APPARENT REFLECTIONS OF COMENIUS'S PHILOSOPHY IN CONTEMPORARY EDUCATION

Thesis for the Degree of Ed. D.

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by

Florence Huntley Hay

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Florence Huntley Hay

candidate for the degree of

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Dissertation: Apparent Reflections of Comenius's Philosophy in Contemporary Education.

Outline of Studies:

Major subject: Education, Methods and Curriculum
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Biographical Items:

Born, August 28, 1913, Bangor, Michigan

Undergraduate studies, Michigan State College, 1931-35

Graduate studies, Columbia Teachers' College, 1944-45; cont. Michigan State College, 1951-55.

It is interesting to note that Miss Hay comes from a long line of farmers and school-teachers. Her great-grandfather was a monitor in the Pay School of Kildare County, Ireland, where he earned a new suit of clothes for exemplary service in 1827. Her grandmother taught school at the age of seventeen in the pioneer schools of Wisconsin. Of her eight brothers and sisters, five have been successful teachers at one time or another in the Public Schools of Michigan, California, and Idaho.

Experience:

Teacher of Home Economics in Michigan high schools at Montague, Manchester, Blissfield, 1935-43; Short Course instructor, Michigan State College, 1943-44; fine arts teacher, Lincoln High School, Portland, Oregon, 1945-46; Teacher in Heidelberg and Frankfort High Schools for American dependents in Germany, 1946-51; currently teaching in American Schools in Tokyo, Japan.

APPARENT REFLECTIONS OF COMENIUS'S PHILOSOPHIES IN CONTEMPORARY EDUCATION

by Florence Huntley Hay

This study deals with the educational philosophies of John Amos Comenius as they are reflected in the education of the present era. Comenius was a Moravian priest of the seventeenth century, many of whose principles are found in contemporary education. Since historical influence cannot always be proved the term reflection is used as a more indicative interpretation of factual findings.

In order to point out more clearly the important Comenian ideas which are paralleled in education today, the historical approach has been used. An attempt has been made to bring together into one study the facts relevant to Comenius's relationship to the twentieth century. These facts have been selected and synthesized from many other writings which do not deal exclusively with this particular relationship.

A short biography of Comenius is followed by a review of the literature, and a detailed report of his own educational principles, techniques, methods, and philosophies as found in his didactic writings.

Chronological relationships to other educators and their ideas have been pointed out, especially where the fullest expression culminates in Comenian thought.

His main ideas and techniques which are reflected in education today are pointed out in the closing chapters together with the conclusions.

The results indicate that Comenius advocated the following procedures and methods to hasten school reform, and these same items are widespread in present-day practices:

1. Free and universal education, open and compulsory to all.

2. State-supported research institutions from which ideas can be circulated among nations.

3. Graded subject matter adjusted to the pupil's psychological development.

4. Graded textbooks.

5. Education of both sexes; milder discipline.

6. Pre-school training.

7. Vernacular schools for basic instruction.

8. Development of whole personality of pupil.

9. Delay of specialization.

10. Education geared to a useful and good life.

11. The curriculum broadened by grouping certain studies together, and by adding: physical sciences, handicrafts and trades, music, and drawing.

12. Improvements of methods to be gained by: establishing graded schools (a one-ladder system), dividing

pupils into graded classes, providing separate rooms, encouraging sense experience and observation, keeping shorter school hours, inducing interest without compulsion, and consideration of the individual.

13. Latin studies deferred to secondary level, and taught through knowledge of the vernacular. Learn language by use of familiar words, things, and authors.

14. All community members have a responsibility to the schools.

15. Education is one of the keys to world peace.

The general conclusions are that direct relationships can be traced: from Comenius to the founding of the Royal Society, the forerunner of state-supported research institutions; from Comenian textbooks to common use of graded illustrated texts; and from his language method to an improved language instruction.

Other policies are related less directly to Comenian thought, but show that three centuries ago he held similar ideas to those now in widespread usage and philosophy. The influence of his ideas about education and world peace may become more direct in the future.

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CHAPTER I

Introduction

The exciting panorama of history presents to the world the lives of many people who rise to noted places in their own generations and societies; and passing, these people leave behind them monuments for good or ill. In order to make wise choices in actions and working materials, it is necessary for each generation to study the past in search for help through comparison and understanding.

As Caesar studied the techniques of earlier warriors and wars in order to make himself master of militarism in his world, so it becomes increasingly necessary and important for educators of the twentieth century to study the lives, backgrounds, friendships, travels and cultural interests of past educators in order to shed more light upon present-day trends in the vital field of education.

From the study of the history of education with all its diverse sources, it seems to the author that one figure stands out in intriguing silhouette. This man is John Amos Comenius. He is worthy of study both for his educational and religious contributions to society.

Since so many of Comenius's educational ideas and practices are as vital today as they were in his century, the thought of presenting a concise view of John Amos Comenius,

as his philosophy is reflected in the present, began to take shape.

The reasons, then, for the author's interest in and choice of this dissertation study fall into three clearly enumerated items:

First, she wishes to combine her personal interest in worthwhile historical inquiry with a purposeful and useful educational research. The very practical nature of Comenius's achievements in the field of education, appeal to the author as the right and appropriate channel for such a study. This is particularly true because she herself is a teacher in practical subjects, such as home economics and English studies.

The very practicality of many of Comenius's ideas keeps him so vividly alive that he still inspires those who study him to ask, "Why? What was there about Comenius, that makes him different from his contemporaries?" The answers to these questions are not easy to interpret, though many writers have set forth their pictures of Comenius. The author also wishes to contribute a conception of the philosophies of Comenius to the growing literature of educational survey along historic lines. If she can set down the results of her research in such a way as to interest and inform others, she will justify her own initial interest in the man Comenius. It is the very fact

that his principles and precepts in regard to education transcend his own time, that the intention and plan of writing this dissertation was conceived. Every student hopes that his or her thesis may contribute to more study in some particular branch of learning, and add true and inspirational information in that field. So, lastly, it is the aim of the writer that this thesis may contribute to the Comenian literature, a synthesis of the information about that conscientious Moravian, who himself excited others to lead inspired lives.

If this can be accomplished, her interest will be justified and the results may prove useful to teachers and students of education.

There is a need for every study that can help to inspire and benefit present day educators, burdened as they are with the stupendous task of teaching an ever increasing number of students in an ever-expanding world of action, ideas, and technological change.

Many educationally minded leaders and teachers have long been contributing to literature that is helpful to those engaged in teaching and other educational pursuits. This growing body of literature serves to guide students, teachers, and laymen to workable philosophies of life. Many of the accounts of Comenius are buried in out-dated books which deal with the history of education, and they

are passed over by the majority of students today. Some of the material is faulty in reference to dates and locations of events. In the History of Pedagogy by Gabriel Compayre, the chapter on Comenius is well written and sets forth clearly his life and work, but does not relate his concept of education to the changing scene of the present.[1]

Of the many magazine[2] articles about Comenius, written for his 300th birthday anniversary, the majority are purely of appreciative nature with some biography. The same is true of the articles appearing in the London Times on the occasion of the 300th anniversary of his visit there. The only dissertation about Comenius which the author found in her research is that of Matthew Spinka, which deals with the religious program and activity of this Moravian.[3] Spinka later published a book on Comenius, in which the cohesiveness of his religious and educational pursuits is demonstrated.[4] The latest book on Comenius available to this study is Turnbull's, Hartlib, Dury and Comenius.[5] This book offers

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[1]Gabriel Compayre, History of Pedagogy, trans. by W. H. Payne (Boston, 1886), Ch. VI.

[2]See bibliography, section ch. VI, B in this study.

[3]See bibliography, Part IV A, Item 15.

[4]Matthew Spinka, John Amos Comenius, That Incomparable Moravian (Chicago, 1943).

[5]George Henry Turnbull, Hartlib, Dury and Comenius (London, 1947).

new aspects of these men from papers hitherto unpublished and gives inspiration for new research problems, as cited in Chapter III of this study.

No one written account of Comenius seemed to bring out the implications of his work for modern education, or bridge the philosophies of education between his time and ours by just this approach. It is this special phase which is being set forth in this study.

Methods of instruction evolve continuously within the framework of the schools, and as the relationships to the past are clearly seen, so better methods can be found by those in search of help. The central purpose here entails a bringing together of the salient factors of the educational works of John Amos Comenius in order to point out the correspondences and apparent reflections of his philosophy in the educational processes of the contemporary scene. The educational problems of his day were legion, and this latest century has not solved all of them, nor prevented new ones from phoenix-like birth. As these correspondences between ideas, separated by three centuries of time, become perceptible to thinking men and women, a better basis of action can be formulated in educational endeavour on all levels.

After having realized the need and usefulness of a study of Comenius in relation to present day education, the

first task was that of selecting a bibliography to be used as the source of research. This included books by Comenius; those books and articles about him, which seemed pertinent to this study; and books on modern educational practices. From this bibliography the data has been carefully gathered to present the reflections of the philosophies of John Amos Comenius appearing in present day school systems.

The detailed bibliography appears at the end of this book, and includes volumes from many leading college and university libraries. The interloan system has been of inestimable value in securing the actual books, the study of which has given data for this dissertation. Reading was done in both foreign and English translations of the primary sources of the text-books by Comenius. The reading of secondary sources was done in English translations of European authors on Comenius; and in critical works written in English by American and English educators.

The proposed organization for handling and interpreting the data is that of a book, composed of seven chapters; an appendix comprised of the detailed bibliography; and several illustrations from a 1769 edition of the Orbis sensualium pictus, one of Comenius's best known books.

In order that these related facts, gathered from the books written by the many students in educational research, may be presented effectively to the reader, this paper has

been divided into the seven chapters as listed in the Table of Contents. These include, besides the introduction and conclusion, Comenius's life, a review of the literature about him, his writings, his methods of instruction, and the reflections in present day education of his philosophies. The whole scope, then, encompasses a time sequence of relationships that shed light upon the present educational scene.

After this introductory chapter there follows a brief biography of Comenius, clarifying some data, such as birth and death dates, which have been accidently erroneous in the accounts of many Comenian writers. The biography will set the stage for the following chapters. The resulting account of the over-arching philosophies should prove a useful instrument for ready reference to lay readers, teachers, prospective teachers, and graduate students in the field of education.

Chapter three provides the readers with an annotated review of Comenian literature, available in libraries throughout the United States.

Chapter four deals with the principles and writings of Comenius pertaining to his educational activities throughout his teaching career. These are set forth in the same logical order as he himself evolves them.

Chapter five includes the techniques and methods as advocated and actually practiced by Comenius in his role as

an educator. The same general order is followed as Comenius wrote of method in The Great Didactic, his own contribution to teaching technique.

Chapter six, the heart of this dissertation and the pivotal point of study, brings out the reflections of Comenius's philosophy apparent in present day education. This influence of a past educator on present educational philosophy will be brought out in a relationship of cause and effect when possible; and where not possible, the over-arching of Comenius's ideas with twentieth century practices will be pointed out.

Chapter seven draws the study together, summarizing the inspiration of the great mind of Comenius, in the light of progress, which by the very working of democracy demands constant evaluation in education, in government, in life itself.

Comenius said in his introduction to Janua linguarum reserata (edition of 1649, Amstelodami) that many important people made complaints of the faulty ways of teaching languages, such as Latin, but that remedies didn't follow. He therefore wrote the Janua as a remedy.

Students today complain that they have to go through too many books to gather information on one subject. Insofar as there is a need or use for compilation of related information,

remedies should be attempted. This dissertation is my attempt to gather into one treatise, accumulated information on the life and philosophies of Comenius as seen in the light of twentieth century educational philosophy.

CHAPTER II

THE LIFE OF JOHN AMOS COMENIUS

John Amos Comenius was of humble origin, but was destined to become the fiftieth and last Bishop of a religious group known as the Church of the Brethren.[1] It is well to begin the biography of this great man with a brief statement of the church environment in which his parents lived, and into which he was born; for it is this background of deeper thought which was the true inheritance of the teacher and father of modern education: Comenius.

His family name had various spellings as was common in that century. Probably the original and best known spelling in the Czech or Bohemian was Komensky. The Komensky family of his ancestry were members of the Moravian Brethren, or the Unity, or Bohemian Brethren, variously referred to; this group was a Christian sect in Bohemia which had branched away from Catholicism, and early (c.1450) advocated individual study of the Bible. Strict piety and virtue in daily living as well as diligent Bible study were practiced. The beginnings of this sect are traced back to 1457 as shown in

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[1] D. Crantz, The Ancient and Modern History of the Brethren, p. 80, (Hamburg, 1892). [In a pamphlet published by Dr. Zechlin, to commemorate the 300th anniversary of Comenius's birth, he is listed as the 20th Bishop, but there is no support of this statement given.]

Crantz' history. The reliability of Crantz and his authority of sources are verified by the translator, La Trobe, in the preface.

Christianity was brought to the region (known in Comenius's time as Bohemia) by the Greeks as early as 200 A.D. It had gained a strong foothold by 680 A.D., and following the early pattern, had been averse to image worship. By the Ninth Century, the whole area was Christian under Bogaris, King of Bulgaria. The whole group of Slavonian nations received the gospel from the Greeks in these centuries, but in 930 A.D., the heathen drove out the Christians. From then until 1350 there was a struggle between Greek and Roman domination of the church ritual. The Romish rites came into precedence under Charles IV, with the use of Latin liturgy and celibacy of the clergy.

However, in semi-secrecy, the rites of Greek influence spread also, and came to public rivalry in the preaching of John Huss, who was burned at the stake in 1415. Jerome of Prague was martyred in 1416, and the Bohemians revolted openly. Finally after 13 years, the Bohemian groups were permitted to settle between Silesia and Moravia, where they could worship according to their conscience. In 1457 a conference was held to formulate their fellowship, and to clarify their principles. The short name, United Brethren (in Latin: Unitas Fratrum), was chosen to avoid monastic analogy.

Almost from its formation, the Brethren group was accused of sedition, outlawed, slandered, and persecuted. Nevertheless, it grew and kept its precepts of clean living, individual Bible study, and human brotherhood. It was into this long tradition of living by precepts of God, that John Amos Comenius was born.

Other histories of the Moravian Brethren, including one written by Comenius himself, established the authority to regard 1457 as the correct date of the formation and extension of the Church of the Brethren, rather than 1547 as cited by Professor Keatinge on page one of his biographical introduction to the translation of The Great Didactic.[2] Since the Moravian bishops were elected for life, the earlier date would be the logically correct one, allowing for the normal life-span of the forty-nine bishops preceding Comenius to that post. It is likely that the date 1547 is merely a typographical error. Keatinge, however, summarizes well the essence of Comenius's childhood environment:

> "It was in this atmosphere of free Biblical inquiry that Comenius was brought up, and the result of early training can be seen in his habit of appealing to the Scriptures on every possible occasion, and of proving his most technical propositions from their pages."[3]

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[2] The Great Didactic of John Amos Comenius, trans. and ed. by M. V. Keatinge (New York, 1896), p. 1.

[3] Ibid., p. 1.

Matthew Spinka in his book, John Amos Comenius, That Incomparable Moravian, has included an authentic and concise history of the Brethren, which agrees with Crantz.[4] Thus it seems from all sources examined that environment did much to lead Comenius to a life of service to mankind.

John Amos Comenius was born at Nivnitz in Czech-Moravia on March 28, 1592. He was the youngest child of five, and the only son, of a lower middle-class family. His background of religious thought was his only lasting legacy, for he was destined to know little material security until his declining years. His father, a miller, passed away when Comenius was about twelve years old, and this event along with the loss of his mother, created the first in a series of upheavals that caused him life-long strain. After sickness had carried off his parents, he was taken to Straznice to reside at an aunt's home. In less than four years that town burned, and Comenius was again forced to move. The records show that he went to Prerau, and there entered Latin school. He was now sixteen years of age, and so, older than the other beginners. He was critical of the methods by which his teachers sought to make him learn. It was probably here that the seeds of the idea, "That lack of progress in schools was due to the shortcomings in the preparation of

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[4]Matthew Spinka, John Amos Comenius, That Incomparable Moravian, (Chicago, 1943), p. 11.

the teachers," took root within Comenius's soul.[5] He remained two years in the Latin school, and his intense sympathy for beginners later colored his proposals of reform with practical worth. At any rate he was a serious minded student, due perhaps to his late entry in point of age. He succeeded so well in his studies that at the age of eighteen he went to Herborn in Nassau to study theology.

Records show that he arrived there in March, 1611. This is probably where he came within the sphere of influence of John Henry Alsted, who was his instructor there, and only four years his senior.

The similarity of the views of Alsted and Comenius in the educational world is marked, but one point of variance existed. Keatinge, in his biographial introduction to The Great Didactic says,

> "The only point of which they were at actual variance was the constitution of the elementary or vernacular school. This Alsted would have restricted to the use of girls, and of boys destined for a handicraft while Comenius insists on the necessity of giving a distinct primary education to those who are afterwards to enter a learned profession."[6]

This insistence on Comenius's part of a basic foundation to all learning, begun in the familiar home environment, is evidence of his belief in universal education.

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[5] The Great Didactic, op. cit., p. 3.

[6] Ibid., p. 5.

Besides the influence of Alsted in Herborn, Comenius read Wolfgang Ratke's essay on Reformation of Schools, to which he referred in his major reforms at Prerau in 1614.[7]

From Herborn, Comenius went to Heidelberg to attend the university. Little is known of his stay there, other than the fact that he matriculated in June, 1613, and remained less than a year, for by 1614 he was back in Prague.

His teacher in Heidelberg was David Pareus, who wanted to unite all Protestants into one strong sect.[8] Spinka points out that the strong Biblical emphasis of Comenius's teachers is reflected in the fact that Comenius counted the Bible as the supreme authority in all avenues of knowledge.

After brief travels in the Netherlands, he returned to his home country.[9] However, during his travels in the Netherlands at this time, Comenius became more than ever interested in educational reform, an interest that he kept all his life. His teacher and friend, Alsted, had been trained in the principles of Peter Ramus (1515-1575), who was a curriculum reformer. Ramus had worked out specific plans for a school day, in the same vein as Comenius did later on a more workable scale.[10]

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[7] Ibid., p. 5.

[8] Matthew Spinka, op. cit., p. 30.

[9] S. S. Laurie, John Amos Comenius, (Syracuse, 1892), pp. 28-30.

[10] Frederick Eby and C. F. Arrowhead, The Development of Modern Curriculum (New York, 1934), p. 216.

Although he was determined to be a minister, his first venture at contributing to the world's work was in teaching. This coupled with his interest in education of man as a whole gave him the impetus to write on the subject.

His first educational work was at Prerau where he began to evolve an easier method for teaching Latin in a school for the children of members of the Brethren. He was ordained in April of 1616 as a minister in the Unity of Brethren, and his first pastorate was at Fulneck where he also served as school inspector and leader in the area.

The year was 1618. In France, Richelieu's voice was being heard. In England, Milton was then a boy of eight. Yet the threads of these lives were to touch those of the unknown priest, and make a plea for education, however briefly.

Comenius's environment gave rise to religious interests, but life and necessity steered him into the educational field of endeavour. These two main forces of his life should be studied together to get the complete picture of his place in history.[11] As a member of the Unity Brethren of Moravia, he suffered much in the Catholic-Protestant struggle which raged over his native soil during

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[11]Matthew Spinka, op. cit., p. 23. Spinka states that Comenius's genius, even so, remains unaccounted for.

the Thirty Years' War. With the outbreak of the Thirty Years' War the hopes of the non-Catholic bodies were jeopardized and in November, 1620, they were defeated at the Battle of White Mountain. The following June, 1621, the leaders of the chief Bohemian Protestants were executed. Also, in 1621, the Spanish troops destroyed Fulneck. The home of Comenius was plundered. His books were burned in the fire that destroyed the whole town.

The three years of happiness that he had known here, ended abruptly with loss of his family as well as his possessions, for his wife and children were exposed to the plague which was fatal to them. He, himself, was forced into hiding and exile. He spent three years on the estate of Karl Von Zerotin. Here he was always busy; among other things, he made a map of Moravia, read books on education, wrote religious works in Czech, of which one, The Labyrinth of the World, was dedicated to his host, Zerotin. He wrote the book Paradise of the Heart during this period also. Both of these writings bear the stamp of a deeply religious man. It was also during this period of hiding that he first came into contact with "false prophets". These people: Poniatowska and others, and Kotter were never doubted by Comenius. He even translated Kotter's prophecies.[12]

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[12] The Great Didactic, ed. Keatinge, op. cit., p. 8.

Ironically, it was this clan of charlatans who did so much to undermine the integrity of Comenius at the close of his life.[13]

Comenius was married a second time in 1624, to Maria Dorothea Cyrill, the daughter of one of the leaders of the Brethren.

In 1627, Comenius was living on the estate of George Sodowski, when John Stadius requested him to write rules of guidance for his son. Comenius was interested, and his interest was increased by the Didactic of Elias Bodinus; however his main purpose in writing a guide to education was for future use when the Moravian Brethren would be reinstated in Moravia and schools would be founded.

1628 brought disappointment to the Brethren of any official reinstatement to a free status in regard to worship, and an end of any immediate hope of return to Moravia. All the Brethren were exiled from Bohemia. Comenius and his family settled in Lissa, Poland. They lived here twelve years, under the protection of Count Raphael of Lissa. Here he became a school inspector. He taught and experimented with the method which he explained in detail in his Didactica Magna, or the Great Didactic. Still believing his exile

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[13]Dr. Zechlin, Amos Komenius, (Hamburg, 1892), p. 6.

from Moravia to be temporary, his educational activities and writings were geared to future plans of schools for his countrymen, when they should once again be reinstated in Moravia. This dream, however, was never fulfilled. Keatinge says,

> "To these years of actual work in a large institution is due much of the practical character of his writings, and the very faults of the Gymnasium (it had to be completely remodeled in 1635 in order to bring it into harmony with his ideas) served to show him more clearly what should be avoided."[14]

Comenius began to be known in educational circles after his Latin textbook, Janua linguarum reserata, was published at Leszno in 1631. This book was translated into twelve languages, and was printed in many editions. The idea of presentation did not originate with Comenius but it was the best of its kind and gained vast popularity.[15]

Comenius held four classes daily in the Gymnasium at Lissa which took five hours. He spent the rest of his time in study and writing. He tried to correspond with Ratke, but had no response; however he was fair in giving Ratke credit for ideas used. Keatinge says,

> "As a matter of fact, Comenius was acquainted with many points of the method that was so carefully shrouded, (by Ratke), and though he cannot resist a

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[14] The Great Didactic, op. cit., p. 10.

[15] Ibid., p. 18.

> sneer at the system and its pretensions, never forgets to acknowledge that it was Ratke who first fired him to attempt school-reform."[16]

This comparatively peaceful life in Lissa, came to an end when Comenius finally decided to visit England.

In 1641, through the efforts of Samuel Hartlib, Comenius was invited to England to join a commission appointed by the British Parliament to launch the reform of education in England. He did go, and through his host, Hartlib, met many educators of that nation. It is probable that he met Milton while there through the agency of Hartlib, but no exact evidence for this is forthcoming, other than Hartlib's wide acquaintance with literary and thinking men of his day.

The commission, to which Comenius had been appointed, did not meet at all as the unsettled state of affairs in England and Ireland absorbed the time and financial aid of Parliament. The English visit became another upset in the series of moves in the life of Comenius. His spirit still adamant, he wavered between other offers, at the same time listening to Hartlib's plea to keep the vision of his pansophic ideas uppermost in mind. By Comenius's pansophia or encyclopedism is meant the idea, which he conceived, of

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[16] Ibid., p. 11.

including instruction in every branch of knowledge at each stage of growth.

Word came to Comenius to visit France, but before he could make up his mind, the offer was retracted.

The death of Richelieu closed the door of the invitation to France, and Comenius turned to the Swedish bid for his time and talent.[17] He had strong hopes that Sweden would help foster his pansophic scheme of learning, but the Swedish chancellor, Oxenstierna, was interested primarily in Latin textbooks for Swedish children. Before being certain of what the task involved, Comenius had accepted the offer to write the series of books desired, and though it turned out to be strictly a routine job, the more tedious because it lasted several years, he saw it through to completion. The man who was his patron and who paid him for his Swedish textbooks was Louis de Geer, a Hollander, living in Sweden. These years were very trying to Comenius because of the jealousy of assistants like Cyprian Kinner. Kinner collaborated with Comenius, but at the same time tried to put forward his own ideas on education, disregarding any ethical principles or personal feelings of his colleagues. G. H. Turnball gives the fullest account of the collaboration and subsequent split between Comenius and Kinner.[18]

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[17] G. H. Turnball, Hartlib, Dury, and Comenius (London, 1947), p. 368.

[18] Ibid., p. 398.

During the writing of the Swedish texts, Comenius lived in Elbing, a quiet river-port in North Poland. Kinner actually worked here also, for two full years, as the assistant to Comenius. Due to differences on many scores, Kinner was finally dismissed.

At last the Swedish obligations were fulfilled; Louis de Geer had paid him; and Comenius was free once more to renew his dream of a pansophic institution. But the years had taken their toll of him in many ways, and he found himself promising to go to Saros-Patak in Hungary to build up a school. It was, he believed, at last a definite start to the pansophic pattern; moreover it had backing and patronage with promise of adequate housing and facilities, even a printing press. Comenius spent four years at Saros-Patak, but jealousy on the part of the teachers under him, and death of Count Ratoczky, his patron, prevented the completion of the school as planned. While there, he wrote his now famous Orbis sensualium pictus (published 1657), a picture-book reader. This was not the very first illustrated textbook in use, but it was the first one to come into wide use and popularity, both in England and all over the continent. It breathed out a softening air on the harsh steps then associated with learning to read, especially in Latin. Within one year after its appearance, Charles Hoole,

translated and made an English version which contained a preface dated January 25, 1658.

The Orbis pictus went through many editions; and many imitations or similar works appeared as discussed more fully in a later chapter.

While in Saros-Patak Comenius had planned a school with seven classes on a spiral system, but only four were ever actually in session. He tried to teach by use of drama in Saros-Patak, his purposes being to not only attract the parents' interest by the children's performances, but to create life situations on the stage. The Schola Ludus, the drama thus used, was a failure because it was too dry and uninteresting. Comenius was not a dramatic genius and the effort failed.[19]

After the death of Count Ratoczky, the situation in his school became unbearable and Comenius resigned.

He left Saros-Patak in 1654 and returned to Lissa, Poland. Here the heaviest load of all fell on the much troubled man. In 1656 Gustov of Sweden overran Poland with war. The Swedes did save Lissa from destruction, perhaps on account of Comenius who had, after all, written textbooks for Sweden. This time it was the Polish people who burned

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[19]H. G. Good, A History of Western Education (New York, 1950), p. 192.

his home and books, because it was felt that he sympathized too much with the Swedish cause, on account of parallels in Protestantism of that country and his own Brethren. The sad part was the loss of all his library and his handwritten notes. He mourned this loss of forty years' busy study and twenty-five years' work of notes, research and letters. He fled under great strain and enduring much misery. He settled in Frankfort-am-der-Oder, but plague caused him to go on to Brandenburg and later to Hamburg, where friendly delegations met him. Here illness detained him, but finally he was encouraged to move to Amsterdam and accept the generous offer of Lawrence de Geer, son of his former patron. Because of sincere respect for the great educator, coupled with ample means, de Geer gave Comenius a home and financial backing to publish any or all of his works. Although these last ten years were lonely, he was busy and never in want.

He had no visible worries, but one can well imagine that he carried heart-sorrows of a deep nature all his remaining days.

His last writing was Unum necessarium (1668) in which he sums up his life. He felt that God should be thanked and that he, Comenius, who had such ardent desire for divine goodness, should soon be gathered into the haven of the Everlasting. He felt that if all Christians taught only

God-fearing right, the sorrowful differences in religious parties could be abolished. The quarrels such as the Thirty Years' War remained an outrage to his mind. In his old age, he reminded people in his writings that they should seek religious peace in noteworthy oneness of spirit-in all love.[20]

Comenius's aim was to plant the seed of worthy ambition in youth.

He stood firm over the fighting parties but was little understood. He was God-fearing, modest and friendly. His was a priest's path in a priesthood for humanity, and he could never grasp the chaos and fighting in religion which split in two the community spirit with such gruesome consequences. The love of God should have bound people together rather than sundered them.

This was the heart-felt cause from which stemmed Comenius's love of youth and his pedagogy.

While he lived, all his school reforms had been planned with the central vision in mind of a restored Bohemia, where he would head the reformation of the educational system. Now this dream was over, and he passed from this life on the fifteenth of November, 1670.[21]

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[20] Dr. Zechlin, Amos Komenius, op. cit., p. 13.

[21] Matthew A. Spinka, John Amos Comenius: That Incomparable Moravian, p. 150. [Many books give conflicting dates in regard to Comenius's death. Spinka clears up this confusion.]

His reputation declined rapidly due to his dabbling in radical prophecies and predictions, influenced by such religious dreamers as Nicholaus Drabik.

Drabik seems to have been an evil shadow during Comenius's life, and in the end undermining his integrity in both religious and educational circles.

From this brief sketch of his life it can be seen that there are many points that can only be guessed at rather than clearly expounded. However, this important truth stands out: though the dream of the reformation of the schools of his homeland was not accomplished, a wider concept was born in the minds of educators who followed him.

The following pages attempt to show what part Comenius played in opening out the panorama which today spreads its living murals into classrooms around the world.

CHAPTER III

REVIEW OF LITERATURE ABOUT COMENIUS

In the century immediately following the death of John Amos Comenius, little of his educational methods and systems remained to bring him before the eyes of educators, schoolmen, or the public except his various textbooks. These, though numerous, more often reached the people through imitations[1] and garbled versions than through authentic editions. These same school books, nevertheless, were known throughout a very wide area, and were distributed and used in the public and private schools in many countries. It is commendable to the age and the printers that they did carry the name of Comenius in them. It was to be the task of the eighteenth, nineteenth, and twentieth centuries (and we still have much to do in this field) to study and begin to evaluate his writings on educational theory and method. In the Introduction to his translation of The Great Didactic, Keatinge says:

> "His school-books, frequently reprinted, were thumbed for years to come by boys in every corner of Europe; but the theoretic works, The Great Didactic, The Newest Method of Languages, The Mother School,

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[1]The author has in her possession a copy of Orbis sensualium picti, printed in Nuremburg, Germany, in 1769, of which Part I is authentic and Part II an imitation of Comenian style.

> remained unknown and ineffective. For all the result that they produced, they might as well have perished in the flames at Lissa."[2]

Educational research, as such, has been carried on for centuries in various schools and monasteries and was certainly known in the time of Comenius, but in spite of his great zeal and effort in the educational field of more than one country,[3] little or no research was expended on Comenius in the first hundred and fifty years following his death. Educators are now beginning to lament this loss and to do something about it. In 1950, William Boyd made this statement in his history of education:

> "It was a great misfortune for succeeding centuries that in spite of a combination of philosophical insight and practical wisdom almost unique in the literature of education, the greater part of the didactic works of Comenius passed into almost complete oblivion with the death of their author."[4]

The remedy to the situation thus lamented by Mr. Boyd began in earnest in the mid-nineteenth century and is still going on. Robert H. Quick in Essays on Educational Reformers, begins his chapter on Comenius with these words:

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[2]The Great Didactic of John Amos Comenius, trans. and ed. by M. W. Keatinge (New York, 1896), Vol. I, p. 98.

[3]"Living as he did during the Thirty Years' War, an undisturbed residence in any portion of Western Europe was hardly possible for one so prominent and so aggressive as Comenius. In the religious persecutions of the time, as Michelet puts it, he lost his country and found the world." Nicholas M. Butler, "John Amos Comenius", Educational Review, Vol. 3, p. 210 (March, 1892).

[4]William Boyd, The History of Western Education (London, 1950), p. 252.

> "One of the most hopeful signs of the improvement of education is the rapid advance in the last thirty years of the fame of Comenius, and the growth of a large literature about the man and his ideas. Twenty-three years ago, when I first became interested in him, his name was hardly known beyond Germany."[5]

Quick's essay is rhetorical, but correct in its factual presentations except for the date of Comenius's death, which he places in 1671 instead of the authentic date, 1670, as later established by Matthew Spinka.

This advance has been great in the years since 1850, and in 1892, the three hundredth anniversary of the birth of Comenius was celebrated in Germany, in Great Britain, and in America. The account of the American anniversary dinner and the speeches given are to be found in the Educational Review of March, 1892.

Neglect of Comenius and his contributions in the field of education is most often attributed to the fact that his reputation declined even before his passing, due to his acceptance of religious prognostications as possible and probable. The prophet Nicholaus Drabik, whom Comenius had known since boyhood,[6] was one of the leaders instrumental in duping Comenius, because the bulwark of Comenius's faith was

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[5]Robert H. Quick, Essays on Educational Reformers (New York and London, 1890, 1929), p. 119.

