

SYNOPSIS

“We can end the threats to our environment and aid dramatically in its restoration. We can help provide meaningful work for all, with opportunities that enhance and replenish the world about us. We can effectively address fundamental urban and rural concerns and the many diverse and often-divergent needs of developing and developed nations alike. We can create a better world where life and all living systems flourish. This is not an idealistic dream, but is rather a pragmatic attainment, achievable within our very own lifetimes.”

So write Bernard Lietaer and Stephen Belgin, authors of the much-anticipated book *New Money for a New World*. Mr. Lietaer is a principal architect of the euro and author of the acclaimed international best-seller *The Future of Money*, which has been translated into sixteen languages. Mr. Belgin is the founder and President of Qiterra Press, a publishing company dedicated to life-affirming works that improve the human condition.

New Money for a New World examines a previously unexamined culprit for the many issues we face today — the monopoly of our centuries-old monetary system. This book provides many ways and means that are readily available to stop the current juggernaut towards global self-destruction. Many of the solutions offered within this book are more than theory. Communities from around the world have successfully addressed a myriad of issues without the need to raise taxes, redistribute wealth, or depend upon enlightened self-interest from corporate entities. Rather, the improvements were realized simply and effectively by rethinking money.

With such a shift, everything is possible.

“Rarely has a cultural look at money ever been presented with the depth and panache of this book. *New Money for a New World* is of critical usefulness and could well start a movement towards a new use of currencies and wealth that will bring constructive impetus to the emerging planetary civilization. Thus, it is more than a book; it is a key process in whole system transition.”

~Dr. Jean Houston, Author, UN consultant, and Host of A Passion for the
Possible – A PBS series

New Money
for a
New World

Bernard Lietaer & Stephen Belgin

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READER COMMENTS

The comments below for *New Money for a New World* also include endorsements for previous works in which many of the same arguments were presented in a more academic fashion. Other comments will be posted online on our companion website:

<http://www.newmoneyforanewworld.com>

“*New Money For A New World* is one of those rarest of rare books that can truly help change the course of humanity—in just the way so many of us sense but don’t know how to get there. With disarming simplicity and amazing clarity, authors Bernard Lietaer and Stephen Belgin reveal the secret liberating variable to empower rapid and profound societal and consciousness transformation and environmental healing—monetary redesign. Read this book to see how you can participate in accelerating our arrival at a regenerative and fulfilling new world.”

~Richard Ruster, Ph.D.,

Founder, Center for the Human Dream,

Co-Creator, the Hummingbird Community,

Author of *The Homing Process: A Unifying Theory of Evolving Systems*.

“This is an important breakthrough in the emerging new economics of sustainability and human wellbeing.”

~Ed Mayo

President, the New Economics Foundation

“These are the smartest people thinking - and rethinking - about money today. If you are among the sad majority who still think money is that green paper in your pocket, think again. The kinds of money available to us are varied as goals we have for our economy. In a world where there is more than enough stuff to go around, we deserve a money capable of reflecting rather

than undermining the abundance we have achieved. This book proves the point and points the way.”

~Douglas Rushkoff

Author of Life Inc., and Program or Be Programmed

“The 20th century was the age of competition and the 21st century will be the age of cooperation. The concept of ‘complementary currency’ this book elaborates on will be the keyword for global citizens who want to live fully in the age ahead of us.”

~Charmine Koda

Japanese Environmental Journalist

“Others have shared Bernard Lietaer’s concern about a sustainable economy, but have not been able to provide a realistic solution. In *New Money for a New World*, he and co-author Stephen Belgin show us such a solution in a bold and fresh manner, and it is in this sense that this is an epoch-making book.”

~Toshiharu Kato

Director Services Department, Ministry of International Trade and Industry
(MITI), Japan

“Exciting, challenging and profound; a unique and essential contribution to our understanding of money.”

~Dr. Peter Russell

Author of The Global Brain and Waking Up in Time

“This book gives the recipe on how we in the future can create a social economy which is more responsible, more friendly towards the environment, and less filled with conflict.”

~Professor Jesper Jespersen

Churchill College, Cambridge University (UK) and University of Roskilde
(Denmark)

“Something extraordinary and largely unreported is happening to money.
This book looks set to be the herald of the future money revolution.”

~David Boyle

New Economics Foundation, London

“This book really opened my eyes as to what money is about, and what its
future is - and is not.”

~Stephen Denning

Program Director, Knowledge Management, World Bank

“This is a wise and incisive analysis of the nature of money in our society;
the remarkable and pragmatic solutions it offers demand of us that we think
about money in entirely new ways.”

~Professor Jacob Needleman

Philosopher; author of *Money and the Meaning of Life*

“The mind of Bernard Lietaer is a rare mix of practical experience in modern
finance, deep understanding of history, and lively imagination about the
future. Only such a mind could have produced so fresh and so lucid an
analysis of how money has become an obstacle to abundance – and how
conscious choices about new kinds of complementary money can help us fuse
underused resources with underemployed people.”

~Harlan Cleveland

President of the World Academy of Art and Science

“National currency is cold and selfish by itself. So let's create community
currencies with which we can warm up our communities as *New Money for a*

New World recommends.”

~Tsutomu Hotta

Former Minister of Justice and Supreme Court Judge in Japan.

Chairman, Sawayaka Welfare Foundation,

Founder of the Japanese “Fureai Kippu” currencies

“The medium is the message. As Bernard Lietaer and Stephen Belgin point out, the money system is not neutral. One way or another, our behavior is heavily influenced by it. Can we change the way it works? This question concerns us all. The answer will help to decide the future of humanity and life on earth. The authors’ authoritative practical experience of money and finance, underpinned by their awareness of the worldwide shift of consciousness now taking place, results in many thought-provoking insights...It is not necessary to agree with every detailed proposal in this informative and stimulating book, in order to welcome it as an outstanding contribution to a vital question - the future of money in the Information Age. I wholeheartedly recommend it.”

