A STUDY OF THE PHILOSOPHY OF FROEBEL
CONCERNING THE PRACTICAL ARTS AND
HIS INFLUENCE ON THE PHILOSOPHY
OF MODERN-DAY INDUSTRIAL ARTS
IN THE UNITED STATES

APPROVED:

J. A. Blackburn
Major Professor

Minor Professor

S. A. Blackburn
Director of the Department of Industrial Arts

Jack Johnson
Dean of the Graduate School
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IN THE UNITED STATES

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CHAPTER I

INTRODUCTION

The materials presented in this thesis represent an attempt (1) to outline the educational theories of Froebel as related to handwork and industrial arts, and (2) to relate these educational philosophies for the purpose of comparison in an effort to determine the influence of the theories of Froebel upon industrial arts as a subject-matter field in the school curriculum today. It is assumed that no educational theory, whether ethical, philosophical, or functional, can be completely understood when it is isolated from the human and social conditions which produced it. Educational theory and philosophy are part of the entire intellectual and social movement of the period, either reactionary, static, or evolutionary. This study as a whole aims to indicate the nature of these educational philosophies and their relationships in order to establish a better understanding of each. In the present study the interpretations and quotations
may prove suggestive in many instances; they are not intended to be exhaustive or wholly comprehensive in any instance.

Statement of the Problem

This is a comparative study of Friedrich Froebel's educational philosophy concerning the practical arts and the philosophy of modern-day industrial arts. The study does not attempt to present new ideas concerning these philosophies, but it merely endeavors to co-ordinate the ideas of various educators in relation to the subject.

Limitations

This study is limited to a consideration of Froebel's educational philosophy concerning the practical arts and the philosophy of present-day industrial arts in the schools of the United States. In connection with this purpose, an attempt is made to synthesize Froebel's ideas with the philosophies underlying modern industrial arts in an effort to determine the influences of Froebel's thinking upon the development of the practical-arts field as a subject of instruction in the schools.
Definition of Terms

The term "industrial arts," as used in this study, is the division of industrial education which gives general and not specific trade training with emphasis upon exploration and participation rather than upon skill and efficiency in performance. Values from this phase of education are derived principally from manipulative activity and the study of materials. Industrial arts also deals with the formation of desirable attitudes and habits which will enable the individual to live more effectively.

"Practical" is defined by Webster to mean useful; that is, to be capable of being turned to actual or profitable use. Webster defines "art" as the use of means for the accomplishment of some end. "Practical arts," then, as used in this study, is the use of the hands to create and produce a useful and worthy product which brings satisfaction to the creator. Such work affords practical training in creativeness for the purpose of self-satisfaction as well as for the attainment of a useful end product.

Webster defines "influence" as an invisible power, force, or effect. "Influence" and "effect" are used
synonymously in this study. As employed in this investigation concerning the two philosophies of the practical arts, "influence" is used to mean the unseen or unexpressed effect of Froebel's philosophy upon the formation of the modern-day philosophy of industrial arts as they exist in the schools of the United States.

"Philosophy" as presented in this study is thought of as a system of Froebel's personal theories and beliefs concerning the practical arts and as a system of general beliefs formulated by educators of the present day in relation to the function of industrial arts in the curriculum of American schools. Webster defines "philosophy" as the study and knowledge of the principles that cause, control, or explain facts and events. It is also defined by this same authority as a system of general beliefs.

"Modern-day" and "present-day" are used synonymously in this study to identify the period of years elapsing between the introduction of manual training into the curriculum of American public schools and the present day.
Related Research

Percival R. Cole, in 1907, wrote an educational synthesis of the philosophies of Herbart and Froebel. In connection with Froebel's theories he studied such major topics as his philosophy of education through nature, his philosophy of the education of man, and his theory of the Absolute.

Cole believes that self-activity or development from within is the philosophical groundwork of Froebel's method. He states that, "As a principle of methodology, Froebel preferred education through concrete activities to education through abstract ideas."¹ Cole also states, concerning Froebel's method that "for him the school is no spot set apart for the learning of lessons, but an institution pregnant with social life."²

Froebel's contributions to a philosophy of education, according to Cole, are "his ideas of self-activity as the force operative in education, of development as the process of education, of freedom as the

²Ibid., p. 27.
path of education, and duty or service as the standard of values for education."

John Angus MacVannel made a study in 1905 similar to that undertaken by Cole, in which he sought to compare the educational theories of Herbart and Froebel. MacVannel's summation of some of the principal phases of Froebel's educational philosophy points out the following characteristic elements of his philosophy:

1. Froebel's conception that theories of education ultimately become philosophies of life.

2. His belief that rational theories of education are closely related to the spiritual interests of society.

3. His supreme emphasis upon individuality, and his belief that every person has different abilities and that education should be flexible enough to develop the capacities of the individual to the greatest possible extent.

4. His recognition that the individual in any stage of development is an organism in the larger organism of human life; his certainty that only by means

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3Ibid., p. 42.
of the spiritual community of human institutions—the home, society, the school, the state, the church—can the individual attain true selfhood, or develop his individuality.

5. His conception of the unity and continuity of mental development, educational factors, and educative materials.

6. His attempt to work out a systematic plan for the upbuilding of experience in harmony with the idealistic view of consciousness seen as a self-active principle in the creation of an intellectual and moral world.

7. His conception of man not as a mere knower but as a creative worker.

8. His emphasis upon education as a process of social interaction.

9. His recognition of the importance of imitation in the upbuilding of experience.

10. His insistence upon service as the goal of education.

11. His acceptance of religion as a fundamental element in the total education of the individual.
12. His theory that education is by means of individual development, which can be attained only through the closest conformity of education to the nature and ability of the individual.

13. His belief in the educational significance of nature.

14. His conception that life in its entirety is one great educational opportunity, and that the various institutions of human life are instruments in the realization of this larger human culture which is life-long in its scope.  

Procedure

Careful study was made of Froebel's educational philosophies as contained in his book, *The Education of Man*. Further reading was done in commentaries written by various educators in an effort to interpret the educational theories of Froebel. After these materials had been studied and co-ordinated, further research was done in the field of the philosophy of present-day industrial arts in the public

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schools of the United States. Then, as the final phase of the study, modern philosophies of industrial arts were compared with the theories of Froebel concerning the practical arts in an effort to determine his influence upon the development of industrial arts as it is known today.

Prior to beginning the actual study, the writer familiarized himself with the life of Froebel and with some of the outstanding educational philosophies that might have influenced the development of Froebel's philosophy of education. When all of this reading had been done, materials were assembled in logical order and the actual writing of the thesis was then undertaken.

Organization

In the present chapter the purpose of the study, the statement of the problem, its limitations, definitions of terms, related research, and the procedure followed in the development of the study have been dealt with briefly.

Chapter II consists of a brief account of the life of Froebel.
Chapter III summarizes a few of the outstanding educational philosophies that were current in Froebel's day and which may have influenced his own theories. This discussion constitutes an introduction to the chapter, which then presents a summary of some of the most significant educational theories of Froebel relating to the practical arts.

Chapter IV deals with a summary of the philosophy of present-day industrial arts as found in the schools of the United States, and attempts to point out certain influences which appear to have been exerted by Froebel upon the development of the modern conception of industrial arts.

Chapter V presents a concise statement of certain conclusions which grew out of this study and lists some of the predominant elements in modern industrial arts which may have had their origin in the philosophy of Froebel.
CHAPTER II

THE LIFE AND WORK OF FRIEDRICH FROEBEL

Youth

Friedrich Wilhelm August Froebel was born April 21, 1782, in Oberweissbach, Germany, where his father was the pastor of a large Lutheran parish. As his mother died when he was nine months old and his father had little time to devote to his children, Friedrich and one or two other of the smaller children in the family were cared for by older brothers. Before long, Friedrich's father married again, but his new stepmother had little sympathy for him and he began, at a very early age, to feel neglected and alone in the world.

Friedrich's first contact with education was that received in his own home from his father, who had little time or ability for such instruction but who clung to the old German tradition that a child's first education should be obtained within the home.
When Friedrich eventually entered the village school, he made rapid progress in the rudiments of ordinary education. But at times he was incorrigible and bellicose, and became classified as a "bad" boy.

When Froebel was twelve years of age, his uncle invited him to come and live with him. This opportunity to leave his own unhappy home situation was a pleasure to Friedrich, especially in view of the fact that his stepmother had become very dictatorial and antagonistic toward Friedrich and his brothers. In the new environment the boy began to overcome his difficulties, for he experiences a normal family situation in his uncle's home, and here for the first time he knew what true love and mutual helpfulness within a family group can mean in the way of realizing happiness and satisfaction from life. He was very happy in his new home, and he liked school and the church.

Subjects taught in the school were reading, writing, arithmetic, and Latin. The Latin was poorly taught, but Froebel learned something from it,
"namely, that he could get nothing by such a method of teaching."\textsuperscript{1}

For five years Froebel lived with his uncle, and when, at the end of that time, his elementary-school education was completed, he returned home with nothing to do. He wanted to enter the University for advanced study, but his stepmother objected, and he was sent to be a forester's apprentice for two years. This training was valuable for him, since he came to appreciate nature and the influence it has upon human life. But he did not want to become a forester, and after his apprenticeship he returned home again, still with nothing to do.

Soon one of his older brothers, who was studying at the University of Jena, needed money and Friedrich was sent with funds. Upon his arrival, he persuaded his brother to ask his father whether Friedrich might remain in Jena for the remainder of the semester at the University. Gaining his father's consent, Froebel enrolled for some of the more practical courses, as he was thought to lack intellectual

\textsuperscript{1}Denton J. Snider, The Life of Friedrich Froebel, p. 12.
ability for the more technical courses. The University of Jena, however, was the seat at that time of much philosophical theorizing, and Froebel soon became a student of Fichte, who taught Pestalozzi's theories as to the reform of educational procedures. He also became interested in Schelling's philosophy of identity. At the same time Goethe's new works, Wilhelm Meister's Apprenticeship and Faust, attracted his attention and enthusiasm.

At the end of the year Froebel was forced to leave Jena for lack of funds, and he was even sent to prison for nine weeks because of a boarding-house debt. He was placed in the University prison, where he had access to books and spent his time in reading and studying Latin (with little success). Friedrich's father finally advanced the money for his son's release, and he left prison with a dislike for Jena which he held for the rest of his life.

Back at home because there was nowhere else to go, Froebel began to make a scrapbook of materials clipped from periodicals he found at hand. The brief experience at Jena was beginning to exert
itself, as his scrapbook dealt mainly with philosophical subjects. In a remote room of the house Froebel worked happily at his reading and clipping until eventually his father walked into the room, examined the work, and condemned it as a "foolish waste of time and paper."\(^2\)

After this, his father sent Froebel to another uncle who lived in the country. Here he worked on the farm until his father died in 1802, when Froebel was twenty. Then the youth began wandering from one vocation to another. He changed jobs six times in the next few months. However, all the time he spent his leisure reading philosophy, especially that of Pestalozzi and Schelling.

In the summer of 1805, when he was twenty-three, he arrived in Frankfort. Having become discouraged with his life of wandering, he decided to settle down and study architecture. After some study in this field he was still dissatisfied. There seemed to be no vocation in which he could find happiness and for which he was fitted. He had never

\(^2\)Ibid., p. 68.
yet found a work that challenged his interest or that brought forth his best efforts.

Student and Teacher

One day Froebel met Dr. Anton Gruner, who was a former pupil of Pestalozzi. During the conversation Froebel mentioned his search for a vocation and his uncertainty as to what he should do in life. Gruner listened carefully and then said: "Be a teacher. Give up architecture, it is not your vocation." Gruner then offered the youth a position in his school. After a period of hesitancy and thought on the matter, Froebel accepted.

Deciding that he should know something about his new work, Froebel went to Yverdon to study under Pestalozzi. He did not stay long, but soon returned to Frankfort to begin teaching. He was outwardly successful in his first school, but inwardly he felt that he did not know his profession adequately, so he went again to study with Pestalozzi for two years.

When he returned to Frankfort to resume teaching, he was a different young man. Now he was

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confident and sure of himself, and was even regarded as proud and egotistical, as is indicated in a comment by a colleague: "He has come to believe that he, just he, is the reincarnation of the teacher; he is not to be simply a teacher by trade, here and now, for so much bread and butter, but he has been a teacher from the very beginning of him, perchance from the beginning of the world." 4 In the Gruner school Froebel taught arithmetic, drawing, geography, and the German language. Outside the classroom he played with the boys and made a detailed study of the traits of character that were manifested in their recreational activities.

Although Froebel was successful in his work as a teacher, he still was restless at the thought of remaining in one place for more than a year at a time. Gruner saw that persuasion on his part was useless, so he released Froebel from his duties.

Having always had trouble with grammar, Froebel now decided to perfect himself in this field with hard study. Although he had given up his regular work, he decided to take on some part-time employment in

4Saider, op. cit., p. 91.
the form of serving as tutor for three boys. This work gave him valuable experience and laid the foundation for his later success in his kindergarten practices in Keilhau. As part of their regular school work, he gave the boys games and occupations of various kinds.

As he worked and studied, Froebel became aware of the fact that he lacked a unifying purpose or principle in his work. He thought again of Pestalozzi, and in 1808 he and the three boys whom he was tutoring went to Switzerland, where he once again became a pupil of Pestalozzi. He soon began to perceive limitations in Pestalozzi's method. He saw that it was a one-sided cultivation of the senses; it turned all efforts toward getting possession of the external world of nature that ends in disunion.

Froebel also saw the mother as the teacher in some of Pestalozzi's work, and this departure led him to think of children who were still too young to attend school. Here, from the emphasis which Pestalozzi gave to the role of the mother in the education of the child, Froebel received his first stimulation for the kindergarten work which he later established.
Pestalozzi and Froebel did not agree completely on the ideas and methods of education, but they had many things in common. Pestalozzi had the idea that knowledge comes primarily through the senses; Froebel went further and regarded the child as a productive being. He placed emphasis upon games and occupations by means of which the child may learn through activity and experience.

In July, 1811, Froebel went to Gottingen to study languages and nature, made possible by the inheritance of a small sum of money from an aunt. Studying physics, chemistry, mineralogy, and natural history in addition to languages. Froebel remained in Gottingen until 1812, when he volunteered to enter the German army to fight against the invading French led by Napoleon. After the Peace of Paris brought an end to hostilities in May, 1814, Froebel went to Berlin to resume his studies.