[6]The Great Didactic of John Amos Comenius, trans. and ed. by M. V. Keatinge (New York, 1896), Vol. I, p. 2.

needed to make their sorry pronouncements seem reasonable to the skeptical but eager public. Eight months after Comenius's death, Drabik made a formal statement, retracting all the prophecies, and joined the Roman Catholic Church.[7] This, by implication, gave Comenius a reputation of a charlatan and there set in a reaction, disastrous to the people of his faith, to his son's family and to his own good name and influence. Worst of all the historians, biographers, and dictionary makers, who should have investigated all sides of the matter and so guarded his fame, seemed to be ignorant of his theoretic works, and took their comments from the treatises of his enemies.[8] They may also have judged him by the criticism of his Latin,[9] as shown in the histories of the time, of which Morhof is a good example.

Comenius, himself, never claimed to be a great Latin scholar, but wrote in that language as the best way to a more universal appeal. This was the accepted way and many writers of the time did the same.[10]

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[7] Ibid., p. 98.

[8] Ibid., p. 99.

[9] "His Janua is full of barbarisms, which he tried in vain to defend; for his Apology stands itself in need of one." Morhof, Polyhistor literarius, philosophicus, et practicus, P. Bockmann, Lubecae, 1688, (3 vols.) I, p. 119.

[10] Such writers as Hartlib and Milton, Dury and the French Cardinal Mazarin. In Germany, Helvig and Jung.

The modern educator agrees with Keatinge, that criticisms of Comenius's Latinity "are beside the point."[11]

The generations of writers following him from 1670 to 1843[12] attacked his writings, especially on religion, at the same time forgetting his educational works. Keatinge says Von Raumer was the first to attract attention to the surpassing merit of the Great Didactic, and that since then translations of that work and a growing Comenian literature have appeared in Germany. Keatinge's own volume of 1896 presented the Great Didactic to English readers for the first time.

Luella Cole gives the author Leibnitz credit for having first prophesied that a time would come when Comenius would be recognized as a great educator:

> "The words of the philosopher Leibnitz concerning Comenius were therefore of greater prophetic value than the revelations in which Comenius put his trust:
>
> 'Tempus erit, quote, Comeni, turba bonorum
> Factaque spesque tuas, vota quoque ipsacolet.'"[13]

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[11] M. W. Keatinge, The Great Didactic, op. cit., p. 24.

[12] Von Raumer's History of Pedagogy, 1843, marks the beginning of real research and veneration of Comenius as an educational writer.

[13] Luella Cole, A History of Education (New York, 1950), p. 336. The Latin quotation is from: G. W. Leibnitz, Gesammelte Werke aus den Handschriften der Katholischen Bibliothek zu Hannover, herausgegeben von G. H. Pertz. Im Verlag der Hahnschen Buchhandlung, 1846-1863, Vol. IV, p. 270. "The time will come when the tumult of good people will pay respect to you, Comenius, your deeds, your hopes, and your prayers." [Leibniz is the spelling used by most authors.]

So it has come to pass! From 1850 on we find more and more biographical, appreciative, and critical literature accruing about his life and works, with more translations and sketches in Czech, in English, in German, and in fact all modern European languages.

One of the earliest tributes to Comenius, written in English, appeared in 1858. Daniel Benham translated the School of Infancy and added a sketch of Comenius's life to the edition.[14] Benham's book brought to the English-speaking world the ideas on child care and early education which Comenius had advocated so long before. The circulation of Benham's book was not large but it did its work in bringing, however brief, a life story of Comenius to the attention of students of education.[15] It can thus be classed as a necessary wedge which opened the door of research to other English-speaking students of educational history. Before this book appeared, Comenius was not well known enough as an educator to be remembered beyond the borders of Germany. A complete review of literature therefore includes the German and

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[14]Daniel Benham, Comenius's School of Infancy with a Sketch of His Life (London, 1858).

[15]"In English there was indeed an excellent life of him prefixed to a translation of his School of Infancy; but this work by Daniel Benham (London, 1858), had not then, and has not now, anything like the circulation it deserves."--R. H. Quick, op. cit., p. 119.

continental works on Comenius, which must here be brief because of lack of access to the bulk of this literature.

Of the German and continental writers who did the most to make Comenius live again in thought and practice, names like L. W. Seyffarth, Karl Von Raumer, and J. Kracsala are outstanding. In March, 1892, the occasion of the three hundredth birthday anniversary of Comenius, already mentioned, a great effort was made throughout all Germany to give due honor to his memory. A special research body was organized, the official organ of which was the monatshefte der Comenius, a journal devoted to Comenian research. Since 1892 the Germans and French have recognized Comenius as the man who first treated education in a scientific way, and who bequeathed that spirit with its rudiments of science to later ages. The great library of pedagogy at Leipzig has been named in his honor the Comenius Stiftung.[16] Another journal, the Gesellenschaft, was established in 1891, as a mouthpiece of research of the life and work of Comenius.[17]

Due to the limited knowledge of reading German, the present writer is handicapped in reviewing the Comenian literature in that language, but with the untiring assistance

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[16]R. H. Quick, op. cit., p. 120.

[17]Dr. Zechlin, Director in State, Amos Komenius, (Hamburg, 1892), p. 1.

of the help of others the following books have aided this study and appeared to be well written and excellent in contributing to the whole picture of the great man Comenius:
L. W. Seyffarth published J. A. Comenius in Leipzig in 1871, which went through more than two editions. This was on the life and textbooks of Comenius. Several other German authors turned out books on Comenius in this same decade, such as Pappenheim's Amos Comenius, Berlin, 1871, and Free's Padagogik d. Comenius, Bernberg, 1884.

In 1892 Kracsala's books and articles on Comenius became one of the best authorities available to scholars in educational research. His Johann Amos Comenius, Berlin, 1892, became as valuable to German scholars as those of S. S. Laurie to English research. This book was printed in Vienna, 1892, under the title J. A. Comenius, sein Leben und seine Shriften. It is a more exhaustive work than S. S. Laurie's or Keatinge's of the same decade, both of which are discussed in this chapter. In 1904, professor Dr. C. Th. Lion published Joh. Amos Comenius' Grosse Unterrichtstehre at Langensalza. This work of three hundred pages includes the early life, the student days, and later life of Comenius. Following the biographic chapters are sections devoted to his theories and methods, his pansophia, and reviews of textbooks, especially the Janua and Orbis pictus. There are

included two illustrations from an undated edition of the Orbis. No critical comments are given.

French authors at this time did research and writing about Comenius. Notable among these were Gabriel Compayre and Denis. They wrote history of education books with chapters devoted to Comenius. Compayre's History of Pedagogy on page 106 states that Montaigne anticipates Comenius in saying "things should precede words". In Chapter VI, he gives Comenius credit for first inspiring the organization of the people's schools. His book has great value in studying the overlapping of educators' ideas.[18] His discussion of Luther's work in relation to that of Comenius is excellent. (p. 112-137). The author has not been able to secure any of these in the original French for her study. However, more recent and most useful of general French studies on Comenius, is Anna Heyberger's Jean Amos Comenius: Sa vie et son oeuvre d'educateur, Paris, 1928. Pages 243-65 contain a bibliography which furnishes very accurate information about title pages, not only of French publications but German, Czech, and English.

As late as 1892, the Austrian government prevented every kind of Comenian celebration in Bohemia, but when the

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[18]Gabriel Compayre, The History of Pedagogy, trans. by W. H. Payne (Boston, 1886).

Czechs attained independence in 1918, the school reorganization followed the ideals of Comenius; and study and literature about his life and works increased. The author is here too handicapped from commenting on first sources by a lack of knowledge of the Czech language, but many of the Czech books are listed in Part II of the bibliography of this dissertation. Spinka's book That Incomparable Moravian to be discussed later in this chapter utilizes the results of modern Czech scholarship, and thus affords the English reader a good conception of its scope.

Expansion of facilities for educational research by the 1880's, brought out more tributes to and translations of Comenius's works in English. C. W. Bardeen, after careful research, published his Orbis Pictus of John Amos Comenius in 1887. In his preface, Bardeen extols the Orbis pictus as an educational classic which was a most popular textbook for one hundred years in the schools of Europe. Copies are rare and hard to get because so many editions were printed that copper plates wore out and some books were printed with only eighty-two cuts. Bardeen succeeded by research to get copies of the original pictures for his illustrations. He says:

> "The text is from the 1727 English translation so that the English words are opposite the Latin equivalents."[19]

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[19] C. W. Bardeen, The Orbis Pictus of John Amos Comenius (Syracuse, 1887), p. IV.

The aim of Bardeen was to put a good reproduction of an important book, at a low price, into teachers' hands. He expressed hope to print the Janua and Vestibulum in English if demand warranted it. This ambitious project remained only a hope. His translation of the Orbis is a very valuable book to students of the seventeenth century education, and to Comenian scholars. Bardeen follows his preface by the translation of the author's (Comenius) preface to the reader. This will be fully discussed in the next chapter on Comenius's writings. The prefaces are followed by the translation of the book itself with the accompanying illustrations. It consists of pictures, with numbered items and the explanatory words similarly numbered so that the reader could see both the object drawn and the word name. After reading the whole, one has a sketch of the world, plants, animals, man, works and jobs of man, religions and philosophies, music, games, and ceremonies. Bardeen has done a worthwhile project in bringing out this translation.

In 1891, Ossian H. Lang published in New York the book, Comenius: His Life and Principles of Education. This is well written and informative, but slow reading and many of the references are out-dated by subsequent research.

Two American educators especially interested in Comenius were Will S. Monroe and M. W. Keatinge. The translation of the School of Infancy by Monroe is prefaced by a

critical analysis of Comenius's place in education and the entire twelve chapters of the translation is complete. Keatinge's The Great Didactic is an invaluable guide to all Comenian scholars. It appeared in two volumes, the first containing Keatinge's introduction to the main work and the second, the translation of the Didactic. Keatinge very effectively divides the first volume into three parts consisting of biographical data, historical data, and critical data. He has based his statements upon original research and on the best German authorities. He did the translation of the Great Didactic in a close paraphrase of the original Latin in the Advocates' Library, Edinburgh.[20]

In England, after Benham's early efforts, there followed others. S. S. Laurie wrote two books on Comenius: John Amos Comenius, Bishop of the Moravians: His Life and Educational Works, Boston, 1885, followed later by John Amos Comenius, Syracuse, 1892; Cambridge, 1899. These volumes were printed both in England and America. The first book of these by Laurie had more than one edition printed. In the edition of 1887 there is a preface by Bardeen, which mentions five different portraits of Comenius and where they were located at the time of Bardeen's writing. Laurie

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[20] The Great Didactic of John Amos Comenius, trans. and ed. by M. W. Keatinge (New York, 1896), vol. I, p. VII.

thoughtfully includes reprints of four of them in the edition itself. Laurie also wrote a preface in which he stated that he went to original sources in an effort to reproduce the life and didactic works of Comenius faithfully.[21]

He tried to put in all that is essential and even enough of the fantastic and fanciful to show Comenius's manner of thought. He did not include any of Comenian ideas of religion or ecclesiastical activities except as they touched on educational method. (This was left to others, among whom, Matthew Spinka is truly outstanding as a Comenian research scholar and writer.)

Laurie says of Comenius,

> "His works have a present and practical, and not merely an historical and speculative significance."[22]

It is this practical and present influence on educational methods and philosophies that the following chapters of this book will seek to bring out.

Laurie's research into the sources of Comenian ideas led him to state:

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[21] S. S. Laurie, John Amos Comenius, Bishop of the Moravians: His Life and Educational Works (Boston, 1887), p. 14.

[22] Ibid., p. 24.

> "Comenius was acquainted with almost all previous writers of education except probably Ascham and Mulcaster to whom he never alludes. He read everything that he could hear of with a view to finding a method, and he does not ever seem to have been desirous to supersede the work of others. If he had found what he wanted he would, we believe, have promulgated it, and advocated it as a loyal pupil. That he owed much to previous writers is certain, but the prime characteristic of his work on Latin was his own."[23]

As in most accounts of Comenius, whether long or short, Laurie, too, comments on his works of importance in education. There is general agreement that the Janua was a success. Laurie sees the influence of Bateus here, but points out Comenius's fuller use of all meanings of the words used in the text, simpler vocabulary, primary significances, and an inclusion of moral meaning and instruction.[24]

Laurie classes Comenius as a sense-realist who believed that the only way to heal dissensions between church and state was by education of the youth of the nation. This book includes a good critical account of Comenius's beliefs concerning the ideal university system which Laurie states as follows:

> "The combination of the scientific with the teaching function constitutes, indeed, the ideal of a University system."[25]

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[23] Ibid., p. 35.

[24] Ibid., p. 41.

[25] Ibid., p. 48.

The book as a whole is very complete and combines a fine presentation of the life and writings of the great Moravian. The date given for Comenius's death[26] is in error, as are the other authors, writing of Comenius before Spinka's time.

Laurie throughout points up Comenius's humble opinion of his efforts by statements, based on research, such as the following in evaluation of the schoolbooks prepared for the Swedish schools:

> "The imperfections of these books, as indeed of all his writings, he is always ready to admit, pleading that no one man could all at once correct the mistakes of the past, place education on a right basis, and furnish the school with proper instruments of teaching."[27]

Laurie devotes one whole section, Part I, to presentation of the aims of the Great Didactic, another section to the interpretation of the method of education as set forth by Comenius in the Didactic, and a third section to an adequate explanation of Comenius's methods of teaching languages effectively. In the final section is found a detailed explanation of the Pansophic school plan. Laurie says here,

> "I have chosen to introduce the educational reader to Comenius in connection with his Pansophic schemes, because they are the key to his intellectual life and his educational aims."[28]

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[26] Ibid., p. 69.

[27] Ibid., p. 54.

[28] Ibid., p. 78.

In Laurie's summary is found a discussion of the original ideas of Comenius and reasons why scholars avoid study of this remarkable leader.

Laurie's comments, in outline form, include:

A. Original Ideas of Comenius.

1. Inner organization of a school
2. Language reforms
3. Study of nature
4. Milder discipline

B. Why scholars avoid study of Comenius.

1. All books not translated into the English, or even into modern foreign tongues
2. Repetitions of methods and analogies
3. Wordiness
4. Style defects in all writings of Comenius[29]

Laurie closes by advising educators not to exaggerate differences in modes of educational procedure when there is an essential community of aim. He would retain Comenius's wisdom and virtue and substitute the word culture for piety in Comenius's original triad of aim. It is a necessity to good education to retain much of the Comenian realism says Laurie.[30] The interrelation of realism to the humanistic agencies make for broader channels out of which come the best educated men.

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[29] Ibid., p. 224.

[30] Ibid., p. 225.

In 1941-1942, another surge of Comenian research began, for that was the three hundredth anniversary of Comenius's visit to England and the three hundred and fiftieth year since his birth. The world was at war, or possibly the celebrations would have been greater than they were. As it was, the school journals and newspapers printed the tributes, and articles written especially for the occasion, celebrated mainly in educational circles.[31] A more complete record of these essays and addresses was edited in 1942 at Cambridge under the title The Teacher of Nations. This was printed in commemoration of Comenius's visit to England. Due to the nation being at war the circulation was limited.

In Switzerland there was renewed activity in commemoration of Comenius, largely through German influence, and many of Comenius's books were printed at Zurich in the German language.[32]

Aside from these special anniversary occasions, when interest was heightened, the twentieth century contributions

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[31]The London Times Educational Supplement of Saturday, September 13, 1941, printed "A Tribute to Comenius", "The Coming of Comenius to England", and "Door to Reality". The authors of the articles were not given.

[32]The author has in her possession a copy of Comenius's Die Mutterschule, Zwingli-Verlag, (Zurich, 1943).

to Comenian study have been the greatest in volume and result. This is true because of greater care in research, and more accuracy of data, even because of a partial realization of the type of state-supported universities than Comenius himself dreamed of, wherein research could be carried on. Of course, the lead in this research goes to German and Polish scholars whose studies are wholly from original sources. The body of international literature dealing with Comenius remains an uncatalogued mass.

The most comprehensive survey of works by and about Comenius, although it extends only to the year 1911, lists 13,300 items.[33] The leading authors on Comeniana, writing in the Czech language in the twentieth century are E. Capek, J. Reber, and I. V. Novak. J. Hendrich has continued the work of Novak.[34]

The interest in Comenius has not lagged in England and America evidenced from the books produced by the students of educational history in those countries. Robert F. Young brought out two books on Comenius, one telling of the English visit and one setting forth Comenius's

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[33]Vladimir Jelinek, The Analytical Didactic of Comenius (University of Chicago Press, 1953), p. XVI. Jelinek quotes this from Cenek Zibrt, Bibliografie ceske historie, (Praha, 1910-12), V, p. 325-650.

[34]Ibid., p. XVI.

interest in the education of the Indians of New England.[35] These books are short, well written, and give all the source references of importance that have any bearing on any contemplation Comenius may have had to migrate to America. In general, both books point out the vagueness of any proof that Comenius was invited to Harvard at one time.[36]

More specifically the later of these studies discusses the bearing of Comenius's English visitation on the origins of the Royal Society, on the development of the encyclopaedia, and on plans for the higher education of the Indians of New England and Virginia. This volume includes translations of six documents by Comenius describing his English visit and his pansophic ideas. Four other documents by Hartlib, Collier, and Dury (two), are translated and added for they relate to the English visit. Mr. Young has compiled a table of dates which illustrate the life of Comenius. Appropriately, too, he has included a second table of dates showing the development of scientific societies and the evolution of the encyclopaedic ideas. The book has eleven illustrations, one of which is a

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[35]Robert F. Young, Comenius and the Indians of New England, Oxford University Press (London, 1929).
_____, Comenius in England (London, 1932).

[36]Ibid., Comenius in England, pp. 8-9; Comenius and the Indians of New England, pp. 1-4.

portrait of Comenius in his later years at Amsterdam, and attributed to Jurgen Ovens (1620-95), the favorite pupil of Rembrandt. (See Dr. Harry Schmidt, Jurgen Ovens, p. 177, no. 211.) This portrait hangs in the Rijksmuseum, Amsterdam.

Young's translations are from Comenius's Continuatio of 1669, which treatise was discovered in 1913 by Jan Kvasala in Russia at the Public Library of Leningrad. The first thirty-eight sections or items were missing and may never have been published. Kvasala reprinted what he found, and through this reprint, Young had access to them. Young says Comenius was seventy-seven years old when they were written and blames errors in places and dates on the faulty memory of an old man.[37]

Young's books are indispensable in a thorough study of Comenius.

One of the best books about Comenius, produced in the United States, was written by Matthew Spinka in the last decade. He had already had background study of and interest in Comenius, for his Ph.D. thesis in 1923 concerned the conciliatory efforts of Comenius in the religious controversies of the seventeenth century.[38]

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[37] Ibid., Comenius in England, p. 26.

[38] Matthew Spinka, The Irenic Program and Activity of John Amos Comenius. Unpublished Ph.D. Thesis, University of Chicago Library, 1923.

Spinka's book took its title from Cotton Mather's note on Comenius, John Amos Comenius: That Incomparable Moravian.

The preface indicates that the book was written to commemorate the 350th anniversary of the great man's birth. It sets forth as its purpose the portrayal of the personality and abiding influence of Comenius. The section on biography includes what little autobiography remains and is all-inclusive of Comenius's interest in education, church, and pansophism. Spinka's theory of this inclusiveness is interesting in that he believes anyone wishing to know the value of any particular facet of a man's achievements, should examine all facets.

The biographical sketch given in this book is one of the most complete and accurate to be found, and includes a background study of the world in which Comenius lived and struggled.

Spinka believes from all the evidence gathered that the genius of Comenius transcended biologic law and remains unaccounted for my the meagre knowledge of his ancestry. Comenius, then, was a builder and a dreamer of a better future, by the better education of children. Spinka words Comenius's complaint like this,

> "There was no common understanding or appreciation of the contributions the various sciences made to a philosophy of life as a whole.

> The result was inevitably a lack of unity and co-ordination in cultural and scientific studies."[39]

To overcome this vacuum, the Comenian conception of a Christian pansophy was proposed. Comenius sought to work out an encyclopaedic system of human knowledge based throughout on principles so consistent that unity and harmony would be an integral factor in the educational processes. With such a common denominator of philosophic insight, the three avenues of study: inductive, deductive, and divine revelation--would have a needed cohesiveness which would sweep out conflicts.

Matthew Spinka points out our present-day lack of humane interests and our over-dose of materialism. This amounts to knowing the "what" of things, but not the "why and wherefore!!" He says that the Comenian proposal for men to work together on an international scale is a vital need in our world today. This is so because,

> "A unified, philosophical view of life, an intelligent understanding of the meaning of life is certainly not the usual result of our educational system, not even of the higher education. Thus the scheme of Comenius is still of value to the modern educator."[40]

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[39] Matthew Spinka, John Amos Comenius, That Incomparable Moravian (Chicago, 1943), p. 66.

[40] Ibid., pp. 81-82.

Spinka portrays Comenius as a person who thought in terms of mankind rather than in terms of narrower boundaries; though he never lost his love for his native place, still he saw the far horizon of unity in all things, freedom in some things, and love to all mankind. To Comenius's ideas can be traced the attempt to tie together the didactic and spiritual needs of men.

The footprints which Comenius left on the sands of the educational plateau, Spinka discusses in his last chapter, and these include free and universal education, education of both sexes, vernacular instruction, pre-school training, graded subject matter, correlation of thought and things, a wider curriculum, and the development of the whole personality.

Spinka's book is well written, has an excellent bibliography, and corrects many errors in data from older studies.

In 1947, G. H. Turnbull brought out his book, Hartlib, Dury, and Comenius. This is a very scholarly work and devotes one section to each of the men listed in the title. In his preface Turnbull points out the rich field of information for new research problems with which Hartlib's private papers abound. He made use of some of these in his own book--and did a fine job of showing the relationships of these three men and the effects on educational ideas and trends.

The crux of the mutual efforts of Hartlib, Dury, and Comenius is stated by Turnbull in these words:

> "As early as 1638, according to Dury, he, Comenius and Hartlib had each of them his peculiar task, Hartlib being 'the sollicitor of humane learning for the reformation of schooles' Dury's lot being 'to promote the concells of peace ecclesiastical', and Comenius being Hartlib's 'Coadiutor for the waies of schooling and pansophical learning'. When Comenius came to join Hartlib and Dury in London in the autumn of 1641 the three men seem to have agreed to cooperate mutually for the furtherance of their respective tasks."[41]

The main bulk of the book is based on papers of Hartlib's which tell of events and facts about Hartlib, Dury, and Comenius on his English visit and Elbing days--, and of Cyprian Kinner. Turnbull relates that in March, 1642, Hartlib, Dury, and Comenius signed a pact to work together on a project which included (a) compiling a list of books to aid in the reform of schools--and plan a list of books outlining subject matter which needed to be written; (b) sounding the public and what the present day promoters would call advertising; and (c) find financial means for (a) and (b). The pact was written in Comenius's hand and the date in Hartlib's. Turnbull says that the signatures are authentic.[42]

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[41] D. H. Turnbull, Hartlib, Dury, and Comenius (Liverpool, 1947), p. 362.

[42] Ibid., p. 363.

Nothing much came of the arrangement because of misinterpretations coupled with the political situation. One William Hamilton signed it in 1647, so that some work and interest must have kept on. Comenius left England in 1642, and had necessarily to leave the working out of the school reform to others. Turnbull finds evidence that William Hamilton split away from the reform movement in 1657, and no more was done is respect of writing books, or making public appeals.[43] Thus Chapter I of Turnbull's section on Comenius is devoted to the English visit.

Chapter II gives the subsequent history of Comenius until 1662. The information is brought out by letters to and from Dury, and twenty letters from Comenius to Hartlib, with three later letters to Hartlib on religious matter.[44]

Chapter III brings out the relations of Comenius and Cyprian Kinner during their period of collaboration, 1644-47. Turnbull has access to thirty-five letters from Kinner to Hartlib which date in this period. Turnbull shows the selfish aims of Kinner which offer a keen contrast to the altruistic and broader views of Comenius.

Chapter IV deals with Kinner's activities after his split with Comenius. Kinner tried to reform the schools

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[43] Ibid., p. 365.

[44] Ibid., Chapter II, pp. 370-390.

of Silesia with no success. He schemed to sell his own and Comenius's books in England, through Hartlib's help. He wrote to Comenius in regard to this latter scheme, but Comenius sent back an answer suggesting that they work in ignorance of each other's activities.[45] This was unlike the generous nature of Comenius but after reading detailed accounts of Comenius's years of struggle to keep Kinner in line, one can understand his hesitation. Here is Turnbull's account of a letter from Kinner to Hartlib about 1648:

> "How much more praiseworthy it would be if Comenius and he and all others would bring together all their ideas for the common good of the young at school. But Comenius may rest assured that Kinner will never disturb him again by writing."[46]

Hartlib tried to keep at peace with all the educators, and Kinner went to England in early 1649, supposedly to visit Hartlib and others. However, he died suddenly while in England, and not much of his work remains of interest except in that it was bound up with the work of Comenius. One point of interest is Kinner's attitude to pagan literature. Turnbull writes:

> "He (Kinner) wishes his Elucidarium to be shown to Hübner, who will see from it that Kinner makes piety the stem and stern of all learnings and wishes the good writings of the pagans preserved but altered in a Christian way and used rightly."[47]

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[45] Ibid., p. 418.

[46] Ibid., p. 420.

[47] Ibid., p. 437.

Here his own words stamp Kinner as a follower of Comenius's ideas.

The book is well written but tedious to read because of the many dates cited in detail. It solves some questions about Hartlib and his friends, but raises new problems also, suggesting new questions to the student of the times. It has a good bibliography and gives minute information as to the whereabouts of the documents examined in preparation of the volume.

Of the dozens of history of education books which devote space to Comenius, those most worthy of attention are, of course, the ones of the twentieth century. This is true because of the use of modern and accurate research methods. A notable exception is Compayre's book discussed earlier in this chapter.

H. G. Good in A History of Western Education depicts Comenius as one of the early realists. A short synopsis of the Janua and Great Didactic bring out the methods and principles of Comenius.[48]

Luella Cole in her history[49] discusses Comenius and his textbooks; she includes a very brief sketch of his life, and four illustrations from his textbooks.

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[48] H. G. Good, A History of Western Education (New York, 1950), Chapter 8, pp. 189-201.

[49] Luella Cole, A History of Education, Socrates to Montessori (New York, 1950), Ch. XII, pp. 328-355.

A somewhat earlier history of education,[50] with only twenty pages devoted to Comenius, is Paul Monroe's, but it is of value to Comenian study because of the chapter on realistic education which gives a setting to his remarks about Comenius.

Adamson in his Pioneers of Modern Education[51] devotes a short chapter to a discussion of Bacon and Comenius and one chapter to a discussion of the Great Didactic. He gives Comenius credit for being the founder of modern education in that Comenius stands alone in bringing all points of method and theory into one connected, self-contained, and consistent system.[52]

Other books with well written accounts of Comenius include: Boyd's History of Western Education, pp. 241-254, in which he shows Comenius's relation to German Education; Butt's Cultural History of Education, pp. 264-279, in which he cites Comenius as the exponent of educational aims, curriculums, and methods; Eby's The Development of Modern Education, Chapter 7, in which he acclaims Comenius as the

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[50]Paul Monroe, A Textbook in the History of Education (New York and London, 1905 and 1933), Chapter VII, pp. 442-504.

[51]J. W. Adamson, Contributions to the History of Education III, Pioneers of Modern Education (Cambridge, 1921) Chapters III and IV, pp. 46-80.

[52]Ibid., p. 79.

prophet of modern principles and methods; Mulhern's A History of Education, Part II, Chapter 8, in which he treats educational theory and practice, showing how Comenius popularized it; Robert Ulich's History of Educational Thought, in which he devoted a chapter to Comenius as well as giving a helpful bibliography; also Ulich's Three Thousand Years of Educational Wisdom, pp. 339-346, which contain significant excerpts from the Didactic; and Brubacher's A History of the Problems of Education, pp. 202-205, in which he gives Comenius first honors in the chapter on "Methods of Instruction". (There are numerous other references to Comenius throughout Brubacher's book).

A longer list of history of education books with significant references to Comenius is included in the bibliography of this study.

One of the newest books to be written in English on Comenius is a translation of the last of Comenius's didactics. This book, The Analytical Didactic of Comenius,[53] was translated from the Latin by Vladimir Jelinek and published in 1953. It contains introduction and notes by Jelinek. The introduction is divided into three parts consisting of preliminary remarks in regard to the chronology of Comenius's

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[53]Vladimir Jelinek, The Analytical Didactic of Comenius, (Chicago, 1953).

didactics, a history of the "Methodus", and the contents of the Methodus. Jelinek states that it is clear from the correspondence of this period that the work done for Oxenstierna in supplying Swedish texts, later appeared as the Methodus and its attendant textbooks.[54] The Methodus consists of thirty chapters in which the headings are arranged as an outline of the whole work.[55] Jelinek gives a page-length summary of each of the thirty chapters[56] in order to place the Analytical Didactic within its context, since that is the main body of his book. The translation of the Analytical Didactic comprises the rest of the book, approximately one hundred pages. Jelinek says,

> "In the translation that follows significant departures of the second edition of the Methodus from the text of the first edition are indicated in footnotes. The tenth chapter of the Methodus (the Analytical Didactic) is introduced differently in the two editions which Comenius himself published."[57]

Jelinek includes both introductions, one that of Leszno (1648-9) and the other Amsterdam (1657) on page 95, to show the deviation. It can be seen from these two excerpts that

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[54] Ibid., p. 28.

[55] Ibid., p. 35.

[56] Ibid., p. 37. Jelinek refers the reader to Ernst Liese, Des J. A. Comenius Methodus linguarum novissima: Inhalt und Wurdijung, (Bonn, 1904), for a detailed analysis.

[57] Ibid., p. 95.

Comenius tended to become more rigid in style as he became older and tended more and more to a set outline. Since the main part of the book is a translation of Comenius's writing, the discussion of its contents will be more properly placed in the next chapter which deals with the educational writings and principles of Comenius.

In general, the books and literature on John Amos Comenius are worthy contributions to the cause of education. They have in common the mission of presenting Comenius as a link in the chain of cause and effect in the intellectual development of the age. They serve to show us the path by which we, too, can go forward to be more effective agents of education. They inspire students of education to keep the lamp of research lighted in regard to Comenius in order to further the knowledge of him, and to understand his aims more clearly than was ever before possible. Because Comenius's views represented the needs of "all the children of all the people" rather than an aristocratic tradition only, any study of his principles and methods has a value unceasing, a value truly universal.

As his works were written in Latin and Czech, there is an urgent need for more translations of these into English and other modern languages, thus giving a wider scope for study of Comenius to students of education, around the free world. Some attempt has been made in this, for there

is a translation of the Great Didactic in Spanish which was printed in 1922.[58] Comenius himself saw books speaking a universal language and longed for a time when books could be read by all, spreading the truth that humanity is one family; so it is that his own works should be among them.

Jelinek iterates the truth of the above general statement in these words:

> "We may deny the validity of the author's (Comenius) metaphysics, reject his ethical and religious assumptions, and doubt the value of his schemes and methods; or we may construe in his dicta as arguments in an oligarchic, democratic, libertarian or egalitarian dialectic°. But before we can understand the intellectual system of Comenius, before we can know 'the furniture of his mind', we must have the opportunity of reading what he wrote."[59]

Due to lack of access to the large Czech literature on Comenius this review is in no sense complete but it shows the student the great possibilities and need of cataloguing the Comeniana of the last forty years, a huge task but one that must soon be attempted by some student of education, equipped with ability to read Czech, German, Latin, and

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[58] Didactica Magna version Directa del Latin por Saturnio Lopez Peces, Editorial Reus (Madrid, 1922).

[59] Ibid., p. 226.

°Jelinek's footnote: "In recent years careful exegesis by Goncarov, Grujdev, Kairov, Medynsky, and others has transformed Comenius into an apostle of Soviet educational theory.

French as well as English. Then all sources of Comenian information and original manuscripts be the fountainhead for greater knowledge of Comenius's influence in the education of the present.

The next chapter will give a comprehensive discussion of the main educational writings of Comenius, available at the present time, and will include a discussion of his educational principles.

