

# Table of Contents



Preface ..... x



## Section I Structures of Civilization

### Chapter I

**The Civilization Grand Model ..... 1**

*Introduction*..... 1

*The Civilization Approach to Human Development* ..... 1

*The Contemporary Civilization Approach to Human Development*..... 4

*The World-System Approach to Human Development*..... 6

*The Emergence of Civilization*..... 8

*The Empirical Model of Civilization Evolution*..... 9

*Methods of Civilization Study*..... 11

*Human Entities and Their Dynamics*..... 17

*Observations from the Empirical Development of Civilization* ..... 20

*A Dynamic Model of an Autonomous Civilization*..... 22

*The Dynamics of a Civilization*..... 24

*A Character of a Civilization*..... 31

*A Model of the World Civilization*..... 33

*Grand Laws of the World Civilization* ..... 35

*From World to Planetary Civilization*..... 36

*Conclusion* ..... 38

*References* ..... 42

*Endnotes*..... 44



### Chapter II

**Civilization Life Cycle: Introduction ..... 45**

*Introduction*..... 45

*Civilization Continuity and Memory*..... 47

*Universal Laws of a Civilization*..... 47

*General Model of the Civilization Life Cycle* ..... 50

*The Wave Model of the World Civilization Life Cycle* ..... 55



<i>Conclusion</i> .....	57
<i>References</i> .....	60
<i>Endnotes</i> .....	61



**Chapter III**

<b>The Civilization Index</b> .....	<b>62</b>
<i>Introduction</i> .....	62
<i>The Next Entity to Measure</i> .....	62
<i>The Architecture of a Civilization</i> .....	63
<i>Characteristics of a Civilization</i> .....	66
<i>The Civilization Index</i> .....	69
<i>Strategies of Civilization Development</i> .....	69
<i>The Challenges for Civilizations and People</i> .....	72
<i>Conclusion</i> .....	74
<i>References</i> .....	76
<i>Endnotes</i> .....	77



**Section II**  
**The Human Project**

**Chapter IV**

<b>(A) Liberating the Future from the Past</b> .....	<b>79</b>
<i>Introduction</i> .....	79
<i>The INFOCO System as a Means from the Past</i> .....	80
<i>Civilization Paradigm Shifts</i> .....	83
<i>The Architecture of the A.D. 2000 Paradigm Shift</i> .....	84
<i>The Connected-Layered Existence</i> .....	86
<i>The Harmonic Development of Existence</i> .....	87
<i>Conclusion: The “Futureless” Past</i> .....	89
<i>References</i> .....	94



**Chapter V**

<b>(B) Liberating the Past from the Future</b> .....	<b>95</b>
<i>Introduction</i> .....	95
<i>The Accumulation Principle</i> .....	95
<i>The Wisdom Principle</i> .....	98
<i>Conclusion: The “Fruitless” Past</i> .....	99
<i>References</i> .....	102



**Chapter VI**

<b>Will Wisdom Save the Human Project?</b> .....	<b>103</b>
<i>Introduction</i> .....	103
<i>From Myths to Wisdom of Civilization</i> .....	103



<i>Towards Eco-Philosophy</i> .....	107
<i>The Wisdom Diamond</i> .....	113
<i>Conclusion</i> .....	113
<i>References</i> .....	115
<i>Endnotes</i> .....	117

## **Chapter VII**

<b>From Global to Universal-Complementary Civilization</b> .....	<b>118</b>
<i>Introduction</i> .....	118
<i>The Four Waves of Globalization</i> .....	118
<i>The Enabling Factors of the Fourth-Wave Globalization</i> .....	119
<i>Globalization Benefits</i> .....	121
<i>Globalization Problems-Causing Factors</i> .....	122
<i>Why Global Civilization?</i> .....	125
<i>Global Civilization in the 21<sup>st</sup> Century</i> .....	127
<i>Globalization Repercussions</i> .....	129
<i>Symptoms of Catastrophic International Conflict in the 21<sup>st</sup> Century</i> .....	130
<i>Is Global Civilization the Answer for the World Civilization's Progress?</i> .....	132
<i>Are Western Civilization's Accomplishments the Answer for the World Civilization's Progress?</i> .....	133
<i>The "Death Triangle" of World Civilization I</i> .....	137
<i>From War &amp; Peace to Values &amp; Dialogue</i> .....	139
<i>Universal Civilization as a Solution to the World Civilization's Progress and Survival</i> .....	140
<i>The Architecture of Universal-Complementary Civilization</i> .....	143
<i>The Strategy of Implementing the Universal-Complementary Civilization</i> .....	146
<i>Conclusion</i> .....	147
<i>References</i> .....	149
<i>Endnotes</i> .....	152

## **Chapter VIII**

<b>Theory of Critical Total History of Civilization</b> .....	<b>154</b>
<i>Introduction</i> .....	154
<i>The Purpose and Subject of Civilization History</i> .....	156
<i>Why Critical Total History (CTH) of Civilization?</i> .....	156
<i>The Characteristics of Critical Total History of Civilization</i> .....	159
<i>The Structures of Critical Total History of Civilization</i> .....	160
<i>Grand Models of the Civilization CTH</i> .....	168
<i>Models of the State CTH of Civilization</i> .....	171
<i>Models of the World CTH of Civilization</i> .....	172
<i>The Grand Laws of Western Civilization CTH</i> .....	175
<i>How to Investigate CTH of Civilization</i> .....	177
<i>Conclusion</i> .....	178
<i>References</i> .....	181