~James Robertson

Author of *The New Economics of Sustainable Development* (1999)

and co-author of *Creating New Money* (2000)

“*New Money For A New World* makes a simple and profound proposition: Unless we can balance the current social and monetary structures, whose remedies are well described here, our shared desire for a just, sustainable, and peaceful planet is simply not possible. ALL the good works that many of us are involved in, admirable, even successful as they may be, are mere band aids, fingers in the dike. I challenge any serious reader of this book to arrive at a different conclusion. That’s the bad news. The good news is WE CAN MAKE IT! *New Money For A New World* offers unique effective tools by which to resolve our core issues and co-create a better, vibrant future.”

~John Steiner

Global Citizen

“This book is truly essential for our survival. I was surprised how much I learned, (and how much I didn't know about money). The writing style is as enjoyable as it is instructive.”

~Margaret Wheatley

Author of *Management and the New Physics*

“I have read three books which I consider to be truly uplifting and transformative: *A Course in Miracles*, *The Power of Now*, and most recently, *New Money for a New World*. This work offers a clear roadmap by which to resolve many of humanity's seemingly insurmountable crises without the need for international treaties, more taxation, or the redistribution of wealth, all the while respecting and potentially expanding our spiritual underpinnings. *New Money for a New World* is a gift to humanity, to be read by everyone who dares to dream of a world gone sane. Bernard Lietaer and Stephen Belgin have created a masterpiece.”

~Dr. Frank Baylin

President, CEO - Baylin Publications

DEDICATION

*This book is dedicated to the beloved memory
of two extraordinary women and mothers,
Agnes Lietaer-Catry (1914-2011)
and Edith Dernis-Belgin (1923-2011).*

ACKNOWLEDGEMENTS

The authors would like to thank Dr. Sally Goerner and Dr. Robert Ulanowicz for their groundbreaking work in systems physics and theoretical ecology, which provided the scientific basis in Chapter Twelve and Chapter Thirteen.

We would like to acknowledge and thank our tireless editors Jonathan Kolber and Daniel Drasin, Jennifer Dunne for her many vital professional and personal contributions, Jillian Reitsma for her valued assistance with graphic design, Stephen DeMeulenaere for his research and input regarding Balinese complementary currency systems in Chapter Twenty Eight, Margrit Kennedy for her work regarding demurrage and complementary currencies, and our gifted webmasters Marcio Diaz and Gael Van Weyenbergh. We wish to express our sincere gratitude to Michael Spolum and family, Tesa Silvestre, Lisa Spiro Price, Eric Karlson, Sean Karlson, Molly Stranahan, Rebecca Gordon, Rob Gordon, Lisa Stone, the Lipman Family, Ruby Begay, Susan Belchamber, Rachel Bagby, Edward Ciaccio, William Donohoe, Mark Finser, Carol Newell, Derek Garcia, Nitin Gadia, Lion Albaugh, Lynn Gold, the Hummingbird Community, the Triskeles Foundation, Anthony Dunkley, Chris Tucker, Phyllis Karlson, Evelyn and Sol Resnick, Bertha Paul, Nicole Silvestre, Vincent and Mary Andreano, Alexander Belgin, and many others too numerous to mention here for their support. We wish to also thank Jacqui Dunne, Deb Shapiro, and Ed Shapiro for their assistance with a previous version of this book.

Finally, we are very grateful to the many pioneers and communities, past and present, whose insights and efforts have contributed to a greater understanding of money.

BAL; SMB

INTRODUCTION

Everything is possible when everything is at stake.

~NORMAN COUSINS

Humanity is at a critical juncture, faced with two very real yet vastly different prospects. The unparalleled achievements over the course of recent decades in one domain after another offer hope of a vast renewal and golden age for society. In direct opposition to this is the persistence of a constellation of seemingly insurmountable global issues that threaten us as never before. What is required is as straightforward as it is profound. Our global civilization needs a new operating system, and fast.

Our seemingly paradoxical situation is explained by the fact that the very same ways of thinking that brought about the Industrial Age and made possible many of our advancements, have also fueled the myriad crises that are now converging upon us. In particular, many of the socioeconomic rules under which we currently operate were actually put in place centuries ago, and were heavily influenced by a worldview that failed to recognize that our planet is a living system and that every form of life has its unique and valuable place and purpose in sustaining the larger web of life. In ignoring the conditions that are necessary to the health of our ecosystems and communities, we have inadvertently fouled our nest.

As a direct consequence of our centuries-old ways of being and doing, we are now faced with: great financial instability, growing disparities of wealth, resource wars, the breakdown of community, alarming rates of species extinction and ecosystem depletion, and accelerating symptoms of climate change. As our food, energy, health, education, economies, and financial systems show increasing signs of failing us, we are being collectively called to harness our creativity and resources to take a major evolutionary leap.

Transitioning from self-destructive ways to life-affirming understandings, lifestyles, and systems is indeed the great work of our times.

The looming question is, how can we reverse the downward spiral in which much of our world has been caught?

One of the many blessings of our time is that there is a fast-growing global movement afoot, consisting of many communities, businesses, not-for-profits, and governments, hard at work on this very question. Their innovative efforts are already providing many success stories and inspiring new models to point to. Neither creativity nor good intentions are lacking.

What *has* been sorely missing is an understanding of the important systemic causes of the challenges we face, and a clearer sense of how fragmented efforts and experiments might evolve into comprehensive solutions. The widespread deterioration of conditions that has occurred over the course of the last several decades is bound to continue until and unless we can identify and effectively address the source of our many concerns. To this end, there is at last some significant news.

A far better and more effective way to harness and direct our creativity and energy is now possible and directly available to us. What is required of us is to start paying careful attention to a piece of the puzzle that has been under the radar of the official and public debate: our monetary system.