CHAPTER IV

EDUCATIONAL WRITINGS AND EDUCATIONAL PRINCIPLES

Ideas from the minds of men find a greater permanence and existence in the written word than in the spoken. Written works are of lasting value to mankind in that they carry forward the thoughts and hopes of one generation to another. John Amos Comenius, from his student days, was interested in writing. He was early influenced by his teacher, John Henry Alsted, to collect materials for a set of books on the study of realia. He intended this work as a guide to the Czech nation, but years later in a letter to Peter Montanus (1661), he described the project as an encyclopedic work which would benefit all mankind by replacing a whole library of books. The work was to have consisted of twenty-eight books, the second of which, perished in the Leszno fire. The rest were unknown except for title until some of the manuscript was discovered in Holesov, Moravia, in 1893.[1]

Thus from his early years until the end of his life, Comenius took full advantage of the written form of expression as a means of setting forth his view of the task

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[1]Vladimir Jelinek, The Analytical Didactic of Comenius (Chicago, 1953), p. 6.

of education. He produced about 170 works in his lifetime, written in Czech and Latin. His first writings were in the Czech language, but he later wrote mainly in the Latin as a means of reaching the larger audience of men of learning all over Europe.[2] The many works on religious subjects are here passed over, and in this discussion, attention centered on the most important of his pedagogical writings.

Comenius taught and wrote with liberal use of analogy, especially analogy to nature. His scheme of education was embodied in the likeness of seed evolving to plant. His own interest in education had a seedtime, too; and Comenius was always careful to give full tribute for his source of ideas to the men from whom he gained inspiration: Ratke, Lubin, Helvig, Ritter, Bodin, Glaum, Vogel, Wolfstirn, Frey, Bacon, and Andreae. Only in his later years when he was preoccupied with the theories of pansophia, did he use less analogy and more precise definitions and more concise statement of principle. This is evident in a comparison of his didactic works, to be discussed in the following paragraphs.

Jelinek says, in this regard,

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[2] Ibid., p. 16.

> "The transition from the discursiveness of the Magna to the conciseness of the Analytica involves a far more complex and fundamental chance than a superficial attempt to reduce verbiage. The change in style reflects a shift in the author's concept of what constitutes a didactic and what forms a basis of didactic principles. The Analytica is a true didactic, that is, a rationale of pedagogic method, whereas the longer Czech Didaktika and its Latin counter-part, the Didactica magna, are merely guides to methodical practice."[3]

An examination of these books of method here follows, discussed in chronological order of writing, even though the first two composed were last to reach the public in large circulation.

The Didaktika was written between 1628 and 1632. This was in Czech and set forth Comenius's hope to educate free men capable of entering into dignified relations with their fellows. The original Didaktika was discovered in Leszno in 1841 and published by V. Tomek in 1849.[4]

The Didactica magna is essentially a translation into Latin of the earlier didactic. Comenius wrote this between 1633 and 1638 although it was not published until 1657.[5] The Analytical Didactic was written as a part of (Chapter X) the Linguarum methodus novissima of 1649.[6]

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[3] Ibid., p. 18.

[4] Ibid., p. 3.

[5] Ibid., p. 3.

[6] Ibid., p. 3.

The writing of this Methodus, as it is called, was the fruit of Comenius's work in composing the Swedish textbooks (1644-1647). The Analytical Didactic, then, represents the last of the author's efforts at a complete outline of didactic technique.[7]

The contents of the Czech Didaktika and the Didactica magna are so parallel that a discussion of one is sufficient to give the reader a resume of the subject matter of both. The very excellent English translation by Keatinge[8] is the main source used for this presentation of the contents of Comenius's first work on pedagogic method. The Great Didactic made Comenius's name world famous, when it was finally studied with seriousness in the nineteenth century. The date of the 1849 edition, above mentioned, published at Prague, marks the beginning of a new evaluation of Comenius's place in educational history. Keatinge published his English translation in 1896. Since then there has been much research and study in regard to the life and works of Comenius. A Spanish edition of the Didactica magna, dated 1922, has also been consulted in preparation of this chapter.[9]

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[7]Ibid., p. 4.

[8]M. W. Keatinge, The Great Didactic of John Amos Comenius, 2 vol. (London, 1921).

[9]Saturnino Lopez Peces, Juan Amos Comenio Didactica Magna, version directa del Latin, (Madrid, 1922).

The Great Didactic, so meticulously written as to detail, contains the principles which are really the basis of the modern European and American systems of education. It tried to bring together all the good points of the existing schemes of education, and at the same time add many new features.

In the first three chapters Comenius says that earthly life is only a preparation to the eternal life with God.[10] Three great goals are set forth, toward which all men should strive. Man has to know earthly matters; man has to master himself and material things; man has to refer to God in all things. These three concepts, reduced to one word each, became the essence of the Comenian ideas which he wished to tell to all the world. His watchwords, then, were: knowledge, virtue, and piety.

Because Comenius felt that man is God's highest creature, he said that all of life here was a seedbed of preparation, and the youthful years were therefore those best fitted for education and acquisition of knowledge, leading to a desire for continuous learning. To him this world:

> ". . .is nothing but our nursery, our nurturing place, and our school, and there is, therefore, a place beyond, whither we shall be transferred

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[10] M. W. Keatinge, op. cit., Vol. II, p. 32.

> when we are dismissed from the classes of this school and are sent to that university which is everlasting."[11]

Chapter IV and V elaborate on the need of developing that learning, virtue, and piety already naturally implanted in human beings.

> "It is not necessary, therefore, that anything be brought to a man from without, but only that which he possesses rolled up within himself be unfolded and disclosed, and that stress be laid on each separate element."[12]

Comenius believed that man has a natural craving for knowledge, and if a harmonious way could be found to fulfil this craving, education would truly become a delight. He quotes from Ecclesiastes and Psalms, Matthew and Romans, to support his point and closes this chapter by saying,

> "We see, then, that it is more natural, and, through the grace of the Holy Spirit, easier for a man to become wise, honest, and righteous, than for his progress to be hindered by incidental depravity."[13]

It is man's duty to seek the remedies from corruption. Beginning with Chapter VI, the title of each chapter will be here given, as Comenius composed it, followed by a brief statement of the subject developed.

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[11] Ibid., p. 34.

[12] Ibid., p. 42.

[13] Ibid., p. 51.

Chapter VI. If a Man is to be Produced, it is Necessary that he be Formed by Education.

Man is a "teachable animal", as his potentialities exist and need development: Education is necessary for all. Man is in need of society to stay above the animal state. There is a need of education to keep order at all levels of life. This should be done by Reason, not force. The excellence of man is directly related to the amount of learning.[14]

Chapter VII. A Man Can Most Easily be Formed in Early Youth, and Cannot be Formed Properly Except at this Age.

Since life is uncertain and all must go through transition, all should be prepared by education. God gave the years of youth as a time of plasticity "unsuitable for everything but education".[15] If parents love their children and if civil and religious leaders love mankind, then let education proceed early.[16]

Chapter VIII. The Young Must be Educated in Common, and for this Schools are Necessary.

Education is the responsibility of parents to their children.

> "It is indeed the most natural duty of parents to see that the lives for which they are responsible shall be rational, virtuous, and pious."[17]

Parents are too busy to teach their own children, and instructors are appointed for this. Shem opened the first school after the flood (according to Josephus). The Hebrew schools evolved from this. The Romans borrowed the idea from the Egyptians, Greeks, and Jews. From the Romans the school-system spread throughout the empire. This Godly custom, retained by us, must be increased by better teacher-training.

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[14] Ibid., Chapter VI, pp. 52-56

[15] Ibid., p. 59.

[16] Ibid., p. 60.

[17] Ibid., p. 61.

Teach the young in groups or classes. The schools should specialize in multiplying the light of wisdom. As orchards are laid out for fruit-trees, so should schools be erected for the young.[18]

Chapter IX. All the Young of Both Sexes Should be Sent to School.

Universal education is necessary because all are born to prepare for the next world. Since this is God's will, schools, like the sun, should shine for all. The dull children need patient help. Some children develop early and some later in point of years. "Let none be excluded unless God has denied him sense and intelligence."[19]

Chapter X. The Instruction Given in Schools Should be Universal.

No one can master all exact knowledge, but the principles, causes, and uses of the important things in existence, are necessary to be known. Art, science, languages, and morals should be studied. Schools are the work-shops of humanity, wherein to make man--man: a rational being. All must be taught to observe, imitate and enjoy the fruits of knowledge, to develop that knowledge and so increase wisdom and piety. Every principle necessary for adult life in any vocation can be learned in school.[20]

Chapter XI. Hitherto There have been no Perfect Schools.

The Platonic ideal was not universal. Luther's work was not carried out. By not educating the poor, many great intellects were by-passed. The methods of schools are too severe. The aim of intellectual progress shut out the better aim of living a good life. The method of learning Latin is faulty. It is our duty to develop better schools for posterity.[21]

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[18] Ibid., p. 65.

[19] Ibid., p. 67.

[20] Ibid., pp. 76-80.

[21] Ibid., p. 79. Comenius here quoted Eilhard Lubinus to support his statement of the hard way of learning Latin without proper materials.

Chapter XII. It is Possible to Reform Schools.

Comenius herein promises to present a system of education that will instruct all children in knowledge, virtue, and piety; prepare them for life; and the education will be pleasant and natural. It will be real and thorough by reason of experience in the teaching. It will take only four hours a day, and one teacher can teach hundreds of youngsters. The plan of schools will follow nature, and since the desire to learn is innate, guidance will remove distractions and let the learning blossom.

This chapter marks the end of Comenius's preliminary remarks on method and in the next chapter the real subject of his didactic treatise begins.

Chapter XIII. The Basis of School Reform Must be Exact Order in All Things.

Order on a small scale is a reflection of order in the universe. As such it wins results from king to serf. The welfare of a country's people depends on the individual.[22]

The art of teaching is the skillful arrangement of three things, namely, time, subjects taught, and method.

Chapter XIV. The Exact Order of Instruction must be Borrowed from Nature and must be of such a Kind that no Obstacle Can Hinder It.

Nature shows the way to teach 'all things to all men'. God wills certain obstacles to wisdom which include a short life, perplexity, errors in experiment, lack of opportunity, and weakness of intellect. We can overcome these obstacles and prepare for a better life here and in the next world by: striving to lengthen life, curtailing subjects to be taught, seizing opportunities, unlocking intellect, and laying a solid foundation for judgment. To each will be given a separate chapter, and the curtailing of subjects be treated of last.[23]

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[22] Ibid., p. 96.

[23] Ibid., Chapters XII, XIII, and XIV, pp. 81-104.

Chapter XV. The Basis of the Prolongation of Life.

Life can be prolonged in two ways. Our bodies must be protected from disease, and our minds must have an environment suitable to acquiring knowledge. Pray for a sound mind in a sound body. Proper school organization is dependent on proper division of work and rest, division of studies, intervals to relieve the strain, recreation. A division of the day suggests eight hours for sleep, eight of care of self, and eight for serious work which in youth is getting an education.[24]

Chapter XVI. The Universal Requirements of Teaching and of Learning; That is to Say, a Method of Teaching and of Learning with Such Certainty That the Desired Result Must of Necessity Follow.

The duty of teachers is to sow the instruction and water the plants (students). Nature sets forth nine principles to be followed:

1. Nature observes a suitable time.

2. Nature prepares the material, before she begins to give it form.

3. Nature chooses a fit subject to act upon, or first submits one to a suitable treatment in order to make it fit.

4. Nature is not confused in its operations, but in its forward progress advances distinctly from one point to another.

5. In all the operations of nature development is from within.

6. Nature, in its formative processes, begins with the universal and ends with the particular.

7. Nature makes no leaps but proceeds step by step.

8. If nature commences anything, it does not leave off until the operation is completed.

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[24] Ibid., pp. 105-110.

9. Nature carefully avoids obstacles and things likely to cause hurt.[25]

Each of the nine principles is developed by analogy to nature, following a pattern of imitation, deviation, and rectification. Thus the ninth principle is illustrated as follows:

Imitation.--A builder keeps his materials dry, and guards against destruction of his work. So, too, the painter guards his picture against harm of wind, heat, or vandalism. The gardener protects the young plants from goats or hares by a railing.

Deviation.--By analogy, protect the student from badly written books, controversial points at the beginning of a subject, and from evil companions.

Rectification.--Take care that scholars receive books which are suitable sources of knowledge, virtue, and piety; and that the school and its vicinity be an environment of wholesomeness, free from bad companions.[26]

Chapter XVII. The Principles of Facility in Teaching and in Learning.

Follow nature in everything of educative value. Begin early; prepare the mind; proceed from the general to the particular; from the easy to the difficult; limit the subjects; make slow progress; do not force the intellect; teach through the medium of the senses and keep in view the use of things taught. All these rules can be followed by one and the same method. Ten principles follow which if adopted make education easy and pleasant:

1. Nature begins by a careful selection of materials.

   --therefore begin education early in life.

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[25] Ibid., Chap. XVI, pp. 111-127.

[26] Ibid., p. 126.

2. Nature prepares its material so that it actually strives to attain the form.

   --therefore the desire to learn should be excited in pupils, both on part of teacher and parents. The school should be a pleasant place.

3. Nature developes everything from beginning which, though insignificant in appearance, possess great potential strength.

   --therefore teaching must be done with aid of short, clear, and practical rules. The rules must be accompanied by examples.

4. Nature advances from what is easy to what is more difficult.

   --therefore teach in the vernacular first. Exercise first the senses, then the memory.

5. Nature does not overburden herself, but is content with a little.

   --learn one thing at a time.

6. Nature does not hurry, but advances slowly.

   --spend four hours a day in classes, and four hours in study. Memorize only after understanding. Adapt subject-matter to age and capacity of pupil.

7. Nature compels nothing to advance that is not driven forward by its own mature strength.

   --therefore seek for the readiness on the pupil's part to learn or do. Procedure follows explanation and understanding.

8. Nature assists its operations in every possible manner.

   --therefore give instruction by use of senses. Visual and audio aids.

9. Nothing is produced by nature of which the practical application is not soon evident.

   --teach things which can be demonstrated.

10. Nature is uniform in all its operations.

--therefore in each school the same arrangement and treatment should be adopted for all studies. Books for each subject should be of same edition.

By use of these principles, progress in learning will be made easy.[27]

Chapter XVIII. The Principles of Thoroughness in Teaching and in Learning.

Learning is sieve-like and faulty. The remedy is by adapting subjects to real use. Ten principles of nature point this out and translated in terms of schools are stated as:

1. Do not teach worthless subjects for nature produces nothing worthless.

2. Include morality and piety in the curriculum for nature, omits nothing necessary.

3. Awaken interest, as nature, too, builds on foundation.

4. Give a general conception of the subject first, as nature strikes her roots deep.

5. Study realia as nature developes everything from its own sources.

6. Teach self-evaluation in uses of learning as nature applies many uses to certain things.

7. Teach in sequence of studies, as nature is never at rest but advances continually.

8. Teach by cause and explanation for nature knits everything into suitable combination.

9. Practicality is necessary, for nature preserves a due proportion between quality and quantity.

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[27] Ibid., Chap. XVII, pp. 127-142.

10. Teacher-education is necessary. The monitor system of recitation is good, for nature becomes strong through movement and repetition.

By proper use of these principles thoroughness in teaching and learning is attained.[28]

Chapter XIX. The Principles of Conciseness and Rapidity in Teaching.

Skill should be developed in compacting diffuse things. The present diverse methods can be remedied by better planning. Divide school children into groups; use monitors; provide uniform books to each group; and have a regular routine. Use handbooks and dictionaries; but avoid unnecessary matter.[29]

Chapter XX. The Method of the Sciences, Specifically.

Use real objects for study. First present them to the class, as wholes, then as parts. The child learns by observation of similarities, differences, and performance. The teaching must be emphatic, followed by examination and reteaching.[30]

Chapter XXI. The Method of the Arts.

The eleven rules for teaching the arts repeat the use of observation and imitation. It is necessary to have models. Continuous study and practice is necessary.[31]

Chapter XXII. The Method of Languages.

The purpose of language is to learn and communicate knowledge. It is necessary to know the vernacular of one's own country, Latin; and also the language of the neighboring nation or nations. Use objects to teach words of any language.

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[28] Ibid., Chap. XVIII, pp. 143-160.

[29] Ibid., Chap. XIX, pp. 164-183.

[30] Ibid., Chap. XX, pp. 184-193.

[31] Ibid., Chap. XXI, pp. 194-202.

A Janua or book of words, arranged in sentences, teaches the nature of objects as well as the language. In the eight rules for learning a language are found all the tools needed for success:

1. Know the mother-tongue.

2. Allot a given time to study.

3. Learn language by practice.

4. Rules follow practice and strengthen the knowledge.

5. Rules should be grammatical and not philosophic.

6. Stress the difference in rules between the vernacular and the new language.

7. Teach from familiar subject-matter.

8. These rules apply for all languages

School-books, suited to several ages, should be four in number--the Vestibulum, the Janua, the Palatium and the Thesaurus. Gradation and suitable school-books are necessary to all who wish to learn languages with ease and facility.[32]

Chapter XXIII. The Method of Morals.

The arts and sciences are only steps to morality and piety. Teach cardinal virtues first such as prudence, temperance, fortitude, and justice. Learn the relative values of things. Teach the pupils to do everything by reason rather than by impulse. Enforce rules with kindly discipline. Teach by precept and example of exemplary lives.[33]

Chapter XXIV. The Method of Instilling Piety.

Seek God and through all live good lives. Rules to attain piety include teaching the young to observe and strive upwards to the next life; commune daily with God;

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[32] Ibid., Chap. XXII, pp. 203-211.

[33] Ibid., Chap. XXIII, pp. 211-218.

gear occupations to Christian life; study the Bible; support faith by works, and reverence God rightly. Call on God to help and trust in God.[34]

Chapter XXV. If we Wish to Reform Schools in Accordance with the Laws of True Christianity, We Must Remove from Them Books Written by Pagans, or, at any Rate, Must Use Them With More Caution Than Hitherto.

Use of pagan literature is folly and causes evil. St. Augustine found bases in the Bible for philosophy, ethics, and logic. Systematically cull the pagan writers. Use of Plato, Seneca, and Epictetus are permissible. Read Cicero when grown up. Study of scriptures will yield truth and reason.[35]

Chapter XXVI. Of School Discipline.

Discipline is necessary, but should be considered, justified, and in keeping with the occasion. The object of discipline is to teach us to revere God, assist neighbors, and be an artist in life's work. Follow the weather in administering discipline:

As Sun Always be benevolent:	Sometimes:	Seldom:
light and heat	lash out, as rain and wind	severe, as lightning or thunder

Corporal punishment rarely necessary.[36]

Chapter XXVII. Of the Four Fold Division of Schools, Base on Age Acquirements.

Schools should follow nature in that the whole of youth be devoted to education. The specific time being from birth to twenty-four years.

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[34] Ibid., Chap. XXIV. pp. 219-230.

[35] Ibid., Chap. XXV, pp. 231-248. Keatinge, on p. 306, in a lengthy footnote, points out the discrepancy between Comenius's denunciation of the classics in this chapter and his introduction of them into his scheme elsewhere.

[36] Ibid., Chap. XXVI, pp. 249-254. Lubinus is quoted on p. 253 as opposed to bodily punishment.

Four schools suffice:

I. Infancy School--The mother's knee--the place, home.

II. Childhood--The Vernacular School--the place, every town.

III. Boyhood--The Latin School--the place, every town.

IV. Youth--The University--the place, every province.

Travel follows the university training.

> "These different schools are not to deal with different subjects, but should treat the same subjects in different ways, giving instruction in all that can produce true men, true Christians, and true scholars; throughout graduating the instruction to the age of the pupil and the knowledge he already possesses."[37]

Chapter XXVIII. Sketch of the Mother-School.

A list of knowledge children should comprehend by age of six is given.[38]

Chapter XXIX. Sketch of the Vernacular School.

Send all children to the Vernacular School. Herein I differ from Alsted and Zepper, for my whole didactic system includes all that is proper for man, regardless of station in life. The beginning of education can best be obtained from books written in the mother-tongue. This school is for all between the ages of six and twelve. The curriculum includes reading and writing in the native tongue, arithmetic, music, Bible stories and Psalms, general history, physics, mechanic arts, and morality. There will be six classes, of which each class can have four sessions a day for the various subjects.[39]

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[37] Ibid., p. 256.

[38] Ibid., Chap. XXVIII, pp. 259-265.

[39] Ibid., Chap. XXIX, pp. 266-274.

Chapter XXX. Sketch of the Latin School.

In this school the pupils should learn four languages and acquire the encyclopedic knowledge of the arts. At the end of the course the pupils should be trained in grammar, dialectic music, mathematics, astronomy, geography, history, morals, and theology.

Here, too, there will be six classes of progression.[40]

Chapter XXXI. Of the University.

University study should embrace a universal curriculum, where the student can study any branch of human knowledge. Students for university study should be selected by testing, morally as well as intellectually. Use the classics for study. Teach by lecture and class discussion. Learn by reading, observing, discussing. There should be a Universal College to advance the limits of knowledge, virtue, and piety.[41]

Chapter XXXII. Of the Universal and Perfect Order of Instruction.

Use the method discussed in this book for all teaching. Be regular in physical routine, as school terms, recesses, examinations, and promotions.[42]

Chapter XXXIII. Of the Things Requisite Before this Universal Method Can be Put Into Practice.

Reform is slow, but each village and town should start with what they have and build on that. Lack of money should not hinder educational projects. Prayer will bring help.[43]

Thus the entire book seems to be the fountainhead of Comenius's general theories on education. As shown in the foregoing brief resumes of its many chapters, it serves to

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[40] Ibid., Chap. XXX, pp. 275-280.

[41] Ibid., Chap. XXXI, pp. 281-286.

[42] Ibid., Chap. XXXII, pp. 287-294.

[43] Ibid., Chap. XXXIII, pp. 295-302.

outline a concrete plan for reorganizing the schools of any nation. It sings the theme that education is an elemental human need, demonstrated by nature. Comenius had formerly embraced selective education as a part of his thinking, due to influence of educators like Alsted and Zeppler as he himself pointed out in the chapter on the Vernacular School.[44] The whole of the Great Didactic emphasizes his broader concept that education is a God-given right.

The closing words of the book are almost an anthem to God, a second Song of Moses, extolling the day when the gate will be opened to universal education for all; and no expense be spared in order to give youth a thorough education.[45]

In upholding the need for an education, common to all classes alike, Comenius calls for better schools and greater support of schools on the part of the public. He puts the responsibility, first of all, on the parents' shoulders, as shown in the statement of Chapter VIII above.

With his ever-present use of analogy, Comenius demonstrates why both boys and girls, dull and apt pupils, should be sent to school. God is no respecter of persons, and any man may be an instrument for His glory. All that live have a right to flourish and blossom by education.[46]

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[44] Ibid., p. 266.

[45] Ibid., pp. 301-302.

[46] Ibid., p. 67.

His proposed school reform, he says, is a possibility and needs only active champions to accomplish great things. The basis of such reform must be exact order, as the mechanism of a clock, and a beginning must be made where the present schools exist.

He pointed out the advantages of group instruction over tutorial methods in Chapter XIII. He believed that schools should be thought of as workshops of humanity, the place of molding God's highest creature--man.

He advocated a curriculum of wide scope, although he felt that no one person could master all exact knowledge. His course of studies included art, science, languages, moral development, physics, mechanical arts, music, and a sincere worship of God. The school could teach all these things most effectively by graded classes; and by separate schools for the four main stages, as sketched in the last chapters of the Great Didactic.

Comenius's criticism of the schools of his time was just. He pointed out the neglect of the practical and pleasant side of education, and showed how emphasis on intellectual progress and rote learning had shut out life and experience. His basis of school reform rested, then, upon the theory of exact order, as the soul of things, which holds the world together. He carefully set forth a list of obstacles to order, such as short life and lack of

opportunity; and using nature as a pattern, showed how to overcome these obstacles by a good organization of schools, in which at each level all consideration was to be given to proper division of work and rest, study and recreation, food habits and exercise.

His method of presentation in the Great Didactic, as we have seen especially in the outline of chapters sixteen, seventeen, and eighteen, followed an exact form or order just as did the school reforms he advocated. First he gave an example, then pointed out the limitations and deviations, and finally gave the rectification. He insisted on a thoroughness in teaching and learning. Haste being abhorrent to nature was not to be tolerated in schools.

Jelinek says of the book,

> "Although the Didactica magna is today considered one of the great classics of pedagogy, it remained almost unknown for two hundred years. Its prolix and repetitious style, its lack of precise definition, and some of its rather trivial comments and illustrations displeased even sympathetic readers among the author's contemporaries, who could not perceive the bold and far-reaching reforms presaged in this work."[47]

The modern reader is apt to get bored at the endless repetition and quaint analogy, but is at the same time, from the first chapter, impressed with the plans of Comenius.

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[47]Vladimir Jelinek, The Analytical Didactic, op. cit., p. 16.

Perhaps this is so because the twentieth-century reader has had all the benefits of the kind of education unknown in Comenius's time, but envisioned by him in the Didactic.

His idea of teaching the same basic principles at each level of achievement, has long been in practice in the schools of today. All studies should be carefully graduated throughout the various classes, in such a way that those that come first may prepare the way for those that follow.[48] The spiral plan of study which he advocates in each of the classes in each school, is brought out clearly. His textbooks as will be shown later in this chapter, are also written on this theory.

Comenius felt that the most needed things to improve the education of his day included:

1. Adequate provision for school funds.[49]
2. Better trained teachers.[50]
3. More books, uniformly printed.[51]
4. More interest on the part of leaders, both civic and eccleciastic.[52]

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[48] M. W. Keatinge, op. cit., p. 124.

[49] Ibid., p. 77.

[50] Ibid., p. 26.

[51] Ibid., p. 269.

[52] Ibid., p. 60.

5. A universal method of instruction on each level. This last point he brought out in almost every chapter.

The Great Didactic, presented Comenius's original ideas on principle and method in teaching, although it did not come into full recognition until the nineteenth century, while the Analytical Didactic, as mentioned in Chapter III of this study, was known earlier as a part of the Methodus, yet in point of time was representative of a later period in Comenius's life.

There are in existence two versions of the Analytical Didactic.[53] The translation as pointed out in the last chapter follows the first edition, indicating in the footnotes any changes found in the second edition.

Part I is on general didactics. It is composed of eighty axioms which emerge as a result of serious thought about the art of teaching. They are tersely stated and range from the first one given, "There is no knowledge without an idea or original image."[54] to the eightieth, "To accomplish a thing, we must understand it, choose it, and perform it."[55] The axioms include most of the points

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[53]Leszno Edition (1648/9) and the Amsterdam Edition (1657).

[54]Vladimir Jelinek, The Analytical Didactic, op. cit., p. 104.

[55]Ibid., p. 126.

brought out in the Great Didactic but are here given briefly with very little analogy.

Part II is concerned with special methods, and is a continuation of the Axioms and their explanations. For instance Axiom CXL states, "The first age should be instructed only in matters that touch the senses."[56] This idea was first given in his Great Didactic and is an echo of Bacon's principle. Comenius constantly refers to "the great Verulam" and his works. He adhered to his principles in the sphere of historical, not theological knowledge.[57]

Part III is entitled, "Special Memoranda on how to teach rapidly, agreeably, and thoroughly." Again the axioms go on in consecutive number from the second part, and are stated as briefly as possible. Axiom CLIX simply states, "Straight to the mark; avoid all bypaths."[58] and explains in the paragraph below that the end rather than the means should be considered. Anything which leads to the goal should be the royal road.

Today educators give more serious consideration to the right means, whereas Comenius assumed that any means used would be right. The special memoranda bring the total

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[56] Ibid., p. 161.

[57] Ibid., pp. 162, footnote. [Also see: Gabriel Compayre, History of Pedagogy, p. 133.]

[58] Ibid., p. 172.

number of axioms in the Analytical Didactic to one hundred and eighty-six. The goal of learning is stated in the final axiom that "every pupil should acquire the habit of also acting as a teacher."[59] Thus is seen the idea that a school-course properly completed would, to Comenius's mind, lead to ability to teach.

For a thorough comparison of the Great Didactic and the Analytical Didactic the reader is directed to Jelinek's recent book.

The fresh vigor of his Great Didactic is missing in the Analytical Didactic, although the main principles overlap.

In contrast to the fate of his works on methods, the first text-book that Comenius wrote was the Janua linguarum reserata, and was known and used from the time of its first edition in 1631. Its purpose was to put into active practice a new method of teaching languages. In accordance with Comenius's thoughts on method its plan followed the order of chapters, one hundred in this case. Each chapter was divided into several sentences, giving information about a variety of things. Altogether there were one thousand sentences of increasing difficulty. The entire book made use of about eight thousand main Latin words, each used

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[59] Ibid., p. 193.

only once. The defect is glaring; in order to learn the Latin language from the Janua, it would have been necessary to commit it to memory.

There were many editions printed in many countries, and some reached the omnibus class of five parallel columns in as many languages. A 1649 edition[60] in the possession of the present writer, is composed of three columns, Latin, Greek, and French. In comparing it with a 1662 edition[61] containing also three columns, in English, Latin, and Greek, it is found that many of the chapters are moved to different positions, but by and large, it is the same Janua.

To give a good idea of the nature of the sentences in the Janua, the following two are copied from the 1662 edition just referred to. The lengths of the sentences are much expanded from the first edition (1631), and represent a harder task for the pupil. Chapter thirty-seven tells of the Trades of things belonging to drink:

> 369 "Naturalis patio est aqua, (fontana puteana, fluminea;) tum lac, ferumve lactis: dehinc didicerunt parare inebriantes potus, temeta; ut mulsum, pomatumque, mustum: tandem invaluerunt vinum, cerevisia, crematagque vina, quae quomondo fiant, videamus.

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[60] J. A. Comenu, Janua linguarum reserata, (Amstelodami, 1649).

[61] Johannis Amos Comenu, Janua linguarum trilinguis (Londini, 1662).

> 370 "Vinitor plantat vineam: dum obserit collem apricum, novelis viticulis; aut propagat vites verteranas traducibus; aut earum cacumina mergit terrae, ut utrinque radicatoe, post discissae, duae fiant."

Parallel to the Latin is given the English:

> 369 "The natural drink is water (spring-water, well-water, river-water) then milk or whay: after that they learnt to get fuddling drinks, strong drinks as meath, and Cyder: at last wine, beer [ale] and burnt wines [brand-wines] came in fashion which after what manner they are made let us see.
>
> 370 "The Vine-dresser planteth a vineyard: whilest he sets a funny hillock [bank] with little young vines; or spreadth old vines by their shoots, or sticks the tops of them under-ground, that being rooted on both sides and afterward cut asunder, they become two."[62]

The Greek translation was printed opposite to this, but need not here be copied.

The reader may ask, "How is it possible to teach a boy Latin and Greek from a book written on such a plan?"

The words given above are in many cases hard to remember, and each is used only once. The student had to read each sentence over and over to learn the words. This must have made even the most conscientious pupil a little impatient. Keatinge says,

> "A modern writer who wished to contruct of book of this kind would proceed on the assumption that a very limited number of words must be repeated

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[62] *Ibid.*, p. 89.

> as often as possible, so that each, by dint of its perpetual recurrence may impress itself on the mind. Of the great principle of iteration Comenius was well aware; indeed he lays special stress upon it, and it is therefore the more surprising that in this instance his practice runs directly contrary to his theory."[63]

In spite of the shortcomings, the Janua had great popularity. It was translated in twelve languages--Latin, Greek, Bohemian, Polish, German, Swedish, Belgian, English, French, Spanish, Italian, and Hungarian.[64] At any rate, it was used in classrooms for centuries. The reader of today can gather ideas of the times and customs of Comenius's era from it. It began with the story of the world, man and government, both divine and human. In it are sentences about the heavens, the earth, minerals, plants, animals (both wild and tame). The solemn statement is made that elephants are afraid of mice.[65]

Included also are the trades, the planning of cities, marriage and family relations, geography, economics, gardening, physiology, philosophy, oratory, and rhetoric.

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[63] M. W. Keatinge, The Great Didactic, op. cit., Vol. I, p. 23.

[64] Ibid., p. 23.

[65] Janua Linguarum Trilinguis, op. cit., p. 38. "The elephant the biggest of great beasts is said to be affrighted at the sight of a little mous, and the grunting of a hog!"

It was, in reality, as one readily perceives, Comenius's first attempt at pansophia. The book was a medium to teach the child all things in the universe, and in a very methodical way.

In 1633, Comenius published a volume on physics, which Keatinge says is worthy of attention because in it the didactic laws are based on the operations of nature and on the fundamental principles that underlie the constitution of the universe. It is a book of twelve chapters, and has not been translated into English, although Keatinge translates the chapter headings.[66]

Great as was the popularity of the Janua in its many editions, one other textbook of Comenius's is of greater importance to the progress of learning through the use of books. This is the celebrated Orbis sensualuim pictus. Many of the history of education books and modern encyclopedias state in discussion of the Orbis that it was the first picture-book for children, but H. G. Good says,

> "The Orbis Pictus was neither altogether original with Comenius nor was it the first illustrated school book; and its pictures were rather rough wood-cuts."[67]

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[66] M. W. Keatinge, The Great Didactic, op. cit., p. 26.