As an award for his enlistment in the army under the Prussian flag, he had been promised a position by the Prussian Government. His appointment came through at once, and for two years he studied rocks
and minerals, preparing reports on the science of crystals and of mineralogy. Soon, when Napoleon returned from Elba, Germany again went to war. Froebel tried to volunteer, but students were rejected because of their studies, and he continued his research on crystals for another year, then left Berlin.

In 1816, a new school was founded by Froebel at Griesheim and later moved to Keilhau. He established the school at the request of his brother's widow to help educate her three children.

Free development was the rule of the school. Neckties were cast aside, everyone dressed informally, and the boys were encouraged, in the sense of Rousseau's meaning, to "return to nature." The boys roamed the woods in search of plants and animals, they shot bows and arrows, they threw spears, they pulled off shoes and stockings, waded streams, made dams and mills, and sometimes had fights. Through all these activities, Froebel was working and playing with the boys. Indoors, the youths were taught more

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serious work. They learned arithmetic, geometry, and the correct way to write and speak German. After the first year at Griesheim, Froebel sent for his friend Middendorf, whom he had met during the war and with whom he enjoyed a lifelong friendship thereafter. At first, Middendorf was not a teacher. He took lessons under Froebel and possessed some commendable traits which Froebel lacked, but he could never become the genius which Froebel was. However, he became Froebel's friend and helper for life.

The school, which had been established with only three pupils, had grown until several other lads were also attending. The school continued to grow even larger after it was moved from Griesheim to Keilhauf. Shortly thereafter, in September, 1817, a third teacher appeared at the school. Named Langelthal, he had come with the intention of taking his young brother out of Froebel's school. Instead, he was offered a teaching position in the school and accepted. He was well educated and possessed certain traits which neither Froebel nor Middendorf had. He
soon became a devotee of the ideas current in the school and began to play with the pupils, to work with them diligently, and to go with them on long hikes in the mountains. Soon, he became the best of the three teachers, especially for the more advanced pupils.

The situation of the school was encouraging when the year of famine came to Germany; then, suddenly, everything appeared hopeless for Froebel and his teachers. Madam Christoph Froebel, his sister-in-law, who had been furnishing all the money for the project and who had employed Froebel in the beginning, now decided to leave Keilhau. She consented to sell the school to Froebel on his promise to pay.

In the meantime Froebel had been engaging in a little social life with a very distinguished and well-bred lady, Wilhelmine Hoffmeister, the daughter of a member of the Prussian Council of War. It seemed strange that such a woman of the city should be willing to move out into the country to become the wife of a homely, poor person like Froebel; but she agreed and they were married.
The economic condition of the school became worse, and just when everything appeared to be utterly hopeless and Froebel was seriously giving up the project, his brother, Christian Froebel, moved to Keilhau to help with the finances. His several children became pupils in the school. The last debts were paid off in 1820, and for a time the school gained in popularity and attendance. For over six years Froebel and his school were highly successful.

In November, 1824, Dr. Christian Zeh, a German school inspector, visited Keilhau on an official tour of inspection.

This kind-hearted, keen-eyed inspector noticed, first of all, the domestic foundation, sixty pupils constituting really one family and making all its members, young and old, teachers and pupils, a vast school-home. Then he recognized and praised the principle of self-activity, so strikingly dominant in the instruction. . . . Also he noticed the various branches in brief review. 6

The inspector left highly pleased with the instruction and the general plan of the school, but displeased with the fact that the boys wore long hair and shabby coats. These practices, he warned, should be corrected.

6Snider, op. cit., p. 192.
As time went on, Froebel developed the feeling of self-confidence and took over the post of authority in the school. His brother Christian and his family became unhappy and left Keilhau, taking away their financial help and leaving Froebel despondent at the removal of his three nephews, who he had hoped would become sufficiently interested in the project to carry on his work after his death.

By 1826 the school at Keilhau had reached its peak, and unpaid debts were accumulating again. By 1827 the attendance began to decline until, in 1829, only five pupils remained in the school.

Froebel and his wife were not good managers, and debts had mounted even in the time of prosperity. This fact, together with the rapid drop in enrollment, brought the school to a standstill, and even some of Froebel's best friends began to oppose him. They recognized that he must be eliminated from the administration of the school because he was not capable of assuming the responsibility. They knew that his educational ideas were sound and they wanted such a school as he had established, but they were confident
that no school could prosper under Froebel's system of administration.

The Education of Man

In 1826, when the school at Keilhau was enjoying its greatest success, a book entitled The Education of Man was published by Friedrich Froebel. This was not his first attempt at writing, for he had been expressing himself at intervals in the printed page since 1820. However, no one had ever read his work outside of the small Keilhau circle, and for a time the same was to be true of The Education of Man.

Froebel in this book echoed a large part of the philosophy of Schelling which he had received at Jena, and of that of Pestalozzi which he had absorbed during his three different periods as a pupil of that Swiss educator.

The following quotations are taken from the early pages of The Education of Man, and serve to indicate something of Froebel's thought at the time the book was written:

In all things there lives and reigns an eternal law. . . .

This all-controlling law implies as its source an all-persuading, energising, self-conscious, and hence eternal unity. . . .
This unity is God. From God all things have proceeded. In God all things subsist. . . . The essential nature of any given thing is the godlike principle within it; the destiny of all things is to unfold the divine essence, and thus to manifest God. . . . The destiny of man as a rational being is to become conscious of the divine essence and to reveal it in his life with self-determination and freedom. . . . To recognize the working of this universal divine principle in nature and in humanity is science. . . . To discern its bearing upon the development of rational beings is the science of education. . . . To apply it practically to all kinds of individuals in all stages of development is the art of education. . . . To lead the pupil to its conscious revelation is the goal of education.

The young, growing human being should . . . be trained early for outer work, for creative and productive activity. . . .

The activity of the senses and limbs of the infant is the first germ, the first bodily activity, the bud, the first formative impulse; play, building, modeling are the first tender blossoms of youth; and this is the period when man is to be prepared for future industry, diligence, and productive activity. Every child, boy, and youth, whatever his condition or position in life, should devote at least one or two hours daily to some serious activity in the production of some definite external piece of work. Lessons through and by work, through and from life, are by far the most impressive and intelligible, and most continuously and intensely progressive both in themselves and in their effect on the learner. Notwithstanding this, children -- mankind, indeed -- are at present too much and too variously concerned with aimless and purposeless pursuits, and too little with work. . . .

The entire section of The Education of Man which discusses natural science and mathematics is devoted to illustrations of the similarities between natural and physical facts and processes. The following passages indicate how thoroughly Froebel had these

Friedrich Froebel, The Education of Man, translated by W. N. Hailmann, with notes, pp. 1-4, 34.
ideas worked out and correlated in the fabric of his educational philosophy:

The things of nature form a more beautiful ladder between heaven and earth than that seen by Jacob; not a one-sided ladder leading in one direction, but an all-sided one leading in all directions. Not in dreams is it seen; it is permanent; it surrounds us on all sides. It is decked with flowers, and angels with children's eyes beckon us toward it; it is solid, resting on a floor of crystal; the inspiring singer David praises and glorifies it. . . .

If we seek the inner reason for this high symbolic meaning of the different individual phenomena of nature, particularly in the phases of development of natural objects in relationship to the stadia of human development, we find it in the fact that nature and man have their origin in one and the same eternal Being, and their development takes place in accordance with the same laws, only at different stages.

Kindergarten Philosophy

Although on the surface Froebel seemed to have been a failure with his school at Keilhau, he gained much valuable experience from the project and began to realize that his own weaknesses were the cause of his apparent failure. Once again he decided that he needed further study, and that the man who could help him now was Krause at Gottingen; consequently, in 1829 Froebel and his friend Middendorf closed the school in Keilhau and went to Gottingen. As Froebel and Krause began to discuss education and philosophy,

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Krause emphasized the fact that their great predecessor, Comenius, had successfully employed the practice of object lessons and self-activity on the part of the learners. As the two men worked together, Froebel's mind was turned toward his true destiny, the kindergarten.

Before long Froebel began work as the founder and director of a new school. This came about through the persuasion of the Duke of Meiningen, whose personal physician, Dr. Hohelium, had given special attention to the project at Keilhau and had persuaded the Duke to establish a similar school at Helba with Froebel as principal. This new school was to be supported by the state and was to include the following four departments:

1. An orphan nursery in which little children (three to seven years old) were to be cared for and developed.
2. An elementary school for older children, which was to employ some new methods in education.
3. A school for German art and industry was included in the plan, though it was to be carried out later.
4. . . . a school for higher knowledge, preparatory to the University. 9

Enthusiastically, Froebel began work on his new educational assignment. For two years he planned

assignments, developed new educational ideas and techniques, and collected materials. His plan, which was founded around the idea of child activity, contained the following procedures:

First, the child must do or make something. Second, the child finds out through doing that he needs to know and thus rises in him the desire for knowledge. Third, the child finds that, through knowing, he can always do better.¹⁰

This was the philosophy upon which he was to build the school. However, the plan never came into operation. The Duke changed his mind about the project and began changing the plans for the school and limiting the number of pupils. Froebel saw the instability of the project and withdrew.

Disappointed at the failure of his proposed school, Froebel soon accepted an offer from Xaner Schnyder Van Wortensee, a famous composer of music who had heard of Froebel's new plan for the organization and operation of schools. He proposed that Froebel accompany him to Switzerland and set up a model school in his castle. Froebel decided to accept the proposition. The school which he established at Wortensee castle was similar to the one at

¹⁰Ibid., p. 245.
Keilhau, emphasizing free development through self-activity. However, the school was hardly under way when a barrage of tales began to circulate in the neighborhood concerning the unsound character of Froebel and his negligence in paying debts. This together with the misunderstanding which he had with Wortensee over the powers of authority in the school made his year at the new school very unpleasant. Consequently, when three men from the near-by town of Willisau came to tell him that they were interested in his type of school and offered him a position, he readily accepted.

In the meantime Froebel took a trip back home and returned to Willisau the first of May, 1833, with his wife and opened the new school the next day. This project was similar to the one at Keilhau and became successful.

Soon after the school began, five young men came from Bern, having been sent by the local government to study with Froebel. A year later Froebel was invited to conduct a training school at Burgdorf which had sixty pupils; so once again Froebel moved. In
his new position he became extremely interested in his work. He followed Pestalozzi's method of object lessons and self-activity, but went beyond these concepts to the extent that he made the individual pupil not only a recipient of the world but also a creator of it. Two years after going to Burgdorf he was made director of the orphanage in the city, his special charge being children from four to six years of age. As time went on he became intensely interested in the small orphans, and began to study carefully the function of play in their development and character training. He exercised them in games, in songs, in bodily movements, and in modeling with clay and sand; he told them stories, fables, and fairy tales. Thus the idea of the kindergarten was born in the mind of Friedrich Froebel. 11

Symbolic Education and Mother Play Song

For years Froebel had been thinking of the significance of the sphere, or the ball, in education. He had already used the ball as an outer symbol to

portray the inner spirit, but it had no real meaning until he began to see it as an educative plaything. Its real importance came to him suddenly one day as he watched the orphans playing with balls in the schoolyard. He saw that the ball should be a "play-gift"; from it he could develop a whole series of forms through which the child might come to understand the creative workshop of nature. This idea became the foundation of the so-called "gifts" and "occupations" which he later developed and utilized so successfully in his educational plan.

Along with the play-gifts, Froebel felt the need for a variety of activities for his children. He had studied Comenius' and Pestalozzi's theories as to the place of the mother in the education of the child, and here at Burgdorf he began to write his book of Mother Play Songs, consisting of folk songs, dances, and other activity songs which he had employed in his teaching.

Because his wife had become ill in Switzerland, Froebel decided that they should return to Germany; consequently, in 1837 they moved to Blankenburg
where his friend Barop had rented an old power mill
in which to set up Froebel's first kindergarten.
During his first year here the educator and Fredric
Unger, a painter, worked on the printing of the Book
of Mother Play Songs and also on the development
of the play-gifts. When the gifts were completed,
consisting of cubes, spheres, blocks, cylinders,
etc., he employed teachers to carry them throughout
Germany, showing and explaining them wherever op-
portunity presented itself. Froebel himself went
from place to place giving lectures on his new dis-
covery. His most strenuous work in this connection
occurred in Dresden, where he spoke to many of the
professional men of the city. Most of them, however,
were not interested in his work, and after a month
of unsuccessful lecturing here he returned home to
find his wife in very poor health. She died in May,
1839, and again Froebel was dealt a mighty blow.
He went to visit his friend Middendorf to aid his re-
covery from his personal loss, and after a month he
returned to his work at Blankenburg. Here he prac-
ticed his system of play-gifts with thirty or forty
of the village children.
He began to search for some means of financing his educational scheme on a large scale. Eventually he conceived the idea of selling bonds to German women for ten dollars per person. He believed that if he could convince one hundred women of the soundness of his system of education for very young children, they would buy one share for themselves and influence ten other women each to do likewise. Thus he would have 1,100 women as bondholders and thereby raise enough money to carry out his plans.

He began to dream of elaborate new buildings and equipment and decided to call the new school the Universal German Kindergarten; but he was never to realize his ambitions, for he could not interest enough women in buying shares. Once more he went back to the kindergarten at Blankenburg.

For the next three years he worked diligently at writing, testing, and perfecting his ideas for the Mother Play Songs, and in September, 1843, the book was sent to the publisher. From the start the book met with severe criticism, and Froebel had spent all of his money on its publication; only when
he inherited a small sum from his wife's estate was able to pay the printer and make his work available for distribution.

In July, 1844, he became restless. Having remained at Blankenburg for four years, he now decided that he must travel and spread his new principles of education. He visited most of the educational centers of Germany, lecturing and demonstrating his ideas of the "gifts" and "occupations." Having lost faith for a time in mothers as a result of his disappointing efforts to enlist their aid as bondholders in his school, he now appealed to fathers, but he found that men were more indifferent to his ideas than were women. He returned from his trip without visible success, and he and Middendorf once again established a school at Keilhau. As soon as he had enough money, he took another trip, still preaching his gospel of the education of little children.

At Keilhau he began teaching a class of girls. Here he came into contact with three brilliant girls who so inspired him that he decided that he must
attempt to train the choicest young ladies of the land. He emphasized more than ever the so-called "occupations," for these girls were like most German women, skillful in sewing, weaving, knitting, and other finger work.