Over the course of the past few decades, a quiet but significant transformation has been taking place within the monetary realm. Thousands of initiatives from around the world—run by villagers, non-governmental organizations, small and medium-sized enterprises, multinationals, and governments—have each been rethinking money. They have made use of *complementary currencies*—monetary initiatives that do not replace but rather supplement the national currency system—to match unmet needs with unused resources.

Among the almost inexhaustible range of vital concerns being addressed by new monetary initiatives let us mention: social and ecological issues such as improved education, disease intervention, juvenile delinquency, healthcare for the elderly, environmental cleanup, and city restoration; and commercial applications such as job creation, loyalty mechanisms, stabilization of the business cycle, and more.

These initiatives burden no one and offer benefits to the whole of human society. These innovations do not require raising taxes, the redistribution of wealth, bonds, charity, or loans from lending institutions or government. Given what is at stake and what has already been achieved, it is incumbent upon us to at least carefully consider what is now possible.

New Money for a New World is dedicated to pragmatic improvements in conditions through a greater understanding of money, and through monetary initiatives that better serve the diverse and sometimes divergent needs of each member of our global society and the living systems of this planet.

An Overview of New Money for a New World

The goal of each of the four parts of this book is to report, in as clear and concise a way as possible, the insights and important options that are now available to us by rethinking money.

In Part I—Our Money, Our World—we explore many of the features of today’s monetary and banking paradigms. The topics examined include:

1. the ways and means by which one city was able to tackle many of its concerns without having to raise taxes, redistribute wealth, or seek outside assistance (Chapter One—A Tale of Two Cities);
2. the great mismatch between our money and our age (Chapter Two—Welcome to Moneyville);
3. critical issues facing our world and the monetary questions they pose (Chapter Three—Megatrends and Money);
4. long-held mysteries and some important agreements related to our money (Chapter Four—A Money Primer);
5. seemingly innocuous properties of our monetary system, particularly the feature of interest, and the profound influence of the architecture of our money system upon society (Chapter Five—Money is Not Value-Neutral);
6. a little-known, historical Golden Age and its unusual monetary paradigm (Chapter Six—Back to the Future);
7. how our banking and monetary systems replicate beliefs, perceptions, and objectives of a former age (Chapter Seven—A Change of View);
8. traditional theories and assumptions about how economies work and the measurements used to gauge their supposed health (Chapter Eight—Economic Myopia);
9. how several communities were able to not only meet their needs but prosper during the depths of the Great Depression, and the potential dire consequences of not heeding these vital monetary lessons (Chapter Nine—Lessons from a Depression);
10. how limited understandings regarding money impact reigning economic notions and policies (Chapter Ten—The Blind Spot).

In Part II—New Money—we explore some of the many monetary tools and new economic understandings available to us to help address the issues facing our world today. The topics explored include:

- the unparalleled shift now taking place in society (Chapter Eleven—Great Change);
- new economic insights derived from our understandings of natural ecosystems and other complex flow systems (Chapter Twelve—Efficiency, Resilience, and Money);
- insights regarding what constitutes economic vitality, and its relationship to accepted notions of economic growth (Chapter Thirteen—Sustainable Development);
- two of the most ubiquitous complementary currencies in use today (Chapter Fourteen—LETS and Time Dollars);
- currency designs to help address specific social concerns (Chapter Fifteen—Social-Purpose Currencies);
- currency designs to help meet the needs of business, especially small and medium-sized enterprises (Chapter Sixteen—Commercial-Purpose Currencies);
- a global reference currency design that addresses many of the limitations inherent in today’s international environment (Chapter Seventeen—The Terra, a Trade Reference Currency);
- the likely consequences of addressing societal conditions within the framework of the existing bank-debt monetary paradigm (Chapter Eighteen—Two Worlds).

In Part III—The Mystery of Money—we explore the profound relationship between money and the human psyche. The topics examined include:

- patterns of emotions and actions that can be observed across time and cultures (Chapter Nineteen—Archetypes);
- a fundamental archetype and its deep-rooted relationship to money (Chapter Twenty—The Missing Archetype and Money);
- the long and systematic repression of this same archetype (Chapter Twenty One—Repression of an Archetype);
- the manner in which repressed psychic energies manifest (Chapter

Twenty Two—Shadows);

- the link between collective psychology, Taoism, and money systems (Chapter Twenty Three—Money and the Tao);
- the impact of the current monetary paradigm on society (Chapter Twenty Four—Consequences of Repression).

In Part IV—Money, Archetypes, and Past Ages—we explore the monetary systems, archetypal constellations, and general conditions of several notable civilizations down through history. The topics examined include:

- medieval Western Europe viewed from an archetypal perspective (Chapter Twenty Five—Central Middle Ages Revisited);
- an historical civilization whose unusual prosperity spanned more than 2,000 years (Chapter Twenty Six—Dynastic Egypt);
- Dynastic Egypt from an archetypal perspective (Chapter Twenty Seven—Dynastic Egypt Revisited);
- the particular monetary and archetypal characteristics of an unusual culture that has endured for more than 1,000 years and continues to this day (Chapter Twenty Eight—The Balinese Exception);
- a review of the findings and key conclusions of this work, and an invitation to continue our exploration of money online (Chapter Twenty Nine—Invitation to a New World).
- the vital role of monetary amendments as part of an ongoing process of societal maturation (Chapter Thirty—The Dynamics of Transformation and Money). This bonus chapter and additional supporting materials are available online at our companions websites:

<http://www.newmoneyforanewworld.com>

and

<http://www.lietaer.com>

A number of chapters contain inserts that, while not essential to the argument at hand, offer supplementary information that may be of interest to the reader.

CHAPTER SIX - Back to the Future

The icons of old are the coding of tomorrow.

And tomorrow holds the promise of recovery of forgotten wisdom.

~JEAN HOUSTON

Historical evidence informs all our social, cultural and economic knowledge. In economics, however, it is only very recent data that tends to be considered, based on the assumption that experiences from past ages are not relevant to contemporary economic issues. Yet, our banking and monetary systems have remained fundamentally unchanged for centuries. Failure to examine the more distant past prior to the inception of the current paradigm risks overlooking potential insights useful for today.