[67] H. G. Good, A History of Western Education, (New York, 1950), p. 191. (Comenius got the idea from Lubinus.)

Recent research agrees with Dr. Good's statement: nevertheless it was a decided innovation at the time of its appearance and had wide and immediate popularity. Since it was the first of its kind to be printed in any quantity, this is understandable. The book was planned and composed while Comenius was in Saros-Patak in 1650-1654. Comenius had some trouble finding an engraver and printer who would undertake the job of printing it. Finally he engaged Michael Endter of Nuremberg, Germany. There, in 1657, it was printed both in Czech and in Latin.[68]

Within a year the English schoolmaster, Hoole, had made and printed a translation for use in England. Many education textbooks print an isolated page on two from the Orbis Pictus; however to get the full flavor of the kind of lesson it introduced one must examine carefully the whole book. C. W. Bardeen, in 1887, edited and had printed, the Orbis Pictus in the United States. It is well worth the time necessary to read it carefully. He has, by error, interchanged the cuts CV and CVI.[69] The text is in the right order, however, and this mistake is of small consequence.

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[68]Karl von Raumer, Barnard's Journal of Education, Vol. V., p. 260.

[69]C. W. Bardeen, The Orbis Pictus of John Amos Comenius, (Syracuse, 1887), p. 130-133.

One other edition of the Orbis will be discussed here, that of the Orbis sensualium picti, printed in Nuremberg, Germany, in 1769, by Joh. Andr. Endt. It is noticeable that the name of the printer Endt, is almost the same as Endter, the printer of the original edition, 112 years earlier. It well may be that the same family were still in the printing business and had access to helps from the original cuts, from which new ones were redone by a more skilled artist.[70] The cuts in this edition show more artistry and yet lose nothing of the idea. No. 43 is the representation of the soul which Bardeen says is not the original one, that being the outline of a human figure with no features.[71] The illustration in the 1769 edition is a table with some Roman numerals and an all seeing Eye on it. Illustration No. XCIII is signed by the artist Abraham Van Werff.[72] Very possibly he did all the art work for this double volume. Bardeen makes no mention of a second Part to the Orbis pictus, but it has been determined that it was not the work of Comenius. Since there was such a demand

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[70] I own a copy of this edition, and have observed and speculated about these statements, but have no absolute proof that the printers are of the same kin.

[71] C. W. Bardeen, op. cit., p. 68.

[72] See appendix of this dissertation, facsim. No. 1.

for texts with pictures, this volume gives concrete evidence of imitations which were made to supply the demand. Thus the "Pars II" of the 1769, Nurenburg, edition has a cut for each lesson, with small numbers which were repeated in the text to show which thing was pictured as well as the word, just as in Comenius's original. The lessons, however, are longer and more difficult. Compayre in his History of Pedagogy used a facsimile from this 1769 edition as an illustration of Comenius's Orbis pictus,[73] making no mention of the particular source as does Bardeen, who used only originals.

As to the plan and scope of the Orbis pictus, it is a Janua with pictures, and would also have to be memorized to give the student the Latin vocabulary which it embraces.

In the preface Comenius addresses the reader with a lengthy statement of his purposes in bringing to publication this volume. These aims include:

1. To secure true instruction, by teaching things beneficial to life.
2. Life is full if the mind is wise, the words eloquent, and the actions neat.

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[73]Gabriel Compayre, History of Pedagogy, trans. by W. H. Payne (Boston, 1886).

3. Learning becomes clear and solid if the things taught be apparent and articulate.

He said that the book taught from sense and sight to understanding. One could expect from it:

I. Pictures to represent all the visible world in the order found in the Janua.

II. Nomen-clatures on general titles set over the pictures.

III. Descriptions, numbered with corresponding numbers in the picture.

Due regard is and should be given it for two reasons: First we find here the practical application to the intuitive method of teaching and learning, and secondly it has become a model for the centuries. Though it is not the progenitor of picture-books in the absolute, it most certainly is the ancestor of all the wide range of illustrated reading and textbooks in the school-rooms of the twentieth century.

Much of its information is long out-dated by new inventions and progress, as the pictures of Bread-making (No. L), and Cookery (No. LV). Some scenes in rural parts of Europe today could still be described by the words of the Orbis, especially the sheep-herding and gardening. The work was designed so that the master and pupil could have a pleasant conversation about real things with the use of

the pictures to suggest words. The pictures, as is the information, are out-moded by the age of technology, but are amusing to the beholder. Some of them were of quite a complex nature, such as that of Judicium, cut CXXIV, shown in the appendix. The numbers after some of the words refer to the numbers on the picture. In Judicium, at the right of this cut, figure 4 refers to the scribe; words in the text, also numbered 4, indicate the Latin dicographus, and the German der gerichtschreiber, for the scribe.

The book has no adornments for rank, and could be used both by rich and poor. There is one allusion to difference of circumstance in speaking of the study and the scholar, "Richer persons use a taper for a tallow candle stinketh and smoaketh".[74]

After the preface and invitation to the student, Comenius placed a vocal alphabet which is very interesting.[75] There is a picture of something that makes a noise, and in the second column the meaning given in both German and Latin. The third column has the sound of the noise indicated, and in the last column, the alphabet is given in capital and small print. The alphabetical order applies to the sound of the verb describing the noise.

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[74]C. W. Bardeen, op. cit., p. 121.

[75]See appendix, facsim. No. 4, this thesis.

A few of the sounds are a little far from accuracy, for the wind does not always blow with a fi fi sound, but the cry of the crow, aw - aw--is well chosen for the sound of a. The sound of r-r-r-r is still associated with the dog growling, and is aptly placed by R. The child's alphabet book of today is usually of a similar nature, but the sounds are presented by words which imitate: Here the dog would say, "Bow-wow", and the crow, "Caw, caw" and so forth. The values which Comenius ascribed to the Orbis are:

> "(1) It assists objects to make an impression on the mind, as we have already pointed out. (2) It accustoms the little ones to the idea that pleasure is to be derived from books. (3) It aids them in learning to read, for since the name of each object is written above the picture that represents it, the first steps in reading may be made. (4) It serves for the learning of the mother tongue. (5) It is a pleasant introduction to the Latin language."[76]

This one book certainly marked Comenius as a famous teacher, and it is no wonder that it was so popular in an age when children had no other picture books to look at.

In order to comprehend the wide range of educational thinking on the part of Comenius, it is necessary to mention his book called Schola Infantiae or School of Infancy, originally written in Bohemian in 1628-1630. The style is voluminous and includes chapters on the care of children

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[76]Keatinge, op. cit., resume of pp. 264-265.

(both pre-natal and post-natal), why so many children are born, the need of a good education, safety, health, morality, piety, and how long the child is to be taught by the mother. His dedication is to all parents, and enumerates three duties; to realize the preciousness of children, the importance of being entrusted with children, and the realization that children suffer if education is neglected. It is an admirable essay on the education of youth during the first six years of life. The English translation can still be read with profit.[77]

The School of Infancy is planned on the broad knowledge of the universe, as are his other books, and gives a full account of all subjects that should be taught to the pre-school child. Since the mother school is to lay the foundation for all later learning, Comenius emphasizes the need for universal education. There should be four schools from birth to maturity, each of six years' duration and topped off by a year of travel. These schools he called: Mother School, Vernacular School, Latin School, and University Study. Each taught "all things to all men" on a spiral plan of increasing depth and range of knowledge. The School of Infancy is truly valuable as an early treatise

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[77]Will S. Monroe, Comenius' School of Infancy (Boston, 1896).

on claims of childhood as well as parental obligations. Comenius says:

> "Parents must by all means provide for the training of their children in the duties of faith and piety; so must they also provide for the more polite culture in the moral sciences, in the liberal arts, and in other necessary things; to the end that when grown up they may become truly men, prudently managing their own affairs, and be admitted to the various functions of life which, whether ecclesiastical or political, civil or social, God has willed them to fulfill, and thus, having righteously and prudently passed through the present life, they may, with greater joy, migrate to the heavens."[78]

In many respects it is analogous to the Great Didactic, but addressed mainly to mothers. It deals only with the education of the child through the sixth year.

Chapters four through seven list, in great detail, the knowledge which a child should acquire by the age of six. To use geography as an illustration: Comenius says that by the end of the first year of life the child should know where his cradle or bed is located; by the end of the second year he should know the daily routine; learn the rooms of the house, and yard, in the third year; short trips in the fourth year; be able to know things listed on cards in the fifth year; and by the age of six know the

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[78] Ibid., p. 10, from the preface by Comenius.

meaning of village, town, city, garden, river, forest, and local geography.[79]

In his statements on child-care, Comenius gives reasons why mothers should nurse their babies and give them loving attention. He cites Titus, Caligula, and Tiberius, as examples of humans evilly nursed. He attributes to that fact their sickliness, cruelty, and drunkeness, respectively.[80]

Moral training and language are not to be neglected in these years, but taught by example of the parents, because children are imitative. "Instruction, however, and that properly timed and prudent, must accompany example."[81]

Comenius, then, concerned himself with educational problems from a child's birth until full maturity and made a plea for the best education possible for all children, boys and girls, from all walks of life.

In the School of Infancy Comenius is careful to provide the children with occupation for "mind and hand". Thus for example, drawing is to be practiced by all. To Comenius it didn't matter whether the objects were drawn correctly

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[79]Having numerous small nieces and nephews, I tested several of them according to the standards set forth in the School of Infancy; they came up to Comenius's set standard in all but political knowledge. Such testing on a controlled scale might serve to establish the universality of Comenius's ideas on early education.

[80]Will S. Monroe, op. cit., p. 29.

[81]Ibid., p. 57.

or not provided they gave delight to the mind. High on the list of activities in nursery schools and kindergartens are drawing, coloring, finger-painting, and so forth, ideas which were first voiced by Comenius.

It should be here noted that he encouraged the use of rhyme in training young children. For example,

> "If baby had been sitting still,
> It never would have suffered ill."[82]

Oddly enough the sense of this admonition is contradictory to his plea on an earlier page "to always encourage activity."[83]

The School of Infancy has an essentially modern outlook, and was a new appeal to his age, but was never published in Czech until 1858.[84] In it Comenius set forth the great truth, so often forgotten, that education begins at birth.

From his books reviewed above certain theories and principles stand out, important to education in any era. Comenius did not originate all of his ideas and was ever thoughtful enough to pay tribute to his predecessors. Because of the social milieu and upheaval in his own age,

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[82] Ibid., p. 53.

[83] Ibid., p. 45.

[84] M. W. Keatinge, The Great Didactic, Vol. I, p. 17. It was published in Latin at Lissa (1633) for the Palatine of Belz (Op. Did. Ann. i 197).

the aftermath of the Reformation, his main theory set forth the idea that universal education would furnish the means to redeem man from evils which made life worthless. His religious precepts weighed heavily in all his writings on education, but did not exclude the possibilities of the scientific approach gleaned from Baconian influence.

The main educational principles which Comenius advocated were expressed by him as needs for:

1. True universal knowledge taught in universal vernacular schools.
2. Definitive divisions by schools in a one-class society. (The four schools: infant, vernacular, Latin and university.)
3. Graded classes within each school.
4. Specially prepared books.
5. Specially trained teachers.
6. Pleasant learning atmosphere.
7. Pansophic knowledge.
8. Universal language.

Comparing this realism with the then prevailing humanism it is readily seen that the sense-realists (of whom Comenius was a leading exponent in Europe) set forth the plan of transforming the schools of all levels to include all classes of society. Comenius conceived man and

nature as order and law working with a purpose. To him the biologic process was the mind process, and the world being dynamic instead of mechanical, he saw each organism growing from seed to fruit.

Comenius emphasized the importance of division of work and rest, activity in study and recreation, moderate food habits, pleasant background, and actual aids to teaching. These were daring policies in his time, but factors which we now accept as quite usual. The frame-work for the application of his principles (necessary to accomplish his goals in education) rested upon his conception of carefully graded studies and a constant appeal to the faculties of sense preception, with this solid basis his main theories could have scope to grow and flower. Education would proceed from the general to the special, and after the sixth year of life the child would attend the public school nearest his home. These primary schools were to be located conveniently, and attended by everyone, whether rich or poor. Comenius would limit the subjects more than was usual in the humanistic schools and substitute one class-book for each grade level. The proposed class-book was planned to educate the child for usefulness in this life, and as a moral stepping stone to the next world. As a very necessary accompaniment to the class-book, Comenius

advocated liberal use of maps, pictures, objects and experience. Each year the child was taught all knowledge of the universe and man, but with added depth and detail. Comenius favored this overlapping, for he said that it aided the understanding which mere memorization seldom did. These ideas were the forerunners of Pestalozzi's and Froebel's theories but lacked the psychology expressed by them. On the other hand this lack was more than balanced by practicality which Comenius ever championed.

His mode and procedure in finding principles and rules was analogical. The science of nature in his time was just beginning, and though his sense of harmony of things aided him, he made many fanciful illustrations to support these principles. With him the building up of the mind was an organic process. This contrasted with John Locke's conception of the disciplinary aspect of education. Locke agrees with the sense-realists in consideration of the materials of study, but his differences show up in this excerpt from his Thoughts Concerning Education:

> "Learning must be had, but in the second place, as subservient only to greater Qualities. Seek out somebody that may know how discreetly to frame his manners; Place him in Hands where you may, as much as possible, secure his Innocence, cherish and nurse up the good, and gently correct and weed out any bad Inclinations, and settle in him good Habits. This is the main Point, and being

> provided for, Learning may be had into the Bargain, and that, as I think, at a very easy rate, by Methods that may be thought on."[85]

Locke's philosophical writings bring out his conception of the intellectual view of education. Comenius sought to have pupils actually learn all things, while Locke proposed an increase of the powers and activities of the mind, rather than an enlargement of its possessions.[86] This was a process of reflection and meditation, as opposed to Comenius's idea of experiment and learning of facts by observation.

Comenius in his thinking was trying to find a way to help mankind on a universal scale. This was bound to invite much criticism.

In an address at the three hundredth anniversary dinner in honor of Comenius, Mr. Laurie said,

> "It has also to be noted that to write anything having the aspect of novelty on education and schools is to attack a large and powerful class and insure their hostility. Even the venerable Comenius, when his life-work was approaching its close, was assailed at Amsterdam as an arch-enemy of schools and school-masters and had to make a pathetic defense."[87]

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[85] John Locke, Thoughts Concerning Education (1693).

[86] John Locke, Conduct of Understanding (1692).

[87] S. S. Laurie, "Place of Comenius in the History of Education", Educ. Review (March, 1892), Vol. 3, p. 213.

Comenius's ideas in the present century have been to some extent realized as is evidenced by testimony of educators in anniversary addresses and leading articles. His ideals, not yet realized, such as pansophic college which would be an international clearing house for present-day universities and technical colleges, are analogous to the ideas of contemporary university reformers.

Due to vast expansion of knowledge and to world-wide progress not foreseen by Comenius, the weakness of his aims are made apparent. The very complexity of the growing body of knowledge as scientific inquiry developed, precludes the possibility of complete pansophic learning. While he advocated usefulness in this life, he believed the ultimate end of man to be eternal happiness with God; this strict pattern of learning, virtue, and piety limited the scope of education as conceived by him, excluding some humanistic studies. The greatest weakness of his theories was due to national restrictions which barred any hope for a universal language or a true one-class society. The world, in his life-time was not ready to accept his inspiring goal.

Comenius's idea of teaching in the vernacular is now a commonplace routine in every nation in the world. New problems, however, have risen as barriers to maximum educational progress. The technological age has brought with it an attitude of doubtfulness, whereas the optimism

of Comenius is evident throughout his writings. He accepted society as he found it and taught that society should reform itself.

Since the holocaust of World War II and the threat of communism, which may engulf the whole globe in an atomic war, it is more than ever essential to envision, plan, and build schools which will encourage good will between states and nations. Thus Comenius's aim of establishing universal brotherhood is a more vital necessity to the world than ever before.

From the methods and techniques of Comenius, set forth in the next chapter, a further basis will be formed for pointing out the reflections of his total educational philosophy in present-day education.

CHAPTER V

THE EDUCATIONAL METHODS AND TECHNIQUES OF COMENIUS

The gap between teaching and learning should be bridged by method and technique. Comenius as one of the early exponents of this idea, formulated his methods in his various writings on educational subjects. He said,

> "To teach skilfully is to know reliable methods of good teaching and to adhere to them so as to promote knowledge of things rapidly, agreeably, and thoroughly.
>
> Always and everywhere in the act of teaching and learning these same activities come together; to teach, to learn, to know."[1]

In this chapter is to be set forth a detailed presentation and discussion of his methods and techniques that have any bearing on present-day education. Comenius himself advocated that subject matter should be arranged from the general to the particular[2] and in that vein, first to be stated here are his two fundamental ideas of instruction. His general statements in regard to both administration of schools and instruction in schools will follow, and then a detailed list of particular and special methods, as conceived by him, will be set forth so that the reader can

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[1] The Analytical Didactic of Comenius, trans. and ed. by Vladimir Jelinek (Chicago, 1953).

[2] Ibid., p. 121.

clearly grasp all the techniques of Comenius that are of importance to education in the twentieth century. Several paragraphs will be devoted to discussion of his pansophic school methods and his preoccupation with this idea. The rest of the chapter will be devoted to the interpretations of Comenius's methods by the leading writers on the subject.

The most outstanding of his ideas about education was that all instruction should be by gradation of difficulty, corresponding to age level and ability. This theme runs throughout his didactic works. That this was a departure from known form is evidenced even by Milton who wrote, for Samuel Hartlib, a paper on education which discounts the modernism of Comenius and others, in order to hold up the ideals of educational forms of the past.[3]

Comenius not only advocated the four graded schools as explained in the last chapter, but divided the students into classes within each school, setting up standards and achievements which followed the precepts of learning by advancing from one class to the next. This is brought out by evidence of the six class-books which he wrote for the

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[3]John Milton, Von der Erziehung, To Master Samuel Hartlib, 1664 (Deutsch and English, Auflage, 1946). In this paper, Milton declared he had no time to read the many modern Januas and Didactics, but would give Hartlib his own observations on educational method. pp. 30-31.

Vernacular School.[4] The books themselves were lost but the titles translated into Latin and a short description of each are to be found in the Opera Didactica Omnia, Comenius's Amsterdam work of later years. These books were composed with a view to the reorganization of Evangelical schools in Bohemia. The titles, having to do with gardens, Keatinge has translated into English:

1. The Violet-bed of the Christian Youth, containing "the pleasantest flowerets of scholastic instruction".
2. The Rose-bed of the Christian Youth, containing "nosegays of the most fragrant flowers of knowledge".
3. The Garden of Letters and of Wisdom, a pleasantly-written account of "everything necessary to be known in heaven and earth".
4. The Labyrinth of Wisdom, composed of questions and answers.
5. The Spiritual Balsam-bed of the Christian Youth, in which the use of all sciences and arts is demonstrated.

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[4]The Great Didactic of John Amos Comenius, trans. and ed. by M. W. Keatinge, Vol. I (London, 1921), p. 16.

6. Paradise of the Soul, which comprised an abstract of Scripture History, together with the principal Church hymns and prayers.[5]

Keatinge says,

> "It is much to be regretted that this series of books has not been preserved, but the titles enable us to gather an adequate idea of their contents. In particular should be noticed the way in which the principle of gradation is applied."6

Comenius intended the scholar to enter the vernacular school, having received a background in the elements of knowledge in the school of "the mother's knee".[7] This general learning is developed in a definite way by means of regular class instruction. By the time the pupil reached the twelfth year a fair acquaintance with the realities of the world around him would be achieved. Latin is left to the next stage or school.

Comenius's ideal of gradation stemmed from the manifestation of the Reformation, and from ideas of Luther who railed at old grammars and who advocated compulsory

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[5] Ibid., p. 17.

[6] Ibid., p. 17.

[7] Explained in detail in Comenius's School of Infancy, trans. by Daniel Benham (London, 1858).

education.[8] Lubinus criticized the method of Latin instruction, and Comenius quotes him as an authority in support of the need of school reform.[9] Calvinist schools did interperse Psalm-singing and prayers with the grim outline of grammar studies. In England, Wolsey's schools prior to the Reformation were better than those during and following it, but Comenius was more aware of the ideas of educators such as Lubinus, already mentioned; and C. Vogel, Ratke, Helwig, Ritter, Bodin, and Glaum.[10]

> "Vogel, who was head-master of the Paedagogium at Göttingen had drawn up a scheme of instruction in Latin in which he had specified the daily task for twelve months."[11]

So it is seen that Comenius had done much reading and thinking on the schools as he found them in his student-days. In all his advocation for graded classes, however, he never condemned society. Rather he preached that it would be best "to develope what exists if it is at all good",[12] and add to it.

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[8] The Great Didactic, op. cit., Vol. II, p. 76. "Dr. Luther in his exhortation to towns of the empire on behalf of the erection of schools (A.D. 1525) asks for two things. Firstly, schools in all cities, towns and villages for instruction of the young of both sexes. Secondly an easier method of instruction than use of harsh grammars."

[9] Ibid., Vol. II, p. 79.

[10] Ibid., Vol. I, pp. 7-12.

[11] Ibid., Vol. I, p. 12.

[12] Ibid., Vol. II, p. 97.

The second outstanding idea of Comenius in regard to instruction was that there should be constant appeal to the understanding through preception of the senses. This must start with the teacher and be directed toward the pupil. Here nature sets the example by a suitable time. (Today it is called school and reading readiness.) In Comenius's Mother School there were no books, and all instruction was by use of real things appealing to the senses of the children. This was the development from within the child, which stimulated interest in further learning when the fit time approached.

In the Great Didactic, Comenius often waxed ardent in his vision of reform; and the result was much minutiae and some repetition, but his hope for mankind is evident in his plea for "happier" students; about this important philosophy he says,

> "Thus would be fulfilled Luther's wish that the studies of the young at school could be so organized that the scholars might take as much pleasure in them as in playing at ball all day, and thus for the first time would schools be a real prelude to practical life."[13]

In consideration of Comenius's methods which applied to general school administration, the didactic studies yield several items on teacher-ability, use of materials, school-buildings, and the division of the curriculum.

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[13] Ibid., Vol. II, p. 180.

The most concise statements in regard to teachers and theories of teaching are to be found in the Analytical Didactic:

1. A teacher should be competent to teach.[14]

2. Let theory always come before practice.[15]

   The theory of getting things done consists in knowing what, by what means, and in what way a thing is to be done.

3. Aptitude, discernment, and diligence, if present together, make for remarkable progress.[16]

4. Constant discipline.

   The word is used properly here, to denote a means of enforcing instruction. (Routine)[17]

5. You will teach in vain one who is uninterested unless you first make him eager for learning.[18]

6. You will find it difficult to teach one who is unripe for instruction.[19]

It will be noted that these last two items are negatively worded. In terms of administration they imply that children should be enrolled in classes at the proper

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[14] The Analytical Didactic, op. cit., p. 103.

[15] Ibid., p. 155. [The exemplar here spoken of is a sort of principal in the school.]

[16] Ibid., p. 104. [The idea of aptitude-testing.]

[17] Ibid., p. 117.

[18] Ibid., p. 103.

[19] Ibid., p. 103.

age and ability level. The school shares the responsibility of creating interest in education.

The most of the techniques for use of materials will be placed later in the section on classroom instruction but some axioms apply to the over-all school routine:

1. Proper use and care of materials, such as models, should be enforced.[20]
2. Text-books suitable to the age of the child, should be uniformly printed.[21] Comenius says, "There will, therefore, be two kinds of class-books, those that contain the subject-matter and are intended for the pupils, and guide-books to assist the teacher to handle his subject properly."[22]
3. Visible objects should be brought before the organ of sight, and audible sounds before that of hearing.[23]

The references to the school-buildings are more general than any other aspect of Comenius's admonitions,

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[20] The Great Didactic, op. cit., Vol. II, p. 194.

[21] Ibid., pp. 173, 288, 296 [Repeated in many other passages.].

[22] Ibid., pp. 116, 290.

[23] Ibid., p. 184.

and this may have been because he believed in using what then existed and improving that.

1. He did want the children to be brought together in classrooms.[24]

2. He favored elevated platforms for the teacher.

"If the master stands on an elevated platform, and, keeping all the scholars in his sight at once allow none of them to do anything but attend and look at him, he will succeed in his efforts."[25]

3. The school buildings were conceived in the ideal as places of amusement, or houses of delights and attractions.

"The school itself should be a pleasant place, and attractive to the eye both within and without. Within, the room should be bright and clean, and its walls should be ornamented by pictures. These should be either portraits of celebrated men, geographical maps, historical plans, or other ornaments. Without, there should be an open place to walk and to play in (for this is absolutely necessary for children), and there should also be a garden attached, into which the scholars may be allowed to go from time to time and where they may feast their eyes on trees, flowers, and plants. If this is done, boys will, in all probability, go to school with as much pleasure as to fairs, where they always hope to see and hear something new."[26]

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[24] Ibid., p. 63.

[25] Ibid., p. 167.

[26] Ibid., p. 131. Note that Comenius here, as elsewhere, says boys in referring to the pupils. Although he advocated education for both sexes, he wrote to remedy the immediate situation, and so fell into the habit of referring to the students (in almost every case) as boys.

4. No expense should be spared in opening the gate to universal education.[27]

Comenius was in favor of proper division of the curriculum as means of better learning situations.

He wanted to curtail it in certain respects, by taking out worthless studies[28] and by blocking related bodies of knowledge together.

1. For the curriculum of six years, six distinct classes will be necessary, the names of which might be: the grammar class, the natural philosophy class, the mathematical class, the ethics class, the dialectic class, and the rhetoric class.[29]
2. "The tasks are mapped out for each year, month, day, and hour, and if these divisions are duly observed no class can fail to reach the necessary standard at the end of the session. There are excellent reasons why the hours of public instruction should not exceed four daily, of which two should be before and

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[27] Ibid., p. 301.

[28] Ibid., p. 144.

[29] Ibid., p. 275.

two after mid-day. On Saturday the two afternoon hours may be remitted, and the whole of Sunday should be devoted to divine service."[30]

Comenius goes on to estimate that the total of twenty-two hours a week, with holidays allowed, totals to about a thousand hours a year. Much could be taught and learned in this time with proper method.

3. Recesses should be allowed.[31]
4. The curriculum of the Latin School would also follow class gradation.[32]

Contemplation of these general methods and techniques coupled with his years as a classroom teacher, gave Comenius ample opportunity to formulate many specific methods to be used in particular subjects and schools. The list here given is not complete. The author has tried to list those techniques which are of lasting importance as aids to teaching. Comenius repeatedly spoke of the One Method. By this he meant exact order in the whole system. His first interpretation of this resulted in blocking lesson plans by analogies in nature, as reviewed in the last chapter in the

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[30] Ibid., p. 137, 292.

[31] Ibid., p. 272.

[32] Ibid., pp. 274-280.

Great Didactic. The list here will be divided into three sections: A. Methods applying to classroom teaching in all schools, B. Special methods for teaching sciences and arts, C. Special methods for teaching language (Latin). By careful reading of these sections, it is readily perceived that exact order is always uppermost in the mind of Comenius.

SPECIAL METHODS AND TECHNIQUES FROM THE DIDACTIC WRITINGS:

A. METHODS APPLYING TO CLASSROOM TEACHING EXPRESSED IN AXIOMS.

1. We learn the unknown only through the known.[33]
2. A student always needs someone to guide him, admonish him, and correct him.[34]
3. All instruction should be orderly.[35]
4. Teach everything through examples, precepts, and use or imitation.[36]
5. Demonstrate how to do a thing by doing it.[37]

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[33] The Analytical Didactic, op. cit., p. 100.

[34] Ibid., p. 101.

[35] Ibid., p. 104.

[36] Ibid., p. 109.

[37] Ibid., p. 114.

6. All parts of instruction should be coherent.[38]

7. In the mass of subjects to be learned begin with the easy and proceed to the more difficult. That is to say from the:

   (a) few to the numerous.
   (b) brief to the extensive.
   (c) simple to the complex.
   (d) general to the particular.[39]
   (e) near to the remote.
   (f) regular to the irregular.

   Textbooks should be written with these factors in mind.[40]

8. Discipline is necessary to learning. It should be constant (guidance of learning), serious, mild, and of various levels.[41]

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[38] Ibid., p. 117.

[39] Ibid. These deductive statements are out of harmony with Comenius's general and persistent advocation of induction as a method of teaching.

Adamson says that the Great Didactic is deductive in conception and execution, and that Bacon and Comenius both seemed to prefer to develop their theses in that deductive manner which was the more familiar logical instrument. (Pioneers of Modern Education, pp. 49-50.)

Brubacher perhaps gives some light on why use of both inductive and deductive methods did not occur to Comenius as a conflict. He says that the inductive method is not a one-way street from percept to concept. The child was best taught when he learned to reverse this process. "The child's mind should slip easily from case to concept, and concept to case as often as learning to form a clear and firm notion of the matter in hand demands." (His. of Prob. of Educ., p. 233).

[40] Ibid., p. 122.

[41] Ibid., p. 118.

Comenius's views of discipline in the terms of correction were advanced in that he deplored corporal punishment,[42] but he still made public examples of some children to the rest.

> "A teacher should rebuke those who are guilty of wilful error or conspicuous negligence; he should reprimand them and hold them up as a warning example to others, lest impunity become license."[43]

B. **METHODS HAVING TO DO WITH THE TEACHING OF SCIENCES AND ARTS EXPRESSED AS AXIOMS.**

1. We should observe everything with as many senses as possible. Ask the questions: From what origin? what? of what kind? why?[44]

2. We should see to it that whatever has been presented to the senses is also understood.[45]

3. To know the differences between things is to know those things. Corollary: Therefore, he who differentiates well teaches well.[46]

4. Attempt only one thing at a time.

   Always begin with the whole, then attempt the larger parts, and, finally, the details, one after another.

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[42] The Great Didactic, op. cit., Vol. II, p. 139, 250. Blows were a last resort and to be used only in case of impiety such as obscenity and blasphemy of God.

[43] The Analytical Didactic, op. cit., p. 119.

[44] Ibid., p. 130.

[45] Ibid., p. 131.

[46] Ibid., p. 132.

Dwell on each part as long as is necessary.[47]

5. Teach by analysis, comparison, and synthesis.[48]

6. Use aids to memory which are also aids to perception, understanding, and judgment.

   We have seven such aids:

   (a) an unoccupied mind.
   (b) tranquillity.
   (c) strong sensibilities.
   (d) individual observation.
   (e) leisurely reflection.
   (f) repetition.
   (g) discussion.[49]

7. To probe and test an impression is to reinforce it. Frequent review is more potent than any artificial aid, and repetition is the father and mother of memory. Writing is the storehouse of repetition.[50]

8. In every art there should be more practice than theory.[51]

9. We should not leave any subject until it is thoroughly understood.[52]

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[47] Ibid., p. 134.

[48] Ibid., p. 135.

[49] Ibid., p. 142.

[50] Ibid., p. 147.

[51] Ibid., p. 156.

[52] The Great Didactic, Vol. II, op. cit., p. 192.

Comenius felt that teaching aids were especially necessary in arts and sciences to supplement the teacher's skill. He used the following analogy,

> "It is beyond question that any man who is once admitted into the royal palace and is allotted a certain space of time can easily and without any trouble master its whole contents, its pictures, statues, carpets, and other ornaments; and just as easy will it be for a youth who is admitted to the theatre of this world to penetrate with his mental vision the secrets of nature, and from that time forward to move among the works of God and of man with his eyes opened!"[53]

C. SPECIAL METHODS FOR LANGUAGES

Note: The method of languages is more difficult than the method of knowing and working, because of three reasons. In the first place, something peculiar to itself, restricted within its own limits, whereas language as a whole, even a single language, requires an understanding of all things, sciences, and arts. Second, language must be learned doubly by pen and mouth not just through understanding. Finally, language study has many obstacles.[54]

1. Teach language at the rate of the pupil's ability to grasp.[55]

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[53] Ibid., p. 193.

[54] The Analytical Didactic, op. cit., p. 158. Jelinek adds in a footnote that the French poet Ronsard's advice [1565] on the scope of poetic language parallels Comenius's, although Comenius may not have been aware of it.

[55] Ibid., p. 160.

2. The first age should be trained chiefly in those studies which depend on the use of memory, and through the senses.[56]

3. Pupils of maturer age should be introduced to the causes of things.[57]

4. Teachers should not be too talented, as talented people are apt to be impatient. If the teacher is talented he should have patience.[58]

5. Beginning lessons should proceed gradually.[59]

6. Beginners should repeat words and use models. Advanced students can use a variety of readers.[60]

7. Use of study-aids such as dictionaries, written for each grade level is a necessary measure.[61]

8. Rules to aid the learning of a language, detailing the method (which the 20th century educators still use):

   (a) Know the mother tongue.
   (b) Learn the language by practice before rules.
   (c) Rules assist and strengthen the knowledge derived from practice.
   (d) Language rules should be grammatical and not philosophic.
   (e) Stress the difference in the rules of the vernacular and the new language.

