
1.3.3.1. The Passage of Time	26
1.3.4. Speed of Times, the Quantum of Time, and the Frequency	27
1.3.4.2. The Frequency in Action	28
1.3.4.3. Associations with the Known Physics	28
1.3.5. Continuous Time and Action	29
1.3.5.1. Continuous Timing	29
<b>1.4. The Cyclic Time</b>	<b>31</b>
1.4.1.1. The Period	31
1.4.1.2. The Circle Plan	33
<b>1.5. The Complex Numbers</b>	<b>33</b>
1.5.2. The Complex Exponential Function	33
1.5.3. The Imaginary Approach to the Cyclic Circle of Rotation	34
<b>1.6. The Complex Oscillation - the Circular Movement</b>	<b>35</b>
1.6.2. The Cyclic Circle Clock	36
1.6.2.2. The Cyclic Rotation Oscillation	36
1.6.2.3. The Time Concept as a Running Wheel	36
1.6.2.4. Euler Circle as the A Priori Clock	37
1.6.3. The Continuous Measure for the Concept of Time	37
<b>1.7. The Cyclic Rotation</b>	<b>38</b>
1.7.1.1. A <i>Entity</i> in Physics and its <i>Quantitative</i> Functions	38
1.7.2. The Derivative Function	38
1.7.3. The Parameter Derived Quantity	39
1.7.4. The Circular Rotation and the Unitary Group <i>U(1)</i>	39
1.7.5. The Circular Rotating Oscillator Synchronometry	40
1.7.5.2. The Real Rotation	42
1.7.5.3. The Internal Oscillation	42
1.7.6. The Oscillator Rotation in Physics	43
1.7.7. Fourier Transformation	45
1.7.8. The Local Internal Time	46
1.7.8.2. The Orthogonal Frequencies	47
1.7.8.3. The local Homogeneous Parameter and the Constant Oscillator Frequencies	47