One historical period of particular relevance is explored herein.

THE CENTRAL MIDDLE AGES

Once upon a time, there existed an age blessed by an uncommon prosperity that enriched each segment of society. There was work for all, with favorable working conditions and abundant time for family, community, and personal pursuits. This epoch was also characterized by significant advancements in science, technology, education, literature, music, arts, craftsmanship, and more. Its ethics included cooperation, an unusual civic pride, and long-term thinking. The many unusual traits of this period culminated as well in the creation of some of the most beautiful and enduring public works the world has ever known.

Though seemingly like some fairy tale, this age not only existed, but endured for centuries. It flourished in the very same region from where our current monetary and banking systems originated—Western Europe. It came into being, however, long before the advent of our present monetary paradigm and the modern era. A millennium hence, this bygone age offers unique lessons for us today.

The Middle (or “Medieval”) Ages were so named because this time period was the expanse of European history in the “middle” of the high civilizations of Rome (ending in the mid-400s CE) and the Renaissance (beginning in the late 1400s). This entire epoch is also commonly referred to as the “Dark Ages,” as popular belief regards this period as one of dismal poverty and primitive lifestyles, crowned by the horrific plague. The term medieval is still used today as a derisory label to dismiss something as hopelessly primitive.

Many of the opinions regarding this age, however, date back to 19th century assertions, which have since been proven to be incomplete or entirely mistaken. The Middle Ages spanned more than 1,000 years. Recent scholarship has unveiled key distinctions regarding what transpired over this long expanse of history.

A dismal view certainly remains justified for the epoch following the collapse of the Roman Empire—the Early Middle Ages (5th–8th centuries)—and is much more accurately descriptive still of the dramatic closing medieval centuries. It is in fact the particularly appalling Late Middle Ages

(14th–15th centuries) that provided much of the fuel for the dark image that future generations would project, inaccurately, onto the vast entirety of the medieval millennium.

There were, however, two and one-half centuries during the medieval epoch when something quite different took place. This middle period is the “Central Middle Ages.”

Highlights of the Central Middle Ages

Toward the middle of the 10th century, a marked shift in consciousness paralleled dramatic economic improvements in many areas of Western Europe. The progress spanning 1040–1290 is noted by medieval scholars as the “First Modernization,” the “European Takeoff,” and the “True European Renaissance.” Between 1180–1230, for instance, the first wave of universities was founded in Europe.⁹¹ Abstract sciences, such as mathematics, once thought to have developed in the official Renaissance of the 16th century, occurred instead centuries earlier during this period.⁹²

The Central Middle Ages were also characterized by a most unusual prosperity.

Prosperity for All

The prosperity of this era was quite unusual not only in quantitative terms, but also by the extent to which it benefited the general populace. A number of contemporary medievalist historians report that the quality of life for ordinary people in the 12th century may very well have been the highest in all of European history, comparing favorably in important respects even to present-day conditions. Workers, for example, seldom had fewer than four courses at lunch or dinner and enjoyed three or even four meals a day. Daily caloric intakes, estimated at 3000 calories in developed countries today, was instead 3500–4000 calories in the Central Middle Ages.⁹³

Working hours were limited as well. When the dukes of Saxony tried to extend the workday from six hours to eight, workers in the region rebelled. Sunday was the “Day of the Lord” and the appointed day for public matters, while the so-called “Blue Monday” was designated as a free day, set aside for the general public to attend to their private affairs. In addition, there were at least 90 official holidays annually. In some regions, there may have been as many as 170 holidays in a single year!

In addition to favorable working conditions, the working class also enjoyed a remarkable level of economic independence. As medieval economic historian Guy Bois explains: “In the agricultural sector, for the first time the

small landowners as a group become much more productive than the Seigniorial holdings. In short, Europe becomes more and more a world of small producers with the family unit as its fundamental engine.”⁹⁴

A number of medieval historians offer testimony to the expansion and improvement that took place in virtually every dimension of Central medieval society. Medievalist Marcel Bloch claims that increased private ownership is accompanied by “the largest increase in cultivated agricultural land in the entire span of the historical record.”⁹⁵ Guy Fourquin reports: “not only did the land available expand, but also the average yields more than doubled in most cases.”⁹⁶ F. Icher writes: “Between the 11th and 13th century, the Western world experiences a high level of prosperity that is reflected concretely by a demographic expansion without precedent in history.”⁹⁷ Between 1000 and 1300, Europe’s population is generally estimated to have increased an unprecedented twofold, one expression of the increased capacity to feed and maintain the population. Moreover, as Guy Bois writes, “Growth isn’t limited to a demographic explosion combined with a strong agricultural expansion. A flourishing commercial expansion was its third dimension.”⁹⁸

Medievalist Jean-Pierre Bayard reports that, “ordinary life is revolutionized: coal is used for heating, candles for lighting, eyeglasses for reading, glass is used more and more commonly, paper is manufactured on an industrial scale.”⁹⁹ Robert L. Reynolds writes, “[There is] a growing manufacture of textiles, pottery, leather goods, and many other things. The products get better and better. Prices go down in terms of man hours because of more efficient management, improvement in tools and machinery, and better transport and distribution.”¹⁰⁰ According to medievalist R. Phillippe, at the beginning of the 12th century there were in operation in France alone no fewer than “20,000 water mills, which represented the energy of 600,000 workers. Such technologies liberated massive amounts of labor.”¹⁰¹

Urbanization, previously thought to take off with the Industrial Revolution of the 1700s, began during the Central medieval period. Frances and Joseph Gies write, “Europe was turning from a developing into a developed region. The growth of industry meant the growth of cities, which in the 12th and 13th centuries began to abandon their old roles of military headquarters and administrative centers as they filled with the life of commerce and

industry.”¹⁰² Robert Lacey and Danny Danzinger report that “Warwick, Stafford, Buckingham, Oxford—most of the county towns of modern England originated in the tenth century.”¹⁰³

