

The Gutenberg Revolution

*A History
of Print
Culture*



Richard Abel

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Revolution



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 Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2011 by Transaction Publishers

Published 2017 by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN
711 Third Avenue, New York, NY 10017, USA

Routledge is an imprint of the Taylor & Francis Group, an informa business

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Library of Congress Catalog Number: 2010045632

Library of Congress Cataloging-in-Publication Data

Abel, Richard, 1925–

The Gutenberg revolution : history of print culture / Richard Abel.
pages cm.

Includes bibliographical references and index.

ISBN 978-1-4128-1857-5 (acid-free paper)

1. Printing—Europe—History—Origin and antecedents.
 2. Printing—Europe—History—16th century.
 3. Printing—Europe—History—17th century.
 4. Printing—Western countries—History.
 5. Europe—Intellectual life.
 6. Civilization, Western—History.
- I. Title.

Z124.A519 2011
002.094—dc22

2010045632

ISBN 13: 978-1-4128-1857-5 (hbk)

ISBN 13: 978-1-4128-4952-4 (pbk)

This book is dedicated to the three ladies in my life.



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Contents

Introduction	ix
1 A Brief Account of the History of the Culture of the West to 1450	1
2 Gutenberg's Printing Revolution and the Cultural Revolution of the Last Half of the Fifteenth Century	23
3 The Spread of Printing and Its Consequences in the Sixteenth Century	75
4 The Cultural Triumph of the Seventeenth Century and the Role of Print Therein	127
5 Epilogue: Closing Remarks and Summary	161
Bibliography	171
Index	185



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Introduction

Books are not absolutely dead things but doe contain a potencie of life in them to be as active as the soule was whose progeny they are: nay they do preserve in a violl of the purest efficacie and extraction of that living intellect that bred them.

—John Milton, *The Areopagitica*

Never since the sun has stood in the firmament and the planets revolved around him had it been perceived that man's existence centers in his head, i. e. in Thought, inspired by which he builds up the world of reality.

—Georg W.F. Hegel, *The Philosophy of History*

One of the most puzzling lapses in the historical accounts of the rise of the West from a state of relative backwardness in the near millennium following the decline of the Western Roman Empire in the fourth to fifth AD period to that of a remarkably robust cultural achievement by the fifteenth to sixteenth century is the casual way in which historians have dealt the grave epistemological problem in the West and Gutenberg's invention of printing. The cultural achievement which was in the centuries following the fifteenth century came to be the cultural configuration of not just the West but of much of the rest of the world is an unimaginable absent Gutenberg's gift and its subsequent widespread adoption across most of the world. By the fourth or fifth century, the major implications of the new religious order of Christianity had been debated and resolved. So the cultural vitality inherent in the required intellectual effort had been largely exhausted. But no substantial body of new ideas had been introduced to foster further explorations dedicated to the search for the good and the true. It was only with the coming of the printed book and the resultant wide dissemination of an advanced ideational hypothesis that the idea generation in the West took wings.

Virtually, every historian of any stature writing of the Renaissance and/or the centuries following merely mentions the printed book in passing as one of the three notable inventions of the fifteenth century. The printed codex is simply lumped with the two other major fifteenth-century inventions of the compass (actually the invention of the compass

card providing minute directional headings) and gunpowder. Galileo so lumped these three innovations together. Since then, historians and history of ideas writers have almost universally repeated Galileo's formulation. The blind Milton, in his defense of the freedom of the press at the time of the English Revolution, was one of only a few to recognize the crucial importance of the immense and powerful knowledge engine of cultural generation that Gutenberg brought into being.

It almost would seem that the advent of the first examples of the cultural power of multiple identical copies of the same book text made possible by the introduction of the integrated technology of type, the press, and the printing on vellum, parchment, or paper coupled with the widespread dissemination thereof would offer a "red flag" achievement to historians. The historians who so blithely whisk by this radical improvement in the means of hammering out and passing knowledge from one mind to a number of other minds, by contrast, have almost universally commented upon the continuing intellectual and cultural distortions engendered by the errors in and a variety of other linguistic and orthographic eccentricities common to handwritten manuscripts. A significant number of these historians have dwelt in greater or lesser length upon the often-marked differences in the texts of the manuscript copies of the principal texts used across Europe for a millennium and a half—the Bible, Psalters, or the divergent conduct of the mass throughout Christendom resulting from scribal error in their copying. Yet it seems that Milton was one of the few prepared to give the cultural impact of the stable content of the printed book its due in correcting these shortcomings and in accelerating cultural accumulation. Nicholas of Cusa, one of the leading intellects of the mid-fifteenth century, a cardinal, and the papal legate for the transalpine churches, was much aware of these differences of meaning in the liturgical literature and the resultant departures from a common understanding arising out of the multiple errors of transcription and was likely a keen proponent of Gutenberg's invention.