In the summer of 1848 Froebel attended a teachers' convention at Rudalstadt. Here he brought the subject of his work to the attention of German educators. "He distinctly declared his opinion that the kindergarten should become a part of the public school system supported by the state."\(^{12}\) Other educators opposed this idea, however, on the grounds that the kindergarten would develop a play habit in school and would render serious instruction difficult. After the teachers' convention he was invited to Dresden by Luise Frankenberg, one of the three brilliant girls who had been his pupils. She had set up a training school in Dresden to share Froebel's wisdom with young women of her acquaintance. Froebel was inspired by the work she was doing, and he resolved that he would henceforth devote most of

\(^{12}\text{Ibid.}, \ p. \ 350.$
his time to the training of capable teachers for kindergartens.

Deciding that he should select a new site for his school, Froebel chose Liebenstein, a place noted for its beautiful springs and its attraction for tourists in the summer season. At first the real reason for his move to Liebenstein was unknown, but as time went on it became apparent that he had become deeply infatuated with Luise Lenin, one of his most responsive pupils, and they had decided to be married. She, however, was detained for a time by teaching duties in another school, and during the interval between Froebel's arrival in Liebenstein and her appearance there, he had become acquainted with the Baroness Von Marenholz-Bulow, who had come to spend the summer in this resort town. She became so interested in Froebel's school that she decided to remain there.

The Baroness became very fond of Froebel and also became one of his best pupils. She was so interested in his educational plan that she decided to be his disciple for life and to do everything in her
power to help his cause. This decision proved to be very beneficial to the educator, for the Baroness was acquainted with all of the great men of her day and she used her influence to arouse their interest in Froebel's school. After Froebel's death she gave permanent form to her zeal and enthusiasm for his work by writing her notable Reminiscences of Friedrich Froebel.

Among the distinguished men whom the Baroness attracted to Liebenstein was the great educator Adolph Diesterweig. After Diesterweig's visit to Liebenstein he was seen skipping and hopping through the woods with Froebel and his pupils, for he became an enthusiastic disciple of the founder of the kindergarten. Soon Middendorf, a friend and co-worker of long standing, came to Liebenstein to take his place in the school, bringing the total of teachers in the school to five. Froebel was enjoying the most successful period of his life.

Then came an offer from Hamburg, requesting that Froebel come to that city and work for a while in the establishment of kindergartens there. The
salary was exceptionally attractive, so he accepted the proposal. Middendorf preceded him to the city, giving lectures and preparatory speeches before the great Froebel was to come. His addresses were very well received; in fact, they were so good that the people were disappointed when Froebel arrived.

After several months in Hamburg Froebel and his faithful friend were back in Liebenstein, where the Baroness had obtained possession of an old castle near the little farm where the school had been conducted previously. More pupils than ever came to the school in the old castle. The pupils marched and wheeled in many twist-and-turn formations; games and sprightly sports were engaged in, all with meaning and purpose. At the same time, of course, instruction was given to the older pupils in the fundamental subject-matter fields. Froebel was happier than he had ever been before, for his work was going well and he was now married to Luise Lenin. The Baroness and Middendorf had been attendants at the wedding, and afterwards the walls of the castle rang with song and laughter as the four
celebrated with the children of the school and other people of the town.

Froebel and his household lived happily for a while, content with educating the children and with teaching others to educate them. Then, in August, 1851, Froebel's own nephew wrote a pamphlet, upholding his own educational plan and condemning the kindergarten as part of a socialistic scheme to train the youth of the country toward atheism. Such schools should not be allowed to exist, he insisted. He sent copies of this pamphlet to the Prussian Minister of Education, who soon ordered that the Froebelian kindergartens were forbidden to exist in Prussia. Froebel thought the whole incident a mistake at first; and he sent proof and compiled comprehensive documents declaring his loyalty to Christianity and his faithfulness to Christian principles in his educational work. No results came of this, and the Baroness exerted all her influence and skill to have the decree withdrawn. She made a trip to Berlin for a conference with the King himself, declaring the good intentions of Froebel and the kindergarten
and assuring His Majesty that the charges were false and unfounded. The King, however, did not inter-
vene, and the Minister's order banning all kinder-
gartens still stood valid.

Last Days

After the severe blow received from the Prussian
Minister of Education, Froebel decided to fight back
and to meet all charges. He began to write books
and articles in which his principles and educational
philosophies were set forth for the coming generations
to follow. He was growing old, however, and he dis-
covered that his physical strength gave way under
his greatest efforts, and some of the books were
never finished.

During the last days of his life he was given two
honors. One was a great party given by children and
adults who had been his pupils. The other was an
invitation to attend the National Convention of Ger-
man teachers at Gotha. At first he declined this
invitation because of his health, but he finally de-
cided to go. "When he entered the convention, in
the midst of a discourse, the assembly rose. At the
end of the discourse the president of the meeting
gave him a hearty welcome, followed by three cheers
from the whole assembly."\(^13\)

After the meeting he returned home and soon became ill. On June 21, 1852, he died at the age of seventy, leaving behind a wealth of ideas and principles which have been carried down to modern schools.

_Friedrich Froebel cannot be given all of the credit for the establishment of his ideas of education in the minds of the people, for they were known before his time, it is said, by such men as "Solomon and Orpheus, Marcus Aurelius, Emerson, and many others."\(^14\) However, his correlation and formulation of the main facts is what renders him important to modern education. Many of his ideas were adapted from teachers and great men of the past, but he seemed to be the only one who could bring them into reality.

The principles of education which Froebel discovered may be summarized very briefly: "The

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\(^13\)Ibid., p. 289.

\(^14\)Hans P. P. Claxon, _Sketches of Froebel's Life and Times_, p. 5.
child is a growing organism. It is a unity. It develops through creative activity. It is benefited by contact with other children and is happy in proportion as it is unselfishly employed.  

These were the principles and concepts upon which Froebel based all of his educative activity. He thought of the child as a product of his environment to be molded by the parents and teachers into a well-rounded individual. 

Froebel's idea of education was not to fill the child's mind with facts and figures for which he had no use. Education to him was for the purpose of preparing the child for life. He wished to bring the child into situations which would be most likely to represent typical experiences in ordinary life.

"Froebel said that the purpose of all education should be to build character. In this teaching the child must learn to take care of himself first, and then think of his relation to his neighbors."  

The succeeding chapter will be introduced with a brief consideration of some of the most notable educational philosophies of Froebel's time which may

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15 Ibid., p. 4.
16 Alice Hubbard, Life Lessons, p. 110.
have influenced his own thinking and techniques.
The major portion of the chapter, however, is devoted to a consideration of some of the typical educational ideas of Froebel as related to the practical arts. No attempt will be made to give a comprehensive or exhaustive survey of his educational philosophy, and only those phases of it related directly or indirectly to the practical arts will be studied.
CHAPTER III

THE PHILOSOPHY OF FRIEDRICH FROEBEL

CONCERNING THE PRACTICAL ARTS

Educational Philosophies Current in Froebel's Day

The latter part of the eighteenth century was an especially significant period in human history. New thought was coming to the front, new political and economic theories were being formulated, new concepts of human worth were being crystallized, and the industrial revolution was at its height, bringing with it not only many benefits but also innumerable problems of an economic and social nature.

There was a definite tendency among the intellectual circles of Europe to give new dignity to human thought and activity and to liberate man from the influence of the dogmas and traditions of past ages. The enlightenment of the understanding was the chief aim of thinkers and teachers, and philosophers advanced the ideal of individualism which
manifested itself in the prevailing theories of knowledge, morality, and the organization of human society.

One of the most significant developments of this era was that of the recognition of the educational value of human experience. Locke, one of the pioneers in this concept, said, "All knowledge is from experience."

Along with the new theories of individualism and of the value of experience, there was a strong tendency toward Deism as a philosophy; that is, a tendency toward the so-called "natural religion." In the case of many leaders of thought, there was either mere toleration of or thoroughgoing opposition to religious beliefs, and there was a strong tendency to question the existence of God. Many held to the ideal of the so-called "return to nature" as the only reliable means of attaining human equality, goodness, and happiness.

By the intellectuals, the state and society were thought of as "social contracts" consciously and voluntarily entered into by individuals for their own
welfare and for the common good of all persons comprising human society.

Thus it becomes apparent that the dominant characteristic of the eighteenth century was its individualism, together with its opposition to accepted dogmas as well as to actual conditions existing in both church and state. This was a period of questioning, of seeking values, of searching for better ways of doing things. For this reason the work of the principal thinkers and writers was directed toward the establishment of a new type of philosophy (both theoretical and practical), based upon the principles of individualism and naturalism. A careful survey of philosophical thought reveals that this tendency had been gradually but steadily developing during the preceding three centuries. It came to a head in the works and teachings of Rousseau, who called it "the problem of civilization." In all of his writings he questioned the worth of civilization and the soundness of the principles upon which it was based. He seriously doubted that civilization had been for the good of man, or that it added to his
true happiness. He looked upon civilization as an artificial structure which man had erected in his quest for happiness, but which actually prevented man from finding that which he sought.¹

Though much of his work may be questioned, undoubtedly Rousseau did well in forcing to the attention of his generation the problem of civilization, its validity and shortcomings. Unfortunately, the genius and temperament of Rousseau were destructive, rather than creative or reconstructive. He could see what was worthless in the civilization of his time, but he was unable to point out what was of permanent significance for mankind. He knew what was wrong, but he lacked the remedy. He was responsible for much intellectual confusion and for the belief that everything about the civilization of his day (1712-1778) was bad. Many believed Rousseau, and consequently lost all faith in human progress. He did well in ridiculing his generation for its blindness in worshipping the past, but he was unable to perceive how the errors of the past could be utilized

in improving conditions in his own day. For him, history lacked continuity, and he made a great error in trying to close the door completely on the errors of the past which he so emphatically criticized.

Because he was disgusted with civilization, Rousseau advocated a "return to nature." He felt that only by returning to the simple life could mankind hope to find happiness and avoid his own destruction. His somewhat emotional theory of the "return to nature" had important bearings upon

(1) the reaction against mere rationalism in matters of belief, (2) the movement towards democracy with its deeper and wider Humanism and its appreciation of the worth and dignity of man as man, (3) the appreciation of the significance of nature for the human spirit, and of its power to respond and minister to human needs. Rousseau's work, though for the most part destructive, contained within it elements which, later on, inevitably made for social reconstruction. 2

Rousseau's fundamental idea was that of the natural goodness of human nature. Man comes into the world with no innate depravity or tendency toward evil. He is later corrupted by improper education in degenerate social institutions. If all such evil influences were eliminated, Rousseau believed, the

2MacVannel, op. cit., pp. 16-18; quotation from p. 18.
very force of man's innately good nature would assert itself and cause man to work for the perfection of his fundamental nature, which is good and wholesome to begin with. Rousseau's *Emile* is but one phase of his larger social theory. Its central idea seems to be that the corruption of human life and human society is due to artificial restraints imposed on the individual by intellectual culture and social organization. His educational theory, therefore, begins with the assumption that, if these restraints imposed by society and civilization are removed and the original nature of man is given free play, a life of natural innocence and perfection will result.  

Kant's (1724-1804) work dealt mainly with a critical analysis of the nature, possibilities, and limits of human experience. The question he repeatedly asked was, "What is experience, what does it involve, and how do we get knowledge by means of it?" He insisted that knowledge and therefore experience is possible through the co-operation of two faculties — sense and understanding — both of which are absolutely essential. Through sense the objects

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3Tbid., p. 50.
or the matter of knowledge is perceived; through understanding they are thought, formed, or understood —that is, they become real objects or sources of knowledge. 4

Some of the high points in the educational philosophy may be stated briefly as follows:

1. Everything is derived from experience except the capacity for experience. Herein rests the possibility for education and for guidance of personal development.

2. Personal experience is not a stream of isolated sensations, but an organic unity. By his own mental processes each individual builds up his own world of inner experience.

3. The individual is no mere knowing machine in a world lacking intelligence. Instead, as an intelligent being he finds himself in an intelligible world, related and adapted to intelligence.

4. Back of the distinction between the self and the objects of its environment is the process of experience, which relates objects to the self.

4Ibid., pp. 24-25.
5. In his ethical interpretation of experience, Kant discovered the law for man's right action not in anything foreign or external to him, but in man's innermost nature. 5

The life of Pestalozzi (1746-1827) was devoted to the cause of education as the only certain means of attaining the social and material elevation of mankind, and man's moral and intellectual regeneration. Education, he insisted, could enable people to attain a more industrious, more satisfying, purer and more spiritual mode of life. Perhaps to Pestalozzi more than to anyone else is due credit for launching the great movement toward popular and public education, which was one of the outstanding developments of the past century. He developed methods of sense-perception or object-teaching, and he formulated also the psychological bases for instruction. In brief, his educational theories may be summarized as follows:

1. Whereas Rousseau regarded education as a means of saving individuals from the corrupting and

5Ibid., pp. 27-28.
enslaving influences of civilization, Pestalozzi always regarded it as a fundamental means of raising human beings into intelligent, social, moral life.

2. The individual, left to himself, or deprived of education, can never become truly human. In the interest of its own preservation and advancement, society must transform natural man into social man. Thus, the education of its members becomes the highest duty of society.

3. Education must be thought of fundamentally as a national responsibility. Pestalozzi not only recognized the social importance of education, but he also discerned the necessity of correlating the great forces of the common life, the home, the school, the church, and the state, with a view to maintaining, elevating, and perpetuating the social life of the people.

4. Education must proceed according to the laws of nature. It must not be arbitrary intervention between the child and nature, between the individual and the laws of nature and of humanity. Instead, it must assist natural development of the individual,
not hindering or doing violence to it; leading, not forcing; developing, not molding in accordance with artificial or mechanical policies or programs.

5. The soul is not a mechanism, but an organism endowed with an impulse toward its own growth and highest realization, which should be nurtured, not curbed.  

Important elements of permanent significance in the work of Pestalozzi may be noted briefly as follows:

1. His conception of education as a fundamental source of social elevation.

2. His orderly conception of education as the responsibility of society and as the function of the state.

3. The creation of modern public elementary and secondary schools through his insistence that the poorest and lowliest should enjoy the benefits of education along with the wealthy, and that educational experience for all should begin at an early age.

4. His recognition of the central and fundamental influence of home life and the necessity of correlation

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6Ibid., pp. 58-62.
and co-operation among the various educational factors of the community in the education of the individual.

5. His demand that instruction should be based upon immediate experiences of the learners.

6. His method of instruction based on interesting and developing activity, on thoughtful guidance, on loving treatment of the pupils, instead of a method based on compulsion or enforced discipline.