Guy Bois summarizes:

One can only be impressed by the extraordinary vitality and power of the changes that occurred during those three centuries. Whether one considers the demography, the urbanization, the techniques, the relationships between labor and money, every one of these aspects of society was completely revolutionized...One will have to wait five hundred years to live another wave of transformation of that scale: the capitalist Industrial Revolution.¹⁰⁴

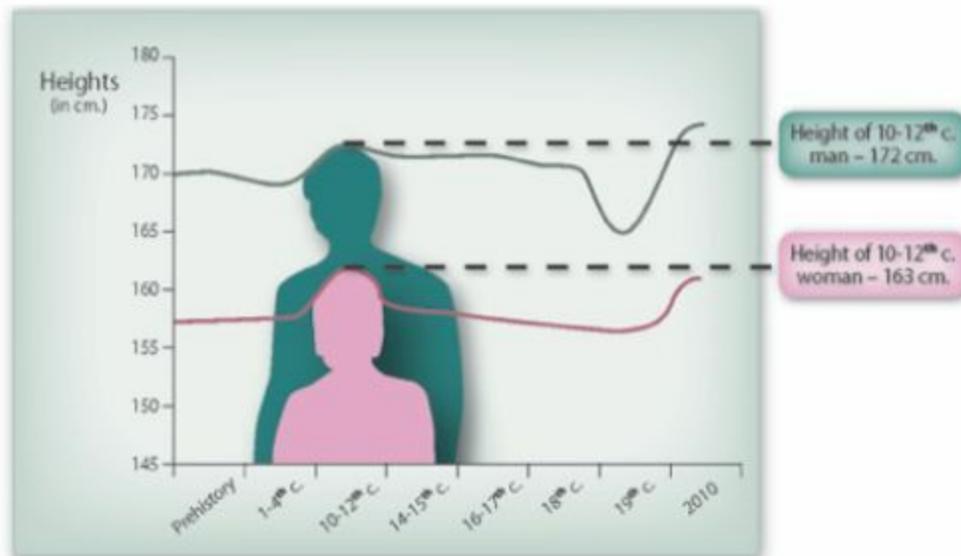


Figure 6.1 – Heights of Londoners, prehistory to present-day

Heights

Confirmation of the unusual prosperity of this age comes in an equally unusual form of physical evidence: bodily remains.

It is well known that today’s generation is substantially taller than the previous one—better nutrition and care, particularly in youth, is credited with this process. In a study of the skeletons of bodies in the same geographical

area—London—informative findings emerged. The women of London were taller on average during the 10th–12th centuries than any other period in recorded history, measuring a whopping 7 centimeters taller than her Victorian counterpart and even 1 centimeter taller than today! Regarding males, it is only within the past fifty years that they have caught up to and, by 1998, finally outgrown their medieval counterparts, by a mere two centimeters (see Figure 6.1).¹⁰⁵

The increased height of Londoners of the Central medieval period appears to reflect the greater quality of life for men and women of that epoch.

Age of Cathedrals

This medieval epoch has also been referred to as the “Age of Cathedrals,”¹⁰⁶ as nearly all of the cathedrals of Europe were built at this time. Historian Satcheverell Sitwell writes, “It was the greatest period of building activity that there has ever been, and no mere catalogue of names and places can convey any idea of the strength and quality of its products.”¹⁰⁷

It is estimated that by 1300 CE there were almost 1,000 cathedrals in Western Europe, alongside 350,000 churches and several thousand large abbey foundations. Yet, the total population back then is estimated at only 70 million, which calculates to an average of one Christian place of worship for every 200 inhabitants. The ratio was even higher in parts of Hungary and Italy: one church for every 100 inhabitants!¹⁰⁸

This medieval building phenomenon is more remarkable still given that there was no central authority, church or otherwise, in charge of initiating or funding the construction of these cathedrals. Contrary to popular belief today, these structures were neither built by nor belonged to the church or nobility.¹⁰⁹ Local nobility and royalty customarily did make contributions, but these monuments were typically owned and financed by the citizens of the municipalities where they were built.¹¹⁰

The cathedrals embody some of the most beautiful gifts of Western history. These monuments stand as a strong statement of faith, ingenuity, and generosity. From a narrower economic viewpoint, they also offered a viable long-term income strategy for the community (see insert).

Cathedrals: an Investment Forever

Besides their symbolic and religious roles, the cathedrals served another key function. Attracting currency into a community has clear economic advantages, as those living in proximity to today's tourist attractions such as Disney World will confirm. In medieval times, this was realized by attracting pilgrims, who played a similar economic role to that of today's tourists. A proven way to draw pilgrims was to build the most accommodating and spectacular cathedral in the area, which may help explain why medieval communities built cathedrals that could house two to four times their own population.

Additionally, these cathedrals, which were built to last forever, created cash flow not only for the population of the time, but for many future generations. The bulk of the businesses in Chartres, France, for example, still thrive today from tourists coming to visit its medieval cathedral 800 years after its construction.

Few medievalists today doubt the extraordinary economic and building boom of the Central Middle Ages. One fundamental matter, however, remains unresolved: "The medieval blossoming has been described many times in its manifestations, its chronology, and its many facets, but never explained. Its mechanism remains an enigma."¹¹¹

The economic mechanism that justified the remarkable blossoming of that period remains unclear. Where did the resources come from to fund hundreds of building projects on the scale of cathedrals? Faith and devotion alone cannot explain this construction any more than they can explain the remarkable prosperity of the ordinary people.

One medieval feature has, however, gone almost entirely overlooked—the monetary system. This previously ignored element may help explain the peculiar dynamics of that period.

The Invisible Engine

Two different types of currencies functioned in parallel to one another throughout much of Western Europe during the Central Middle Ages. One

type of currency consisted of centralized royal coinage, with many features in common with present-day national currencies. Its usage was primarily for long-distance trading and for the purchase of luxury goods. The second type of currency consisted of an extensive network of different local currencies, used primarily for community exchanges.