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[56] Ibid., p. 162.

[57] Ibid., p. 162.

[58] Ibid., p. 163.

[59] Ibid., p. 165.

[60] Ibid., p. 166. (In Comenius's mind a compilation of authors in one book.)

[61] The Great Didactic, Vol. II, op. cit., p. 209.

(f) The first exercises in a new language should deal with familiar subject-matter.[62]

Comenius said that language was the medium through which everyone acquired knowledge and imparted it to others. He believed more than one language was desirable, and that the native tongue should be learned first. After that the language of the neighboring nations, and then Latin for serious reading, could be acquired.

These ideas are still of value to research scholars. Due to the universal use of the printing press, the mass of reading in every vernacular is adequate for the ordinary citizen. However, languages are needed more than ever for oral communication. Since World Wars I and II, millions of people have moved from one region to another, either temporarily or permanently. In most cases a knowledge of languages would have been of great benefit in new environments. Comenius traveled quite extensively for his own era, and probably was himself handicapped in many situations. That may be one of the reasons why he liked the idea of a universal language in connection with his pansophic college schemes.

The person who best understood his methods and techniques was Comenius himself, and he was ever eager to

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[62] Ibid., pp. 206-208.

correct and improve them. He did this by keeping in contact with other interested men, among whom Samuel Hartlib was prominent. His contacts with Hartlib as they touch on method will be given space later in this chapter. Other ways in which Comenius's ideas of method evolved were by writing textbooks, by re-organizing the schools of Saros-Patak, and by rewriting his didactic works, to say nothing of his voluminous correspondence to colleagues, friends, and pupils.[63]

A great deal of his correspondence on educational matters was devoted to pansophism. The methods that were conceived in connection with pansophic instruction include the idea of a single teacher for a large class. This could be easily carried out by use of encyclopedic books. Such books would have to be compiled and written by a committee of men appointed specially, and financed by the kingdom or state.[64] The use of monitors to aid the teacher in large groups, however, was first voiced in the Great Didactic.

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[63] G. H. Turnbull, Hartlib, Dury, and Comenius (London, 1947). This book has detailed accounts and excerpts from Comenius's correspondence.

[64] Ibid., p. 38. Much of Comenius's correspondence with Hartlib had to do with pansophism. Turnbull called Hartlib "a sort of river of educational reflections". Samuel Hartlib, as will be shown in the next chapter helped by his influence to inaugurate the Royal Society. Thus by implication the influence of Comenius was a part of Hartlib's influence.

"One teacher will easily be able to cope with a very large number of scholars if he divides the whole body into classes, groups of ten for example, each of which should be controlled by a scholar who is in turn, controlled by one of higher rank, and so on."[65]

In the closing chapters of the Great Didactic Comenius again reviewed the things requisite to the universal and perfect or pansophic order of instruction that he believed in. Here the analogy used is the printing of books and the universal method. The type is compared to the guide-books of instruction and each necessary to the success of its job.

Samuel Hartlib's birth date is not definitely known, but he was probably in the same age group as Comenius. He died in 1662 or eight years before Comenius.[66] Many of

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[65] The Great Didactic, Vol. II, op. cit., p. 166. [However, Comenius makes no mention of the proper age for monitorial practice to begin.]

The monitorial system as Comenius conceived it anticipated the method popularized (cir.1800) independently by Andrew Bell (1753-1832) and Joseph Lancaster (1778-1838), both Englishmen. Bell and Lancaster did not evolve anything new though no historical relationship can be traced from them to Comenius. The essential feature of their method was that one master could teach 200 to 1000 pupils in one room, just as Comenius had conceived.

The Christian Brothers in France (cir.1690) used monitors calling this form of instruction:simultaneous method. [See Brubacher, A History of the Problems of Education, pp. 217, 389, 507.]

[66] G. H. Turnbull, op. cit., p. 42. The deaths of many of Comenius's friends made his last years lonelier than ever.

Hartlib's ideas on education paralleled those of Comenius, especially in the method of language study. In his early correspondence[67] with Comenius he commended the idea of the use of pictures, at least for beginners. He called this "Comenius's doctrine of the senses."[68]

Without permission, he published the Latin Praeludia of Comenius in London in 1637.[69] During or shortly after Comenius's visit to England in 1641-42, Hartlib published the English translation, A Reformation of Schools.

Hartlib and others had for sometime been interested in and supporters of the plan for a scientific academy. Robert Young says that the principal supporters have come to light through Krasala's discovery in 1913 of a fragment of Komensky's autobiography.[70] These men included Dr. John Williams, Bishop of London; Arch-bishop Ussher; John Selden, John Pym, Robert Greville, second Lord Brooks, Sir Cheney Culpeper, and Samuel Hartlib.[71]

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[67] Robert F. Young, Comenius in England (London, 1932), pp. 33 and 34, establish 1632 as the date of the start of their correspondence, Hartlib having questioned two young German students in London of their acquaintance with Comenius. He asked them to help deliver a letter to Comenius.

[68] Ibid., p. 65.

[69] Ibid., p. 79. [For Comenius's own account of this see Document I, p. 35, in Young, listed above.]

[70] Ibid., p. 5. The fragment mentioned is printed as Document I on pp. 27-51 in Young's book.

[71] Ibid., p. 6.

Young says that the plan for the proposed college had been carefully elaborated by Comenius and John Dury and their supporters.[72]

This indicates that Comenius, Hartlib, and Dury did much planning along pansophic lines.

In the fragment of his diary, Comenius says,

> "Nevertheless one unhappy day bringing tidings of massacre in Ireland and of outbreak of war there,[73] confounded all plans for the whole winter, save that wishing to gratify sundry persons desirous of summary information touching my project, I composed a tract entitled Via Lucis (The Path of Light), which was printed at Amsterdam in 1668."[74]

This treatise, printed twenty-six years after its composition, was dedicated to the Royal Society of London, which had been founded in the meantime.[75] In his dedicatory letter Comenius begs the Society not to ignore metaphysics.[76]

In order to realize fully all the aspects of Comenius's adaptation of Bacon's ideas in regard to a pansophic or encyclopedic method of education, it would be necessary to study

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[72] Ibid., p. 6.

[73] 11 November, 1671.

[74] R. Young, op. cit., p. 44.

[75] Ibid., p. 3. (founded 1662)

[76] Ibid., p. 44 ff. [Note of present writer: Metaphysics, in the sense which Comenius referred to, means supernatural or beyond the physical. Cowley and Donne, poets of the 17th century, wrote in this vein.]

the notes by G. W. Leibniz (1642-1716).[77] Young states,

> "Leibniz, who was of Polono-Sorb origin, had an innate sympathy with his fellow Slav Comenius and took over most of his ideas regarding encyclopaedic compilations and scientific societies, restating them in a clear and logical form."[78]

As already mentioned in an earlier chapter, Leibniz (or Leibnitz) was one of the very few who cared about the methods and philosophy of Comenius in the decades following his death.

When again the Comenian views on education came to the attention of educators and students of education, many of the methods Comenius had voiced had come, independently, into actuality in school-rooms. These methods and their innovators will be discussed at the beginning of the next chapter to serve as the bridge of ideas through the centuries, as well as to show whose work was anticipated by Comenius.

Many leading educators since 1858 have given comments, interpretations, and criticisms of the techniques and methods of Comenius. An account of some of their comments here follows.

Daniel Benham felt that the methods advised in the <u>School of Infancy</u> were so worthwhile that he translated

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[77] <u>Ibid</u>., p. 6. Young gives the following spellings to Leibniz' name: "Leibnitz, Leibnuzius, and Lubeniec".

[78] <u>Ibid</u>., p. 6.

into English and printed the whole treatise in London in 1858, as described in chapter three above. Benham made no critical comments in his biographical sketch, but rather praised the insight of Comenius.

C. W. Bardeen was so enthused with the method of sense perception through the use of pictures, that he translated and printed the Orbis Pictus, referred to in the review of Comenian literature.

During the same half-century as Bardeen, other educational writers who commended favorably Comenius's methods of using pictures were: Smith, History of Education, N. Y., 1842, p. 129; Philobiblius, History and Progress of Education, N. Y., 1860, p. 210; Quick, Educational Reformers, 1868, Syracuse, p. 79; W. H. Payne, Short History of Education, Syracuse, 1881, p. 103; Painter, History of Education, N. Y., 1886, p. 206; and the Encyclopedia Britannica, 9th edition, Vol. VII, p. 674.

These sources all agree in the opinion that the Orbis Pictus, because of its revolutionary use of pictures, is the most famous of Comenius's writings.

S. S. Laurie, as briefly outlined in chapter three, gave a keenly critical exposition on Comenian methods, most of which was favorable. Laurie says of the Moravian's inner organization of a school,

> "It is to be taken for granted that Comenius, while defining the distinctive work done in each class, presumes that the work done in the classes that precede it is still continued. Without this, how would a sufficient knowledge of language, for example, be obtained? The Dialectic and Rhetoric classes would afford special opportunities for the revision of all the work done in the classes that preceded them."[79]

Laurie certainly applauded the idea of graded studies, but he pointed out that the use of text-books like the Janua gave no results unless they were used with discretion. Laurie went to words from the Great Didactic to prove this,

> "Comenius points out that while a good text-book is always essential to the teacher, the expected fruits can be gathered only by application of the good method."[80]

The method meant the study of words through things. To avoid the method of teaching the "unknown from unknown" Comenius had written the Janua linguarum. As has been said, the fallacy apparent here is that much memorization was necessary even though Comenius preached against it. However, he did his best to distinguish between the principle of iteration, which he approved, and rote memorization which he deplored as a handicap to language study. The practice advocated by him included use of objects to explain words, and the admonition to proceed in the study slowly.

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[79] S. S. Laurie, John Amos Comenius, Bishop of the Moravians: His Life and Educational Works. (Boston, 1887), p. 149.

[80] Ibid., p. 163.

In regard to Comenian language methods Laurie points out that some of the texts were still: from the unknown to the unknown.

> "The Lexicon or Forest of words, strange to say (and contrary to his original plan) comes first and aims at being etymological throughout. Moreover, it is Latin-Latin and not Latin-Vernacular. This Lexicon is to be gone over first, then the grammar and then the Janua itself."[81]

However, Laurie says that later editions of the Latin Januas did repeat words which gave more latitude to the scholar.

He felt that Comenius's methods of discipline were sound and reasonable, and even though modern psychology was unknown to Comenius, the mere attempt to systematize all aspects of education from generalizations to individual discipline was a great advance. Comenius imagined a harmony of physical and mental processes which made up his method, an external growth similar to mind growth, everywhere conceived by analogical demonstration.[82]

Finally Laurie acclaims Comenius as the true founder of modern methods, a man who anticipates Pestalozzi and others of his kind.[83]

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[81] Ibid., p. 183.

[82] Ibid., Summarized from pp. 215-222.

[83] Ibid., p. 223.

M. W. Keatinge, in his introduction to his English translation of the Great Didactic, showed a thorough study of Comenian methods. He thought that Comenius did a lot of wordy rambling in trying to set forth a method for language teaching. He writes,

> "It must be confessed that some of Comenius's philosophizing on the nature of language is sorry stuff. The remark that language is derived from thought and thought from objects (rebus), has a plausible air, but is not developed."[84]

In the last decade of the nineteenth century when Keatinge was composing these critiques, Latin was still the concentration point of the school systems, a tradition of other eras. He says that in the century before Comenius, Latin really was more important in business and ecclesiastical use than the vernacular. No wonder, then, that,

> "Up to the time of Comenius, and indeed till very recently, grammar was allowed to usurp far more than its due share of the school programme."[85]

Keatinge says that Comenius's complaint of methods of language teaching were in the main true, but did not apply with much force in England.[86]

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[84] M. W. Keatinge, The Great Didactic, op. cit., Vol. I, p. 64.

[85] Ibid., p. 104.

[86] Ibid., p. 110.

The use of colloquies and dialogues was instituted before the time of Comenius, as Keatinge points out. Cordier, in 1530, wrote a French-Latin manual of useful phrases. Keatinge says,

> "It must be confessed that the earlier humanists had not so much wished to impede the use of the vernaculars in Europe, as to add another language to those already in vogue."[87]

But he agrees with Comenius that the school-books harped on form and gave no information of the world about one.[88] The Jesuits had a good system but excluded the masses, and Comenius had the better ideal in that respect.

Keatinge liked these points in Comenian technique:

Demonstration
Explanation
Verbal realism

Keatinge pointed out that Comenian methods were in use in elementary schools in the nineteenth century and that his theories underlie much modern organization,[89] and added,

> "Adelung, in his History of Human Folly, gives him [Comenius] a prominent place, and classes him with magicians, alchemists, and soothsayers--a truly humiliating position for the father of modern education.

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[87] Ibid., p. 119.

[88] Ibid., p. 124.

[89] Ibid., summarized, pp. 97-99.

> Subsequent writers were wittier than Comenius, yet none possessed, in combination, his sympathy with children, his power of analysis and his breadth of mind."[90]

Paul Monroe pointed out the emphasis on the time-saving quality in Comenius's methods. He felt that Comenius made a successful attempt at the construction of textbooks according to modern and psychological principles.[91]

Thomas Davidson is very complimentary in his tributes to Comenius as a great educator, saying that the cause of truth and freedom was won with Comenius, whose influence never died out. Davidson liked the method of using things, with books only supplemental, but said Comenius didn't distinguish clearly between erudition and professional training. Writing in 1908, Davidson said that that was still true, which shows our following of Comenius.[92]

Ellwood P. Cubberly felt that Comenius founded his works and methods on assimilation, and applied it to the schools. He liked the practical character of Comenius and extolled his modern spirit. Cubberly's text has excerpts

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[90] Ibid., pp. 100-101.

[91] A Cyclopedia of Education, ed. by Paul Monroe, (New York, 1925), p. 165.

[92] Thomas Davidson, A History of Education (New York, 1908), pp. 191-198.

from the Great Didactic to show the Comenian methods, but little other comment on those methods.[93]

Robert E. Rusk confined his remarks on Comenian method to those techniques brought out in Comenius's writings on education of infants and small children. This is because Rusk himself was writing on infant education. He mentioned the soundness of the idea of grounding the very young child for all later learning. He said that Comenius gave the world the map of infant education three hundred years ago, but the world has been slow to follow it. He pointed out that Comenius's "map" included:

1. Need for activity, as inactivity in children is dangerous
2. Need for humor and jokes in teaching
3. Children should have delights.[94]

Rusk places Comenius in the democratic tradition of method makers,

> "The views of the great educators representing the aristocratic tradition are thus of little value to the modern educator who has to educate "all the children of all the people", and of less value to the historian of infant education. For light and leading on his problems, the historian must depend mainly on writers who stand in the democratic succession, and it is significant that -

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[93] Ellwood P. Cubberly, Readings in the History of Education (New York, 1920), . .

[94] Robert E. Rusk, A History of Infant Education (London, 1933), pp. 11-18, summarized.

> Comenius, who proposed in the Great Didactic to teach "all things to all men", was the first great educator to devote a special work to infant education."[95]

J. W. Adamson says that Comenius gave Bacon credit for inspiration of the inductive method of instruction, and although both Bacon and Comenius extolled induction, both wrote in the deductive way, through use of analogy. Adamson felt that the use of sun analogy[96] was a weakness in Comenian method. He says that,

> "Comenius was a great systematizer, instinctively reducing his projects to time-tables and other tabulations of a like kind; here at least he seems to fall into the pit which gapes for the man who over-systematizes, he comes to value machinery above "its real worth".[97]

Adamson points out, with suitable references, that Comenius's ideas influenced schools in seventeenth century Germany.[98] Always comparing Bacon and Comenius, he pointed out that Bacon urged that people be familiar first-hand with that about which they philosophize. As to Comenius he stated,

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[95] Ibid., p. 7.

[96] The nineteenth chapter of the Great Didactic shows how it is possible for one master to preside over several hundred scholars. Comenius uses as analogy this statement: "So, too, we see that the sun suffices for the whole teeming earth." (Great Didactic, Keatinge, op. cit., p. 163) Vol. II.

[97] J. W. Adamson, Contributions to the History of Education, Part III, Pioneers of Modern Education, p. 69.

[98] Ibid., p. 96, reference to Paulsen, I, p. 473.

> "Transferring the lesson to the classroom, Comenius called on the schoolmaster to bring the studies of children into the closest possible connection with their ordinary, everyday life and concerns. This was the idea of the Janua and the Orbis Pictus, but it was from the early and essential part of his theory of instruction."[99]

Eby and Arrowhead give a very good discussion of the Realism introduced in the various countries of Europe, citing Comenius's methods of instruction in Germanic territory. They included remarks on Comenius's belief in the power of education, through gradation and practical aspects, to attain the divine ideal.[100]

William Boyd says that those who are concerned only with the method in education have a pettiness of mind, and are soon forgotten. Ratke is an exception to this only because his work is the starting point of Comenius's. Boyd values Comenius far above his classroom methods, saying,

> "And Comenius himself, the greatest of the methodizers, is a living force to this day, not because of his methods (though they had elements of real value in them), but because in his quest for them, he raised wider questions, and developed a philosophy of education of enduring worth. In this respect he stands alone, a great educator in an age of little ones."[101]

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[99] Ibid., p. 264.

[100] F. Eby and C. F. Arrowhead, The Development of Modern Education (New York, 1934), pp. 242-257, summarized.

[101] William Boyd, The History of Western Education (London, 1950), p. 242.

One further remark of Boyd's will serve to give his opinion on the worth of Comenian method:

> "His actual method, in fact, owes quite as much to his practical insight as to his theory. It is the happy product of practice and philosophy, in which philosophy has illumined and guided practice and practice has modified and corrected philosophy."[102]

John Brubacher points out that Ratke, quite as much as Bacon, on the question of method, anticipated Comenian methods. He says that Comenius was a greater man than Ratke.

> "In fact, Comenius caught a vision of educational method that quite transcended the mere use of induction through the senses as a pedagogical device."[103]

Brubacher goes on to tell that Comenius envisioned classrooms where any number of boys could be instructed by a method involving order, and uniform materials; and adds that with such a plan, the cause for disciplinary action is lessened if not overcome. No wonder that Comenius likened a teacher who struck a child to a musician's striking his instrument for producing a wrong note. The fault lies in the teacher, not the pupil; in the musician, not the instrument.[104]

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[102] Ibid., p. 250.

[103] John S. Brubacher, A History of the Problems of Education (New York and London, 1947), p. 205.

[104] Ibid., p. 205.

Vladimir Jelinek, in the most recent source of material available to this study, says in relation to Comenius's methods, that the history of his pedagogic views is a part of the history of his pansophic views. Jelinek points out that Comenius modified his didactic concepts in keeping with the growing scope of his "universal" program of education. Jelinek felt that this modification was not always for the best in method, as evidenced by this remark,

> "Dominated by a fixed idea, he recast the simple and readily teachable Janua and Vestibulum into onotological and epistemological analyses of the chain of being. Thus even his practical and realistic notions about teaching became so vitiated by pansophy that they were transformed into a rigid system that deformed and maimed the author's ideas like the bed of Procrustes."[105]

However, Jelinek says that a further estimate of Comenian methods will be forthcoming when all seven of the newly discovered Halle manuscripts have been made public.[106]

Jelinek, as others, points out the universality of Comenius,

> "Whatever we may think of the wisdom of his pansophic schemes, this is the dominant and pervading idea in all his work--to benefit all humanity, whether the problem in hand be religious, scientific, or pedagogic."[107]

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[105] Vladimir Jelinek, The Analytical Didactic, op. cit., p. 20.

[106] Ibid., p. 9.

[107] Ibid., p. 7.

In the foregoing accounts of various educators (1858-1953) on Comenius's methods and techniques, some differences of opinion show up, yet there is a sympathy of feeling and an evidence that all see the greatness of Comenius as an exponent of modern school organization through classroom instruction and exact order.

After thinking about his methods, as he evinced them, as well as reading widely on others' interpretations and remarks, it is the considered opinion of the present writer that Comenius's ideas still live on in classrooms in many parts of the world regardless of how they arrived there.

The next chapter will begin with a discussion of those educators whose ideas Comenius anticipated, though there is little evidence that they knew much of his work.

Ideas very often are paralleled in different times and ways independent of one another. The poet Wordsworth in his long poem, The Excursion, published in 1814 (which was long before Comenius's didactic works came to be generally known) gave a view of rural English education which seems to echo Comenius in the plea for universal education.

> "Binding herself by statute to secure
> For all the children whom her soil maintains
> The rudiments of letters, and inform
> The mind with moral and religious truth
> Both understood and practiced, so that none,

However destitute, be left to droop
By timely culture unsustained; or run
In wild disorder; or be forced
To drudge through weary life without the aid
Of intellectual implements and tools;
A savage horde among the civilized,
A servile band among the lordly free!"[108]

Be that as it may, there are influences extending directly or indirectly from Comenius's philosophy and methodology to present educational philosophy and practice, which the next pages will seek to show.

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[108] From book IX, The Excursion.

CHAPTER VI

REFLECTIONS OF COMENIAN IDEAS APPARENT IN PRESENT-DAY EDUCATION

"There is a destiny that makes us brothers,
None walks his way alone;"[1]

These words of the poet may well apply to John Amos Comenius. In seeking to show the reflection of his thoughts and precepts apparent today in the educational field, it is well to look for a moment at his chronological relationship to other educators and to the main events of educational history. The purpose of this over-all view is to serve as an effective setting for the Comenian ideas pertinent today. To best accomplish this aim the chapter will be divided into two parts, the first of which will be composed of a brief discussion of the related ideas of educators coming both before and after Comenius, and including the broader philosophical background; while the second part will set forth Comenian ideas.

A more complete view of the whole chronology of educational thought and practice can be found in any good history of education book, but here will concentrate on reviewing the ideas of such men as Vives, Bacon, and Ratke,

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[1] Poems of Edwin Markham, ed. by C. L. Wallis (New York, 1950), "A Creed", p. 18.

forerunners of Comenius, whose ideas in part harmonized with Comenian ideas on education. The parallel educational ideas of John Locke will be given, followed by the pedagogical ideas of Basedow, Pestalozzi, and Froebel emerging, in the century and a half after Comenius. A brief discussion of the educational philosophies of humanism, realism, and pragmatism will furnish the larger frame in which to introduce the reflections of the principles and philosophies of Comenius to be set forth in the second part of the chapter.

Part Two, then, will include Comenian ideas on education which are also found in present day education. The list will include methodology, universal education, and expanding frontiers of knowledge. The historical relationship of Comenius's ideas to ideas of today will be pointed out whenever it is possible, although some of his ideas were so far ahead of his time as to be purely prophetic. In these instances the Comenian views are pointed out as parallel to the present day practices which have evolved independently in the course of time.

A. CHRONOLOGICAL OVER-VIEW OF EDUCATIONAL CHANGE

In the study of educational history it is soon perceived that change is a slow process, as it is often feared by men. Plato, the educational giant of his time, promulgated his new ideas more as a possibility for the future than as any measure for immediate reform. This was so because he was a part of the era when change was more to be feared than it is in the twentieth century. Nevertheless, the passing of the centuries do effect the actuality of men's best ideas. Between Plato and Comenius was a period of almost twenty centuries of gradual change in educational practice, and yet in retrospect no one educator stands out so far above the others as to be acclaimed truly great as is Plato until Comenius comes on the scene. In Comenius, as in Plato two thousand years before, there are evidenced new ideas together with a culmination of the ideas of men who anticipated him. Comenius thus stands out to present day readers as a second educational giant whose ideas embody a greater universality than did Plato's. To see him in proper perspective it is necessary, however, to glance at the ideas of those who precede and follow him.

Vives, a Spanish educator, was born one hundred years before Comenius. An encyclopedist, Vives, preferred

the study of nature to the dialectic of the schools. He wanted to heal the breach of church and state. Educationally he was classed both as a humanist and a realist. Vives knew better where the fault lay than the remedy in education. He made no mention of curriculum planning. Comenius was his heir in that he got some of his pansophic ideas from him. However, Comenius got more inspiration from him as a thinker than as an educational reformer.[2]

Bacon, born only thirty years before Comenius, directly influenced Comenius's writings as has been pointed out in the preceding chapters. They both favored state supported academies of research for investigation and training. They both praised the inductive methods of observation and experiment. They were both pansophists. Bacon's books were Comenius's teachers.[3]

Ratke just twenty-one years senior to Comenius was almost a contemporary of him, albeit a silent one, for he did not answer letters written to him by Comenius.[4]

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[2]S. S. Laurie, "The Place of Comenius, in the History of Education", Educ. Rev., Vol. 3, March, 1892, pp. 211-216, paraphrased.

[3]Ibid., pp. 216-218.

[4]The Great Didactic, trans. and ed. by M. W. Keatinge, Vol. I, p. 11 [from Op. Did. Omn., II, 282.]

Ratke failed of the success in the practical trial of his ideas although he had successively interested at least seven patrons, including the Chancellor of Sweden. His failure was due to his personality rather than his ideas, or materials given him.[5]

> "However, the innovator succeeded in convincing many of the truth and the value of his new educational ideas, and gathered around him a number of personal followers. From these, or from Ratke himself, with the authorship not clearly determinable, came an extensive literature of education both in the way of textbooks and expository treatises. Thus the ideas and the inspiration were passed on to a succeeding generation--one that produced in Comenius a leader capable of making these ideas practically effective, as well as of giving them a better formulation."[6]

Ratke's main thought along educational lines was that everything should be done in its natural order. This was an attempt at method, but was based only upon superficial resemblances between mind processes and processes in nature.[7]

Some of his suggestions that later were better voiced by Comenius include: repetition of each task, learn first in the mother tongue, no compulsion, all things in conformity, all things through experience, and things first with explanation following.

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[5]Paul Monroe, A Textbook in the History of Education (New York, 1933), p. 478, paraphrased. At Kothen he had the use of a printing press as well as the school with 500 children to direct.

[6]Ibid., p. 479.

[7]Ibid., p. 479, paraphrased.

These were the fore-shadowings of Comenian reforms and found full exemplification with him.[8]

Living beyond Comenius into the next generation was John Locke (1632-1704). Locke was a man of forty-eight when Comenius died, and, though no mention of Comenius by name is found in Locke's writings on education, that is no evidence that he had not heard of the Moravian Bishop. Milton, who had probably met Comenius through Hartlib, only indirectly refers to him, as pointed out at the beginning of the last chapter.

Locke as a representative of realism held some views similar to those of Comenius, but did not include universal education. Locke thought of his pupils in a tutorial sense, gearing them to the English gentry. To Locke the intellectual discipline was the main reason for study. The benefit came not so much in amassing knowledge as the importance of the process of learning. He believed, then, in individual rather than group instruction. His objectives included the wisdom and virtue of Comenius but emphasized good breeding rather than piety. He also encouraged curiosity of the pupil and believed in the use of example and imitation as did Comenius.

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[8] Ibid., p. 480, paraphrased.

He elaborated on the Comenian idea of teaching from the simple to the complex.[9] This is found in Locke's Conduct of the Understanding:

> "In learning anything, as little should be proposed to the mind at once as possible; and that being understood and fully mastered, to proceed to the next adjoining part yet unknown."[10]

Comenius's methods lacked Locke's psychology, and Locke did not see the possibility of relating his psychology to method. But it seems to the present writer that since Comenian texts, as the Janua and Orbis, remained in classrooms of some dozen nations (as has been documented in this study) for the period of time in which his didactic writings lay entombed, that some of his methodical practices employed in the use of those texts, inspired educators like Basedow, Pestalozzi, and Froebel to institute innovations and reforms with the added depth of Locke's psychology.

In those Comenian texts[11] of the eighteenth century editions, examined by the present writer, there were well-written prefaces, carrying Comenius's name, which gave some glimpses of his principles, so that teachers reading the

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[9] Ibid., p. 521.

[10] Ibid., p. 521.

[11] The following editions of Januas were reviewed: English (1662), German (1746), and French (1815).

prefaces were exposed to some of his ideas, whether or not they paid attention to the source.

In the last chapter it was brought out that the later Januas used repetition. S. S. Laurie points out that imitations of the Orbis at least kept alive the idea of pictures as an aid to teaching, even though pedagogically it was a weak imitation of a sound idea.[12] Thus Comenian ideas as related to text books did not come under the heel of forgetfulness until they had done their work. They were undoubtedly numerous in the school-rooms where Basedow worked and visited.

Johann Bernard Basedow (1723-1790) like Comenius wrote much on educational reform, but unlike Comenius, he was more forceful in publicity and deluged Germany for many years with his publications. He was largely influenced by Rousseau's ideas, which were usually stated in a negative way.[13] However, because he worked in Germany, it is very possible that his ideas for illustrative materials were in some measure influenced by the Orbis pictus and its imitations, of which he must have been aware.[14] These books at

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[12]S. S. Laurie, John Amos Comenius, Bishop of the Moravians, His Life and Educational Works (Boston, 1885), p. 242.

[13]Paul Monroe, op. cit., p. 577.

[14]It seems reasonable to assume that a man so determined to reform the schools of his time visited the existing ones in order to find out what was worthwhile and what could be improved.

least were no longer a novelty and could serve as an inspiration to Basedow to make his publications better received. S. S. Laurie has wisely said "novelty on any subject, especially schools is assailed bitterly".[15] Basedow probably knew this only too well, but being a persistent man kept on. In 1768, his plan for elementary school reform was issued with the title, An Address to the Friends of Humanity and to Persons in Power, on Schools, on Education, and its Influence on Public Happiness. Financed by subscriptions from rich and poor all over Europe, it was published in 1774, under the title, Elementarwerk.

Monroe says,

> "At the same time was published his Book of Method for Fathers and Mothers of Families and of Nations. This Elementary Work, for children, which appeared in four volumes with one hundred plates of illustrations, was a combination of the ideas of Comenius, Bacon, and Rousseau. It was the first step since the time of Comenius to improve the character of the work of the school through the preparation of appropriate text-books and the radical revision of the subject-matter of school work. It aimed first of all to give a knowledge of things and of words quite similar to the encyclopedic plan of the seventeenth-century reformer. This knowledge was primarily a knowledge of natural phenomena and forces; in the next place a knowledge of morals and of mental phenomena; and lastly, of social duties, of commerce, of economic affairs."[16]

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[15] S. S. Laurie, op. cit., p. 213.

[16] Paul Monroe, op. cit., p. 579.

Basedow aimed to reform private as well as public education, and was fortunate to have followers like Salzmann and Campe who with others produced a whole new literature for children.

> "As for the first time there was an education designed wholly for children, not controlled by the needs, character, and interests of adults, so this was the first literature designed for children."[17]

The opposition of reform was present, too. Monroe states that Schlosser, the German historian of the eighteenth century, called it "silly literature" which had the effect of making grown people childlike, and opposed Jesuitical education. While it curbed pedantry, it also made a "pert, saucy" generation of youths.[18]

Basedow's early work was critical and destructive, and his later work was tainted by his vulgar, drunken and visionary strain. Nevertheless, his work initiated the reform movement in German schools. His methods of instruction were as fruitful and successful as Pestalozzi's.

> "It is well to remember that the common practice of attributing the reform in education throughout the Teutonic countries to Pestalozzi is an erroneous one, and that at an earlier period

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[17] Ibid., p. 579.

[18] Ibid., p. 580. Monroe quotes from Hist. of the 18th Cent., Vol. II, pp. 203-204.

Basedow had exerted as profound an influence toward practical reform as did Pestalozzi a generation later."[19]

On slightly different lines than Basedow, reform was carried on by Pestalozzi, and popularized by his followers.[20]

From Locke's death in 1704 to the birth of Johann Heinrich Pestalozzi in Switzerland (1746-1827) is almost a half-century: a half-century in which schools went on, generations were born and reared, and men began to employ more and more the idea of psychology in raising and educating their children. By the time Pestalozzi inherited the legacy of fighting for school reform, seeds of the French Revolution were in the air, and people were ready to listen to things and movements that would better their condition.

Pestalozzi's reforms, however, had to pass through a trial-and-error process in spite of the spirit of the times.

To recapitulate: Comenius had advocated that concrete things precede abstract, Comenius and Locke had predicated nature's method as dependent on the senses, Locke had graduated the learning to the growth curve,

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[19] Ibid., p. 582.

[20] Thomas Hay, A Copy-book of Methods of the Model School, Kildare Place, Dublin, May 24-Aug. 9, 1827. The great-grandfather of the present writer studied in the pay-schools of Ireland. One of his copy-books, from the year 1827, carries a reference to Pestalozzi as the author of their arithmetic tables, p. 37.

Comenius and Rousseau had gone to nature for a pattern for method, and Rousseau had capitalized on the child's native energies.[21] Concepts, however, did not help teachers as much as actual example.