In the same way, students of the Middle Ages all draw attention to the slow, spasmodic evolution of thought and practice in the period from the fifth to the fifteenth century. They also address the paucity of manuscripts and the meager collections of manuscript books in the monastic libraries and those of a few of the kings or occasional noblemen—five hundred to perhaps more than two thousand in the Vatican library at its best. The medievalists frequently comment, some at length, on the repetitive or arid character of most of the intellectual writings of this near millennium. All also expiate on the obstacles to passing the cultural inheritance on

with so few texts and all of them more or less flawed. But few, if any, note the sudden introduction of printed books in multiple copies marking the latter half of the fifteenth century and the “sudden” upsurge in the generation and testing of ideas in these comparatively few years of this and the following century.

The first serious historian to note and comment upon the cultural nodal point of the fifteenth century and its remarkable transition was Elizabeth Eisenstein in her genuinely magisterial book, *The Printing Press as an Agent of Change* (1980). In this massive study, Eisenstein traces this sudden acceleration in the generation and exchange of ideas and some of the many consequences flowing therefrom. But in the standard exercise of academic modesty, she characterizes the invention of printing simply as a historical change agent, not as a technological invention that radically transformed the evolution of the culture of the West—more radically perhaps than did the invention of the steam engine or other technological innovations of the nineteenth century repeatedly but rightly celebrated by historians and writers on the history of ideas and technology. The technological invention and cultural impact of printing warrant a higher place and greater celebration in the history of the West and in the history of ideas than simply as an agent of change. It was surely the latter, but it was of much greater import in the history of Western and world cultural history than simply a change agent. It was a radical resolution of the epistemological problem that had dogged the West for a millennium. It marked not the opening of a new chapter but the opening of an entirely new volume in the history of first the West and later the world. Now this new cultural volume must realistically be viewed in its opening chapters as the third volume in the cultural history of the West, the first volume being the history of the founding and growth of the Judeo-Christian religious tradition and the second being the Greek and Roman classical traditions and practices. These two major cultural traditions did not dry up and blow away but remained as fundamental lineaments of the culture of the West to be augmented, in time, by the cultural accumulations generated in the late medieval times and sharply accelerated from the mid-fifteenth forward.

So the aim of this volume is simply to endeavor to clearly delineate the mechanism undergirding the epistemological revolution wrought by the fifteenth-century invention of printing and to trace the resultant rapid reorientation and acceleration of the evolution of the culture of the West. So extensive and vast were the cultural consequences of Gutenberg’s gift that only the principal lineaments thereof can be identified in this writing.

Further, there are effects that have not yet played themselves out so are not yet sufficiently evident to assess. In a genuine sense, this writing is but a prologue to what the writer hopes will be a growing concern with and investigation of the cultural consequences of the printing revolution and their evolution.

The author is manifestly indebted to Elizabeth Eisenstein for opening so wide the view of the place of printing in the history of the West and the history of ideas. Absent her remarkable historical insight, this writing could hardly be. In something of the same sense, the violls of John Milton noted above were of greater insight and understanding than were the appraisals of other early commentators who saw fit to merely lump the invention of printing with the invention of the compass and gunpowder.

It is necessary to briefly limn out the background formed in earlier centuries to clearly understand the radical cultural impact of the fifteenth-century printing revolution. The eighth-century Carolingian Renaissance and the Twelfth-Century Renaissance gave notice of the viability of the new Christian/classical culture of the West. However, both renaissances proved too culturally fragile in the face of adversity to endure in a sustained way. The cultural salvagers of those two renaissances preserved much of the extant classical substance together with that of the Bible and the writings of the church fathers. But the ideational infrastructure needed to support a vital cultural evolution could little withstand the mishaps and misfortunes ever present in the human condition. The picture of those two renaissances and their collapse are dealt with in broad strokes in the first chapter. The cultural upsurge of the Renaissance, resulting in part from Gutenberg's invention, occupies the remaining chapters.