7. The acceptance of the sense-experiences of the child as the educational starting-point.

8. Number, form, and language as the fundamental subjects of elementary instruction, since they are essential conditions of distinct and definite knowledge. 7

Among the outstanding methods and purposes of Pestalozzi's educational plan were the following:

1. He had an intense desire to improve the conditions of the poor in Switzerland, especially the poor children.

2. He believed that such improvement, to be permanent, could come only through education.

7Ibid., pp. 63-64.
3. He felt that the school should be in a close relationship with the home and prepare for family life instead of leading away from it.

4. He was convinced that, under favorable conditions, the manual labor of children could be utilized to pay for their education. He applied this theory with some degree of success in his combination boarding-work schools.

5. He placed emphasis upon the use of objects and manual labor, both skilled and unskilled, in teaching the traditional school subjects.

Therefore, his work pointed toward education for all children, rich or poor, and toward education by new methods which were to be more fully developed by later educators. 8

Hegel (1770-1831), like Kant, was interested in experience. He, like Kant and Fichte, maintained that the fundamental error of the older philosophers had been their doctrine of two distinct realms of experience—the world within and the world without. Hegel believed that experience is a unity, that it

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cannot mean anything until it is recognized by the inner being of the individual. Self-determination and self-realization come through environment—the environment of an intellectual and moral world. He believed that the perfecting of the individual is not attained by one who lives in accordance with the idea of "returning to nature," nor by him who "cares but to pass into the silent life," but by the one who sees treasured up in the various relationships of concrete social life—family, community, state, church—the spiritual experiences of the human race, and who is consequently living a shared life along the beaten highways of this common world.  

The educational theories of Herbart (1776-1841) may be stated in brief in the following manner:

1. Ideas develop from two main sources—experience and social intercourse. Ideas gained from these two sources make up the child's circle of thought, which is to be so influenced by instruction that right judgment and right willing result.

2. The aim of instruction, as implied above, is to form the pupil's circle of thought in such a way

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that right judgment and right willing may grow out of it. Its specific object is to stimulate and develop many-sided interests.

3. The circle of thought gained from experience and social intercourse lends itself to the development of two main forms of interest—cognition and participation, or knowing and doing.

4. Interest as the specific object of instruction has four qualities: (a) it is far-reaching or continuous; (b) it is immediate, that is, it is its own reward; (c) it is all-encompassing or many-sided; and (d) it is proportionate; there should be a balance among the various classes of interest. As Herbart wrote: "Interest arises from interesting objects; many-sided interests originate in the wealth of these, and to create and develop it is the task of instruction" (The Science of Education, p. 120).

5. Methodical instruction involves (a) clearness in the presentation of facts and subject matter; (b) association of these facts with one another and with other related materials so that understanding may be as complete as possible; (c) systematic, coherent
organization and development of what is associated; and (d) the application, in problem-solving activities by the pupil, of the facts, rules, and principles learned. ¹⁰

As one studies the educational philosophy of Froebel in comparison with that of his predecessors and contemporaries, it becomes apparent that Froebel was influenced more profoundly by the ideas of Pestalozzi and Herbart than by those of any other philosophers. He, on three different occasions, studied with Pestalozzi; and he evidently was thoroughly familiar with the work of Herbart. As a summary of this brief discussion of the educational theories which may have influenced Froebel's work, it will be profitable to compare the ideas of Pestalozzi and Herbart with those of Froebel, both as to similarities and differences. The following summaries are so concise and clear that they are quoted in full:

Pestalozzi aimed to give definite ideas by the use of real things as a foundation for intellectual strength. Froebel provided the means of training the emotions as well as the sensations, and of guiding them in the formation of character by right self-activity.

¹⁰Ibid., pp. 71-72.
Pestalozzi's pupils observed and initiated either with voice or hand; Froebel's children observed and invented.

Pestalozzi's pupils were reproductive; Froebel's were creative.

Pestalozzi's pupils were trained in expression; Froebel's in self-expression.

Pestalozzi was satisfied with productive activity; Froebel required productive self-activity.

Both these great teachers knew that the religious nature of man is the highest; but Froebel realized with much greater clearness than Pestalozzi the fact that spiritual growth must come from within, and that the spiritual nature of the child finds its satisfaction in the symbolism of the real things around it.

Pestalozzi was an intellectual philanthropist, who used education to make men wiser and happier. Froebel was an educational philosopher, who aimed through education to make men grow forever "consciously toward God."

Pestalozzi's ideal was, I must do good to the child, Froebel's ideal was, I must increase good through the child.\(^{11}\)

Both Herbart and Froebel studied the child in order to lay down a system of education that would help to enoble man and enable him to work out his highest destiny. They were fully in accord in regard to the true aim of education. Both made the development of moral character the great purpose of all education, and their study of the child was made to find the surest way to reach this desired end. There was a radical difference, however, in their attitude toward the child. Herbart studied the child to find the best that could be done for it; Froebel studied it to learn how it could be aided in working out its own best development. Herbart magnified the work of the teacher; Froebel magnified the work of the child. Herbart made instruction, and Froebel made self-activity, the source and cause of growth in knowledge and character.

The difference of viewpoint leads to the chief distinction between the work of these two great educationists. Herbart discusses the work of the teacher, and shows what should be taught to the child, when it should be taught, and why it should be taught, with occasional suggestions as to how it should be

taught. Froebel, on the other hand, considers chiefly the work of the child, and endeavours to lay down a complete system of education by which the child's entire nature may be called into vigorous exercise. Froebel keeps constantly in mind the work of the teacher, and he has clearly defined ideas regarding the order in which knowledge should be presented to the unfolding mind; but the basis of his pedagogical system is growth through self-activity of the child. He discusses the same problems as Herbart, but he reveals the child's part in the work of education, and tries to show the teacher how to guide the child in doing its own work without interfering with its spontaneity.

Froebel believed that the child has within him a self-active soul— an element of divinity, the selfhood or individuality of the child—and that this develops by being put forth in gaining a knowledge of its environment and in performing the duties pertaining to its social relationships. These opinions led him to discover his law of spontaneity or self-activity, which he made the underlying principle of all his developing and teaching processes in the kindergarten and in the school.12.

**Froebel's Conception of Education**

Froebel believed that education consists in leading man, as a thinking intelligent being who is in the process of growing into self-consciousness, "to a pure and unsullied, conscious and free representation of the inner law of Divine Unity, and in teaching him ways and means thereto." He often referred to his educational method as the process of "developing, or human culture for all-sided unification of life."

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12Ibid., pp. 40-43.
In a letter to one of his patrons, the Duke of Mein-ingen, who became interested in his theories and helped him to establish one of his schools, Froebel defined his educational purpose in this manner:

I would educate human beings who with their feet stand rooted in God's earth, in nature, whose heads reach even into heaven and there behold truth, in whose hearts are united both earth and heaven, the varied life of earth and nature, and the glory and peace of heaven. God's earth and God's heaven.  

Froebel considered education to be a process of creative self-development. It was to be regarded as the unfolding of the inner self by means of spontaneous self-activity on the part of the child. The child must learn by doing, by experiencing, by creating.  

Froebel, along with Pestalozzi, Herbart, G. Stanley Hall, and William James, was one of the early pioneers in the movement of developmentalism. For a time this theory was widely accepted but then began to wane in popularity with the rise of newer concepts. In recent years, however, with the growing acceptance of Gestalt psychology, emphasizing the "whole child" and the "entire situation" with which

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he interacts, interest in developmentalism in its educational implications is reviving.

The developmental psychology stresses the continuity of a child's growth. It emphasizes the fact that education is a natural process, that it is a development which may be helped or hindered by influences from the environment, but that it is dependent upon the working of a person's natural powers and interests. Studying the child as a developing personality, watching his growth and development as he interacts with his environment, discovering the activities and experiences suited to each level of his maturity, and learning how to utilize the child's developing physical, emotional, intellectual, and social powers constitute the chief emphases.15

Hughes quotes Froebel as writing the following definition of his educational theories: "To stir up, to animate, to awaken, and to strengthen the pleasure and power of the human being to labour uninterruptedly at his own education, has become and always remained the fundamental principle and aim of my educational work."16 Thus it appears that Froebel had the concept of the teacher as a guide, an inspirer, and one who can cause pupils to become enthusiastic about working out things for themselves and solving their own problems.

Froebel believed that education should be based upon what he called "inner wants" of the child as an

16Hughes, op. cit., p. 100.
individual, and he went so far as to say that such
wants are absolutely necessary if the child is to be
taught with profit and success. In this connection,
he pointed out that many of the errors occurring re-
peatedly in schools are the result of a failure to
recognize the fundamental needs or "wants" of the
child as the basis for instruction. He wrote: "We
teach our children without having aroused an inner
want for the instruction and after repressing every-
thing that was previously in the child. How can such
instruction be profitable?"\(^{17}\)

He was convinced that it is better not to educate
at all than to educate "badly and in wrong directions."
He believed that "God, and not prejudiced man, gives
the true educator his calling; for only in all-sided,
natural, and rational development of himself and his
spiritual power man finds his welfare and the wel-
fare of mankind, and every other course hinders
the true development of mankind."

\(^{18}\)

Froebel showed himself a disciple of Rousseau
in his belief that education "badly and in wrong di-
rections" is worse than no education at all. Likewise,

\(^{17}\text{Froebel, op. cit., p. 223.}\)
\(^{18}\text{Ibid., pp. 280-281.}\)
he appeared to echo the sentiments of Rousseau when he condemned the common educational practice of stifling the normal development of the individual child and forcing him to conform to rigid standards rather than making instruction flexible enough to stimulate his personal interests and abilities. This concept is voiced strongly in the following quotation from The Education of Man:

... we ought ... to understand that we do great violence to boy-nature when we repress and supplant these normal many-sided mental tendencies in the growing human being; when, in the belief of doing a service to God and man, and of promoting the future earthly prosperity, inner peace, and heavenly salvation of the boy, we cut off one or the other of these tendencies and graft others in their places. ¹⁹

In connection with this same thought, Froebel was convinced that individual differences should be taken into consideration in planning and carrying out the instructional program, and that the program should be such as to win the willing participation of the pupil. He wrote: "... all prescription should be adapted to the pupil’s nature and needs, and secure his co-operation." ²⁰ After clarifying his ideas concerning the function and purpose of education, and

pointing out the necessity for recognizing that the individual should be the basis for instruction, Froebel was in a position to define his conception of the developmental value of education:

By education, then, the divine essence of man should be unfolded, brought out, lifted into consciousness, and man himself raised into free, conscious obedience to the divine principle that lives in him, and to a free representation of this principle in his life. 21

Froebel believed as thoroughly as did Aristotle that man is a social animal and can develop and attain his humanity only in co-operation with his fellow men. Moreover, he insisted that the child is equipped with a set of instincts which impel him to co-operative action, as can easily be seen by watching his games. Hence, from infancy, social co-operation should be cultivated for the physical, moral, and intellectual benefits that are to be derived from it. The schoolroom, he maintained, is society in miniature. 22

Froebel considered that education is for vocation, but in order to know his true meaning one must understand that he did not consider or define vocation in

21 Ibid., pp. 4-5.

terms of any single trade or superficial occupation, but to him "vocation" was a divine calling to make the best of one's possibilities, to develop one's abilities to the utmost, and to equip one's self for making the greatest possible contribution to human happiness and the welfare of society. Thus, in this light, "vocation" meant to him the ability to live successfully and happily in human society, and education was for the purpose of developing this capacity. 23

Froebel was convinced that education is not merely for the mind but for the body as well; in fact, he perceived that the mind and the body constitute two equally important parts of the whole human being, and neither should be stressed to the exclusion of the other. He wrote that "after severe mental activity, the body as well as the mind calls for strictly regulated, vigorous bodily activity, and this again reacts on the mind and strengthens it. Only where mental and bodily activity are thus in regular, living, mutual action and reaction, true life is possible." 24

According to his concepts,

The basic principles of childhood education are: growth through observation and play, which involve self-activity, creative construction, symbolization, and social participation. The school is a selected environment which permits the active tendencies of the child to develop and offers opportunities to the child to shape the world in which he lives.\(^{25}\)

Education and all of life for the child should be made so rich and meaningful that complete happiness will be experienced. "Joy," he said, "is the soul of every activity" of childhood, and for this reason education should contribute to the total joy, not subtract from it, as is so often the case. He asserted that if the proper type of education is made available, the child's life will, "like a swelling bud, ... burst forth from within for joy and in joy."\(^{26}\)

Froebel was a great believer in the role to be played by the parents in the education of the child, and he emphasized this concept far more than did Pestalozzi, who apparently originated the idea of having parents assist in the education of their children. Froebel answered the common objection that parents are ignorant of how to help educate their


\(^{26}\) Froebel, *op. cit.*, p. 304.
children and that they do not possess the necessary knowledge, by writing:

Thus, father and son, teacher and pupil, parent and child, walk together in one great living universe. Let not teacher or parent object that he himself is as yet ignorant of this. Not the communication of knowledge already in their possession is the task, but the calling forth of new knowledge. Let them observe, lead their pupils to observe, and render themselves and their pupils conscious of their observations. 27

In this manner Froebel implies that it is not so important that the parent or the teacher be well equipped with knowledge to impart to the child, but that the real value of such learning situations is the ability of adults and children to experience life together and engage in simultaneous learnings which will be of great worth to both children and adults. Common experiences and the learnings which result from such experiences are the valuable result to be sought. The adult is not primarily to impart information, but to guide the child to participate with him in worth-while educational experiences, so that together they may make discoveries in knowledge.

Froebel appeared to care much less for the techniques of teaching than for the spirit of the

27 Ibid., p. 200.
instruction. He regarded the mother as the queen of all teachers, and believed that mothers should be the earliest teachers of their children. Zeal and enthusiasm on the part of the teacher were regarded by him as essentials in the learning situation, for without them the teacher will be unable to lead the child into the exercise of initiative and self-activity. Dynamic teaching, he was convinced, results in vital learning. But teaching should not be formal nor stereotyped; it should, instead, seek to inspire interests and trends of thought on the part of the pupil. 28

Interests should be readily fostered and maintained if the school were organized according to Froebel's recommendation; namely, that it be set up and conducted as a miniature society in which the child is occupied in doing things of interest to him under the guidance and encouragement of the teacher as an older, more experienced member of the group. In such an educational setup, the child would associate freely with other children. There would be no

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28 Cole, op. cit., p. 103.
real problem of order or "discipline," since the members of the group would live by the rules of courtesy and helpfulness and practice the behavior of friends and good neighbors. In such a situation, ideal as it is, problems of discipline would not occur, as misconduct would be outlawed—not by teacher coercion but by pupil co-operation.