> "But with exceptions like Comenius's textbook Orbis pictus and Francke's institution, the Realschule,[22] little or nothing had been done to show the teacher how to put these insights into practical operation in the schoolroom. Progress along this line was the great contribution of Pestalozzi."[23]

Pestalozzi's contributions which differed from Comenius's or modified them include: a rejection of the religious aim, and a teaching aim of deeper insight than "facts and words". His contributions which carried on Comenian ideas were: use of gradation with the added psychologizing of instruction, the basic "sense impression" in instruction, observation, teacher-discipline based on love and understanding, children to help teach other children, and use of things to interest the child.

Thus through Rousseau and Basedow, Pestalozzi carried on the Comenian influence, though much of it had

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[21] John S. Brubacher, A History of Problems of Education, (New York, 1947), p. 212, condensation.

[22] Ibid., p. 206. [August H. Francke, 1663-1727, founder of the idea of a school of "real things"; his work was carried on by one of his pupils, and later became the leading type of German school.]

[23] Ibid., p. 213.

naturally evolved independently of Comenius. However, as Brubacher pointed out in the above quoted passage, the Orbis pictus was the direct source of influence in the use of pictorial material. It was then only a natural step to Basedow's maps and wall-charts. These were enlarged pictures and drawings, the idea of which stemmed from the Orbis.[24]

Pestalozzi through his many years of work in education is credited with working out special methods for instruction in arithmetic, drawing, geography, gymnastics, and music, as well as introducing the famous object lessons in language study. He began with simple elements of experience and carried them to larger wholes. He believed in education as a social function, an exercise of intellectual and moral powers, but saw it as the result of activity rather than involved in it. He did as Comenius had done in his day: started where he found education and added those things that he felt were necessary to help mankind. His six teaching principles overlap and yet extend beyond Comenian principles:

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[24] Ibid., p. 211. See picture of Basedow's Philanthropium.. [Caption. Wall pictures--. Note how they introduce science into the curriculum, as well as Comenius's pictorial method of instruction.]

1. Demonstration
2. Simple to complex
3. Repeat subject matter and aid child
4. Keep in view educational aims.
5. Love the child
6. End of education to awaken mind to better educate self. (Individual sacred)

The consequences of the work of Pestalozzi were eventually established in schools of many countries. They included establishment of normal schools for teacher-training, transfer of elementary schools into instruments of society from instruments of the church, and the basing of school-systems on study of real objects, sense-perception, child activities, orderly progression, and individual expression.

These instructional methods all contain Comenian ideas (as shown in the last chapter), though at the time of evolvement only a few were expressed in prefaces of the Januas and Orbis, prefaces which were probably not often read.

Bardeen tells of a popular French edition of the Janua, printed in 1815 which followed the 1631 edition of Comenius, and carried the preface in Latin and in French.[25]

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[25] C. W. Bardeen, "Text books of Comenius", (Educ. Rev., Mar. 1892), p. 215.

Frederick Froebel (1782-1852) is the educator who was outstanding in carrying on school reform after Pestalozzi's time. Froebel was the founder of the kindergarten, and his theory was to develop the child as a whole person, not just to teach subjects. He saw the divinity in every child and sought to develop this divinity by nourishing the good and not the evil.[26]

> "A few educators, of whom Locke was one and Basedow another, employed well-known children's games as a sugar-coating to inducing children's swallowing some incidental learning. Froebel's contemporary, Georg Wilhelm Friedrich Hegel (1770-1831), a teacher before he became a world-famous philosopher, thought play education a mistake, for in it the teacher descended to the childishness of the pupils instead of raising them up to the level of serious realities. An even more renowned philosopher, Immanuel Kant (1724-1804), showing the influence of Rousseau in his lectures on education, valued play because the child pursues it so earnestly that he willingly imposes self-discipline on himself."[27]

Froebel pursued this trend of ideas and perceived that play itself is educational. He did not justify play as a means to discipline or as pure recreation. He took the view that play released the child's own inner powers. Play was the natural way to learn![28] This romantic notion,

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[26]John S. Brubacher, op. cit., p. 124, Froebel's philosophy.

[27]<u>Ibid</u>., p. 222.

[28]<u>Ibid</u>., p. 222, paraphrased.

he supported by philosophy, "just as Herbart[29] had rested his method on psychology, and Comenius and Pestalozzi had used more general scientific analogies."[30]

Froebel felt that freedom was not the gift of teacher or God, but had to be achieved by self-activity.

Brubacher says,

> "Froebel's native but autocratic Germany was very skeptical about the political and social consequences of a classroom method so imbued with freedom. As a result, it was in democratic America rather than in Germany that his methods received their greatest fulfillment."[31]

Although Froebel is usually cited for his activity work on the kindergarten level, he also conceived this principle as the proper method in later years of school. He did not pursue this idea, and so it was undertaken and developed by his American followers in the twentieth century.

Comenius had once written that gardens should be attached to schools, and now a little over two hundred years later, Froebel had actually named schools for very young children the Kindergartens.[32] Though there is no

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[29] Ibid., p. 342. Johann F. Herbart (1776-1841), psychology of apperception.

[30] Ibid., p. 223.

[31] Ibid., p. 223.

[32] See footnote 26, last chapter, p. 113, and the passage cited.

direct chain of influence between these two facts; the brief reviews of the educators as presented above, show influences that pass from educator to educator.

Many ideas of the educators just discussed had already found greater expression in the writings of Comenius. Today those ideas are embodied in a wide range of educational thought.

In addition to the ideas of particular men, whole educational movements of succeeding eras form even broader foundations of educational influence. Discussions of humanism, realism, and pragmatism will furnish examples of these "macrocosms" of aggregate ideas, underlying the unique contributions of Comenius to educational literature.

The great educational contribution of the Renaissance was the recovery of the concept of a liberal education which included physical, moral, social, literary, and aesthetic aspects as well as abstract, theological, and ecclesiastical elements. The education thus aimed at the development of the free man. In theory, it planned to bring up men with the knowledge and power of giving service as needed to their countries and fellow-men. These treatises, however, were written for guides to education of the children of the nobility, and not for all children.

Through the writer, Battista Guarino,[33] the term Humanitas came into use, meaning the pursuits and activities proper to mankind. Guarino, himself, stood between old and new interpretations of forms and methods in schools and curriculum.. He went along with authoritarian ideas of Aristotle, Circero, and Quintilian, but at the same time favored a friendlier guidance on the part of teachers, and a curriculum which showed more philosophical insights in meeting people's needs.

By the sixteenth century, however, the term humanities came to mean the literature and language of the ancients. Humanistic education, then, aimed to master this literature and forgot to gear the child for life.[34]

The Renaissance-Reformation movement branched three ways: There were: the humanistic movement which was pampered by both branches of the Church, the scientific movement which in the seventeenth century became the realistic movement as will be shown, and the theological tendency.[35]

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[33]Battista Guarino (1434-1513), Renaissance educator.

[34]Paul S. Monroe, A Textbook in the History of Education (New York, 1933), p. 370.

[35]Ibid., summarizes pp. 402-406.

Luther and others accepted the humanistic content, not as it was conceived (as a guide to life; or as it developed in narrow rote learning) but as a means to read Scriptures.[36] The humanism of the Reformation, through Luther, influenced the establishment of systems of schools, based on education for everyone. Luther had a glimmer of the idea of the social function of education but subordinated it to the end of religious purpose, which would add materially to everyone's sense of security and in turn make for defense, support, and prosperity of the state. Comenius, in seeking school-systems, gave Luther full credit (as has been shown in earlier chapters) for the original idea of state supported universal education, and added his plea at every chance. Comenius said that Dr. Luther exhorted towns to erect schools for the instruction of all the young of both sexes, and to find an easier method of instruction.

> "These are the views of Dr. Luther. This is indeed a noble counsel, and worthy of such a man! But who does not see that matters have gone no farther than his wish? For where are those universal schools?"[37]

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[36] Adamson, Contributions to the History of Education, (Cambridge, 1921), III, p. 197.

[37] The Great Didactic of John Amos Comenius, trans. by M. W. Keatinge (London, 1921), Vol. II, p. 77.

Thus in the humanistic movement the changes proposed for schools were more evident through Northern Humanism than through Renaissance Humanism in Italy. Such men as Erasmus and Luther contributed worthwhile educational ideas to this branch of humanism, at a time when nations were being formed, and Church and State controversies were gaining momentum. The invention of the printing-press in 1438 was important, for it gave rise to more uniformity in books. By the time of Luther books in the vernacular were available, even Bibles, though the humanistic influence of the classic languages still pointed to Scripture reading from original versions as the preferable course rather than depending on vernacular translations.

The transition from humanism to realism started when leaders began to view the practical problems in men's daily lives as important to learning.

The scientific movement with the impetus of Baconian influence, in the generation after Comenius, came to be called realism. Comenius is classed as a realist in educational philosophy in J. Donald Butler's Four Philosophies,[38] as elsewhere in educational studies.

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[38] J. Donald Butler, Four Philosophies (New York, 1951), p. 275.

Realism is the educational philosophy embracing the use of real things of nature in instruction. It has developed into several branches as it gained complexity such as critical realism and neo-realism. Robert Quick, however, writing in 1890, says,

> "The champions of realism have always recognized Comenius as one of their earliest leaders."[39]

Comenius's conception of mind was distinctly realistic even though his religious beliefs contrasted to it. To Comenius the mind of man was "like a spherical mirror suspended in a room" which "reflects images of all things that are around it."[40] By "all" Comenius means things both close at hand and things farther off in space and time. It is easy to draw analogies from his figure. The mirror is the mind of man. The room is the external world. The passivity of mind is implied, however, when it is proposed that everything in the world reflects its counterpart upon man's mind. Modern realists bring more subtle elements into their understanding of the knowing process. But Comenius's "conception of mind is the same as theirs, although not as fully refined."[41]

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[39] Robert Quick, Educational Reformers (New York, 1890-1929), p. 149.

[40] The Great Didactic, op. cit., Vol. II, p. 41.

[41] J. Donald Butler, op. cit., p. 282.

Comenius's realism was a real knowledge derived first hand through the senses.

In his Preface to the Orbis pictus translated into English by Hoole in 1658, Comenius himself speaks,

> "The ground of this business is, that sensual [modern sensible] objects be rightly presented to the senses, for fear they may not be received. I say, and say it again aloud, that this last is the foundation of all the rest: because we can neither act nor speak wisely, unless we first rightly understand all the things which are to be done and whereof we speak. Now there is nothing in the understanding which was not before in the sense. And therefore to exercise the senses well about the right perceiving the differences of things will be to lay the grounds for all wisdom and all wise discourse and all discreet actions in one's course of life. Which, because it is commonly neglected in schools, and the things that are to be learned are offered to scholars without their being understood or being rightly presented to the senses, it cometh to pass that the work of teaching and learning goeth heavily onward and affordeth little benefit."[42]

Comenius in the Orbis and the Januas had carried out his principle of appealing to the senses. This appeal, is restated by Hoole in his own added preface to the 1658 translation wherein he deplored the common practice in England which consisted of "teaching little ones by grammar only". He advised teachers not to trouble children's thoughts with bare grammar rudiments. He said, "inform them first with some knowledge of things" in order that memory would improve, as,

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[42] Orbis pictus, trans. by Chas. Hoole (London, 1658) preface by Comenius.

> "Comenius hath proceeded in an orderly way, first, to exercise the senses well by presenting their objects to them, and then to fasten upon the intellect by impressing the first notions of things upon it and linking them one to another by a rational discourse."[43]

Hoole commends the ideas of Comenius to the consideration of teachers by emphasizing an alertness to their results:

> "This is the very basis of our profession--to search into the way of children's taking hold by little and little of what we teach them, so that we may apply ourselves to their reach." [sic][44]

Comenius's truth of sense-understanding was amply employed by Pestalozzi in his methods, and even the ways of doing things in the German Folkschools have reference to the Orbis.[45]

Pragmatism is a comparatively recent philosophy and more distinctly American than any other contemporary system of ideas, yet it, too, has roots in the past. One such example is the saying of Heraclitus, dating back to about 500 B.C.: "All things flow; nothing abides."[46]

According to pragmatism the biological, psychological, and sociological forces are as a huge ever-flowing river, a river of flux and change. Most generally understood,

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[43] Robert Quick, op. cit., p. 200.

[44] Ibid., p. 202.

[45] Ibid., p. 151.

[46] J. Donald Butler, op. cit., p. 396.

students in any classroom are like this. Instead of seen as the passive receivers of Comenius's day, the pupils are seen as individual organisms reaching out to engage in the flow of experience. The theme of experience has been enlarged on, beyond the views of realism. It has been popularized in the twentieth century by John Dewey's words, "Learn to do by doing." Yet, here are Comenius's words from the Great Didactic, in a similar vein:

> "In schools, therefore, let the students learn to write by writing, to talk by talking, to sing by singing, and to reason by reasoning. In this way schools will become workshops humming with work, and students whose efforts prove successful will experience the truth of the proverb: 'We give form to ourselves and to our materials at the same time.'"[47]

A few examples of the "learn to do by doing" trend in twentieth century classrooms are here cited. In the Public Schools of the small town of Bangor, Michigan, in the early 1930's the home economics program (with Smith-Hughes affiliation) was largely an activity program. The girls learned to sew by making garments for themselves, to cook by running the hot-lunch program, child-care by actual care of children and demonstration of baby-bathing, interior decoration by dramatics of putting on a play, clothing-

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[47] The Great Didactic, op. cit., p. 195.

selection by setting up county-fair exhibits, and countless other ways. The school had a good music department, and the pupils learned music by membership in glee-clubs, band, orchestra, and presentation of operettas. Though there were no art classes offered in the high school, there were yearly exhibits of prints of famous artists and selection for purchase of some for the school. The school operated on a progressive philosophy that showed up from kindergarten through high school.[48]

Similar programs were carried on in Montague, Manchester, and Blissfield, Michigan, where the present writer taught in the next decade. These were typical of a wide-spread practice.

Pragmatism has become, in the twentieth century, a leading educational philosophy in America. It has given education a central and primary place among social institutions. John Comenius, in the seventeenth century, pleaded for interest in schools in his closing chapter of the Great Didactic. This is an instance of almost prophetic vision on his part; for the influence of the progressive education as a central social benefit is directly due to John Dewey (1859-1952) and other modern educators, not to

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[48]Howard Barker, Supt. 1921-1945, was an exponent of progressive education.

Comenius. True, their ideas stemmed from the American concepts of Pestalozzi's object lessons and Froebel's kindergartens as traced in history of education books.[49] This serves to show the fact that school reform from 1850 on has flowed more progressively than in Comenius's time when novelty was more to be feared than welcomed.

The revival of Comenian study with printings and translations of his educational writings came at the time of John Dewey's maturity, but it is not definitely known whether or not he read the contributions of Comenius to educational thought.[50]

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[49]For example, John S. Brubacher's A History of the Problems of Education (New York, 1947), pp. 224-248.

[50]No mention of Comenius is made in any of the Dewey publications read by the present author, but in the books reviewed: Schools of Tomorrow, 1915; The Sources of a Science of Education, 1929; Reconstruction in Philosophy, 1920; Influence of Darwin on Philosophy, 1910; Psychology, 1886; Problems of Men, 1947; Philosophy and Civilization, 1931; and Democracy and Education, 1933; the sources mentioned were Bacon, Rousseau, Descartes, Herbart and many other thinkers from Germany of the century following Herbart. The Baconian influence could account for many parallels in the educational thought of Comenius and Dewey.

Comenius tells of a four hour visit and conversation with Descartes in October, 1642--in which they exchanged views on philosophy and education and urged each other to publication. [From the Fragment of Komensky's diary published in Amsterdam in 1669--(page 50, Young, Comenius in England)] This is a very slender chain in historical thought, but an interesting one.

On other methods as well as "learn by doing", they made similar pronouncements. John Dewey had the advantage of three centuries of the "great onward flow" on which pragmatism based its tenets. For instance Comenius by introducing a good experience to a pupil assumed a good result; or on a larger scale, said that by the right method a whole classroom of students would become well educated.[51] John Dewey went far beyond this and in seeking the "most good for the most people" advocated the imaginative rehearsal of experience to discover the probable consequences.[52]

Logic, to Bacon and Comenius, meant a matter of pious observation of the facts of experience. To Dewey it meant this, "plus the development and use of a technique for formulating and putting to work the hypotheses which will redirect our experience toward the ends and purposes we wish to bring to pass."[53] His greatest imperative is that man has to be aware of his changing environment and active in solving the problems constantly coming to the fore.[54]

To Comenius the end of education was knowledge, virtue, piety. To Dewey and pragmatism knowledge of ultimate

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[51] The Great Didactic, op. cit., p. 96-97.

[52] J. Butler, op. cit., p. 46.

[53] Ibid., p. 29.

[54] Ibid., p. 39, paraphrased.

truth is impossible, and of little practical value anyway.

In the twentieth century classrooms there are many of the methods, techniques and teaching aids so long ago advocated by Comenius. Insofar as they got there by the natural process of change, espoused by pragmatism, the influence of Comenius is negligible. There are, however, Comenian ideas found in contemporary education which, in spite of some supernatural aims, show a more direct ancestry to the modern pragmatic aims such as social efficiency. These include much that has formerly passed as cultural value. Thus the second part of the present chapter will attempt to show Comenian principles and practices that are used today.

B. COMENIAN IDEAS FOUND IN TWENTIETH CENTURY EDUCATIONAL PRACTICES AND PRINCIPLES.

The educational methodology of Comenius was founded on his intense interest in the scientific excitement of his time and led him to propose a way of effective teaching which he called "the method".

One of the basic ideas involved was the use of the learner's five senses in the classroom. This first of all meant observation of objects and things in nature as well as those brought into the school. It culminated in the composition of the Orbis pictus, a medium whereby the eyes aided the understanding.

In the matter of use of pictures, the direct influence of Comenius has been attempted to be explained in Section A. of this chapter. However, audio-visual aids have developed with amazing results in the last fifty years, due more to technological progress than to education reform, but educators to keep pace with the times have had to urge their use in schools. This has been done, through writings, teacher-training, workshops, and demonstration and experiment.

John Brubacher, on new materials of instruction, writes:

> "Not least among twentieth-century materials and devices for improving instruction were the motion picture, radio, and phonograph. Although

> it is too early to assess the educational value of any of these, there seems little doubt that the introduction of the motion picture has opened up the possibilities of a far greater advance beyond contemporary methods of instruction than did Comenius's Orbis pictus in the seventeenth century. Down to the middle of the present century these new instruments of method were chiefly developed for amusement purposes. Consequently, all three instruments still stood on the threshold of their adaptation to education."[55]

He goes on to say that the motion picture was put to excellent instructional uses by the Army and Navy in World War II.

Although the practice is not universal, motion pictures are now used in many classrooms in American schools, both at home and abroad. The Report of Tokyo American Schools 1946-1953, gives an account of the use of visual aids, including movies, as a means to instruction.[56]

Education through the use of the senses by experience and activity, while not wholly universal in present-day education, can be found over wide areas of the world. Comenius said, "if you give the pupil something to do, you will quickly rouse and capture his interest, so that he will throw himself into the work."[57]

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[55] John S. Brubacher, op. cit., p. 248.

[56] Publication compiled by the office of the Tokyo American Schools, Maj. Fred C. Spreng, director. (Tokyo, 1953).

[57] V. Jelinek, The Analytical Didactic, p. 108.

Many classrooms in the world today include such an activity-program philosophy. The author has visited a typical country school in Sweden, and also one of the most modern school-systems in Sweden. While there are wide discrepancies between the two, Swedish school reform has been as ambitious in the line of activity education in the twentieth century, as it was in textbook reform in the days of Oxenstierna and Comenius.

In the elementary schools of Japan there is an almost nation-wide trend to take class excursions for the purpose of learning. This is mainly observation, but there is activity in the actual process of taking the trip in varying sized groups (ten to seventy or eighty in charge of one teacher).

These practices are in harmony with Comenius's statement that the best conceptions of things are formed from observation of the things themselves. He valued the use of the other senses, also, as better informants than words. The song of the nightingale was best understood when actually heard. The idea of sugar was made clear by tasting. To feel a leaden object gave a clearer idea of weight than merely reading that lead is heavy.

In twentieth century classrooms, from the early elementary grades where showing objects is a part of learning to the advanced physical science laboratories, the use

of the five senses is an important part of teaching and learning method, as Comenius conceived it.

Comenius advocated the inductive method of study and at the same time wanted the subject to be viewed as a whole. This is comparable to the present day practice of giving an introductory general view in many courses of study.

Although such interpretation showed a contradiction in method between deduction and induction, there is no evidence of confusion to Comenius when used as a basis of introductory understanding. The inductive method was to be used for gaining a true understanding of facts before memorization, and as a step in ability to form judgments.

In the methods to be employed in pre-school practices Comenius anticipates much of twentieth century practice.

The Proverbs of over two thousand years ago, ascribed to King Solomon, carry the statement: "Everything that is now, once has been." This holds true in the case of Comenius's ideas on pre-school education for children from birth to school-age. The influence of Comenius here cannot be traced historically. It was due to the rise of kindergartens of Froebel, as traced in Section A of this chapter, that the idea of a different sort of education for the very young at pre-primary age was introduced. The factors

evolving covered the same points that were of concern to Comenius.[58] Brubacher says,

> "The idea of a school for very young children was entertained by Johann Amos Comenius (1592-1670) who advocated a school of infancy in conjunction with the home. There he wanted special attention given food, sleep, fresh air, and exercise in order to build up a body fit for the habitation of the soul."[59]

In addition to the activity through use of the senses as discussed above some of his particular rules of pre-school method include:

1. Temperance by never overfilling the stomach.
2. Cleanliness practiced at meals and in treatment of dolls, toys, and clothes.
3. Politeness and readiness to help others.
4. Good manners.
5. Truth and reverence.
6. Generosity through sharing.[60]

All of these find place in the practices of nursery schools and child care pamphlets of the present era.

In the field of grading classes as an aid to method Comenius had unique ideas. The elementary practices in present-day education, especially the grading system, were

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[58]See section on Comenius Infant School in Chapter IV of this study, pp. 97-98.

[59]John S. Brubacher, op. cit., p. 402.

[60]<u>The Great Didactic</u>, op. cit., p. 262.

originally ideas of Comenius. As outlined in the last chapter, he advocated six grades for the Vernacular School, for all children.

In America, more than in most other countries, the grading system by a single educational ladder has evolved. This was a gradual process due to expansion of a growing nation in a freer and more democratic atmosphere than in the mother countries. In Colonial times the American common school was ungraded. In the early nineteenth century, the American schools took their pattern from European systems which were two-track systems, one for nobility, one for the masses. Jefferson, as Comenius long before, held the broader ideal of a single educational pathway. However, his was not an ideal of universal educational advancement as was Comenius's. Jefferson's idea, somewhat limited by aristocratic bounds, even so was ahead of his time, and points out by comparison how very far ahead of his time was Comenius's analogous but more inclusive idea.

The arguments for grading, after the first quarter of the nineteenth century were pedagogical ones, arising from the Pestalozzian form of instruction which required grading for its success. The idea of grading gave more scope to school architecture and the one-room schools began to give way to the multiform building, as American

towns and cities grew. The length of time in elementary schools varied in different states and systems.[61]

> "By the post-Civil War period the graded elementary school was thoroughly established. Indeed, if one judges by the way in which the rest of the school program was organized on the basis of it, the course of study was carefully planned in detail, grade by grade. Textbook publishers followed suit with whole "Graded" series of readers,[62] arithmetics, and the like. Written examinations were the gates between grades, and these gates swung open and shut in a scheme of annual promotions. In fact, the administrative machinery was so perfected that soon the elementary schools were caught in a lock-step from which heroic efforts were necessary to extricate it."[63]

The clock-like precision in schools that had been Comenius's dream, was full-grown by the beginning of the twentieth century. The new philosophies of education and newer interpretations of education as life now required a breaking down of the school-room wall to carry learning into the social function. Bringing life situations into the school is noted in Dewey's work.

The Comenian idea of graded classes remained, although some flexibility for individual advancement within the social groups had to be devised.

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[61] John S. Brubacher, op. cit., pp. 395-397. Condensed. For a more complete account, see references in his footnote, p. 397.

[62] Famous in the last part of the nineteenth century were the McGuffey Readers and Webster's Bluebacked Spellers.

[63] John S. Brubacher, op. cit., p. 398.

The twentieth century compulsory education laws are pretty well enforced in America and so the crowded classrooms represented varying abilities. To help solve the problems of some of the slower learners, the idea of "opportunity classes" arose. Thus the psychology of the child's feelings entered in to revise the grading system. The "exact order" reflecting Comenius's Didactic was planned on a weekly scale now, more often than on a daily scale. More flexibility was, and is needed in gearing children for "life by living" than Comenius envisioned in gearing them for a useful earthly life as the prelude to a life with God.

The order of a weekly sample fourth-grade program in the present decade looks like this:

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:45	Class Meeting (planning, poems, clippings, announcements, reports, banking)				Student Council
9:20	Arithmetic (oral and board work)				Red Cross
9:45	Physical Education		Rhythms	Physical Education	
10:30	Choice work Period (art, shop, library, classroom, arithmetic, spelling for those who need special help.)				
11:00	Arithmetic Spelling	Chores Singing time for group	Assembly, Spelling Social studies	Arithmetic Spelling	Music

12 - 1 lunch

AFTERNOON SESSION

1:00	Reading (½ hr.) Social studies Posture Work period Individual needs, guides	Music Arithmetic Gym Reading time	Arithmetic Science Reading time Student Council	Reading time Story, plays, weekly reader, etc.	Reading time Arithmetic Gym Social studies Library
3:00					

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[64] A. Gordon Melvin, General Methods of Teaching (New York, 1952), p. 56.

Comenius's fourth grade class-book was called the Labyrinth of Wisdom,[65] but, as it is not extant, all that we know of it is that the order would be on a question and answer basis. Comenian ideas which are evident in the sample program given, although no historical influence is proved, include: an orderly progress from one task to another, short school-day (Comenius advocated four hours, as compared to the five and one-fourth in the above diagram), learning through experience, adequate materials and books, and care of body.

In his six classes in the Vernacular School (as in the other three schools), Comenius employed the principles involved in gradation as the basis of his proposed texts. They did not differ in their subject-matter which was geared toward pansophism, but they differed in complexity.

Thus they advanced from the known to the unknown, from the brief to the long, from the few to the many, from the simple to the more complex, and from the near to the far. Often they pointed out some fresh way of treating the subject for the higher classes.

In the present century most of the books and materials are so graded and constructed as to bring out these same

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[65]See Chap. V, p. 107, this study.

principles.[66] The geography references and texts for example gain in complexity and methods of approach are written for increasingly mature students. In the early elementary years geography lessons deal with the near and the known just as was set forth in Comenius's Great Didactic. Certainly all of these graded books are written in the vernacular or known language, which method will now be further elaborated by a discussion of Comenian ideas on language study and comprehension.

Comenius valued languages in the curriculum, not as a part of erudition or wisdom but as a means of acquiring and imparting knowledge. Because the comprehension of many languages was exceedingly difficult Comenius attempted to define some logical basis for choosing which to study.

Humanistic schools taught Latin and Greek as an access to culture; and Latin was the language used in operation of Church and State. Latin was necessary in schools of the Reformation period to give a key to the Scriptures. Vernacular was beginning to be needed as the age of printing gave more copies of translations of the Bible and secular literature to the public. In Comenius's

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[66]Other studies on grading and graded texts in the common schools can be found in Ernest E. Bayles' The Theory and Practice of Teaching, Harper Bros. (New York, 1950); and Ray H. Simpson's Improving Teaching-Learning Processes, Longmans, Green and Co. (New York, 1953).

day Latin was still the language of the church and the best medium for international communication, and as such he gave it a vital and prominent place in his school plan, but at the same time insisted on a study of the vernacular as a grounding for Latin study. Latin was required also in the early formal schools in America, and some indeed, even used Comenian Latin texts.

The focal point of curriculum has now shifted from Latin to broad fields of related interest which furnish knowledge, application, and usefulness to the pupil in his immediate environment, as well as guiding him to understanding that will equip him to make the best choices later in life, in all problems arising.

This history of this shift from a Latin-centered school to a vernacular curriculum, educating the pupil in a life-situation is traced in the history of education from Milton's statement: "Language is an instrument to convey things useful to be known" to the present time.[67]

William Petty in a letter to Hartlib around 1649 carried Milton's principle to the logical conclusion, and reduced Latin study to an optional course. This heroic

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[67] John Milton, Tractate of Education (Hamburg, 1644), Deutsch and English. [Milton's views are discussed on p. 260, Brubacher, op. cit.], p. 31.

recommendation was implicit in the thoughts and writings of Comenius, but not openly voiced as it was by Petty and later educators.

Locke included Latin study as a discipline of mental faculties. The notion of the mental value of Latin has persisted to the present time. Basedow taught Latin through conversation and use of objects naming them in Latin, thereby making Latin study a game. He may have got the idea of conversational Latin from the opening statements in the Januas of Comenius, "God save you dear Reader, Come on! Let us go out abroad. . ., neither will you weary of so pleasant a walk, where new sights will accost you all the way. . ."[68]

Even though the historical influence of Latin is one of long tradition and was only modified somewhat by Comenius, it is fair to state that he helped promote the idea of teaching Latin, and indeed, other languages, through the use of the vernacular, or his well-phrased admonition to teach the "unknown through the medium of the known".

American high schools today still have Latin in the curriculum, but it has declined to a less prominent place than ever before. In continental Europe Latin still has

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[68]John S. Brubacher, op. cit., p. 212.

a very prominent place, although the study of modern languages has come to be more popular.

Modern language texts have handsome illustrations. The subject matter, instead of being encyclopedic, is geared to usefulness as an aid to travel, and as a source of culture of the country whose language is studied. Today's Latin texts are also lavish with pictures but are still mainly factual in content. They give a concept of Roman culture to twentieth century students.

Language texts are supplemented by attractively graded readers, calculated to interest the pupil. This is counter to the Comenian idea that one text would be sufficient if it embraced pansophic content. Comenius advocated the use of dramatized stories for the comprehension of language, especially Latin, as he put into practice at Saros-Patak.[69]

Comenian ideas of study in a new language which are still pertinent today include:

1. The first exercises must deal with subject matter which is familiar.
2. In writing rules for the new language the one already known must be kept in mind as an aid to comparison and contrast.

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[69] The Great Didactic, op. cit., Vol. I, p. 80.

3. Learning the language by practice is to be supplemented by rules stated grammatically rather than philosophically. In this way things will come before words and help make language study pleasant.

Discipline in connection with method was of vital concern to Comenius as it is to present day educators. To Comenius there were about ten levels of discipline which included some elements that are common today, such as mildness, constant and fair awareness of discipline as an instrument of instruction, use of corporal punishment only in cases of gross immorality, a completely impersonal attitude,[70] and a kindly guidance.

Methods of discipline today form part of the subject-matter in teacher-training; and school laws have helped effect a more vital view of discipline and guidance as integral with the instructional practices in classrooms. The modern attitudes to discipline which grew out of eighteenth century educational reform are not new ideas. Rather they reflect parallel ideas first systematically voiced by Comenius.

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[70]In the time of Comenius many schoolmasters indulged overt feelings of anger and hate when whipping and reviling the pupils. (The Analytical Didactic, p. 119)

In the range of general method in which certain elements go beyond single lessons Comenius held ideas which are in use today although no historical chain of development is implied. The use of demonstration to give fresh knowledge is an example, for Comenius says that the use of instruments should be shown in practice and not by words alone.[71] Another general use of method that Comenius urged was that the training of those beginning to make progress should proceed gradually. This was one of the central recommendations in the Comenian program of reform, and reflects teachings of Vives. Progress at graduated speeds find application in classrooms today. This gradual pace of accomplishment was encouraged so that as the pupil became more skilled, he could work and study at a faster pace.

Some types of Comenian lessons were designed to solve problems by the aid of old knowledge, and others aimed chiefly to excite the curiosity. Thus both through rules regarding special methods and broader rules of general method, Comenius anticipated many of the modern views. He was greater in organizing of method than in any other aspect according to the evidence of his didactic writings. However, his ideas about curriculum were of significant importance, and will be the basis of the influences next discussed.

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[71] The Great Didactic, op. cit., Vol. II, p. 195.

Comenius advocated a broader curriculum than the humanities offered, and thus in his list of school subjects new names appeared growing out of the theory that the world is a purposeful and dynamic universe. The new physical sciences predicated by Comenius included geography and history, counting, measuring, and weighing. Other activities leading to vocations were found in his Vernacular School; similar acitivites are also found in the elementary schools of today. His studies on the elementary level which parallel those of today include:

1. Read and write the mother tongue well.
2. Cipher.
3. Music through singing.
4. Geography of the native land.
5. Moral rules and manners.
6. General knowledge of arts and handicrafts.