Shortly after completing the manuscript for this book, directed to tracing the cultural renewal of the West fostered by Gutenberg's invention of printing and the printed book, one of the leading scholarly publishers in the United States published a series of essays reflecting upon the dilemmas and difficulties faced by today's serious publisher seeking to maintain the best in book publishing. *This book is a useful reminder by a contemporary publisher of the realities faced by modern publishers of books of substance in advancing the ongoing cultural odyssey of advancing the search for truth and good.

*See Irving Louis Horowitz, *Publishing as a Vocation*, Transaction Publishers, 2010.

1

A Brief Account of the History of the Culture of the West to 1450

Ideas never die: they are ageless and always ready to revive in the minds which need them, just as ancient seeds can germinate when they find a fertile soil.

—Etienne Gilson, *History of Christian Philosophy in the Middle Ages*

The period in Europe from no later than the end of the reign of Justinian the Great in the sixth century, the Roman Empire in the West came to its end. It was brought down by the various wandering tribes from the North and the East that overrode most of the continent as well as North Africa despite the empire's growingly desperate two-century struggle to survive. The fall of the Roman Empire was a genuine cultural cataclysm in the West. How could have such a millennial-old power encompassing most of the world known to Europe been brought to its knees? Of even more acute disquiet was the parallel loss of the quite impressive cultural structure that had been constructed by the Greeks and preserved/embellished by the Romans. Yet much of this structure was lost or massively corrupted within not more than two centuries. This debacle lent substantial credence to the observation that it is always harder and more time-consuming to create than to destroy. Further, the slow creation of viable ideas and their implementation can only arise when there is a body of ideas that other minds can employ as the flints of thought against which the iron of creativity can be struck to create the sparks of new ideas. This immense body of interrelated ideas—in short knowledge, which required over ten centuries, a millennium, or more, to create and implement—was gravely imperiled.

Such a hard-won accumulation and integration of ideas into a meaningful and coherent whole unique to each one of the four great civilizational complexes of the modern world has come in recent times to be referred to as a “culture.” This culture is a vast matrix of intellectual concepts and ethical precepts. This complex of ideas is encompassed within the

subsidiary bodies of more specialized concepts and precepts such as language, theology, philosophy, history, economics, law, education, governance, etc. All of these identifiably discrete sectors of a culture are embodied in a considerable variety of social institutions—churches, agriculture, manufacture and distribution of goods and services (markets), courts, schools, governments, etc. It is these frictions or problems forever inherent in and between these complexes that lead to the constantly changing historical kaleidoscope of these four cultures.

So the extreme dismay with which a handful of observers watched the collapse of the classical culture can be well appreciated. The culture—the critical inertial force of intellectual concepts and ethical precepts, which kept the culture vital and resilient against unending assault and contradictions—was mortally imperiled. What was to become of the traditional ways of life which had given the people a sense of an assured, stable, and more or less comfortable way of life?

Further, such an idea-rich, highly integrated body of beliefs and intellectual concepts and ethical precepts is incorporated not simply in the *weltanschauung* of the natives of a culture, but most of the institutions thereof are integrally interwoven into this matrix. In short, within broad measure, all the natives therein more or less share a common set of beliefs and hypotheses and live within a society whose institutions are largely supportive of this particular complex body of ideas. Culture from this perspective may usefully be viewed as the glue that holds the allegiance and moves the evolution of the society in a roughly coherent fashion over the centuries.

But by sometime in the fourth or fifth centuries, there was the unpalatable and inescapable fact of the growing collapse of the Roman Empire and the associated classical culture. The dependable classical culture was in manifest and apparently inescapable decline. Its death throes were agonizingly prolonged. This extended progressive decay presented to a handful of thoughtful people the opportunity to endeavor to implement means aimed at the preservation of the shape and content of a world absent the towering Roman Empire and all the treasures of classical thought and practice that had been created and housed in it for the millennium of the life of Greece and Rome. What might be done to assure the safeguarding of at least some fraction of this vast treasure for subsequent use whatever might be the dimensions and character of that future? What remnants of the classical culture might be preserved to, if not prevent, at least mitigate a descent into the barbarism that was pressing the Graeco-Roman world from all sides? Where was to be found the flint of thought against which

the iron of creativity could be struck to create the sparks of new ideas from which could fire for the creation of those ideas/hypotheses crucial to the continuing vitality of a viable cultural tradition? The same congeries of concerns and anxieties hovered over the small but burgeoning clusters of Christians—Catholic, Orthodox, and Arian.