**Section III**  
**The Information Ecology of Civilization**

<b>Chapter IX</b>	
<b>The Information Wave of Civilization .....</b>	<b>184</b>
<i>Introduction.....</i>	184
<i>Information and Civilization History.....</i>	185
<i>The Control Revolution in the 19<sup>th</sup> and 20<sup>th</sup> Centuries .....</i>	197
<i>The Limits of Growth and the Decline of the Industrial Wave.....</i>	200
<i>The Rise of the Information Wave.....</i>	201
<i>The Mission, Goals, Strategy, and Architecture of the Information Wave.....</i>	206
<i>The Ideology of the Information Wave.....</i>	208
<i>Conclusion .....</i>	213
<i>References .....</i>	215
<i>Endnotes.....</i>	217
<b>Chapter X</b>	
<b>Information and Organization.....</b>	<b>218</b>
<i>Introduction.....</i>	218
<i>Perspectives of Information.....</i>	218
<i>The Images of Information.....</i>	228
<i>The Information Matrix.....</i>	240
<i>The Informed Architecture of an Organization.....</i>	241
<i>The Informed Architecture of Management .....</i>	245
<i>The Transformation from an Industrial to an Informed Enterprise.....</i>	247
<i>Conclusion .....</i>	248
<i>References .....</i>	251
<i>Endnotes.....</i>	253
<b>Chapter XI</b>	
<b>Service Science and Automation Laws.....</b>	<b>254</b>
<i>Introduction.....</i>	254
<i>The Nature of Services .....</i>	256
<i>A Classification of Services in a Developed Economy.....</i>	257
<i>The E-Service System Requirements .....</i>	262
<i>The Generic Architectures of E-Service Systems (E-SS).....</i>	266
<i>Toward the Service Science Scope .....</i>	269
<i>The Service Science Strategy for Innovations.....</i>	270
<i>Conclusion .....</i>	274
<i>References .....</i>	274
<i>Endnote .....</i>	276



## Chapter XII

<b>Information Laws</b> .....	277
<i>Introduction</i> .....	277
<i>Macro-Information Ecology</i> .....	277
<i>General Information Laws</i> .....	278
<i>The Information Macro-Ecology Model</i> .....	281
<i>The Information Law of Human Capital</i> .....	282
<i>Human Capital Development</i> .....	283
<i>Conclusion</i> .....	285
<i>References</i> .....	287
<i>Endnotes</i> .....	288

## Chapter XIII



<b>The Electronic Global Village</b> .....	289
<i>Introduction</i> .....	289
<i>The Birth of the Electronic Global Village</i> .....	289
<i>The General Architecture of EGV</i> .....	291
<i>The Definition of EGV</i> .....	292
<i>Informative Organizations</i> .....	295
<i>Information Infrastructure</i> .....	297
<i>Global Economy</i> .....	304
<i>Global Society</i> .....	304
<i>Global Culture</i> .....	304
<i>Electronic Culture</i> .....	305
<i>Electronic Global Citizen (EGC)</i> .....	307
<i>Conclusion</i> .....	307
<i>References</i> .....	310
<i>Endnotes</i> .....	310

## Chapter XIV




<b>Information Societies</b> .....	311
<i>Introduction</i> .....	311
<i>The Forces of Change</i> .....	311
<i>The Information Society: A New Tool of Thought or a New Way of Life?</i> .....	314
<i>The Essence of the Information Society</i> .....	317
<i>Types of the Information Society</i> .....	319
<i>The Paradigms and Measurement</i> .....	327
<i>The Developmental Paths of Information Societies: Future Trends</i> .....	329
<i>A Case of the Polish Information Society (2008-2013)</i> .....	329
<i>Conclusion</i> .....	334
<i>References</i> .....	340
<i>Endnotes</i> .....	343

**Section IV**  
**Modeling of Civilization**

**Chapter XV**



<b>Asymmetric Communication (Andrew Targowski &amp; Ali Metwalli).....</b>	<b>345</b>	
<i>Introduction.....</i>	345	
<i>A Concept of Culture.....</i>	347	
<i>The Cross-Cultural Communication Process .....</i>	347	
<i>The Efficiency of Cross-Cultural Communication.....</i>	353	
<i>The Culture Cost Factor in the Global Economy .....</i>	356	
<i>Conclusion .....</i>	357	
<i>References .....</i>	360	

**Chapter XVI**

<b>Civilization Market Integration.....</b>	<b>363</b>	
<i>Introduction.....</i>	363	
<i>The Evolution of Civilization Markets .....</i>	363	
<i>The World is “Flattening” .....</i>	369	
<i>The China Factor.....</i>	374	
<i>The World’s Largest Market in 2010.....</i>	375	
<i>The World’s Largest Market in 2020.....</i>	376	
<i>Beyond 2020: The Triumph of Globalization.....</i>	379	
<i>The Myths and the Realities of the World Market.....</i>	380	
<i>The Civilization Patterns of Economic Development.....</i>	381	
<i>Conclusion .....</i>	388	
<i>References .....</i>	390	

**Section V**  
**The Future of Civilization**

**Chapter XVII**

<b>The Future of Civilization.....</b>	<b>395</b>	
<i>Introduction.....</i>	395	
<i>Civilization Threats.....</i>	396	
<i>The “Death Triangle” of Civilization I.....</i>	404	
<i>Means of Removing Civilization Threats .....</i>	406	
<i>The Future of Civilization.....</i>	409	
<i>Conclusion .....</i>	412	
<i>References .....</i>	414	
<i>Endnotes.....</i>	417	

**Chapter XVIII**

**The Information Architecture of the Universe..... 419**

*Introduction..... 419*

*Information Control in Life Origin..... 419*

*Hypothesis of the Informed Universe..... 422*

*Conclusion..... 429*

*References..... 431*

*Endnotes..... 432*



**About the Contributors ..... 434**



**Index ..... 435**