Comenius wanted these various branches of study to be taught together rather than as separate subjects, thus anticipating some of the modern curricular practices such as the correlation and concentration plan of integrating subjects; and more recently of integrated, broad-fields, and core curricula.

In elementary schools, on the junior high level, and to some extent on the senior high level, the core program

has been introduced as a partial solution to the problem of too many subjects. Here larger blocks of time and a cutting across subject-matter lines attempt to fuse for the pupil vital precepts in a way which might be expressed as the laboratory of Comenius's pansophic text, though by no means as all-inclusive of the entire world of knowledge; reflecting rather that segment of the whole which makes a smaller whole within the community pattern of life.

The core-program in the United States, however, is only in the experimental stage, as only about 3½% of the schools of the nation have adopted it as yet.[72]

Today in connection with the problem of many subjects educators are faced with the problem of specialization. Comenius's solution to this was the one-ladder school-system.

In the seventeenth century, Comenius did what he could to show the need of a vernacular school for all children of all classes as a necessary introduction to the higher school, thus putting off the need of specialization for a few years longer; but even so, his Latin School, which was the gate of particular studies, began at the age of twelve. The idea of Comenius was heeded for

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[72]Harold H. Alberty, Reorganizing the High School Curriculum, (New York, 1947), Ch. IV.

a few years at Saros-Patak, where he himself directed it. In 1642, Duke Ernst (or Ernest) of Gotha established a co-educational school, and organized it through the influence of Comenian ideas.[73] These seem to be the only examples of any historical relationship between Comenius's ideas, and the views of specialization at the present time.

Specialization of study, then, was a problem in the seventeenth century, and continues to be one today. This is one of the major problems of school reform of the twentieth century, especially since World War Two, when so many countries are trying to effect a compromise between the "one-track" and "two-track" types of curriculum.

By planning the four schools, that is, the Mother School, the Vernacular School, the Latin School, and the University, Comenius demonstrated that specialization could be delayed until the age of twelve. Modern practice also seeks to delay specialization, although in countries with practice lagging behind school-reform laws, there are yet schools where children have to decide very early on a course of study, making change difficult.

Many recent books and reports give clear views of the problems of specialization on the college level, for

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[73]Thomas Woody, A History of Women's Education in the United States (New York, 1929), Vol. I, p. 83.

example the report of the President's Commission, Vol. III, 1947. The specific problems reviewed in it include: flexibility and variation, community colleges, teachers' colleges, general and special courses, and adequate facilities.[74] Comenius, in his list of university subjects, named those that have special relation to the will, namely, theology, philosophy, medicine and jurisprudence. These are still senior college-level subjects.

As a part of his curricular practices, integrated with discipline, Comenius favored an emphasis on character education, including training in sociability and politeness from the Mother School through the University.

Practical aspects of Comenian curriculum included activity as part of the procedure, and for further physical activity, he favored recesses as are common today. Sports, however, as they are connected with schools today were not envisioned by Comenius. Sports were recreational without competitive status in the mind of Comenius. But on the subject of rivalry, he did favor a great deal of competition in class work and recitations.

The Comenian curriculum for the pupil who had gone through the Latin School (comparable to present day secondary schools) and the University, automatically prepared

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[74] President's Commission - Role of Organization, (Wash. D.C., 1947) Vol. III, Chaps. II and III.

him for the teaching field, or as Comenius says, "prepares learned men for the future, that our churches, schools, and states may never lack leaders."[75]

On the subject of teacher-training Comenius's remarks were rather general, as noted in the chapter on his educational writings. He assumed that anyone getting an education in his four schools with some travel afterwards, would be able to teach. He felt that teachers without too much ability could teach if provided with proper books.[76] Yet he also remarked that teachers should come to their callings as ministers to theirs: ". . .would that this could be done to all who undertake the task of educating men, that they might learn to appreciate the dignity of the task and of their own excellence."[77]

Based on extensive study of Comenius's writings it is the considered opinion of the present writer that because method, textbook writing, and pansophic concerns (to say nothing of the heavy drain on his time as a Bishop of the Brethren), occupied so much of his life, he had not concerned himself with teacher-training beyond generalities.

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[75] The Great Didactic, trans. by M. W. Keatinge, Vol. II, p. 258.

[76] Ibid., p. 96.

[77] Ibid., p. 26.

Of those generalities, pointed out in Chapter V, the statement "a teacher should be competent to teach", is further explained by two points which are pertinent today:

1. He should be a capable teacher, one with patience, and forbearance.
2. He should desire to teach, that is be industrious, diligent, and eager to guide others into the light in which he himself rejoices.[78]

Beyond this thinking, he did not seem to leave any record for an exact plan of teacher-training.

Comenius's use of older students as monitors to aid in directing the younger ones had much in common with the Lancaster-Bell systems of England.[79] These latter gave rise to a need of teachers especially trained, as did Pestalozzi's object lessons.[80] The twentieth century has shown this chain of influence in teacher-training development. A good discussion of professional education of teachers can be found in Brubacher.[81]

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[78]V. Jelinek, The Analytical Didactic, p. 102.

[79]John S. Brubacher, A History of the Problems of Education (New York, 1947), p. 507. Ch. XVI.

[80]Ibid., p. 518.

[81]Ibid., pp. 493-535.

Progress has been made in which the theory of practice-teaching has taken an important place. Comenius wrote, "We must demonstrate how to do a thing by doing it," and added, "Seneca realized this when he wrote, 'We must learn how to do a thing from one who does it.'"[82]

Whether from Seneca to modern educators, or from the natural "flux and change" in pragmatic philosophy, the twentieth century practice-teaching embodies the ideas that Comenius succinctly stated during his period of writing texts for Swedish schools, and printed in the Methodus.[83] The Comenian ideas of kindly teachers and happy pupils, is insured by practice-teaching on location.

His ideas on school and playground architecture were, however, very general: 1. The school should be attractive to the eye, within and without; 2. There should be an open place to walk; 3. There should be a playground; 4. There should be a garden. That these things have, to some extent come to pass, is not due to Comenius's ideas, but due to the mode of changing times. Much more is still to be done in this line before all the school buildings of

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[82] V. Jelinek, op. cit., p. 114.

[83] Linguarum methodus novissima, published in Lessno in 1648-9. Republished in Jani Comenii Opera didactic omnia, (Amsterdam, 1657-58) [as II, 1-292 of the 4 vol. set.]

today can be such "pleasant places". Comenian ideas coupled with the newer ideas of school facilities and structures are still in the making.

Sadly outdated school buildings are still in use in Spain, Egypt, France, England, Germany, Sweden, Japan, and America. Each of these countries also have many of the latest model school buildings. The scope of education in the twentieth century takes into consideration the factor of building, but the increasing school population, expecially since World War Two, has necessitated the use of old buildings of many kinds to take care of all the pupils.

Much is yet to be desired before there will be enough "ideal" school buildings for equal educational opportunities for all children everywhere, as Comenius pleaded for in his Great Didactic.

The problem of school buildings had been given little attention down to the nineteenth century. In ancient days schools were held in temples. In some places schools met on porches. Roman schools met on verandas or "lean-to's" off the street. In the Middle Ages schools were often held in churches. Many seventeenth and eighteenth century schools in America and abroad were held in homes or in rented buildings.

The earliest schools in America, built as schools, had low ceilings, bad ventilation, poor heating and lighting, very poor sanitation and rude equipment. They were built on the pedagogical notion of an ungraded school. A single large room satisfied the demands of this theory of education. The monitorial systems accepted the same architectural ideas, only increased the size of the room. The teacher often had a raised platform.[84] Comenius, it was noted in the last chapter, advocated a raised platform for the teacher, though the ideas were conceived independently of one another.

Grading of schools affected school architecture in that separate rooms were necessary for separate classes. By 1900 the curriculum expansion demanded rooms for special subjects like manual training and domestic and fine arts. Of course, the kindergarten idea needed special rooms, too. For a well-written and interesting account of the trends of school architecture see Ayres' study.[85]

Twentieth century America witnessed many improvements in school architecture. Wood, for exteriors, was replaced

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[84] Ibid., p. 595. A good illustration is shown.

[85] "A Century of Progress in School House Construction", American School Board Journal, Vols. 54-55, June, July, August, September, 1917. This needs to be brought up-to-date and suggests a fertile field for fresh research.

by brick and cement; electric lighting, and central heating were installed. The rooms came to be constructed on a scientifically determined ratio between window and floor area. Exteriors of schools followed the modes of the changing times, and as stated above, much can yet be done to improve them. The problem of school buildings grew out of the larger problem of universal education which will be discussed in the following paragraphs.

Comenius is truly acclaimed as the father of modern education in the sense that he firmly advocated education for both boys and girls and for all ranks. His ideas on co-education in the vernacular school were in harmony with the ideal of universal education. He said, "The education that I propose includes all that is proper for a man, and is one in which all men who are born into this world should share. All therefore, as far as is possible, should be educated together, that they may stimulate and urge on one another."[86]

Ideas paralleled to those of Comenius are an integral part of public school education today, although there is not the added Comenian emphasis of the necessity to prepare for life in the next world.

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[86] The Great Didactic, trans. by M. W. Keatinge, Vol. II, p. 266.

Plato's concepts regarding universal education included a co-existence of a slave state, but not so with Comenius. He fully anticipated the twentieth century by planning an education for rich and poor alike, for all classes, for all creeds, and with a better chance for all to succeed. Closely allied to his universal concepts of education are his pansophic concepts which do show historic relationship to present institutions of international scope.

Von Raumer said in the mid-nineteenth century that the "influence of Comenius on subsequent thinkers is incalculable."[87]

In Jelinek's condensation of the contents of the Methodus, already mentioned in the foregoing pages, it is brought out that Comenius entreats the civil authorities to aid in the founding of scientific societies and philological academies. Such institutions of learning would bring enduring benefits and great honor to a nation. The requirements would be cooperation of learned specialists and wide public support. Bacon has clearly shown what large advantages are to be derived from such learned societies and why scholars of a nation should be supported by public funds. All educational establishments from

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[87] The Journal of the National Education Association (June, 1924) Vol. 13, No. 6. "The Life of Comenius", p. 209.

higher institutions to the lowest grades are of paramount concern to the civil authorities, because the welfare of a nation depends on the quality of the citizens that its schools produce.[88]

Robert Young in his book Comenius in England, sets up a Table of Dates Illustrating the Development of Scientific Societies and the evolution of encyclopedic ideas in their bearing on schemes for the reorganization of society on a new basis and for the spread of European civilization among the natives in America.[89]

These schemes, among other things, were thought of as state-supported. An implied, historical influence of Comenius's ideas is found in this table, for Young includes the following entries which have to do with Comenius (or Komensky, as Young sometimes spells it):

1622. Joachim Junguis, whom Leibniz compared to Galileo and Pascal, founded at Rostock his Societas Ereunitica vel Zetetica for scientific research. This Society, whose motto was 'Per inductionem et experimenta omnia,' lasted till 1624. Junguis was a friend and correspondent of Comenius. G. G. Guhrauer, Joachim Junguis and sein Zeitalter (1850). R. Brinsley's Consolation for our Grammar Schools dedicated to the Counsell and Company for Virginia. (p. 89).

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[88] V. Jelinek, The Analytical Didactic, op. cit., pp. 91-92, paraphrased.

[89] Robert Young, Comenius in England (London, 1932), pp. 13-23.

1632. Komensky's Januae linguarum reseratae vestibulum, a grammar arranged as a miniature compendium of useful knowledge, published at Leszno. Physic Garden founded at Oxford.

1633. Komensky's Physicae. . .Synopis published at Leipzig. J. A. Alstedt's Clavis artis Lullicae.

1637. S. Hartlib printed at Oxford Conatuum Comenianoram praeludia.

1639. Komensky's Pansophiae Prodromus published in London with a preface by Samuel Hartlib.

J. J. Jonston, a Polish physician of Scottish descent, and an intimate friend of Comenius, published at Leszno Horae subsecivae, seu rerum ab universi exortu gestarum idea. In the same year Jonston published at Leyden his Scelton historiae civilis et ecclesiasticae. Both works show the influence of the encyclopedic idea as applied to history.

1641. Arnold and Gerard Boate (Botius) of Leyden, who were friends of Hartlib, the Hon. Robert Boyle, and Sir Cheney Culpeper published at Dublin an attack on the Aristolelian philosophy dedicated to Archbishop Ussher, entitled Philosophia naturalis reformata.

Hevelius (Howlecke) built his Observatory at Dantzig. He was a friend and correspondent of Comenius.

22 Sept. 1641 - 21 June 1642. Komensky's visit to England in connection with a scheme for the establishment of a great college for scientific research on Baconian lines which had the support of John Williams, Bishop of Lincoln, J. Selden, J. Pym, Sir Cheney Culpeper, T. Haak, S. Hartlib, and others. This institution was to take part in a general reform of existing schools, and to further educational and missionary work among the Indians of New England and Virginia. In Komensky's scheme as outlined in his Via Lucis and in the writings of Leibniz, who adopted and systematized Komensky's ideas on this subject, three distinct lines of thought converge:

(a) The idea of a scientific college or academy. (derived from G. Della Porta, 1492, Cesi, and Bacon).

(b) The conception of an encyclopedia of all human knowledge, deriving from Ars Generalis (1287) and Ars brevis of Ramon Lull (1234-1315) and from J. A. Alstedt's Encyclopaedia omnium scientiarum (1630).

(c) The association of these two ideas with schemes for the conversion of the Indians of North America then being made by Comenius and others.

Autumn, 1641. Comenius drafts his Via Lucis, circulated in MS. (published 1668).

John Winthrop the younger, of Massachusetts, probably met Comenius in London and invited him to New England.

Jan. 1642. Komensky's Prodromus published in an English translation by S. Hartlib under the title A Reformation of Schooles, etc.

1642. Cardinal Richelieu invited Comenius to go to Paris to confer with him regarding the establishment of an Academy of Science.[90]

1642. Pieter Van Gool, a Carmelite friar at Aleppo, translated Komensky's Janua linguarum into Arabic.

1643. Komensky's Pansophiae diatyposis published at Dantzig.

1645. First meetings of the 'Philosophical College' held in London, suggested by T. Haak, a friend of Comenius and Hartlib.

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[90] Ibid., pp. 46-47. Condensed from Document I, Comenius's Diary: The invitation was written by Richelieu's secretary, Monsieur Rosiguol. Comenius, because he was ignorant of French, and other reasons, coupled with advice of friends, sent Joachim Hübner to France with answers to the letter. Hübner saw only the secretary as Richelieu was ill. Richelieu's death, December 4, 1642, ended the plan of the pansophic school in France.

1648. Komensky's Linguarum methodus novissima published at Leszno.

1650-4. J. J. Jonston, a friend of Comenius published a work on the encyclopedic idea at Frankfurt, Germany.

1657. Komensky's Opera didactica omnia published at Amsterdam.

1658. Komensky's Orbis pictus published at Nuremberg.

28 Nov. 1660. The 'Philosophical College' now organized on a permanent basis, to meet at Gresham College.

15 July 1662. The Gresham College scientists established by Royal Charter as the Royal Society for improving natural knowledge.

1667. Charles II gives buildings of Chelsea College to Royal Society.

Dr. T. Sprat's History of the Royal Society of London published.

1668. Comenius published his Via Lucis, written in London in 1641, with a dedication to the Royal Society.

1670. Comenius's death at Amsterdam.

1700. Royal (Electoral) Society of Sciences (Societas Regia Scientiarum) founded at Berlin by Frederick I of Prussia at the instance of Leibniz and D. E. Jablonski (1660-1741) a grandson of Comenius. J. T. Jablonski (1654-1731), another grandson of Comenius, was the first Secretary of this Society. In 1711 it was renamed Akademie der Wissenschaften zu Berlin.[91]

Young has thus shown the chronological growth of Societies which later became publicly supported educational agencies of the present day. His list is very complete and

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[91] Ibid., pp. 13-23, items re Comenius.

continues to 1784, including Societies in America, Scotland, Denmark, Spain, Sweden, and other locations.

The above list shows that Comenius's philosophies had some part in this historical growth of educational institutions.

These beginnings in universal educational policies also show other reflections in regard to school support, dating back to the seventeenth century.

In the time of Comenius schools were closely connected with the church. Rulers and magistrates, too, were patrons of education and so controlled school funds. It is to the princes, rulers, and magistrates that Comenius makes his plea for "sparing no expense" in education. He accords the idea to Luther, who said, "Where one ducat is expended in building cities, fortresses, monuments, and arsenals, one hundred should be spent in educating youth aright."[92] His idea of the importance of proper school support anticipated the development of such support by almost three hundred years, and though there is no direct historical influence between Comenius's idea and twentieth century practice, there may be some chain of thought.

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[92] The Great Didactic, op. cit., Vol. II, p. 301.

In America, the problem of school finance in the twentieth century has become allied with the problem of educational opportunity. In other countries, especially since World War Two, the situation is similar.

Going back to the beginning, public school finance in America, depended on philanthropy, and "rate bills" which was community income from public lands. New Jersey (1870) was the last state to give up "rate bills" in favor of taxation of real estate.

> "Various other sources of public income were also used to keep the rate bill down. Such monies derived from amusement taxes and liquor licenses. So, too, were fines and escheats. Some states, indeed, were not above the moral incongruity of authorizing lotteries for the support of schools."[94]

Brubacher continues with a detailed account of American school support through state funds, Federal Endowment, taxation, and equitable distribution of monies.[95] Support of schools is a dominant factor in twentieth century education as Brubacher brings out. This reflects the importance of the same factor in Comenian writings, even though any direct influence cannot be pointed out at the secondary school level as on the pansophic level.

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[93] John S. Brubacher, A History in the Problems of Education, summarized, pp. 603-611.

[94] Ibid., p. 604.

[95] Ibid., pp. 604-611.

In further emphasizing the need for universal education Comenius felt that no one should be turned away from school unless definitely abnormal. The teacher should meet slow learners and those with weak natures half-way, lay no heavy burden on them, but help them to keep on slowly toward the goal of a useful maturity. At school, therefore, they should be given every opportunity as is the common practice today; they were thus encouraged to stay in school. The present-day laws on compulsory education attempt to keep children in the atmosphere of school longer than any previous era had prescribed.

Comenius did not realize the full importance of the expanding frontiers of knowledge which loomed up in the wake of the scientific methods of study, but he did see the relations between phenomena and an ordered universe. He hoped that the keener intellects would be led from facts to more independent trains of thought and experiment as a way of investigating the universe.

Comenian ideas, then, which were the same as many ideas that have been worked out by recent educative efforts, in summary are: Comenius insisted that education is a natural, not an artificial process, and should therefore follow its methods of analogy of growth and development in nature. The mother-tongue must be brought into schools as

a subject of instruction. [It is now an instrument of instruction of other subjects.] Latin should be made subordinate to the vernacular. Language-teaching should be carried out by a natural method not divorcing words from things, or wasting time over deep points of grammar. Since the material of knowledge is derived through the senses, sense-training is fundamental. Geography and history should be made school subjects. Young children should be given special training (which anticipated much of Froebel's kindergarten system). Knowledge must be fitted to action, and education adapted to life. Finally, education is for all, not for a favored class or a limited number. Such is a thumb-nail sketch of the principles of the Great Didactic and the School of Infancy.

Comenius wrote,

> "We are now seeking a way by which the common people may be let to understand and take an interest in the liberal arts and sciences; and with this end in view we must not speak in a language that is foreign to them, and that is in itself artificial."[96]

Educators of today emphasize thinking, cooperation, self-direction, social sensitivity, creativeness, and appreciation in the community framework of interest which is the very life and language of the common people.

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[96] The Great Didactic, trans. by M. W. Keatinge (New York, 1896), p. 272.

In the final chapter a further summarization will be given with conclusions, and other leading educators' evaluations of Comenius's contributions to present-day education.

CHAPTER VII

SUMMARY AND CONCLUSIONS

> "Down to the time of the Greeks education was definitely reproductive or conservative in character. It was traditional."[1]

By this is meant that education was the process of passing on the race experience to the younger generation. If the society thus educated could know as much security as the preceding generation, the aim of education was fulfilled.

The first change in the relation of school and society took place in Greece. Because of economic prosperity, unknown before, and because of commerce with foreign countries, the Greeks began to weigh traditional ideas, with new ones. Plato[2] early pointed out that the school could and should be the perennial means of social regeneration.

The Renaissance was not initiated through the schools, and the schools of that period were subservient to the movement of humanism, not the creator of it. The secondary schools "rose and declined with the fortunes of Humanism".[3]

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[1] John S. Brubacher, A History of the Problems of Education (New York, 1947), p. 612.

[2] Plato, The Republic, his greatest educational work, was only a plan.

[3] John S. Brubacher, op. cit., pp. 613-16, summarized.

The schools had become so conventional in the sixteenth century that by the time of Comenius, the systems and teachers for the most part resented any attempt at advance, and did not hearken to the plea of the scientific surge, except in rare instances like Ratke and Comenius. The heroic attempts made by educators as sketched in this study were not enough to raise the schools to the role of creator of social progress, though the wedge made by the introduction of real things, experience, and pictorial study aids, should not be miscalculated.

Through Baconian ideas, reinforced by Locke's psychology, educators like Basedow, Pestalozzi, and Froebel, made their contributions in class-rooms where Comenian textbooks were in use. It was a slow process however. Pestalozzi was just an obscure man experimenting with an idea in small villages in Switzerland.[4] Prussia was probably the first country to reform its schools along Pestalozzian lines, for after the defeat at Jena, the Junkers' used his prescription to build up strong individuals in order to raise up a new Prussia.[5] The scheme succeeded only too well for as Brubacher says,

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[4]Ibid., p. 621.

[5]Ibid., p. 621.

"The Junker aristocracy now became alarmed at the 'overeducation' of the common people. The Prussian king thought the interest developed by his subjects in social reform an act of disloyalty. Together the king and Junkers joined in severely curtailing the normal schools for teachers, which, it was agreed, were the source of all the social unrest of the time. No more eloquent tribute could have been paid to the power of the social yeast inherent in the pedagogical doctrines of Rousseau and Pestalozzi."[6]

Thus it was no new idea that schools should be the agents of social progress by the time Froebelian ideas came to America. That schools could be a strategic element in the changing social scene was most clearly seen by the educational philosopher, John Dewey. He held that education should be autonomous and free to determine its own ends.[7] He claimed that teachers were the storehouses of the wisdom of the race, more than others; and that they would be less selfish in their use of it.[8]

In the vast expansion of human knowledge, one of the necessary advances has been in the knowledge of the educative process itself, presaged by Comenius in his didactic works. The art of teaching, which Ratke kept so secretive,[9]

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[6] Ibid., p. 622.

[7] Ibid., p. 623.

[8] John Dewey, The Sources of a Science of Education (New York, 1929), pp. 46-47.

[9] Robert Quick, Essays on Educational Reformers (New York, 1929), p. 107. Ratke swore the teachers to secrecy before starting the school at Koethen. Though the school failed, it did in some respects set the pattern of of reform in Weimar.

and which Comenius gladly wrote out as a means to restore his native Moravia (if the chance came), is now something that can to a degree be acquired by almost anyone. The philosophical and scientific study of education has been necessary for the great increase in the number of trained teachers needed to ensure an educated public of today. The need is increasing with every decade of this century.

The apparent influence of Comenius's educational philosophy, as has been shown in this study, has to date been mainly indirect, with the exception of his contributions to the text-book field, his work with scientific societies, the actual schools of Gotha, Saros-Patak, and Swedish school reform, with the natural development following it. His ideas were so universal and inclusive that the dream of education he envisioned has not yet been totally fulfilled. Perhaps his influence will yet continue in a more direct channel, due to research, translation of his works, and study of his ideas in educational schools of today, so that in the decades ahead the Comenian dream of universal education, with all the added progress of the intervening centuries, will be more nearly fulfilled.

The writings of educators from the 1890's to date yield varying opinions of the influence of Comenius, some of which will here be pointed out: Robert Quick states that the Germans and French now recognize Comenius as the

man who first treated education in a scientific spirit, and who bequeathed the rudiments of a science to later ages. The great library of pedagogy at Leipzig has been named Comenius Stiftung. For education on an international scale, the new impetus of Comenian research is sure to be a factor in educational advance.[10]

Quick's evaluation is summed up as follows,

> "We see then that Comenius was not what Hallam calls him, 'a man who invented a new way of learning Latin.' He did not do this, but he did much more than this. He saw that every human creature should be trained up to become a reasonable being, and that the training should be such as to draw out God-given faculties. Thus he struck the key-note of the science of education."[11]

Quick, in the last decade of the 19th century, was disturbed at the fact that the elementary schools in England were still largely a two-track system with very unequal opportunity for children. He said that it had taken two hundred and fifty years to reach the standpoint of Comenius in thought, and that once grasping hold of the idea it was imperative not to lose it again.

He demonstrated that in 1745 Bishop Butler had given a sermon on the Charity Schools in which Comenius's ideal still had not been reached, but the good Bishop had

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[10] Ibid., p. 119.

[11] Ibid., p. 170.

said that "children have as <u>much</u> right to some proper education as to have their lives preserved."[12]

In 1890,

> ". . .the only question is whether we shall not go on and in the end agree with Comenius that the primary school shall be for rich and poor alike. At the present the practical men, in England especially, have things all their own way; but their horizon is and must be very limited. They have already had to adjust themselves to many things which their predecessors declared to be 'quite impracticable--indeed impossible'. May not their successors in like manner get accustomed to other 'impossible' things, like this scheme of Comenius among them?"[13]

Now, in 1955, sixty-five years and two World Wars later, it is evident by the Education Acts passed in England that great efforts are being made to equalize educational opportunity, even though enforcement lags considerably behind legislation. A thorough study of the writers on educational thought in England for the half century since Quick's query, would be necessary to determine the exact weight of any direct Comenian influence on the 'one-track' system to which England is slowly turning.

In the analytical summary of Comenius's philosophies and their place in education, Gabriel Compayre saw him as part of the onward sweep of events. Compayre felt that educational change comes with any decisive change in human

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[12] <u>Ibid</u>., p. 147.

[13] <u>Ibid</u>., p. 148.

opinion on politics, religion, and science. The Reformation was a break with authority on religion. The Baconian philosophy was a break with authority on science. The effect on education was a rise of individuals (like Comenius) who expressed opinions on reason, experience, and observation. The results culminated in Comenian ideas that schools should be increased in number, that there was a need for everyone to learn to read, a need for universal instruction, and a need for more and better teachers. Comenius's theories, Compayre feels, were based on the individual responsibility to salvation, for example 'school attendance should be compulsory for ignorance is evil and a danger to spiritual and temporal safety'.

The extremes in Comenian ideas ranged from dependence on reflection and reason to dependence on sense and observation as a test of knowledge. Finally the grades of instruction in their four respective schools as evolved by Comenius was an attempt to adjust his concept of education to the society of his time.[14]

S. S. Laurie in his brief critical survey of Comenius based his remarks on the realism of the humanists, a realism which failed to produce the results anticipated, for no

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[14]Gabriel Compayre, History of Pedagogy, trans. by Payne (Boston, 1886), pp. 132-140, summarized.

teachers' colleges or traditional methods grew up. Comenius, coming on the scene, was not too much in favor of humanism, and distrusted the classical writers for the most part. He believed that the schools could manufacture men and so affect social rehabilitation. His weakness was a lack of the idea of art (school drama), which was used for a practical end as at Saros-Patak.[15]

Virtue and piety were the ends to which knowledge aimed. This had three merits: It presaged that morality and goodness be taught from birth, by parents and teachers. Teaching should be a step-by-step process, milk to babes, meat to adolescents, as it were. The procedure of instruction should be adapted to the growing mind, with mild enforcement and kind, patient guidance. Laurie wrote that great honor should be accorded Comenius if only for this third merit.

Laurie felt that, though many educators disagreed, in education while our main business is to

> ". . .promote the growth of moral purpose and of a strong sense of duty,--we have to support these by discipline of intelligence and by training to power of work, rather than by information."[16]

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[15] M. W. Keatinge, The Great Didactic, Vol. I, p. 80, "The plays occupy 100 folio pages, and are dismal stuff. If the audiences were as delighted with them as Comenius assures us they were, they must have been easily satisfied."

[16] S. S. Laurie, John Amos Comenius, Bishop of the Moravians, His Life and Educational Works (London, 1892), p. 220.

He concluded that all Comenian Realism must not be thrown out, but that humanistic agencies must remain the most potent channel in the making of a man.[17] S. S. Laurie in another reference says,

> "He [Comenius] promulgated the idea of the infant school even in its Froebelian aspects, and worked out a scheme for it, and the whole German system, from the infant school to the university, is now organized, unconsciously doubtless, in accordance with his plan."[18]

M. W. Keatinge, who translated the Great Didactic into English, and did much research and study on Comenius said that Comenian ideas as taught in history of education classes had these aspects:

> "To the teacher of today Comenius, as a marked personality struggling with class-room management, is a sympathic colleague; as a head-master trying to get work on new lines out of a stupid and rebellious staff, he cannot fail to arouse interest in the minds of those engaged on the same thankless task, but to the student of education his interest is mainly historical since he represents a stage in the slow process by which our present edifice of educational theory has been built up."[19]

A contrast between his views and those of the present day shows, as a bas-relief, the great advance that has been

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[17] Ibid., p. 221.

[18] S. S. Laurie, "The Place of Comenius in the History of Education", Educ. Review, Vol. 3 (March, 1892), p. 218.

[19] Keatinge, op cit., p. 153.

made in recent years by even such a new study as educational science.[20]

In his revised edition of educational history, Monroe said in the 1930's,

> "It is true that Comenius's ideas 'have been put into practice in every schoolroom conducted on rationalistic principles,' but altogether aside from any influence exercised by Comenius; for a knowledge of Comenius and his writings was unknown by those who practiced his principles."21

He goes on to say that the greatness of Comenius consists in the early formulation of those principles in concrete terms. His actual influence on his own and later generations is commendable in regard to his text-books and the more scientific method of teaching languages which they introduced.[22]

> "After his own generation, it was not until near the middle of the eighteenth century that the remarkable educational writings of Comenius were again called to public attention by the early German historians of education, and consequently that due recognition was given to the place of Comenius in educational reform."23

Adamson, writing at about the same period as Monroe, accords Comenius a high place in the history of educational

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[20] Ibid., p. 154, paraphrased (1921 edition).

[21] Paul C. Monroe, Textbook in the History of Education, (New York, 1905; 1933 revised), p. 481.

[22] Ibid., p. 480, paraphrased.

[23] Ibid., p. 481.

opinion, rather than using the word influence. He says that since the resurgence of interest in Comenian research, claims have been reared, based on the didactic works, according Comenius the honor as the founder of modern educational theory. Adamson states that Comenius had been anticipated on several points, but that he stood alone in bringing all together into one connected, self-contained, and consistent system.

In regard to plans for a pansophic college, Adamson felt that the generalities of Comenius made for reform, and that the men, who attempted pansophic schemes after Comenius's death till the end of the century, had an even clearer vision of what was needed than did Comenius. Political conditions hindered success.[24] And so,

> "Today we are tentatively groping our way to the establishment of that modern form of the pansophic college which is partially realized in the great Technological Institutions and Technical Universities of Germany and Switzerland."[25]

H. G. Good, in an article written in 1933, extolls Comenius not as a source of influence, but as a mirror whose prophetic reflection should be a pattern for the present century. He asks,

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[24] John W. Adamson, Pioneers of Modern Education (Cambridge, 1905, revised 1921), pp. 46-79, summarized.

[25] Ibid., p. 57. [Writing in 1955, the United States should be added.]

> "How are we to make education and science contribute to humanity and not merely to individual or class or national welfare? Let us remember that three hundred years ago a great Czech educator envisaged this fundamental social and scientific problem; and that the spirit in which he approached it should be our own also."[26]

In 1942, I. L. Kandel called Comenius a citizen of the world.[27] He said that Comenius is a symbol, especially to the Czech nation; but that he is more than a national figure, for he preached a "sacred and universal concert of nations".[28] Comenius's educational work takes on meaning only as related to his larger purpose, and Comenius himself was more than an educator; he was a millenarian. One of the jobs of a League of Nations should be to plea for education as an instrument for a new world order. Comenius was disturbed by the threat of specialization as are we.[29] He concluded that,

> "If the contributions of Comenius to education no longer arouse the interest which they did even as recently as fifty years ago, it was not

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[26] H. G. Good, "Comenius and the Present", School and Society, June 3, 1933, Vol. 37, No. 962, p. 711.

[27] First expressed in these terms by Leibniz.

[28] I. L. Kandel, "John Amos Comenius, Citizen of the World", School and Society, Sat. Apr. 11, 1943, Vol. 55, No. 1424, p. 401.