It is the West's very good fortune that a diverse handful of individuals, widely scattered across the heartlands of the empire, cognizant of the impending failure of the classical/Christian cultural nexus, undertook the daunting task of seeking to save some of the cultural knowledge and related bodies of ideas that had painfully been created along the Mediterranean. These hoarders preserved some of the records that embodied culture with the avowed intention of passing them along as the materials that might be used in the construction of whatever unknown culture succeeded that of the culture they knew, treasured, and guided their ways of conceiving of and acting in the mysteries of the world.

The Hoarders

This meager and scattered few, possessed of some vision of what the future might have in store, undertook this preservation work involving as much of the accumulated classical learning as they were able. In the main, they carried this work out in remote locations and within spaces they thought might preserve the manuscripts written on papyrus—hardly the most durable of writing materials in the humid environments of Europe. These few hoarders, however vague and uncertain the outcomes of their efforts and however shaky their grounds of selection of which viols of the purest efficacy were to save, passed along to a later and more settled Europe much of the classical learning upon which the present-day culture of the West was erected.

A parallel preservation effort had to be mounted to save the Judeo-Christian literature in which all the learning and thought undergirding that fragile new religious belief still faced the long-established and preponderant pagan beliefs involving a familiar pantheon of gods. These relatively recent and novel writings were considered by some of the hoarders among the most central of these writings to be saved. The hope was that these Judeo-Christian writings would in time win the day for the religious beliefs and would provide the foundations of a universal church. Among these critical texts were the Old and New Testaments of the Bible and the commentaries thereon by the church fathers and the rabbinical literature. The Bible had been passed along in its early days in several versions before being settled in the version

known as the Vulgate translated by St. Jerome in the fourth century. Of almost equal importance was the exegetical writings of the early church fathers elucidating and formulating the major doctrines of the new faith derived in part from the Bible.

The work of these theologians and writers was one of the world's major and most compelling exercises of intellectual syncretism and synthesis ever undertaken. They had more or less successfully and comfortably melded and integrated the Judaism of the Old Testament, the Greek philosophy of Neoplatonism, and the teachings of the new religion of Christianity contained in the New Testament. This remarkable intellectual synthesis was to provide the foundations and the organizing axis of the extraordinary cultural edifice of the West, even up to the present day.

The recently founded Christian church was a remarkable hierarchical and geographic institution, modeled in part upon the Roman Imperial structure. It was composed of a hierarchy of religious officials headed by the pope under whom served a phalanx of bishops. The geographic area each bishop served was termed a diocese. Within each diocese were a large number of geographically local priests serving single congregations, largely in villages. Parallel to this structure was another structure not found in the Roman model, but unique to the Christian church, a band of ascetics gathered together in a reserved location, the monastery. The number of these discrete orders and the membership thereof grew over the succeeding centuries with the extension of the reach of the church.

A number of the major church dioceses, together with the nascent monastic orders, preserved the writings of most of the church fathers. Many more possessed the Bible in one of the several versions—the original languages in which the Bible was written as well as early translations into several ethnic languages thereof. Of course, the Vulgate version translated by St. Jerome was widely held, but in copies, most of them varied more or less markedly due to the often idiosyncratic scripts used or the remarkably varied abbreviations devised by the several scribes copying them. Further, all of these copies departed in a greater or lesser degree from their originals due to inevitable copying errors or scribal inattention or failures of scribal understanding. The Vatican Library was to be for some centuries the largest library in the West—in the early centuries under review here holding perhaps nine hundred to one thousand manuscripts, quite meager as compared to the estimated number of manuscripts of distinct classical writings. Given the limited number of texts in the principal library of the church, the paucity of texts, however poorly transcribed, in most of the few other libraries can be imagined. Of

these religious manuscripts in various church libraries, the preponderance was in the newly fashioned codex format rather than rolled scrolls of papyrus. The codex format, which continues in near-universal use today for books and which was first widely used by the Christian sects, was written on parchment or vellum.