Froebel had some definite and revolutionary ideas about the imposition of discipline and authority by the teacher, and likewise about instructional procedures as commonly carried out in his day. Education should be organized, he said, in such a way that the child behaves himself because he wants to, and he learns because he wants to.

Froebel advised that direct instruction and discipline, coming, as it were, "from outside in," is the wrong method of education because it is contrary to the intention of the Absolute. The Absolute has deposited in the child powers and tendencies which must develop through free inner growth from "inside out." Froebel believed that educational procedure which interferes with such free growth defeats its own real aim, precisely because it puts obstacles in the path of the child's free growth. The true purpose of educational procedure is, according to Froebel, to put the child into an environment where such obstacles would have no place. This service of the school to the child, and indi-
rectly to the Absolute, cannot begin too early.

29Berkson, op. cit., p. 110.

Froebel, at first glance, appeared to contradict himself when he wrote: "... we should not even speak of culture which implies the development of the mind, of the will of man, but rather of stamping and molding ..." 31 However, he probably meant to imply by this statement, which in translation may have been distorted from its original sense, that the primary function of education is not to develop the mind, but rather to establish habits of thinking and doing that are wholesome and productive, which in turn will provide the mind with its needed development. In speaking of "stamping and molding" Froebel was not indicating that instruction should be stereotyped and that all children should be put through the "educational mill" without thought of their individual personalities; instead, he meant to imply that education should give children a sense of social values and of conformity to the standards of their group; in other words, children should receive from education what modern educators refer to as "a feeling of belonging."

31 Froebel, op. cit., p. 280.
The following statements from Froebel's philosophy of education as natural development are interesting and illuminating in that they serve to indicate his acceptance of Rousseau's doctrine, though not in its extreme sense, and also emphasize again his conviction that the child is often harmed by rigid impositions within the educational program which render it impossible for him to develop according to his natural inclinations and abilities:

We grant space and time to young plants and animals because we know that in accordance with the laws that live in them, they will develop properly and grow well; young animals and plants are given rest, and arbitrary interference with their growth is avoided, because it is known that the opposite practice would disturb their pure unfolding and sound development; but the young human being is looked upon as a piece of wax, a lump of clay, which man can mold into what he pleases. O man, who roamest through garden and field, through meadow and grove, why dost thou close thy mind to the silent teaching of nature? Behold even the weed, which, grown up amid hindrances and constraint, scarcely yields an indication of inner law; behold it in nature, in field or garden, and see how perfectly it conforms to law — what a pure inner life it shows, harmonious in all parts and features: a beautiful sun, a radiant star, it has burst from the earth! Thus, O parents, could your children, on whom you force in tender years forms and aims against their nature, and who, therefore, walk with you in morbid and unnatural deformity — thus could your children, too, unfold in beauty and develop in all-sided harmony!

In accordance with the laws of divine influence, and in view of the original soundness and wholeness of man, all arbitrary (active) prescriptive and categorical, interfering
education in instruction and training must, of necessity, annihilate, hinder, and destroy. . . . 32

At the same time that he was warning against improper education and the imposition of stifling influences to hinder the normal, natural development of the child, Froebel recognized that life processes and educational processes are identical, and that they are essentially social in nature. Thus he originated the modern educational doctrine that "education is life." He believed that educational and life processes were to find expression through increasing individualization and self-realization through self-activity. Also, he was certain that increasing participation in home life, the school, society at large, the state, and the church was essential for well-rounded life experiences, and that through participation in such institutional life education for effective, harmonious living could be attained. 33

In further emphasis upon his concept that well-rounded education means natural development and the recognition of individual differences and not the

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32Ibid., pp. 8-9.

33MacVannel, op. cit., p. 87.
imposition of undue authority and rigid discipline

by the teacher, Froebel wrote the following:

Man . . . appears as the last and most perfect earthly being, in whom all that is corporeal appears in highest equilibrium and symmetry, and in whom the primordial force is fully spiritualized, so that man feels, understands, and knows his own power. But, while man externally and corporeally has attained equilibrium and symmetry of form, there heave and surge in him — viewed as a spiritual being — appetites, desires, passions. . . . For this reason, the boy — the learning human being — should at an early period be taught to see nature in all her diversity as a unit, as a great liv- ing whole, as one thought of God. The integrity of nature as a continuously self-developing whole must be shown him at an early period. Without a knowledge of this unity in the activities and forms of nature, it is impossible to attain or to impart a genuine knowledge of human history. 

Froebel’s Emphasis upon Individual Differences

In complete agreement with Rousseau, Froebel stated that the over-all and fundamental aim of edu-
cation is development — development of the inborn capacities and powers of the child. But he was wholly opposed to the pure naturalism of Rousseau in his explanation of this aim. Stripped of its ele-
ments of mysticism, his explanation was to the ef-
flect that there is one underlying power in the uni-
verse, God, which manifests itself as force in

34Froebel, op. cit., pp. 198-199.
nature and consciousness in man. Consequently, nature and man are one, and a study of changes in the evolutionary processes of nature throws light upon similar changes in the development of man. From this concept Froebel derived his numerous hidden meanings which he was constantly discovering in natural objects, and which he considered to be of inestimable value in revealing the world to the child. Humanity as a whole is contained and revealed in each child, but in a particular, unique way characteristic of the individual; therefore, education must provide for the development of the free personality of every child, it must guide but not restrict, it must not interfere with the divinity that resides in each child. 35

Froebel's conception of the sacredness of the child's individuality is one of the outstanding characteristics of his educational philosophy. He taught that every child possesses his own special, distinct powers and interests and that the best educational procedure is that which recognizes the individuality

of the child and allows it to develop according to its natural inclinations. He regarded the continued coercion of another person, either parent or teacher, as a severe injustice to the child which is restrictive to his full development and which thwarts his natural tendencies and frustrates his abilities and interests. He condemned all disciplinary measures which interfere with the child's sense of perfect freedom. Free growth, he believed, is the only full growth. At the same time, however,

He did not advocate giving the child unrestrained liberty to do wrong. He rejected the theory that children love to do wrong better than right, and regarded the transference of interest on the part of the child from wrong to right as the foundation on which true training is based. The power to transfer interest naturally from wrong to right is the greatest power of the parent or teacher in co-operating with the child in its own moral and intellectual culture. 36

The individual power possessed by each child is intended to guide the child's energies. It does guide them until some strong authority is imposed upon the child to cause him to act in ways other than those indicated by his individuality. When such authority is imposed, when the individual inclinations of the child for activity and self-expression

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are thwarted, his selfhood gradually weakens because of lack of exercise and the child becomes listless and indifferent. An indolent child is an unnatural child. Indolence among children is in most cases the result of their inability to develop and express themselves in accordance with their individuality. The child receives pleasure from energetic effort at productive work when he is allowed to exercise self-stimulation and self-direction. The individual's powers for self-stimulation and self-direction, however, are weakened by lack of opportunity for activity, and in such situations the child ultimately becomes inert, and reacts mainly in response to external stimuli which authority imposes upon him.

"There is little use in training the child's receptive powers or its reflective powers unless its personality is trained at the same time to set them in motion and guide them aright."\(^{37}\) As Froebel wrote, "For does not even the work of man imply the independent development of the spirit and thought it holds?"\(^{38}\)

\(^{37}\)Ibid., pp. 90-91.

\(^{38}\)Froebel, op. cit., p. 158.
All that man is ever to become lies hidden, however indistinctly revealed, in the nature of the child. Froebel looked upon man as a "human plant." The purpose of the educator, then, is to control or guide the growth of the child into a well-rounded adult personality, just as the gardener controls the growth of a plant to the point of its full flowering and fruition. The aim of the teacher is to see to it that the development of the individual child is in accord with the original and logical course of human development. Failures in the educational program come about when teachers in some way neglect or prevent the development of certain sides of the child's nature, or when they, by arbitrary or willful interference, distort the inherently good human powers and tendencies with which the child is endowed.\(^39\)

Educators, then, have the tremendous responsibility of directing young lives into channels of effort where their total development is fostered to the best advantage, without frustration or the imposition of adult authority to thwart and misdirect the child's

\(^{39}\)Wilds, *op.cit.*, p. 472.
innate needs, interests, and capabilities. Through lack of understanding of the individual child, adults often are guilty of misdirection.

Froebel was convinced that the child, in his creative efforts, does not see the outer forms which he is to take in and comprehend; but, instead, he finds in his work the expression of his own spirit, and his efforts take on the activities developed within his own mind. For the purpose of teaching and instruction, said Froebel, is or should be to bring more and more out of man rather than to put more and more into him. That which goes into man in the form of knowledge and learning is the common property of the human race, and everyone, simply because he is a human being, will have more or less experience with this common knowledge. On the other hand, what can come out of man in the form of creative effort is not common property of the race at all, but varies with the individual. Therefore, mankind absorbs the common culture of the race, but the individual synthesizes this culture and through his own productive work creates that
which is new and different — something which is peculiarly and characteristically his own, something which cannot be exactly duplicated by anyone else.

"... human nature, like the spirit of God, is ever unfolding its inner essence," said Froebel. 40

He was emphatic in his condemnation of the idea that all children should have the same educational experiences, that they should be expected to develop in exactly the same way, and that education should require the individual to conform to a set pattern.

In this connection he wrote:

It is unspeakably pernicious to look upon the development of humanity as stationary and completed, and to see in its present phases simply repetitions and greater generalizations of itself. For the child, as well as every successive generation, becomes thereby exclusively imitative, an external dead copy — as it were, a cast of the preceding one — and not a living ideal for its stage of development which it had attained in human development considered as a whole, to serve future generations in all time to come. Indeed, each successive generation and each successive individual human being, inasmuch as he would understand the past and present, must pass through all preceding phases of human development and culture, and this should not be done in the way of dead imitation or mere copying, but in the way of living, spontaneous self-activity. Every human being should represent these phases spontaneously and freely as a type for himself and others. For in every human being, as a member of humanity and as a child of God, there lies and lives humanity as a whole; but in each one it is realized and expressed in a wholly particular, peculiar, personal,

40 Froebel, op. cit., p. 279.
unique manner; and it should be exhibited in each individual human being in this wholly peculiar, unique manner, so that the spirit of humanity and of God may be recognized ever more clearly and felt ever more vividly and distinctly in its infinity, eternity, and as comprehending all existing diversity.

Only this exhaustive, adequate, and comprehensive knowledge of man and of the nature of man, from which diligent search derives spontaneously, as it were, all other knowledge needful in the care and education of man — only this view of man, from the moment of his conception, can enable true, genuine education to thrive, blossom, bear fruit, and ripen. 41

The spirit of man is related to the work produced by him, Froebel believed, in the same way as the spirit of the artist is breathed into his creation. He points out that the artist's creation contains no material part of the artist within it, yet "the work of art as such carried within itself the whole spirit of its artist in such a way that this spirit lives in this work, is expressed by it and exhaled by it, is even breathed by it into others, where it may live, be developed, and cultivated." In like manner, too, the educator goes on to say, the spirit of God rests in nature, "is communicated by nature, is developed and cultivated in nature — yet nature is not the body of God." 42 Thus it is apparent that the artist cannot be separated from his creation, the man from his

41 Ibid., pp. 17-18. 42 Ibid., pp. 154-155.
work, or God from nature. The creative spirit of the individual rests and lives in the work he produces, and this work is determined by the individual human spirit that motivates it.

Mankind is meant to enjoy a degree of knowledge and insight, of energy and efficiency of which at present we have no conception; for who has fathomed the destiny of heaven-born mankind? But these things are to be developed in each individual, growing forth in each one in the vigor and might of youth, as newly created self-productions.

The boy is to take up his future work, which now has become his calling, not indolently, in sullen gloom, but cheerfully and joyously, trusting God and nature, rejoicing in the manifold prosperity of his work. Peace, harmony, moderation, and all the high civil and human virtues will dwell in his soul and in his house, and he will secure through and in the circle of his activity the contentment for which all strive. 43

Creativity as a Vital Phase of Learning

The chief emphasis of Froebel's educational philosophy was that of the need of creativity on the part of the individual. The child should be encouraged to make things, to construct objects, to give expression to his thoughts by means of painting, carving, modeling, and building. In Froebel's conception, this principle of creativity was synonymous with what he called self-activity, since both concepts

43 Ibid., p. 233.
were designed to give expression to the individuality of the learner. Through self activity the child is to become creative; through creative activity he is to give expression to his self and foster its development.

Froebel made many positive declarations of his certainty regarding the invaluable educational contributions to be made by creative work, which is now one of the basic features of the modern child-centered-school movement. He also planned his school day so as to provide for typical subject-matter instruction and for motor and creative activities—a program such as that now carried out by many of the most modern schools. 44

Said Froebel: "We claim to be practical men, and we fail to understand the requirements of genuine, true, practical life." 45 His implication here was that creative activity is the very essence of practicality, yet it is so often thwarted and smothered by parents and teachers who wish to make the

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45 Froebel, op. cit., p. 330.
children into stereotypes instead of individuals. Hughes quotes Froebel as saying on one occasion:
"Man is a creative being. . . . We must launch the child from its birth into the free and all-sided use of its powers." 46

Froebel went back to the ultimate origin of things for justification for his theory of creativity. His faith in God was ever present in his teachings and in his writings, and he accepted God as the ultimate source of all matter and of all life. He made no effort to explain God or His characteristics; he simply accepted them through faith and recognized God's existence as a power to be reckoned with in human life. The fact that God is the Great Creator of all things, that He personally brought man into existence and endowed him with some of His own spirit and power, is sufficient incentive for Froebel to declare that man should utilize this divine power in the manner in which God intended; namely, through creative activity. Thus man can become a creative being like God, though on a much lesser scale. To

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46 Hughes, op. cit., p. 84.
support his theory and to clarify his meaning, Froebel wrote:

God created man in his own image; therefore, man should create and bring forth like God. His spirit, the spirit of man, should hover over the shapeless, and move it that it may take shape and form, a distinct being and life of its own. This is the high meaning, the deep significance, the great purpose of work and industry, of productive and creative activity. We become truly godlike in diligence and industry, in working and doing, which are accompanied by the clear perception or even by the vaguest feeling that thereby we represent the inner in the outer; that we give body to spirit, and form to thought; that we render visible the invisible; that we impart an outward, finite, transient being to life in the spirit. Through this godlikeness we rise more and more to a true knowledge of God, to insight into his Spirit; and thus, inwardly and outwardly, God comes ever nearer to us. Therefore, Jesus so truly says in this connection of the poor, "Theirs is the kingdom of heaven," if they could but see and know it and practice it in diligence and industry, in productive and creative work. Of children, too, is the kingdom of heaven; for, unchecked by the presumption and conceit of adults, they yield themselves in childlike trust and cheerfulness to their formative and creative instinct. 47

Hughes, in writing of Froebel's ideas concerning the importance of creative activity, points out that Froebel regarded creativeness as the all-inclusive mental operation, knowing that it requires the exercise of both the reasoning and receptive powers.