Many of the local currencies had a very peculiar feature—a *demurrage* charge. Similar to a negative interest on money, the demurrage feature functions like a parking fee, which is levied for holding onto the currency for too long without spending it.

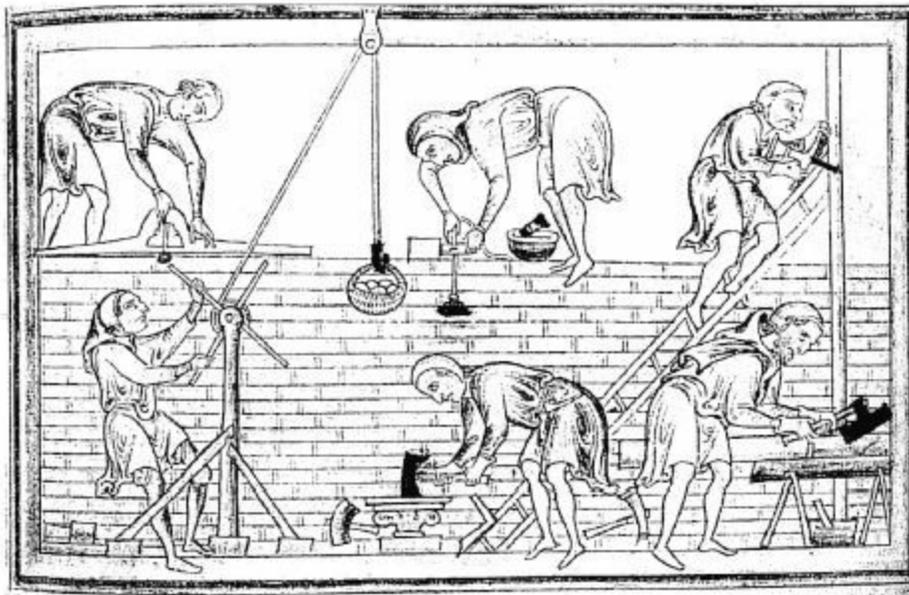
The demurrage was implemented through a general recoinage practice, enacted during the transfer of power to a new lord, usually due to the death of one's predecessor. As a rule, four old coins were handed in and exchanged for three new ones, each with the same individual value of the coins that they replaced. This tradition, called "renovatio monetae," amounted to a 25 percent tax payable by anyone in possession of dated coins at the time of recall. The uncertainty about the duration of a lord's life (and thus, the functional lifespan of the currencies) acted as an incentive for users to spend or invest rather than save such coins.

In technical terms, when demurrage is applied, money continues to function as a "medium of exchange" but no longer serves as a "store of value," that is, something worth hoarding. Though saving was very much encouraged, it was not done by storing currency, but took the form of productive assets. Examples of such investments were land improvements or high-quality maintenance of equipment such as water wheels and windmills, or enduring investments in the community such as the cathedrals. The specifics of how demurrage was applied differed from region to region, but generally speaking, provided a built-in incentive to invest in this way.

Written records from the period offer testimony to the benefits of this kind of savings. A significant number of mills, ovens, winepresses, and other heavy equipment were improved upon or even completely rebuilt each year. "They did not wait until anything was breaking down...On average, at least ten percent of all gross revenue was immediately reinvested in equipment maintenance."¹¹² No other period since then has encouraged such intensive preventive maintenance.

In effect, a pattern of longer-term investments became the norm rather than the exception. For those with demurrage currency to spare, investing in the cathedrals was likely an ideal way of demonstrating one's faith while also providing benefits for the community. The medieval cathedrals, still standing today and continuing to receive visitors from around the world, are enduring testimonies to the long-term vision of that former age.

Demurrage-charged complementary currencies also help to explain the particular Central medieval economy. Given that savings were inherently discouraged by demurrage, these currencies would remain in circulation and were exchanged with far greater frequency at all levels of society, in contrast to other forms of money. The greater velocity of circulation (a higher frequency of transactions with the same given coin) enabled the less-privileged classes to engage in substantially more transactions, which significantly improved their standard of living.



Medieval stone masons in action, using a variety of tools: a windlass with radiating spokes, a plumb line, a level, axes, and an adze. Jean Gimpel estimates that in less than three centuries millions of tons of stone were extracted in France alone, more than in Egypt over its entire history of more than three thousand years (notwithstanding that the Great Pyramid of Gizeh represents 2.5 million cubic meter of stone by itself).

THE END OF AN AGE

This Golden Age came to a brutal end at the closing of the 13th century. The plague, otherwise known as the Black Death, is customarily blamed for causing the misery that subsequently befell Europe. Recent findings tell another tale.

Though usually cited as the cause of the later medieval horrors, the outbreak of the plague did not occur until 1347–1349. Yet, the population started plummeting two generations beforehand. Mostly overlooked is the fact that the Black Death was preceded by decades of economic and social devastation.

A major economic crash occurred during the period of 1280–95. A majority of the population, urban as well as rural, ended up being reduced to living at subsistence levels in the last decade of the 1200s. The economic downturn was then followed by widespread famines, epidemics, and extensive loss of life from 1300 onwards, decades prior to the outbreak of the deadly pestilence. From 1315–1322, the noted Great Famine took place. Historian Henry S. Lucas estimates that hunger killed ten percent of Europe's population.¹¹³

Accounts from the period describe the severity of conditions: “So many men and women died every single day from all social classes—wealthy, middle class and poor—that the priests couldn't bury them fast enough, so that the stench in the air was everywhere.”¹¹⁴ A London chronicle reported that, “the poor people ate for hunger cats and horses and dogs...Some stole children and ate them.”¹¹⁵

Again, all these events took place decades before the first outbreak of the plague. Historian Daniel Power writes, “One needs, I believe, a lot of blindness to describe the outbreak of the Black Death as an accidental and exogenous event. Isn't it most surprising that this disaster happened only after 60 or 70 years of total misery?”¹¹⁶

It is now known that more than a half century prior to the plague, disastrous monetary changes were implemented.