Of utmost importance were in the early the writings of St. Augustine, which not only laid the substantial elements of the foundations of subsequent doctrine but also, by virtue of the Hellenistic tradition in which Augustine was educated, preserved crucial aspects of Hellenistic Neoplatonic learning. As a major contender in the early church councils, which resolved the meanings of many of the Christian doctrinal tenets, Augustine's writings were a crucial element. It should be noted in passing that several of these doctrinal debates also led to the disagreements between and ultimate separation of the Eastern Orthodox church from the Western Catholic church.

One of the greatest of the hoarders was St. Benedict of Nursia, who established, in the early sixth century, an order of monks, which was to flourish for centuries in the form of Benedictine monasteries throughout the West. Benedict's rule for these monasteries included one requiring the monks to read at least one book a year. The consequence of this rule was, of course, that every Benedictine establishment had to form, for that day, a generous library of minimally fifty or so books. To supply the nearly endless library needs of a burgeoning number of monastic houses, another rule required each monk to perform some work for the monastery among which were a stipulated number of hours every day to the work of copying book manuscripts. Much of this monastically produced religious literature was dispersed across Christendom by this means.

The violls of secular learning, while of secondary importance in the Christian worldview, were also of substantial concern to the hoarders. Because Latin was the language in use, and likely projected to remain viable, most of the texts saved by the hoarders of this treasure were those written in Latin. Consequently, little of the Greek corpus was stored for the future by the Western hoarders. As good fortune would have it, much of the Greek trove was preserved in the Arab world, Constantinople, and the historical Greek purlieus. This body of Greek ideas was not to enter the West in substantial proportions until the twelfth century and the fifteenth century.

Of perhaps primary importance in making the Latin writings accessible was the provision of the key for unlocking the chest containing the violls preserving the "living intellect" of the writers. The lock and

key of every body of cultural learning remains that of the language. So grammars and dictionaries of Latin were absolutely necessary to opening the lock on much of the Judeo-Christian literature and the entirety of the preserved Latin literature. The surviving basic Latin language textbooks were the two sections of Donatus's *Ars Grammatica Grammatica*, the *Ars Minor*, and the *Ars Major*. These basic texts were composed about AD 350 and handed down until well into the sixteenth century. The more advanced textbook of the Latin language was that of Priscian *Institutes* composed about AD 515, which also remained in use into the sixteenth century.

One of the most important of the hoarders was Boethius (AD 480–525), who translated not only the basic texts of Aristotle's *Organon* (the *Categories* and *On Interpretation*) but also Porphyry's *Isagoge* (an explanation of Aristotle's *Introduction to the Categories of Aristotle*). These works, together with Plato's *Timaeus*, translated by an unknown Roman formed the basic Greek tools, other than the Bible, upon which most of the intellectual and ethical edifice of the West was constructed by the church fathers. (P. Shorey, the historian of medieval philosophy commented, "The shortest cut to the philosophy of the Middle Ages is to commit the *Timaeus* to memory.")

Perhaps of equally paramount importance was the writings of Cassidorus, the scion of a wealthy family of Roman notables. He became convinced that the Roman Empire was living its final days, so turned to the life of a Christian monk. He established a monastery on family lands in the south of Italy, which housed a small band of like-minded men and a sizable library of the works Cassidorus considered most important. Cassidorus himself wrote the *Institutiones* (late sixth century), which provided much of the structure and content of the seven liberal arts, the standard guide to formal education in Europe through the length of the Middle Ages. From the monastery library, he assembled not only the guidelines for the curriculum of the trivium (grammar, rhetoric, and dialectic) and the quadrivium (arithmetic, geometry, astronomy, and music) but also the extensive bibliographies of each together with summaries of the learning encapsulated in each.

Prior to the work of Cassidorus, a stilted allegory set in a party of the gods attending the marriage of Mercury to Philology, by Martianus Capella about AD 420, *De Nuptiis Mercurii Et Philologiae* was preserved. The plot and dialog record the gods speaking of the seven liberal arts, so providing another source for the organization and content of the curriculum of medieval monastery and church schools.