Froebel's friend and co-worker, Barop, wrote:

The awakening of this eager desire for learning and creative activity was one of the fundamental thoughts of Frederick [sic] Froebel's mind. The object teaching of Pestalozzi

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47 Froebel, op. cit., p. 31.
seemed to him not to go far enough; and he was always seeking to regard man not only as a receptive being, but a creative and especially a productive one. 48

As already indicated, Froebel had a profound faith in the existence and creative power of God. In fact, he began his book on The Education of Man with an expression of his belief that God is in all things, that He is the unifying force in the universe, and that all things have their existence in and through God. It follows, then, that he could not conceive of education apart from its religious implications. Creative work was to him the highest expression of religion, for it indicated to him the exercise of God's divine creative power residing within the individual. Thus he could write that

Early work, guided in accordance with its inner meaning, confirms and elevates religion. Religion without industry, without work, is liable to be lost in empty dreams, worthless visions, idle fancies. Similarly, work or industry without religion degrades man into a beast of burden, a machine. Work and religion must be simultaneous; for God, the Eternal, has been creating from all eternity. 49

From this it follows that ineffective work may be the result of lack of religious feeling; or lack of religious feeling may come from the fact that man does

48 Hughes, op. cit., p. 250. 49 Froebel, op. cit., p. 35.
not exercise his God-given powers for creative effort. The two, said Froebel, are simultaneous and co-existent; thus, when either creative activity or religion is weak or thwarted, the other suffers.

He was convinced that early in life the young, growing human being should be trained for so-called "outer work," thus giving expression in creative and productive activity to the "inner work" of his mind and his individuality. This early work should begin in the home as soon as the child is old enough to share family duties and responsibilities. Most children are eager to help about the house, and if they are encouraged to do so, the experiences they gain will be invaluable to them in the development of personality and character. In this manner the young human being becomes aware that human life is a cooperative affair, that he can make a contribution of his own to the total welfare of his family group, and that he is welcomed by the group as one who can carry his share of responsibility. Such happy cooperative effort among family members is one of the joys of home life, and the child should recognize

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50 Ibid., p. 34.
early in life that he has a place to fill within the home. Thus he will gain a sense of personal worth, and, if his efforts are appreciated and often commended, he will be led to make larger and larger contributions to the life of the family as he grows older and his abilities are developed. Froebel pointed out that many of the earliest activities of the very young child are imitations of domestic life, and that as he grows older the child will cease imitating and begin the actual doing of these home duties. An intimate picture of the ideal learning situation within the home, indicating happy comradeship between father and son, was painted by Froebel in the following paragraph:

If in his former activity (in childhood) he imitated phases of domestic life, in his present activity (in boyhood) he shares the work of the house — lifting, pulling, carrying, digging, splitting. The boy wants to try his strength in everything, so that his body may grow strong, that his strength may increase, and that he may know its measure. The son accompanies the father everywhere — to the field and to the garden, to the shop and to the counting-house, to the forest and to the meadow; in the case of domestic animals and in the making of small articles of household furniture; in the splitting, sawing, and the piling up of wood; in all the work his father's trade or calling involves. Question upon question comes from the lips of the boy thirsting for knowledge — How? Why?
When? What for? Of what? — and every somewhat satisfactory answer opens a new world to the boy. 51

Thus the youth learns much in the daily activities of the home, under the guidance and interest of his parents; and Froebel had bitter words for the parent who will not be "bothered" with his children, who will not show them how to do things, who will not be a companion to them, and who is impatient when the child seeks knowledge by means of questions or by desiring to be shown how to do things. Froebel believed that the greatest of all educational institutions is the home in which parents are patient with their children and encourage them to enter into the daily activities of the family, though their efforts may be inadequate and their accomplishments inferior.

In spite of his recurring emphasis upon creative and productive activity, upon manual labor, it is a mistake to think that Froebel was concerned only with motor activity, only with the developing of manual, vocal, or general muscular abilities. He maintained that in any creative activity the memory,

51Ibid., pp. 101-102.
the imagination, the perception, the reasoning, the will, and the feelings are all co-operating with the sense organs, the nerves, and the muscles. Since all of these are exercised in unity of purpose and activity, he considered the development of productive or creative activity as the most important and fundamental type of education. 52

Man is developed and cultured toward the fulfillment of his destiny and mission, and is to be valued, even in boyhood, not only by what he receives and absorbs from without, but much more by what he puts out and unfolds from himself.

Experience and history, too, teach that men truly and effectively promote human welfare much more by what they put forth from themselves than by what they may have acquired. Every one knows that those who truly teach, gain steadily in knowledge and insight; similarly, every one knows, for nature herself teaches this, that the use of a force enhances and intensifies the force. Again, to learn a thing in life and through doing is much more developing, cultivating, and strengthening, than to learn it merely through the verbal communication of ideas. Similarly, plastic material representation in life and through doing, united with thought and speech, is by far more developing and cultivating than the merely verbal representation of ideas. . . .

The life of the boy has, indeed, no purpose but that of the outer representation of his self; his life is, in truth, but an external representation of his inner being, of his power, particularly in and through (plastic) material. 53

Thus Froebel emphasized the developmental nature of education and stressed the fact that the primary

aim of instruction should be to foster self-expression and not to impart as much knowledge as possible. The self should be drawn forth by means of individual expression in creative activity. Doing the thing is what counts, not reading about how someone else does it or about how it should be done. Actual personal experience by means of individual effort is worth far more, educationally, than the mere learning of facts apart from their practical use. In the above quotation Froebel gave expression to the value of individual experience as the most desirable of all forms of education; and we can see foretold here the modern emphasis upon experience in learning situations, and we can also hear Froebel saying, in the modern phraseology, "Learn to do by doing." He was the first educator to place great emphasis upon the value of experience as an expression of individuality through creative activity. He believed that "the life given them [children] by their heavenly Father still lives in them in its original wholeness — its free unfolding is still possible with them."  

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54 Ibid., p. 280.
Thus he was concerned primarily with the unfolding of the personality through self-expression and productive activity. Education, he believed, should bring out the best within the individual and give it an opportunity to develop to its utmost. Never should the educational situation stifle the interests and needs of the children—what he called the "inner wants"—but instead it should recognize them and seek to develop them. The child will learn best through doing something that he wants to do, rather than through a dull recitation of facts.

Pestalozzi, accepting the idea of physical activity as advocated by Rousseau, had organized limited industrial education for the poor but had neglected such training for the middle- and upper-class children, and had used objects in such a way that their use, instead of involving active manipulation, tended to degenerate into passive observation and description. He did provide some worth-while organized activity in such fields as music and drawing. Froebel, on the other hand, made his principal improvement on Rousseau's methods by organizing
classroom work into activities and making motor expression fundamental instead of incidental. Instead of reading and listening only, children in his schools and under his system were to make things and to participate in numerous co-operative group activities. He hoped to develop the idea of activities as central in the education of all children, and presented in some detail his theories along this line. Although an actual school did not result from his planning in which he could embody his ideas concerning the pre-eminence of constructive activities, his concepts are extremely important historically, as they were one of the singularly significant sources of the later manual-training and industrial-arts movements. 55

He believed that any "universal and comprehensive plan of human education" must necessarily consider such artistic pursuits as singing, drawing, painting, and modeling; and such activities should be inaugurated when children are very young. These pursuits should not be regarded as time-killers,

the result of "arbitrary, frivolous whimsicalness," but they should be looked upon as serious responsibilities of the school. The object, of course, is not to be to make artists of the pupils in one or all of these fields, but "to secure to each human being full and all-sided development, to enable him to see man in the universality and all-sided energy of his nature, and, particularly, to enable him to understand and appreciate the products of true art." In this connection, again, Froebel emphasized that the spirit of the artist permeates his work and makes it what it is. In the same way the pupil, creating something with paints, blocks, paper, clay, or wood, instills within his work a portion of his personality and his spirit, so that what he creates is peculiarly his own. The artist desires to bring his work to human beings who will be inspired by his accomplishments to develop and nourish the creative spirit within themselves and give it tangible expression. In like manner, the child who engages in creative activity and is pleased with what he produces receives further incentive to create again, to make

56 Froebel, op. cit., p. 228.
something else, to put himself more completely into his work. 57

Building in its simplest form Froebel called "aggregation," or the putting together of smaller units to make a larger whole, as in the use of blocks by young children. Such building is among the first experiences of children. From their building activities, they soon learn to recognize the importance of vertical, horizontal, and rectangular principles of construction although they do not know the terms. Later come concepts of equilibrium and symmetry. As the child grows older, his building activities develop from the construction of the simplest wall with boards, boxes, or blocks, to more complex forms of building. Froebel insisted that children should be supplied with many materials with which to work in order that their creativeness may find expression in the most natural forms. If the child is given plenty of materials to work with and if he is encouraged to exercise his initiative in using these materials, he will develop energy, judgment,

57 Ibid., p. 156.
perseverance, and prudence, which are indispensable elements of his education. On the other hand, a lack of materials and opportunities for activity is a severe handicap placed upon the child, for, as Froebel says: "... idleness, ennui, ignorance, brooding, are the most terrible of poisons to growing childhood and boyhood, and their opposites a panacea for mental and physical health, for domestic and civil welfare." 58

Froebel gave a wide assortment of materials to the child in order to arouse and develop his creative faculties and to provide varied and definite experiences for him. To make them the basis for the enlargement of the mind and the development of originality is the highest use that can be made of materials, and Froebel utilized them in this manner.

His aim was not mind storing, nor the increase of strength in the receptive powers of the mind. He recognized the need of mind storing and faculty training, but he saw that he could secure these advantages most definitely and most naturally by making them essential processes in a wider, higher ideal. Creative self-activity was Froebel's inclusive ideal. ... Creative self-activity is at once the most natural, the most comprehensive, and the most stimulating mental occupation. ... He accomplishes mind storing and faculty training more thoroughly than Pestalozzi,

58 Ibid., pp. 282-283.
and at the same time he uses material things as agencies for self-revelation and self-expression. 59

Froebel's purpose was to maintain a balance between the intellectual and the practical. In his conception, the child formulates or accepts some plan and then he executes it; he has a thought and then he expresses it in concrete form. "His purpose . . . might be said to be to secure and maintain a balance between the cognitive or intellectual and the volitional or practical aspects of the experience of the individual." 60

Froebel aimed to communicate knowledge, to illustrate abstractions, to arouse, define, and strengthen the observant or receptive powers, and to train the reflective or reasoning powers by his objective work. But he aimed to do much more than this. These are but steps leading to man's highest mental function, originality, creativity, or the revelation of individuality by productive self-expression. Froebel used material things to reveal self-hood, and the assimilation of knowledge, the increase in the power, the accuracy and the quickness of the receptive faculties, and the improvement of the reasoning powers resulted as absolutely necessary accompaniments of the creativeness. 61

Froebel's Doctrine of Self-activity

Although Froebel was convinced of the existence of individual differences and although he was certain

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59 Hughes, op. cit., pp. 20-21. 60 MacVannel, op. cit., p. 94.

61 Hughes, op. cit., p. 250.
that education must be made to fit individual needs, interests, and abilities, he was at the same time a proponent of the doctrine of self-activity in the midst of social situations. Whereas he believed in the fundamental worth of the individual and in the all-round development of the whole self, he realized that such growth could occur only in social situations. He worked out in practice one of Rousseau's basic ideas—that of education through motor expression—and corrected Rousseau's error in advocating individual or non-social education. Through these ideas—motor activity and social participation—Froebel made profoundly important contributions to the curriculum and to educational method. 62

Much of Froebel's doctrine of self-activity has already been indicated in the discussion of his philosophy of creativity. In this present section most of the material to be presented consists of other writers' interpretations of what is implied by the doctrine of self-activity.

Perhaps the briefest of all Froebel's assertions concerning self-activity is his simple declaration

62 Burton, op. cit., p. 620.
of the necessity for recognizing and providing for self-activity: "For the living thought, the eternal divine principle as such demands and requires free self-activity and self-determination on the part of man, the being created for freedom in the image of God." This implies his oft-cited conception that freedom to act and freedom to engage in self-expression through activity are allied with man's peculiar nature as special creations of God, who endowed man with the ability to act freely during the course of life. The translator of The Education of Man, in a note, defines Froebel's concept of self-activity as follows:

Self-activity, in Froebel's sense of the word, implies not merely that the learner shall do all himself, not merely that he will be benefitted only by what he himself does; it implies that at all times his whole self shall be active, that the activity should enlist his entire self in all the phases of being. The law of self-activity demands not activity alone, but all-sided activity of the whole being, the whole self.

Froebel emphasized the values of education through concrete activities as opposed to education through abstract ideas. His principle involves, first, the preparation of thoughts by activities, and,

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63 Froebel, op. cit., p. 11.
64 Ibid., translator's note, p. 11.
Second, the application of thoughts in activities. He emphatically stressed the constructive arts, not (as did Rousseau) from vocational motives, but because he saw in creative activities something divine, as God himself is the original and Great Creator. Froebel said: "In order to understand the Creator, man must be in a position to create after him, man must himself be relatively a creator." He believed that it is far better for the teacher to put the child in a situation in which he can work out the answers for his own questions rather than for the teacher to answer all questions that arise. 65

He believed that "self-activity, or doing, leads to feeling and knowing, and is therefore the dynamic factor in education." 66

Froebel's ideal of self-activity is distinctively his own. No writer before his time conceived the idea, and few writers since have thoroughly understood it. When it is grasped in its full meaning by educators it will remove more weaknesses and errors from the methods of teachers, and form the basis of greater reforms than any other educational principle. It must not be confounded with the activity of the child in performing operations in response to the command or suggestion of its teacher or any other person. It is the spontaneous effort of the child to make manifest to itself and others the inner conceptions and operations of its

66 Henderson, op. cit., p. 286.
own mind. In true self-activity the motive or impulse that causes the action originates with the child itself. Other educators saw the necessity for training the child to act; Froebel saw that the child should be trained to act independently. Other educators aimed to develop power to perform certain operations; he gave power to direct operations in addition to the power to perform them. He trained the will to direct the activities of the being. He developed tendency to do, wisdom in deciding what to do, and will to govern the doing, in connection with the operations that have been used by other educators to develop only skill in execution. Other educators gave the child power to do its part well under certain conditions; he not only gave this, but also the power to mold conditions, to see opportunities, and to choose those best suited to individual taste and ability. He increased spontaneity of will action and expertness in execution at the same time; other educators have aimed to develop them separately or have failed altogether to give attention to the former. 67

By self-activity Froebel meant more than mere activity. He surely sought simple activity in response to suggestions or instructions from parents or teachers; but, in addition, he emphasized the activity of the child in carrying out his own impulses, interests, and decisions.