Political and Monetary Changes

A historic power shift occurred in Western Europe during the 13th century, whereby the doctrine of “King by Divine Right” was taken to its extreme. Local governments and administrations were overrun by strong, rapidly growing central authorities with commanding kingdoms and large armies. The dual currency system was abolished and replaced by the imposition of a monopoly of royal coinage. King Louis IX of France specified that only royal mints had the right to issue coins in the realm.

Though it would take several decades, the elimination of local currencies eventually became sufficient for the monetary contraction to have an overall economic impact.

The final kiss of death to the “good” monetary period in Central medieval France came in 1294–98 when, in preparation for war, King Philip IV, resorted to the *debasement* of royal money to meet his urgent income requirements. Debasement is a process in which the precious metal content of a coin is significantly reduced. By taking this expedient debasement road, and by doing so on a huge scale, Philip IV set into motion severe inflation and economic disaster.

In practical terms, these monetary changes of centralization and debasement resulted in a double economic hit—monetary contraction followed by inflation. With the abolition of the local currencies, there was now complete dependency on the official, centrally issued coinage. The debasement in the late 1290s resulted in massive inflation. Existing contracts or monetary agreements became, in effect, meaningless. A modern parallel would be the Great Depression of the 1930s, in which the money supply shrank, followed immediately by hyperinflation, as occurred in 1920s Germany and in 1970s Brazil.

The medieval economic crisis led to a general societal breakdown and decades of famine and death. The physical weakening of the population was sufficiently extensive to render conditions ripe for the plague to become one of the worst pandemics in all of history. The Late Middle Ages that followed were indeed dark.

As Guy Bois explains: “This depression would be a long one—it would last one and a half centuries; it would be painful to a degree that we still have difficulty imagining. No aspect of social life would be protected from this collapse.”[117](#)

Although a few local currencies managed to survive until the 18th century, the medieval experiment with complementary currencies would not be repeated on such a scale. Complementary currencies never again reached the critical mass needed to significantly impact the standard of living of Western society.

Twice and Thrice Upon A time

Support for the role played by monetary paradigm in the realization of this Golden Age, as well as its demise, is offered by a nearly identical scenario found in another ancient civilization—Dynastic Egypt.

Egypt enjoyed one of the highest standards of living of the ancient world. Its economy afforded Egypt the capacity to be the first known civilization to offer assistance in the form of foreign aid to other societies. Like its medieval counterpart, Egypt had a dual monetary system, with long-distance currencies much like our own national currencies, together with demurrage-charged local currencies that enabled local exchanges among the working classes. Unlike the Central Middle Ages, however, Egypt's economy and dual monetary system endured not hundreds but thousands of years. The end of this age, like that of medieval Western Europe, coincided with the introduction of a currency system similar to today's national currencies, which was imposed on the Egyptians by the conquering Romans.

Another example of an unusual economy and monetary system that dates back to the medieval period, but which continues in part to this very day, is found in Bali. Though its monetary system has undergone changes in recent decades, Bali maintains at least some of the traits found in Central medieval Europe and Dynastic Egypt. The economies, monetary systems, and societal conditions of Bali, the Central Middle Ages and Dynastic Egypt offer important insights about how we might improve conditions in our world today, and are therefore the subject of further investigation in Part IV of this book.

CLOSING THOUGHTS

The complementary currencies of the Central Middle Ages came and went without any awareness of their role in shaping the investment patterns that created a Golden Age. Yet, when local currencies disappeared, cathedral building also stopped. What changed? It wasn't people's faith: there is no evidence that Europeans were less devout in the 14th century than in the 12th.

In this light, the Central Middle Ages revealed two important characteristics of money: its value-nonneutrality and its potential for addressing large-scale social issues. It is only a millennium after the fact that are we beginning to understand how local currencies, particularly those using demurrage, induced long-term investment and cooperative behavior patterns that benefited both the local economy and the entire population, regardless of socioeconomic levels.

- (1986) in John H. Hotson, *The Comer Papers* (Ontario, Canada: 1987), p. 1.
10. ⁸³ Andrew Lowd, in his thesis, “Alternative Currencies in Theory and Practice.”
 11. ⁸⁴ Pierre Thuillier, “Darwin Chez les Samourai,” *La Recherche*, no. 181 (1986), p. 1276-80.
 12. ⁸⁵ Elisabet Sahtouris, *Earth Dance: Living Systems in Evolution* (Alameda: Metalog Books, 1996).
 13. ⁸⁶ David Loye, personal email to Stephen Belgin (2005).
 14. ⁸⁷ David Loye, personal email to Stephen Belgin (2005).
 15. ⁸⁸ David Loye, personal email to Stephen Belgin (2005).
 16. ⁸⁹ Margrit Kennedy, et.al., *Interest and Inflation Free Money: Creating an Exchange Medium that Works for Everybody and Protects the Earth* (Okemos: Sava International, 1995), p. 26.
 17. ⁹⁰ Ian Dew-Becker and Robert J. Gordon, “Where Did the Productivity Growth Go? Inflation Dynamics and the Distribution of Income,” paper presented at the 81st meeting of the Brookings Panel on Economic Activity (Washington, D.C. 8-9 September 2005). <<http://www.brookings.edu>>

CHAPTER SIX - Back to the Future

1. ⁹¹ All three labels describing this period are quoted from Guy Bois, *La Grande Dépression Médiévale – le XIV–XVeme siècle: le Précédent d’une crise systémique* (Paris: PUF, 2000),

p. 11.