Several related reference works of the greatest importance for roughly a millennium were composed in the early seventh century by Isidore, bishop of Seville, a florilegium (a miscellany of intellectual concepts and ethical precepts assembled by the author; a form of literature founded by Isidore and extensively employed through the Middle Ages that evolved into the modern daybook) widely referred to in the Middle Ages. He also compiled a compendium of the then most authoritative interpretations and explanations of the Bible, *De viris illustribus*. But his most widely known and prized work was the *Etymologies* in twenty long sections. The *Etymologies* consisted of detailed entries encapsulating much of the known bodies of knowledge organized by subject matter. This massive project, containing much error in light of latter accumulations of knowledge, might be likened to the standard encyclopedia of the Middle Ages and early Renaissance.

Additionally, the texts of approximately 150 other titles, largely from the Roman literature, were saved by a variety of unknown hoarders, most in monasteries or churches, and frequently brought to light only centuries later—well into the sixteenth century.

The Salvagers of the Carolingian Renaissance

The effort of discovering and copying this miniscule collection of the intellectual and ethical treasures of the classical and Judeo-Christian worlds was undertaken in about the fourth and fifth centuries not only by the Benedictine order but also by the clan monasteries, which had by an unusual chain of historical events been established in Ireland. The Irish monks ventured into the outlying islands of the western Mediterranean, where they encountered bands of religious who had hoarded not only some of the Latin works but the Greek as well. The Irish monks later also ventured into England and subsequently to the fringes of Northern Europe bent on establishing small enclaves of monks for the purpose of missionizing. They manifestly carried small collections of the books they thought most important for understanding their quiet faith, which in turn formed the basis of some of the most significant Medieval libraries of the region. The most famous of these monastic libraries were Iona off the west coast of Scotland and, of even greater consequence, Lindesfarne on the east coast of England, just north of North Umbria.

These two Irish monasteries formed the springboard for the remarkable revival of learning in North Umbria. It was from this latter tradition that the great Bede emerged, a polymath who ornamented the great library at Yarrow formed by the Bishop Biscop (628–90). This bishop, dedicated

to learning and education, traveled widely in his search for books to add to his library, assiduously commissioning copyists at Lindesfarne as well as Rome and other continental monasteries to supply him with the books. It was from this few hundred books (secular and religious) collected by the bishop that the Venerable Bede (673–735) became perhaps the most learned man in the West, writing a history of England that became the model for subsequent history writing and producing an Old English translation of the Bible.

The Yarrow library was the model upon which Egbert, the archbishop of York, modeled his cathedral school and library. The archbishop, like the earlier bishop to the north, was very much concerned with establishing another school and library in York. Egbert particularly mined the libraries of the churches and monasteries, founded in the seventh century by Catholic missionaries, along the Pilgrims' Way through Flanders, along the Rhine to St. Gall and Lake Constance in Switzerland, and then over the Alps to Rome borrowing for copying or having copied (manuscripts were scarce and precious, so many holders refused to subject them to the hazards of travel) for his library. His efforts led to the great library of York, perceived at the time "... as the best library in Europe." Here it was that the child Alcuin (735–804) was entered into the cathedral school to become a priest. He soon set a mark as an assiduous student possessed of a brilliant mind, following the footsteps of Bede. At York, Alcuin not only mastered the standard religious learning but also became acquainted with the surviving remnants of the work of Pliny, Lucian, Terence, Horace, Ovid, and others of the hoarded Latin writers.

At about the same time, the towering wheelhorse of a new age, the remarkable son of the house of Martel, Charlemagne (742–814) entered into history. Carl der Grosse was not only an indomitable warrior, enormously expanding the limits of the Holy Roman Empire, but also possessed an acute mind interested in, and thoroughly understanding, the knowledge that lay at the base of the emerging Western culture. Carl was almost viscerally aware that if his work and the continued viability of Western culture and his Holy Roman Empire was to live on, he had to not only educate the children of the cadre of his chief lieutenants but also create an educational model to that end in his imperial city, Aachen. By so doing, he sought to rally the allegiance of the numerous isolated and self-focused warlords of the localities, which he had incorporated into his domains to these twin objectives. So complimenting his annual summer campaigns of conquest, the inclement months of the year were spent in recruiting and associating with some of the leading scholars of