Individuality must be developed by this activity, and self-hood given its rightful place as the guide to the child’s powers when exercised in learning. It is not sufficient that the learner shall do all for himself, but activity must enlist the entire self in all its phases of being. 68

One of the essential principles of self-activity as conceived by Froebel is that the activity must

67 Hughes, op. cit., pp. 7-8.

68 Frank Pierrepont Graves, Great Educators of Three Centuries, p. 213.
never be allowed to degenerate into mechanical drudgery. Through what he called "creative productivity" he hoped that both children and adults would be happy at their work. Work, he said, should never become slavery. In the ideal society as he envisioned it, after humanity has become truly a unity, work will be regarded as joyous, productive activity. He attempted to prepare for this ideal condition by causing children to love work, which for them he made the external manifestation of the inner, creative life. When a child becomes conscious of its own original power, it has taken an important step in its religious and social evolution. To Froebel, creative self-activity is a religious exercise because it lays the foundation for an understanding of the individual's unity with God by revealing to the child that he possesses, in however small a degree, one of the divine attributes of God himself—that of creativity. 69

Froebel believed that

The inner life is co-ordinated and classified, emotion and thought are related, and propulsive power is developed by

69 Hughes, op. cit., p. 113.
the process of conscious self-expression in any form — language, music, drawing, modelling, or construction. The aroused inner life is worse than wasted if it finds no means for expressing itself in outward form. It leaves in the mind a record for indistinctness and confusion and a habit of inertness, or conceiving without bringing forth, of planning without producing.

Expression in which there is no selfhood leads to enfeeblement of character. The more fully expression is self-revelation the more it develops selfhood and the more it defines and classifies knowledge. 70

Human life, according to Froebel, may be viewed as an interaction of knowing and doing. From this point of view it was not the mere doing that Froebel thought to be so valuable an educational experience, but the accompanying socialized activity that brings the individual into a realization of mastery in both the intellectual and the practical spheres of experience. Froebel conceived of creative activities not as individual experiences but as group projects or socialized endeavors. Individuals interact upon each other, and from this interaction come the creative activities in which they engage. 71 He believed that

The child's chief characteristic is self-activity, activity determined by his own interests and desires. Hence education should build upon this primary instinct; the child should

learn, but learn by doing. Froebel made a great step in advance over Pestalozzi, for the latter's sense-perception instruction was chiefly a matter of passive observation. Froebel, on the contrary, was strong in his emphasis upon motor-expression, education by doing, as having the greatest developing power, and therefore made it the essential instead of the incidental factor in school work. . . . With Froebel motor-expression was not one step but all steps in the educative process. The education of his day he considered defective, because it developed the powers of thinking faster than the power of realizing thought in action. Motor-expression developed the powers of acquisition and accomplishment together, hence there was no break between thought and action. 72

At first thought the self-activity doctrine of Froebel may perhaps appear to be similar in its implications to Rousseau's doctrine of the "return to nature," but such is not the case. Rousseau, disgusted with the unjustified restraints and artificiality of civilization, had gone to the extreme of saying that there should be no control over the young human being except that of his own conscience, his own will, and his own inclinations. Thus his idea of the "return to nature" implied an overthrow of all social restraints upon the individual and the resulting freedom to do as he pleased. The consequent state of anarchy in education in those schools which adopted Rousseau's doctrines is well known to students

72Duggan, op. cit., p. 259.
of philosophy. Also, its short-lived reign in its extreme form as advocated by its author indicated that the idea of the "return to nature" was impractical and impossible in a social order. Rousseau's successors, however, found much to admire and adapt in the philosophy of this great thinker, and much of the liberalism in education which characterizes the schools today is the result of Rousseau's break with formalism and tradition.

Froebel, it should be pointed out in this connection, felt that a modified conception of Rousseau's "return to nature" was justifiable and desirable, but he called it "self-activity." He did not go along with Rousseau, however, in saying that free self-activity should mean unrestricted liberty. He looked upon freedom within the law as the only true freedom. All of his work and his emphasis upon the creative activities of the individual and the exercise of personal inclinations were for the purpose of revealing the great truth that he sought to establish—that even creativity must be subject to definite law. 73

73 Hughes, op. cit., pp. 113-114.
A concise clarification of his concept is presented by Hughes as follows:

The aim of Froebel was to make the school the "free republic of childhood," in which the child should be a self-active agent, guided by a teacher wise enough to direct it without making it conscious of interference, and to place it in conditions to define its recognition of law, and at the same time give ample scope for its originality. There may be life under law or deadness under law. Froebel wished to have law always and everywhere, but with it he demanded the right of the child to free life, positiveness, and self-direction, instead of coercion, negativeness, and mechanical following. He reverenced the individuality of the child, and he knew that spontaneity was the only perfect basis for the growth of individuality; he aimed to give individuality the power of self-direction, and therefore he insisted upon freedom of will action as the only foundation for the growth of the will; but he recognised the universality of law, and he made it the duty of the trainers of childhood to reveal law in its beneficence, and not in its enslavement. Like every good, law may be a blessing or an evil. Froebel aimed to make law aid in developing constructiveness instead of destructiveness; in guiding, not merely in restraining. The coercive teacher or parent recognises only the restrictiveness of law. That is its dark side. The highest art of the teacher may be shown in revealing "the perfect law of liberty"; in guiding the child through its years of weakness to complete self-control, so that no step may interfere with the development of selfhood, and yet every step lead to a consciousness of law. The outer control should gradually vanish as the inner develops.  

Rightly understood, as Froebel conceived of them, control and spontaneity work in perfect harmony. Spontaneity does not mean freedom from law, but freedom through law, in accord with law. Productive

74 Ibid., pp. 158-159.
spontaneity can never be in opposition to law, as it can exist only in conformity with law. Law and liberty are inseparable. "They are giants whose union produces life and growth. The 'law of liberty' is the perfect law."75

Froebel believed that children should be controlled but not dominated, they should be guided but not coerced. He based his idea upon the belief that wise and definite control or guidance by a superior personality develops the will power and personality of the child and qualifies him to direct his own life when he attains maturity. Froebel departed from the doctrines of Rousseau when he said that the feelings and passions of a child, if unchecked and undiverted into wholesome channels, sweep in an unrestrained or destructive torrent over the child's undeveloped will; lack of control becomes habitual; selfishness and self-will act automatically, and power of character is lost. Energies are expended in worthless or degrading directions, and the individual profits nothing from his unguided experiences.

75Ibid., p. 160.
The energy of the youthful character must be guided and directed by an enlightened will in order to become a force for good. The child's will is neither sufficiently strong nor sufficiently enlightened to guide its activities and control its powers in the absence of sympathetic adult guidance and direction. Uncontrolled forces within the personality lead surely to ruin and disaster for the individual; and if these occur en masse, ruin and disaster result for society. Froebel lamented the fact that so much of nature's physical force remained unharnessed and unused, but, in the words of Hughes, he believed that "the saddest sight in the world is an uncontrolled soul."

However, even though control and guidance by a superior will are essential and natural, such control should never prevent the full development of spontaneity of the individual character. There is absolutely no justification for dwarfing a human soul by controlling it beyond reason or necessity. The child's individuality cannot be weakened without fatal consequences to his personality. Each child
is endowed by the Creator with an individuality of its own, which is a portion of the divine within it. If this be true, it follows that this individuality cannot be marred or misdirected without interfering with God's plan for that human life. "God's will is never a substitute for man's will; neither should the will of the teacher be in any way a substitute for the will of the child. The teacher's will may direct the child's will, but never safely act in its stead." 76

Froebel did not imply by his law of spontaneity that the child has to acquire all knowledge by itself without the aid of a teacher. Instead, he was willing to acknowledge the true function of instruction, but he insisted that no knowledge or instruction ever really becomes a content of the child's mind until the child has made a creative use of it in some way. Froebel's lessons always had two parts, the instructive and the creative. The teacher is the source of new instruction, and as soon thereafter as possible the child makes an original use, application, or modification of that knowledge. The child

76 Ibid., pp. 161-162.
is far more interested and attentive when using knowledge than he can possibly be while receiving knowledge. This idea was the basis of Froebel's doctrine of self-activity.

His system contained a type of education more in harmony with the spirit of democratic society than that formulated by any of his predecessors and by few of his successors. He himself declared, as a matter of fact, that the spirit of the American people was the only one in the world with which his system of education was in complete harmony. He said that America could adopt his plan without the necessity of making any changes in the established social institutions, which could not be said for any other country. For this reason he predicted that the United States would in time readily adopt his educational theories and bring them to full development. That he was an accurate prophet has been proved by the passage of time.

Froebel's theories and practices were based on the fundamental educational concept that the pupil's

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77 Ibid., pp. 43-44.  
78 MacVannel, op. cit., p. 115.
self-activity should be utilized to the utmost and made to contribute to educational, moral, and social goals. A natural extension of this idea into the upper grades, after about 1880, brought about manual-training activities and the manual-arts high school. 79

Froebel's system of education was democratic in that each individual was to be recognized for what he was, he was to have the opportunity of developing his own interests and needs, and he was to exercise his individuality in creative activity of the type which was natural for him.

Self-activity, including the origination as well as the execution of the motives, was well chosen by Froebel as the fundamental process of his system. It arouses the only perfect interest and attention; it makes the mind aggressively active in regard to new knowledge, and therefore secures the most thorough apperception; it leads to the most complete correlation of the subjects of study; it develops selfhood, and reveals it to both teacher and pupil; it encourages self-faith and self-reverence by giving a consciousness of original, creative power; it makes productive work an expression of joyous attitude; it is the elemental law of human growth. 80

The Value of Work in Education

Froebel believed that, by means of education, it is possible to develop children harmoniously in all

79 Ellwood P. Cubberley, An Introduction to the Study of Education and to Teaching, p. 16.
80 Hughes, op. cit., p. 120.
of their powers, physical and manual as well as mental. Education to him was a "development of unfolding," by means of which children may attain their full powers under skilled adult guidance and encouragement. They should be permitted to engage in their own activities in subject-matter fields whose relation with one another and with life has been carefully worked out. The school should provide such a course of training as will meet the laws of development and the laws of life. Self-expression and self-development should be the guiding principles of the educator, and many free activities and opportunities for creative work should be provided.\footnote{Robert L. Cooke, Philosophy, Education, and Certainty, p. 159.}

One of the cardinal principles of Froebel's philosophy was that "at no time should boys be unoccupied."\footnote{Froebel, op. cit., p. 114.} He recognized the material necessity of work in order to provide for the physical needs of the human body, but he insisted at the same time that such was not the highest purpose of labor. Work, for Froebel, was the outward expression of
man's spiritual, divine nature or essence. The true value to be obtained from work, he declared, is a realization on the part of the individual that his work represents himself, his own essence, that part of the creative force of God which resides within him personally. With this ideal conception of work on the part of man, "whatever food, clothing, and shelter he obtains thereby comes to him as an insignificant surplus."\textsuperscript{83} Work, then, for Froebel, was most important for its spiritual significance. It reveals the inner nature of man and gives expression to his individuality. Work is most valuable for the sense of well-being and satisfaction that it brings to the one who does it, and not for the money that he earns in its performance.

Froebel never faltered in his conviction that work is vitally essential for the spiritual development of man as well as for his physical sustenance. At the same time, of course, he felt that education should prepare the youth to earn his living by teaching him how to perform various occupational tasks

\textsuperscript{83}\textit{Ibid.}, p. 32.
satisfactorily. In connection with his philosophy of work he wrote as follows:

The activity of the senses and limbs of the infant is the first germ, the first bodily activity, the bud, the first formative impulse; play, building, modeling, are the first tender blossoms of youth; and this is the period when man is to be prepared for future industry, diligence, and productive activity. Every child, boy, and youth, whatever his condition or position in life, should devote daily at least one or two hours to some serious activity in the production of some definite external piece of work. Lessons through and by work, through and from life, are by far the most impressive and intelligible, and most continuously and intensely progressive both in themselves and in their effect on the learner. Notwithstanding this, children — mankind, indeed — are at present too much and too variously concerned with aimless and purposeless pursuits, and too little with work. Children and parents should not consider the activity of actual work so much to their disadvantage, and so unimportant for their future conditions in life. Educational institutions should make it one of their most constant endeavors to dispel this delusion. The domestic and scholastic education of our time leads children to indolence and laziness; a vast amount of human power thereby remains undeveloped and is lost. It would be a most wholesome arrangement in schools to establish actual working hours similar to the existing study hours; and it will surely come to this. By the current practice of using his powers so sparingly and in reference only to outer requirements, man has lost their inner and outer measure, and, therefore, fails adequately to know, appreciate, respect, and faithfully guard them. 84

In 1829, in his outline of plans for a proposed new school, Froebel again emphasized the force which he would allow to handwork in education, and outlined its fundamental role in learning:

84 Ibid., pp. 34-35.
The institution will be fundamental, inasmuch as in training and instruction it will rest on the foundation from which proceed all genuine knowledge and all genuine practical attainments; it will rest on life itself and on creative effort, on the union and interdependence of doing and thinking, representation and knowledge, art and science. The institution will base its work on the pupils' personal efforts in work and expression, making these, again, the foundation of all genuine knowledge and culture. Joined with thoughtfulness, these efforts become a direct medium of culture; joined with reasoning, they become a direct means of instruction, and thus make of work a true object of instruction. 85

In his discussion of the value of work Froebel pointed out that, within the family circle, the child sees the parents and other members of the family going about their various household tasks, and in the fields he sees people at other occupations, whereas in the towns most of the people seem to be working at some task, producing something, doing something. The child, early in life, is largely an imitative being, and consequently he begins to desire to do some work in the same manner as he sees others about him working. "He would like to represent—and tries to do so—all he sees his parents and other adults do and represent in work, all which he thus sees represented by human power and human skill." 86

85 Ibid., p. 38. 86 Ibid., pp. 98-99.
Froebel saw, far more clearly than any one else had done before him, the unutilized wealth of the child's world; that the child's chief characteristic is self-activity; and the desirability of the child being led to find himself through directed play and activities. The kindergarten, with its motor-activity and learning by doing, was his great contribution. With individual development as its aim, motor-expression as its method, and social co-operation as its means, he created a new school for the child of pre-school age and did much to direct the thinking of mothers toward a new study of child life — to a study of what children really are now, rather than to what they should later become. 87

As an aid to the imitative inclination of the young child, Froebel developed his system of so-called "gifts" and "occupations" to be used in the kindergarten or in the home with pre-school children to encourage them to employ their initiative, imagination, and skill in producing something tangible to give expression to their inner desires to work as they see others about them working. The child at this stage, of course, is too young to engage in formal occupational activities, and even about the home the things he can do are very limited in number. But he can "make something" with his hands and get the same satisfaction that would come to him if he were actually doing productive work.