2. ⁹² Eva Matthews Sanford, “The Twelfth Century—Renaissance or Proto-Renaissance?” *Speculum* 26 (1951), p. 635-42. See also: Warren Hollister, ed., *The Twelfth Century Renaissance* (New York: John Wiley & Sons, 1969); Charles Young, ed., *The Twelfth Century Renaissance* (Melbourne, FL: Krieger Publishing Company, 1977); Chris Ferguson, *Europe in Transition: A Select, Annotated Bibliography of the Twelfth-Century Renaissance* (New York, London: Taylor & Francis, 1987); Jacques Verger, *La Renaissance du XIIIe Siècle* (Paris: Editions du Cerf, 1996).
3. ⁹³ Robert Delort, *La Vie au Moyen Age* (Lausanne: Editta, 1982), p. 45.
4. ⁹⁴ Bois, *La Grande Dépression*, p. 16.
5. ⁹⁵ Marcel Bloch quoted in Bois, *La Grande Dépression*, p. 15.

⁹⁶ Guy Fourquin, *Histoire Economique de l'Occident Medieval* (Paris: Armand Collin, 1969), p. 215.

1. ⁹⁷ Francois Icher, *Les Oeuvriers des Cathédrales* (Paris: Editions de la Martinière, 1998), p. 20.
2. ⁹⁸ Bois, *La Grande Dépression*, p. 21.
3. ⁹⁹ Bayard, *La Tradition Cachee*, p. 42.

¹⁰⁰ Robert L. Reynolds, *Europe Emerges: Transition Toward an Industrial Worldwide Society, 600-1750* (Madison: University of

Wisconsin Press, 1967), p.185-6

1. [101](#) R. Philippe, *L'Énergie au Moyen Age: L'Exemple des Pays d'Entre Seine et Loire de la fin du XIeme Siècle a la fin du XVeme Siècle* (Paris: 1982).
2. [102](#) Frances and Joseph Gies, *Cathedral, Forges and Waterwheel: Technology and Invention in the Middle Ages* (New York: Harper Perennial, 1995), p. 107.
3. [103](#) Robert Lacey and Danny Danzinger, *The Year 1000: What life was like at the turn of the first Millennium* (London: Little Brown & Co., 1999), p. 87.
4. [104](#) Bois, *La Grande Dépression*, p. 52.
5. [105](#) Alex Werner, ed., *London Bodies: The Changing Shape of Londoners from Prehistoric Times to the Present Day* (London: Museum of London, 1998), p. 108. The sizes of the bodies are based on bone lengths and are therefore subject to error. "But where large samples are involved as here, the error is a constant that can be ignored for the purposes of comparison."
6. [106](#) See for instance, Georges Duby, *Europe des Cathédrales: 1140-1290* (Geneva: Skira, 1966).
7. [107](#) Sacheverell Sitwell, *The Gothick North: A Study of Medieval Life, Art, and Thought* (Boston: Houghton Mifflin, 1929).
8. [108](#) Delort, *La vie au Moyen Age*, p. 211-2.

9. [109](#) H. Kraus, *A Prix d'Or: le Financement des Cathédrales* (Paris: Cerf, 1991). It should be noted that abbeys do not fit into this general rule: they were built and owned by the order that lived there. The bulk of the financing for the abbeys came from donations of land or other endowments by nobility.
10. [110](#) Barbara Schock-Werner, "Le Chantier de la Cathédrale de Strasbourg," *Chantiers Médiévaux* (Editions du Zodiaque, DDB, 1995). The funding for each cathedral was by a special legal and financially-independent institution, called "la Maison de l'Oeuvre Notre Dame." One of the most complete records relates to the cathedral of Strasbourg in Alsace, France. In 1206, the Oeuvre Notre Dame at Strasbourg consisted of a committee of citizens, including the local Bishop. However, from 1230 onwards the role of the Bishop and clergy dropped to the point that after 1262, the Bishop was completely excluded from the committee. In 1290, "L'Oeuvre Notre Dame" became an official municipal function. It has remained so to this day, with a brief exception after the French Revolution (1789 to 1803), when it was controlled by the French State ("Régie des Domaines").
11. [111](#) Bois, *La Grande Dépression*, p. 11.
12. [112](#) Fourquin, *Histoire Économique de l'Occident Médiéval*, p. 192.
13. [113](#) Henry S. Lucas, "The Great European Famine of 1315-1316," *Speculum* 5, no. 4 (1930), p. 343-77
14. [114](#) Chronicle of Gilles Le Muisit, abbot of Saint-Martin de Tournai (1272-1352) in *Textes et documents d'histoire du Moyen Age, XIVe-XVe siècles*, tome 1, S.E.D.E.S. (Paris:

1970), p 8-9. See also: R. Fossier, *Le Moyen Age, le temps des crises (1250-1520)* (Paris, 1997). A. Colin and Jean Delumeau, *Les malheurs des temps. Histoire des fléaux et des calamités en France* (Paris: Larousse, 1987).

15. [115](#) Lucas, “The Great European Famine of 1315-1316,” *Speculum* 5, no. 4 (1930), p. 343-77.
16. [116](#) Daniel Power, ed., *The Central Middle Ages* (Oxford University Press, 2006), p. 60.
17. [117](#) Bois, *La Grande Dépression*, p. 93-4.

CHAPTER SEVEN - A Change of View

1. [118](#) The late medieval social order was constituted by God’s Three Estates, in which the Church, nobility, and masses were each to serve one another to the benefit of all. According to historian Barbara Tuchman, “The clergy was to pray for all men, the knights to fight for them, and the commoner worked that all might eat.” This plan derived from the early Christian notion of mankind’s fall from an original state of grace.
2. [119](#) The concentration of wealth took several centuries to be established and all its effects were not negative. For instance, patronage by the elite gave birth to what became later known as the Renaissance.
3. [120](#) From the writings of early church father [St. Augustine of Hippo](#).
4. [121](#) The French Philosopher [Alexandre Koyré](#) coined the term and definition of “The Scientific Revolution” in 1939, which is often dated as having begun in [1543](#), the year in which [Nicolaus Copernicus](#) published his [De revolutionibus orbium coelestium](#) (On the Revolutions of the Heavenly Spheres), and