[29] Ibid., p. 401, paraphrased.

because they have become obsolete or discredited; it is because they have been embodied in the thinking of the world of education."[30]

Matthew Spinka, in 1943, during World War Two, said that the world today has a lack of humane interests, that a material view of things is self-evident, that the "what" of things is known but not the "why and wherefore".[31]

> "A unified, philosophical view of life, an intelligent understanding of the meaning of life, is certainly not the usual result of our educational system, not even of the higher education. Thus the scheme of Comenius is still of value to the modern education."[32]

In the proposal for men to work together on an international scale, Comenius's precepts of a universal college are still apropos.[33]

G. H. Turnbull in 1947, offers new source material for Comenian study through Samuel Hartlib's papers. He feels that new research problems on Comenius are necessary to enrich educational thought.[34]

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[30] Ibid., p. 402.

[31] Matthew Spinka, John Amos Comenius, That Incomparable Moravian (Chicago, 1943), p. 81, summarized.

[32] Ibid., p. 82.

[33] Ibid., p. 82, paraphrased.

[34] G. H. Turnbull, Hartlib, Dury, and Comenius (Liverpool, 1947), preface.

Vladimir Jelinek, in 1953, translated into English the Analytical Didactic, as stated in this thesis. He feels that the influence of Comenius is still in the future to some extent. He says,

> "Comenius rejects the ascetic doctrine that man becomes virtuous by denying or suppressing his desires. The whole object of the Didaktika is to educate free men, capable of entering into dignified relations with their fellows."[35]

Aside from these estimates of Comenius's place in educational history, and his signs of influence, there seem to be perceptible factors which weakened his accomplishments. These factors are not voiced anywhere in the references used by the present writer, and yet are apparent in them.

It seems then that:

1. He spread himself too thin. By this is meant that he had (and always accepted) too much major responsibility and interest in too many fields of thought, namely, church work, school teaching, school reform, pansophism, political opinion and writing in all of these areas.
2. He deferred to others' opinions too much.

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[35] The Analytical Didactic of Comenius, Vladimir Jelinek, (Chicago, 1953), p. 13.

3. This deference caused just enough delay to weaken opportunities or make them vanish.
4. His timidity of action (and his family's) contrasted somewhat to his theory of accomplishment in learning.

Comenius's position as Bishop of the Brethren, and later as Senior Bishop, accounted for the habit of deference, which was a good democratic ideal, and up to a certain extent necessary to his philosophy. Such habit of consultation or steering committee work carried over to his relationships in school reform. It is most evident in contacts with Hartlib and his circle. Sometimes the discussions as to Comenius's course of action took so long that circumstances changed. The French invitation is an example. Comenius was very surprised to receive a letter from Richelieu's secretary carrying with it an invitation to France for the purpose of interviewing the Cardinal on certain unstated plans. Comenius was in London at the time. He had three or four more months to wait for Parliament to act. The Civil Wars already looked imminent. But as was his duty and custom, he deferred to others. Finally Hartlib and the other Englishmen and the Unity officers agreed unanimously that Comenius should go to France. After all this delay, Comenius himself decided not to go, for he didn't

know the French language and he was afraid to tackle an interview so handicapped. After more delay he finally sent a Mr. Hübner, who worked under him. Hübner went, but never saw Richelieu. He learned through the secretary that Richelieu wanted to inaugurate a pansophic college as a sort of clearing house for universities, but by now the great Cardinal lay on his deathbed, and that event (December 4, 1642) closed the door to France as the possible scene of Comenian activity. Had Comenius gone promptly at the original invitation, the results may have been the same, but who knows, maybe they might have been astonishingly different.

The same was true in the case of Sweden. Comenius deferred to the Unity of Brethren, and after general consent of his fellow Church officers he accepted Sweden's offer. His English friends were shocked and asked him to give it up. He did try in one letter to be excused but without success. His conscience probably prevented a stronger protest. Here crept in a seemingly ulterior motive, not a personal selfishness, but a hope that by helping Sweden educationally, Sweden would fight to liberate Moravia. Considering Comenius's broadest irenic ideas, it seems a little unComenian to take the Swedish offer in hopes of a return favor.

He reaped the reward in bitterness and disaster when the Poles burned Leszno in 1656. This was the direct result of Comenius's affiliation with the Swedish Protestant cause.

Another example of delay in decision is brought out when Comenius's wife begged him not to remove the family to England, because she feared the task of learning a new language. This fear of a strange language seems in opposition to his views on language method. After all, Comenius estimated that a language could be learned in six months to a year.

It seems, then, that because of ill-timing on the part of persons and nations, Comenius missed the vanguard of the main stream of educational influence, but left ample evidence of his ideas and efforts in didactics as in religious zeal.

The contributions set forth in his works on education as they are reflected in the twentieth century have been explained in the foregoing chapters. A resumé of the most significant data follows.

The first chapter is introductory in nature, listing the present author's reasons for Comenian study. This does not need to be reviewed again, but rather a few ideas for other studies on Comenius will be given. The present writer feels that there is a need for more translations of

Comenius's educational works, as well as of some of the critical literature about him. Of the more than thirteen thousand catalogued items in Comenian literature the bulk of it is in the German and Czech language which limits many students of other nations.

More research in relation to Comenius's correspondence offers an interesting field. For a study of this kind Turnbull's work on Hartlib, Dury, and Comenius would be an invaluable aid. Articles on and excerpts of Comenius's work should have a greater place in present-day educational periodical literature, because of their parallel ideas and universal inspirational qualities. V. Jelinek suggests that much work could be done in compiling a more usable list of Comenian studies when he says, "The body of international literature dealing with Comenius remains an uncatalogued mass".[36]

Most of the biographical facts of Comenius's life have been corrected and confirmed by research. Matthew Spinka has done much to effect this. His book <u>That Incomparable Moravian</u> (as referred to in the chapter on biography in the present study) gives a very readable account of the long and active life of Comenius.

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[36] <u>Ibid</u>., p. 16.

Judging from the difficulty in collecting books both by and about Comenius for references in writing chapters three and four, there is some need for more copies of Comenian literature available in college libraries. Significant Comenian literature should be a part of book-lists for current orders, which are made up in the Education departments of colleges and universities. Those which are out-of-print, and still of value, should be reprinted. This movement is already in operation in Europe, where books such as Comenius's Die Mutterschule can be purchased in attractively bound copies. New editions of Comenius's books would not be printed without some demand for them which shows that he is still a living influence, and a prominent figure in European and educational history.

In the book, Die Mutterschule, just mentioned, the preface states that the natural and concise way of presenting ideas still pertinent to child-care is one reason for its new edition. He attempts this natural style in his other educational works. In all his didactic works he based his laws on the operations of Nature, out of which grew his significant methods of sense-instruction, and his grading system based in turn on gradation of subject-matter as to depth and complexity.

He was ever a civic worker and believed that the parents and public authorities had a responsibility to the schools.

His textbooks were effective innovations and did more than their share in the evolving of modern texts.

His pansophic and encyclopedic ideas were long-reaching and envisioned an enlightened world where men of all nations could exchange ideas and knowledge. From the largest view of philosophy down to the smallest detail of method, he had something to contribute.

Adequate education for both boys and girls, rich and poor, of all classes and religions, was an important concern for Comenius. The significance of this for present day educators is that Comenius made an effort to improve the status quo. Comenius's idea of universal education was his greatest gift to the world, but he also advocated other procedures which are found in contemporary education as brought out in chapter six, above.

These other principles and methods briefly summed up include:

1. State-supported research institutions from which ideas can be circulated among nations.
2. Graded subject matter adjusted to the pupil's development.

3. Graded textbooks.
4. Education of both sexes; milder discipline.
5. Pre-school training.
6. Vernacular schools for basic instruction.
7. Development of whole personality of pupil.
8. Delay of specialization.
9. Education geared to a useful and good life.
10. The curriculum broadened by grouping certain studies together and by adding physical sciences, handicrafts, and trades, music, and drawing.
11.. Improvements of methods to be gained by: establishing graded schools (a one-ladder system), dividing pupils into graded classes, providing separate rooms, encouraging sense experience and observation, keeping shorter school hours, inducing interest without compulsion, and consideration of the individual.
12. Latin studies deferred to secondary level, and taught through knowledge of the vernacular. Learn language by use of familiar words, things, and authors.
13. All community members have a responsibility to the schools.
14. Education is one of the keys to world peace.

Educators of today must also keep on working for a continued advance in education for all men everywhere. That they are doing so--from classroom teachers to the President's Commission on Education--is evident in periodic literature.

Excerpts like the following show that twentieth century thinkers are aware of the challenge of the future. They face the problem of universality, too, especially because of global wars. Educators look at the world from the standpoint of the school-program and seek earnestly for help as did Comenius.

Harold Alberty is one of the leading educators in the field of curriculum reorganization. He says,

> "What responsibility do the schools have in this period of unrest, uncertainty, and rapid transition and how can this responsibility be discharged? We are forced to make one of two choices. We may drift along yielding first to one pressure, then to another, introducing new subjects and new activities into the program, or we may center upon a guiding philosophy that will give us a set of principles for determining what we shall do. The clarification of basic educational thinking with respect to enduring values is the role of educational philosophy of our time."[37]

The crossroad in education is ever-present and the need is as much one of philosophy as of action, even as in the era of Comenius.

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[37]Harold Alberty, Reorganizing the High School Curriculum (New York, 1947), p. 33.

This brief summary not only presents John Amos Comenius as an educator of immeasurable scope in his own time, but of today also.

Somewhere between Monroe's conclusion of negligible influence and those too praiseworthy eulogisms of others, lies the true worth of Comenius as a vital force in educational thought. A continued effort on the part of educators, teachers, students of education, and the public should increasingly aid in the effect of a workable compromise between the narrow, inelastic curriculum of his day, and the too great a pansophism which he favored.

In conclusion let Comenius speak:

I. His diary records the four-day colloquy with Oxenstierna in 1642, which ended:

Oxenstierna: "I know that you are toiling at greater affairs, for I have read your Prodromus Pansophiae.

Are you a man who can bear contradiction?"

Comenius: "I can, and for that reason my Prodromus or preliminary sketch was sent out first (not indeed by myself, this was done by friends), that it might meet with criticism. And if we seek the criticism of all and sundry, how much more from men of mature wisdom and heroic reason?"

Oxenstierna: "Into no one's mind do I think such things have come before. Stand upon these grounds of yours; so shall we sometime come to agreement, or there

will be no way left. My advice, however, is that first you do something for the schools, and bring the study of the Latin tongue to a greater facility; thus you will prepare the way for those greater matters."[38]

II. In 1657, the Latin version of his Great Didactic was published in Amsterdam:

Chap. XXXI

> "It is hardly necessary to describe how indispensable a School of Schools or Didactic College would be, in whatsoever part of the world it were founded: even if there be no hope for the actual establishment of such a college--corporations being left wherever they are, the design itself should be cherished with a holy faith among the learned, pledged as they are, to promote God's glory in this very matter. These men should make it the object of their combined labours to establish thoroughly the foundations of the sciences, to spread the light of wisdom throughout the human race with greater success than has been heretofore attained, and to benefit mankind by new and useful inventions. For unless we desire to remain ever in the same position, or even go back, we must take care that our successful beginnings lead on to further advances. For this no individual, and no single generation sufficeth, and it is therefore essential that the work should be carried on by many persons, working in concert and using as a starting-point the researches of their predecessors. This Universal College would bear the same relation to other schools that the belly bears to the other members of the body, that of a living laboratory supplying sap, vitality, and strength to all."

and

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[38] R. Quick, op. cit., p. 129 (The direct quotations are Quick's; the dramatic form is the present writer's.).

III. In 1669, one year before his death:

> "I must not omit to record that my English friends in letting me go made three solemn requests of me: which requests I now grieve were not observed by me afterwards. The first was that I should suffer myself to be diverted by no bye-tasks from the pansophic project. Secondly, I should not delay me by reading authors, but proceed to search into the very mines of things real. For this is what is expected of us--a new, solid, and time-defying analysis of reality, not pieces of patchwork, however speciously put together. Thirdly, I should go on my way with God only, neither seeking nor admitting collaborators until my return to England, the hope of which they thought certain."[39]

IV. In 1669, after deploring the fact he had failed to promote the world-wide pansophic study, he wrote

> "But it may be that God's thoughts are other than ours, likewise his reasons and his agents. God disapproved not David's plan for the building of the Temple; but that the design should be brought into effect while David lived, and through David himself, He would not."[40]

The twentieth century as yet has not made full use of the Comenian (by his analogy Davidian) materials of building. Solomon's builders (today's educators) are still working at the design, and full use of all available materials should be assured by research, teaching, evaluation, and living life itself, until world peace is achieved--which was, over all others, Comenius's ultimate aim.

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[39] Robert Young, Comenius in England, p. 47-48, from a fragment of Komensky's diary published at Amsterdam, 1669.

[40] Ibid., p. 49.

ODE TO JOHN AMOS COMENIUS

Life's upward steps, long-linked, in echelon,
Bring your universal, cosmic view of things
Across the centuries, to me.
New life reaps fruitful harvests
That of old were sown by you.
Old life breaks off where new begins,
But is forever known,
If not in mundane name, at least in soul.

The centuries roll;
The children of the Earth climb skyward
On steps of your long thoughts,
Deeds, triumphs, strivings;
And good that you engendered
Begets more good.

by Florence Huntley Hay
2 July 1955

May education continue
To beget more good
In a world where Comenius
Could hopefully say
As he did so long ago,
"Absit violentia rebus. Omnia sponte fluant."[41]

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[41]"Let violence be absent. Let all things flow spontaneously."--The Great Didactic.

APPENDIX

Facsimiles of pages from the *Orbis sensualium picti*, edition 1769, Nuremberg, Germany.

1.

XCIII: Typographia, showing the artist's signature. Done very nearly as the one in the original edition, p. 190-1.

CXXIV.

Judicium.

Das Gericht.

Opti-

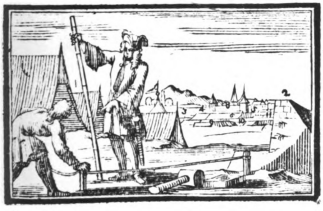
Optimum *jus* n. 3 est	Das beste Recht ist	Optimus, a, um, beste.
placida *conventio*, f.	der gütliche Vergleich,	Placidus, a, um, gütlich,
facta, (3.	welcher angestellet wird,	(friedsam.)
vel ab ipsis,	entweder durch diejenigen	
	(selber	
inter quos *lis*, f. 3. est,	unter welche der Streit ist	
vel ab *arbitro*.	oder von einem Schieds-	Arbiter, m. 2. der
	(mann.	Schiedsmann.
Hæc si non procedit,	Wann dieser nicht ort-	
	(gehet,	
venitur in *forum*, 1	kommt man vor Gericht,	Forum, n. 2. das Gericht.
(olim judicabant	(vor Zeiten hielt man Ge-	
	(richt	
in foro, vel sub por-	auf dem Markt, oder un-	
(tis,	(ter den Thoren/	
hodiè in *prætorio*,)	heutigs Tags in der Ge-	Prætorium, n. 2. die
	(richtsstube/	Gerichtsstube.
cui præsidet *judex*, c.	welchem der Richter 2	
	(vorsitzet,	
(3. *orator*, m. 3. 2.	mit den Beysitzern; 3	Assessor, m. 3. der Beysitzer.
cum *assessoribus*; 3	der Gerichtschreiber, 4	Calamus, m. 2. die
dicographus, 4 m. 2.	schreibt die Sachen auf.	Schreibfeder.
calamo excipit *vota*.	Der Kläger 5	Votum, n. 2. die Stimme.
Actor 5 m. 3.	klagt den Beklagten 6 an	Reus, m. 2. der Verklagte,
accusat *reum*, 6	und führet Zeugen, 7	Testis, c. 3. der Zeuge.
& producit *testes*, 7	wider ihn.	Advocatus, m. 2. der
contra illum.		Anwalt, Beystand.
Reus excusat se	Der Beklagte verant-	Actor, m. 3. der Kläger.
	(wortet sich	Sententia, f. 1. das Urtheil
per *advocatum*, 8	durch den Anwalt / 8	Absolvens, o. 3. losspre-
cui contradicit (9	deme widerspricht	hend. (diac.
Actoris Procurator.	des Klägers Anwalt.	Insons, o. 3. der Unschul-
Tum judex, m. 3.	Alsdann spricht der	Damnans, o. 3. verdam-
pronunciat *senten-*	Richter das Urtheil,	mend.
	(gen losziehlet/	Sons, o. 3. der Schuldige
(tiam,	indem er den Unschuldi-	Pœna, f. 1. die Strafe.
absolvens *insontem*,	und den Schuldigen ver-	Mulcta, f. 1. die Geldstrafe.
& damnans *sontem*,	(dammet,	Supplicium, n. 2. die
	zur Straffe und Geld-	Leibesstrafe.
ad *pœnam* & *mul-*	(straffe,	
	oder auch zur Leibes-	
(tam,	(straffe.	
vel ad *supplicium*.		

CXXIV: Judicium, showing clearly the use of numbers. p. 256-7.

3.

CII.

Bellicorum operum Machinator, Bellicarum muni ionum Designator & Opifex.



Der Ingenieur.

Ejus-

Ejusmodi viri *Experientia* in bello *maxime utilis* est:	Eines solchen Mannes Erfahrenheit ist im Krieg sehr nutzlich:	
ab eo enim constituitur *Castramentatio*, f. 3.	denn durch ihn wird angeordnet die Formirung oder Schlagung des Lagers. 1	
qui etiam *Stativa*,	welcher auch das stillliegende Lager,	Stativa, n. 2. pl. Stativa castra, stillliegendes Lager.
ne hostis ea invadat, tendet, impreditionem in ea faciat,	damit der Feind nicht darein falle,	
vallo munit, lorica castrorum cingit, vallum astricircumdat	verschanzt. 2	Lorica castrorum, eine Schanz um das Lager.
Consulit commodis *castrorum, urbium* & *castellorum*,	Er nutzt Lägern, Städten und Vestungen,	
variis *Propugnaculis*,	durch allerhand Bollwercke/	
in quorum numero sunt:	als da sind:	
Opera coronata & *cornuta*,	Kron- und Hornwercke. 1 (Corne Couronne) 3	Opus coronatum, Kron-Werck. Opus cornutum, Horn-Werck.
Peribolus, m. 2. *Muri lorita lapidea, Propugnaculis lorica terrea*,	Brust-Wehr/ (Baraper) 4	
Propugnaculum, Frons plana muri, aggeris frons,	Pastey/ (Bastion) 5 Cortin, Fläche der Mauren zwischen zweyen Bollwercken, (Courtine) 6	
Muralis fossa interior lorica, extimus agger, externus labrum,	Contrescarpe, Gegenwehr, auswendig an dem Graben einer Vestung/ 7	

Imi

CII: Der Ingenieur from Pars II, an imitation of Comenius's woodcuts, p. 278-9.

Die Krähe krechzet, *Cornix* f. 3. cornicatur,	*à à*	Aa
das Schaaf blöcket, *Ovis* f. 3. balat,	*bè è*	Bb
der Heuschreck zitschert, *Cicada* f. 1. stridet,	*ci ci*	Cc
der Wiedhopf rufft, *Upupa* f. 1. dicit,	*du du*	Dd
das Kind wemmet, *Infans* c. 3. ejulat,	*è è*	Ee
der Wind wehet, *Ventus* m. 2. flat,	*fi fi*	Ff
die Gans gackert, *Anser* m. 3. gingrit,	*ga ga*	Gg
der Mund hauchet, *Os* n. 3. halat,	*hà hà*	Hh
die Maus pipffert, *Mus* m. 3. mincrat, (mincrit)	*i i*	Ii
die Endre schnattert, *Anas* f. 3. tetrinnit,	*kha kha*	Kk
der Wolff heulet, *Lupus* m. 2. ululat,	*lu ulu*	Ll
der Bär brummet, *Ursus* m. 2. murmurat,	*mumum*	Mm

die Katze mautzet, *Felis* f. 3. clamat,	*nau nau*	Nn
der Fuhrmann rufft, *Auriga* m. 2. clamat,	*ó ó ó*	Oo
das Küchlein pipet, *Pullus* m. 2. pipit,	*pi pi*	Pp
der Kukuk kuket, *Cuculus* m. 2. cuculat,	*kuk ku*	Qq
der Hund marret, *Canis* c. 3. ringitur,	*err*	Rr
die Schlange zischet, *Serpens* c. 3. sibilat,	*si*	Ss
der Heher schreyet, *Graculus* m. 2. clamat,	*tac tac*	Tt
die Eule uhuhet, *Bubo* m. 3. ululat,	*ú ú*	Uu
der Hase quächzet, *Lepus* m. 3. vagit,	*và*	Ww
der Frosch quacket, *Rana* f. 1. coaxat,	*coax*	Xx
der Esel gigaget, *Asinus* m. 2. rudit,	*jjj*	Yy
die Breme summset, *Tabanus* m. 2. stridet,	*dz dz*	Zz

I. Deus

The celebrated pictorial alphabet of the Orbis, follows the original almost exactly, pp. 5, 6.

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OUTLINE OF CHAPTERS

CHAPTER I. Introduction

I. Reason for Choice

A. To contribute to the literature of educational research

B. To combine my interest in historical inquiry with educational activity

C. To contribute to Comenian literature, practical and inspirational information for use of teachers and students of education

II. Statement of Purposes

A. To evaluate factors in the principles and methods of John Amos Comenius, as an incentive to constant improvement in the whole area of instruction

B. To present a comprehensive view of the overarching theories, and actions, in different eras, to total education

C. To present a paper, helpful to teachers in understanding the relationships of the principles of education as set forth by Comenius, to the methods of instruction as these evolve continuously

III. Need for Study

A. To bring together the salient factors of Comenius's educational works, and point out effects and correspondences in twentieth century education

B. Pertinence to present day educational problems

C. To point out some of the conflicting statements of other accounts of Comenius's life and work, and clarify if possible

IV. Organization of study

A. Materials

1. Primary sources, consisting of educational writings of Comenius

2. Secondary sources, consisting of literature about Comenius

B. Division of this study into chapters (Listed in table of contents)

CHAPTER II. LIFE

I. Environment

A. Church

Date of origin of Brethren conflicting in some texts

Clarify date of origin in Moravia

Clarify date of origin in Poland

B. Family

Date of Comenius's death now established November 15, 1670. Some texts confused

C. Social background

From common people

II. Education

A. Informal - little known until orphaned at early age

B. Formal

1. School attendance

2. Influence of Alsted

III. Adult Activities

A. Preacher, Moravia and Poland

B. Teacher, Moravia and Poland

C. Bishop

D. Writer, see Chapter II

E. Influences of Visionaries on Comenius

IV. Travels

A. In Exile

B. England - Plan of Universal School

C. Sweden, patronage of DeGeer

1. School Reform and textbooks. Oxenstiern

V. Last Years - in Amsterdam

John Amos Comenius (1592-1671)

- born in Nivnitz, Moravia. As a member of the Unity Brethren of Moravia, he suffered much in the Catholic-Protestant struggle which raged over his native soil during the Thirty Years' War. His home was plundered, his books burned, his wife and children murdered, and he himself finally forced into permanent exile. During his exile he took charge of the school at Lissa, Poland, where he applied the method which he fully explained in his Didactica Magna. Samuel Hartlieb in England helped to get Comenius invited to join a commission appointed by the English Parliament to undertake the reform of English education. However, the commission never met, due to unsettled state of affairs in England and Ireland. Through the agency of DeGeer, Comenius went to Sweden. There he worked under direction of Oxenstiern and was allowed to live in Elbing while writing several school books promised to Sweden. Kinner worked for two years as his assistant, but due to differences on many scores,

Kinner was dismissed. His Swedish obligations finished, Comenius moved to Amsterdam, where he died, an exile, at the age of seventy-nine.

All his school reforms were planned with the dream in mind of a restored Bohemia, where he would head the reformation of schools.

CHAPTER III. REVIEW OF LITERATURE ABOUT COMENIUS

(In his own day: Hartlieb)

I. <u>Neglect of recognition in the century following his death</u>

A. Few writings done for purposes of research

B. Imitations of his textbooks widely diffused

1. Garbled versions

2. Most did carry name of Comenius in them

II. <u>Increasing recognition of the importance of study about his life and work</u>

A. Occasion of 300th birthday anniversary of Comenius

B. Nineteenth century contributions

1. In Germany

a. Authors: Kracsala, J., Hoffmeister, H. W., Von Raumer, Karl

b. Journals: <u>Monatshefte der Comenius - Gesellenschaft</u>

2. In England: Laurie, S. S., Benham, Masson, David

3. In United States: Bardeen, C. W., Monroe, W. S., Keatinge, M.

4. In France: Compayre, G., Denis, E. and others

5. Elsewhere: Switzerland

C. Twentieth Century contributions

1. In Germany, and Poland (leads in number)

a. Authors: Klima, Jiri, Novak, J. V., others

b. Journals: (same as B. 1. above)

2. In England: Turnbull, G., Young, R.

3. In United States: Spinka, Kandel I.

4. Elsewhere: Spain

III. <u>Need for more translations</u>

A. Of original works

B. Of letters and research

CHAPTER IV. EDUCATIONAL WRITINGS AND EDUCATIONAL PRINCIPLES

I. Large number of books

A. Latin - Czech - German

B. Bibliography (primary sources)

C. Mystic reveries in pansophical books

II. Principal works pertaining to education

A. The Great Didactic (Didactica Magna)

1. Original edition; date
Czech, 1630

2. Keating's English Translation, 1896

3. Spanish Translation, 1922

4. Great Didactic the source of his general theories on education and views on organizing schools

a. Preaching all things to all men

b. Education an elemental human need

c. Follow nature

d. Outline of tne main chapters

B. The Analytical Didactic

1. Series of three didactics
- where and why written

2. Reber's Czech translation

3. The place of the Analytical Didactic

4. The Halle manuscripts

5. Jelinek English translation
6. The material contained in the Analytical Didactic

C. The Gate of Tongues Unlocked, Janua linguarum reserata

1. Original edition; date, 1631
   a. Purpose: New method to teach languages
   b. Plan
      (1) One thousand sentences of increasing difficulty, divided into one hundred chapters. Used eight thousand main Latin words
      (2) Taught child all things in the universe, in a methodical way
   c. Comparison of a 1649 Latin-French-Greek edition with a 1662 English-Latin-Greek edition. Other editions (up to five parallel accounts in one book)

D. Illustrated World of Sensible Objects or the Orbis sensualium pictus

1. Original edition; date, 1657
   Czech and Latin
2. Bardeen's editing of Orbis pictus in United States, 1887
   a. Use of 1727 English Translation

b. Use of original pictures

c. Error in cuts CV and CVI. Bardeen has them changed but the text is in the right order

3. Orbis Sensualium Picti of 1769

a. Edited in Nuremberg in two parts:

Part I. Comenius's work

Part II. Imitation on the same plan

b. This book the source of Compayre's facsimile in The History of Pedagogy, though he makes no mention of different sources for illustrations

4. Plan and scope:

a. A Janua with pictures

b. First practical application of the intuitive method

c. Model for the centuries

d. Danger of saying "first" picture book

E. School of Infancy - Schola Infantiae

1. Monroe's edition in U.S., 1893

2. Scope:

a. An essay on the education of children during their first six years

b. Planned on board knowledge of universe as were Janua and Orbis Pictus

c. Valuable as early treatise to instill parental obligations and claims of childhood

III. <u>Theories and principles of Comenius</u>

A. Due to Reformation and social milieu, education to furnish means to redeem man from evils which made life worthless

B. Due to Baconian influence

C. Due to religious precepts

D. Main principles include:

1. Need for true universal education
2. Need for definite divisions by schools (in a one-class society)
3. Need for graded classes within each school
4. Need for specially prepared books
5. Need for specially prepared teachers
6. Need for pleasant learning atmosphere
7. Need for pansophic knowledge
8. Need for universal language

E. Main theories include:

1. Educate from general to the special
   a. People's school for everyone, rich and poor
   b. People's school included too many subjects
2. Education should be for usefulness in this life, and as a moral stepping-stone to next world

3. Teach by things first to attract child's attention. Scope all-inclusive, each year, with added details. This type of overlapping with understanding rather than rote memorization

F. Weakness of Comenius's Aims

1. Due to difficulties not foreseen by him
2. National restrictions
3. Ultimate end of man is eternal happiness with God: learning, virtue, piety

G. Weakness of modern educational aims due to complexity of difficulties as seen by educators

1. State restrictions
2. Individual development, logical, ethical, aesthetic
   a. physical well-being
   b. sense of duty
   c. earning a living

CHAPTER V. COMENIUS'S METHODS AND TECHNIQUES

I. <u>Two fundamental ideas</u>

A. All instruction must be carefully arranged and graded (four schools)

from easy to difficult

from near to distant

from known to unknown (in vernacular first)

from wholes to parts

1. All subjects to be approached with analogies from nature, and to embody "real studies"
2. Capacity of child to be considered in text-book compilation
3. Existing institutions to be rearranged and harmonized to form basis for use of the Natural Method

B. Constant appeal through sense perception to the understanding, must be made by teacher and directed toward pupil

1. Things before words
2. Punishment
   a. Conflicting statements of Comenius
   b. Discipline
      (1) to prevent future erring
      (2) should be free from personal elements

(3) should be exercised with sincerity of purpose

(4) use of praise as well as reprimand

c. Moral delinquencies as concern of school

d. Example of teacher

II. <u>Language Instruction</u>

A. Influence of others

1. Bodin and Bath

2. Ratke

3. Others

B. Compromise with grammar and classics

1. Comenius's complaints of method

a. "Unknown learned from unknown"

2. Comparison of practices in England in 1495

C. Even in language "things with words"

D. Latin, chief factor in Comenius's curriculum

1. Begin study at twelve when entering the Latin or third school

2. Comenius's text

a. One thousand sentences arranged in one hundred chapters using words of root-signification once only. Each section to deal with one class of phenomena as planets, herbs, etc.

b. Latin and vernacular in parallel columns

3. Fallacy
    a. Preached against memorization
    b. Textbooks would have to be memorized to learn words
    c. Principle of iteration as distinguished from rote memorization

E. Comparison of twentieth century language texts
1. Latin no longer focal point in U. S. high schools
2. Comenius's Latin texts would not be approved
3. Fundamental ideas carried over
    a. Conversation in language to be learned
        (1) Now amplified by radio, phonograph
    b. Replacement of sterile word study by study of stories and things of interest
        (1) This from the beginning lesson in any language

III. <u>Comenius's Efficient School or the Pansophic School</u>

A. Single teacher for large class
1. Monitors to aid (compare Lancaster)
2. Pansophic knowledge

B. All knowledge to be related to usefulness in life

CHAPTER VI. REFLECTIONS OF COMENIAN IDEAS APPARENT IN PRESENT DAY EDUCATION

I. Chronological relationship of Comenius to other educators

A. Related ideas of Vives, Luther, Ratke

B. Comenius contemporary to Locke

C. Comenius as a forerunner of Pestalozzi, Froebel, and Basedow

II. Reflections of Comenian Ideas through

A. Humanism

B. Realism

C. Pragmatism

III. Major Reflections

A. Pre-school

1. pre-natal and post-natal care

2. Mothers' schools compared to nursery schools

B. Elementary practices

1. Graded classes and texts

2. Attempted policies of universal attendance

C. Teacher training

1. Special schools

2. Need of more teachers

D. School support

1. Community interest

2. Taxation

E. Building conditions

1. School should be pleasant

2. Adequate equipment

3. Pictured texts

IV. <u>Changing culture and adaptation of Comenian ideas</u>

A. Latin and other languages

B. Community schools

C. Core curriculum

D. Specialization

1. Proper age level

2. How much

E. Frontiers of Knowledge

1. Expanse

2. Impossibility of pansophic schools

CHAPTER VII. SUMMARY AND CONCLUSIONS

I. <u>The continuous flow of life, progression of system</u>

- A. Social change
- B. Educational change
- C. Comparison of decisive changes of Comenius's time and of ours

II. <u>Educational Administration</u>

III. <u>Proposals of Comenius broad in scope</u>

- A. Based on needs of all
- B. Realization in our schools of Comenius's tenets
  1. Operation from viewpoint of need for universal education
     - a. Equalization of educational opportunity
  2. Graded schools
  3. Compulsory school - attendance
  4. Method based on scientific approach
     - a. Experiment
     - b. Laboratories
     - c. Workshops
  5. Textbooks with illustrations
  6. Teacher training
  7. System of school tax to finance education for all children.

IV. <u>Directions away from Comenius's ideas</u>

A. Attitudes toward teaching religion in school

1. Attempts to replace religion by teaching moral values

B. Core - curriculum transcends textbooks so emphasized by Comenius

V. <u>Toward the Future, A Workable Compromise</u>

A. Make use of all our helps

B. Continuous re-evaluation and adaptation