In Froebel's plan for the kindergarten, the "gifts" and "occupations" were vital factors. The

87 Cubberley, op. cit., p. 169.
"gifts" were playthings consisting of typical geometric forms, such as balls, blocks, cylinders, cubes, and stones, which were given to the children to be played with. Objects could be constructed with them, but their own form was not changed by the child's use of them. The "occupations" consisted of materials such as modeling clay, paper, wood, and cardboard, which could easily be changed in form to suit the whim or purpose of the child. The "gifts" were fixed in form and represented law; the "occupations" were capable of being altered in form at the child's desire and stood for freedom.

Froebel himself said of these materials:

The gift invites only arranging activities; the occupation invites also controlling, modifying, transforming, creating activities. The gift leads to discovery; the occupation, to invention. The gift gives insight; the occupation, power. 88

Froebel insisted that children should have some definite domestic duties to perform about the home as soon as they are old enough. He suggested that, for older boys, they might even receive regular instruction from mechanics or farmers, or preferably

88 Froebel, op. cit., p. 287.
from their own fathers. Older boys, too, should be encouraged by the parents to perform various tasks alone and independently, thus giving them self-confidence and the assurance that they are capable of carrying responsibilities to their completion. In the same manner, teachers should expect independent activity in the school and should not be satisfied until all children are capable of performing independent activities as well as group projects. Said Froebel:

It is very desirable that . . . boys should devote at least one or two hours to some definite external pursuit, some externally productive work. It is surely one of the greatest faults of our current school arrangements, especially of the so-called Latin and high schools, that the pupils are wholly debarred from outwardly productive work. It is futile to object that the boy at this age, if he is to reach a certain degree of skill and insight, ought to direct his whole strength to the learning of work, to verbal instruction, to intellectual culture. On the contrary, genuine experience shows that external physical, productive activity interspersed in intellectual work strengthens not only the body but in a very marked degree the mind in its various phases of development, so that the mind, after such a refreshing work-bath (I can find no better name), enters upon its intellectual pursuits with new vigor and life. 89

According to the translator's note in The Education of Man, Froebel proposed to devote the forenoon of the school day to instruction in the current subjects

89Ibid., pp. 236-237.
of school study, and the afternoon to work in the
field, the garden, the forest, or in and around the
house.

His list of occupations comprised the preparation of wood for
the kitchen and the furnace; the making of simple wooden
kitchen utensils; the weaving and binding of mats for the ta-
ble and for the floor; the binding of books and the ruling of
slates and practice-paper; the making of a variety of collec-
tions of objects of nature and art, and of suitable boxes for
these objects; the care of the garden, the orchard, the field;
the plaiting of straw into mats for hot-beds, and basket-
making; the care of pigeons, chickens, ducks, etc.; the
preparation of artistic and geometrical forms with paper
in folding, cutting, and mounting, pricking, weaving, inter-
lacing, etc.; the use of pasteboard in the making of stars,
wheels, boxes, napkin-rings, card-baskets, lamp-shades,
etc.; play with splints, tablets, sticks and peas; the whis-
thling of boats, windmills, water-wheels, etc.; the making
of chains and baskets from flexible wire; modeling with
clay; drawing and painting; and many other things.\footnote{Ibid., translator's note, p. 38.}

Thus it is apparent that Froebel would have the school
provide many possibilities for engaging in worth-
while practical work. There was to be such a variety
of available occupations that each individual could
find something to his liking and to suit his interests
and abilities. In discussing these various occupa-
tions, he pointed out that their purpose was "to se-
cure in the young human being all-sided development
and unfolding of his nature." He stated that the
various types of work recommended provide in general "the food so necessary for mental growth." Too, he used figurative language in declaring that these occupations are "the ether in which his [the child's] spirit breathes and lives in order to gain strength and scope, inasmuch as the mental tendencies which God has given him, and which irresistibly unfold from his mind in all directions, will necessarily appear in great variety, and must be met and fostered in a corresponding variety of ways."91

Hughes presents an interesting and concise summary of Froebel's theory of work in education in comparison with the practices still too often found in modern schools. This summary is quoted as follows as a conclusion for this section of the chapter:

There are many points of superiority in Froebel's objective work when compared with that done in most schools. In ordinary objective work the child is receptive, Froebel made it creative; the schools give information, Froebel gave power; the schools allow the child to see, or at best to examine, the object, Froebel allowed it to use it; the schools ask the child what it can find out about the object, Froebel encouraged it to find what it could do with it; the schools sometimes permit the child to make a representation of the object; Froebel required it to transform it into

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91Ibid., p. 328.
some other form as an expression of an original thought of its own; the schools are satisfied with increasing the store of knowledge, or at best with enlarging faculty power. Froebel desired the assimilation of knowledge by using it as it is acquired, and exercised the whole productive intellect; the schools bring the outer material to the inner life of the child, Froebel led the child's inner life to dominate and transform its material environment. 92

Manual Training in the Froebelian Plan

Apparently, Froebel did not originate the term "manual training," as it does not occur in the text of The Education of Man. He did employ such terms as "practical arts," "creative activities," "productive activity," and "self-activity" to imply various forms of creative endeavor, among them those that were later to be known as "manual training" and today as "industrial arts." It should be mentioned that the translator, in various notes, mentioned the term "manual training" in connection with the philosophy and the school curriculum formulated by Froebel; but it should be remembered that the Hailmann translation of The Education of Man was not published until some fifty years after the original publication of the work in the German language.

92 Hughes, op. cit., pp. 251-252.
In the interval between the writing of the book and its Hailmann translation into English, the term "manual training" had come into general use in educational circles, and it had become apparent that Froebel had been a pioneer in the manual-training movement although he himself had never used the term as such.

Hailmann, the translator, in one of his comprehensive notes, emphasized Froebel's position that work carried out under the direction of the school should not be thought of primarily as preparation for occupations, but rather as a means of encouraging children to give expression to their needs and interests and to cultivate their creative abilities. Some of Hailmann's interpretations of Froebel's educational philosophy are highly important at this point, and a few excerpts will be given. Hailmann appears to have entered so completely into the spirit and mind of Froebel himself that it seems as though the great educator himself were speaking:

... Yet the need of manual training as an educational factor lies deeper [than serving as mere preparation for vocations] — in the demand for full, all-sided development in all relations of life. In this sense manual training is as
much a need of the professional and literary man, of the merchant and clerk, of the capitalist and landowner, as it is of the artist and artisan, of the laborer and farmer; as much a need of woman as it is of man: its need rests on the immanent being of man more than on a transient industrial need.

While, therefore, this manual training gives skill for industrial pursuits, and lifts work to a high place in the respect and gratitude of the child, it supplies imperative needs of permanent self-expansion as no other educational agency can do. Of course, this manual training should adapt the material of work to the capacities and needs of the little workers, so that it may yield readily to their limited skill, adapt itself without worry to their aims, and thus secure for manual expression an automatism similar to that of speech. Again, the external products of this manual training are more symbolical than practical — the real product lies in the child. In this it passes beyond mere industrial training, whose products are chiefly practical and external. Similarly, this manual training would lead beyond the mere artisanship of industrial training to true creative art.

With proper guidance this systematic manual training becomes the most powerful agency in securing for the child the habit of success, a calm sense of power, a firm conviction of mastership, which are so essential to fullness of life, and almost indispensable to the success of the school. 93

The translator then commented that Froebel installed workshops in his own schools and recommended their installation in all schools. These shops, of course, were simple affairs in comparison with the present-day industrial-arts shops, but they served the purpose of providing a place where children could exercise their creative talents in the construction of tangible objects. Various disciples of Froebel

93Froebel, op. cit., translator's note, pp. 36-37.
established workshops in their schools in Germany, Finland, Denmark, Austria, and France; but many years would elapse before such shops would become accepted phases of educational offerings. Hailmann stated that in all of the school workshops established according to Froebel's pattern, "the educational influence of work as a creative and expressional activity constitutes the chief consideration." 94

Hughes gives Froebel credit for being the founder of what he calls "the rational system of manual training." He asserts that the educational world did not understand Froebel's views and that even the most advanced schools of the present day have barely begun to practice his advanced theories. When the manual-training movement gained headway in education, schools eagerly set up shops and began to offer courses in the subject, attracted by its practical and utilitarian values. If a boy or young man could learn a vocation in school, he would have no trouble finding a job when he finished school. This was the prevailing attitude among educators, but it was not

94 Ibid., translator's note, p. 39.
Froebel's idea at all. He believed that what is philosophically true must be at the same time the most practical; therefore, he placed manual training on an educational instead of an economic or industrial basis. He made the hand the chief agent in developing the mind. He was certain that the use of material things by the child to express his original conceptions and interests provides the best possible opportunity for developing the child's creative powers, to co-ordinate its mind and its hand, and to reveal to it the fact that it possesses the power to shape and to use the material world around it. We are indebted to Froebel for all of these ideals in regard to manual training. He, unlike most modern educators, valued the inner results of manual training upon the personality development of the child more than he did the outer material products which the child might make.  

All the advancement made in educational thought concerning manual training has been made toward Froebel's views, and he is still the leader. From trade schools, which were as far as possible from Froebel's ideal, teachers have slowly passed through the stages of using manual training for economic purposes, till at length the most

95 Hughes, op. cit., p. 22.
progressive have grasped his conception— that manual training is thought expression, and an important process in the child's mental and moral development.

Froebel differed radically from his successors in regard to the period of the child's life when manual training is of greatest value. Blinded by the industrial ideal, they gave manual training only to the highest classes, and therefore necessarily to comparatively few. He prepared a system adapted to the youngest children, and for all children, girls as well as boys. Here, too, the modern leaders have their faces turned toward Froebel.

Very few have yet caught a glimpse of Froebel's highest thought about manual training. He made it the operative basis of spiritual evolution. The revelation of the creative power of humanity is the surest basis for the progressive achievement of unity between humanity and God. By manual training the boy is planting in his own nature the germs of the vital thought that he has power "to give body to spirit and form to thought."96

Froebel gave manual training in many adapted forms to the youngest children, even to those enrolled in the kindergarten. Since his day, educators, especially those in England and the United States, have tended to make it available in its most complex forms to the oldest children in the high schools and not at all to elementary pupils. Even today, industrial arts is still primarily a secondary subject, and in only the most progressive school systems is it slowly forcing its way downward grade by grade to the youngest pupils. Thus, Froebel's ideal

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96 Ibid., pp. 22-23.
remains unattained. Eventually, of course, educators will recognize what Froebel discovered so long ago—that productive self-activity by the use of materials is greatest in the child's early years and that if this power is not utilized then it can never produce its most valuable contributions to the child's total educational and personality development. Probably the kindergarten will eventually be recognized as the starting point for manual training, since there it would utilize handwork as a means of head and hand growth at the time in the child's life when such development is occurring with greatest rapidity and should be encouraged to the utmost. 97

Froebel, unlike many others, recognized the purely intellectual values of manual training. In this connection, he is reported by Hughes as having written:

Plastic material representation in life and through doing, united with thought and speech, is by far more developing and cultivating than the merely verbal representation of ideas. The life of the boy has, indeed, no purpose but that of the outer representation of his self; his life is, in truth, but an external representation of his inner being, of his power, particularly in and through material. 98

97Ibid., p. 257.  
98Ibid., p. 254.
Froebel recognized the need of manual training to broaden the school program, to tie in with life activities, to give the child greater skill, and to lead men to love work, but his reasons for advocating its introduction into the school curriculum were stronger by far than these. His reasons were educational and social, not utilitarian or practical. He valued the changes brought about in the individual through its freedom to engage in creative self-activity more than he prized the products made or the improvement in hand skill. 99 The various occupations in which the child engages during his periods of self-activity and manual training provide productive, creative employment for the child and develop his inventive powers, his artistic ability, and his constructive skills. In brief, they provide a means of expression for the child's original conceptions, and reveal its inner powers to itself and its teachers. 100 Thus the individual becomes aware that he can create, produce, and shape. His personality produces an influence upon objects and

99 Ibid., p. 253. 100 Ibid., p. 251.
materials, and he gains satisfaction and worth-while character development through the knowledge that he is giving expression to his own individuality.

In the succeeding chapter, a brief survey of the modern philosophy of industrial arts will be presented, together with evidences of the degree to which the philosophy of Froebel may have influenced the formulation of the theories and practices that characterize industrial arts in the schools of the present day.
CHAPTER IV

PRESENT-DAY PHILOSOPHY OF
INDUSTRIAL ARTS

It is the purpose of this chapter to present a
brief discussion of the modern philosophy of indus-
trial arts and to point out implications in this phi-
losophy which are clearly traceable, in part at
least, to the theories and practices of Froebel. Of
course, it is recognized that other early educational
pioneers besides Froebel may have had— and did
have— similar or identical ideas in some regards,
but as the present study deals with Froebel's work,
he alone will be considered in terms of his influence
upon industrial arts as it is found in the American
schools of today. Rather than indulge in repetition
of the Froebelian principles already cited at some
length in the preceding chapter, references will be
made here and there in footnotes to earlier pages
of this thesis where related concepts of Froebel are
presented.
Relation of Industrial Arts to General Education

"Industrial arts is a function of complete living."¹ More specifically, it is regarded as a phase of general education that "concerns itself with the materials, processes, and products of manufacture, and with the contribution of those engaged in industry."² Learnings are brought about in the experience of the pupil by his handling of tools and his handling and using of materials for the creation of new objects with practical uses. Industrial arts is to be regarded as a curriculum area rather than as a subject or a course, being comparable in this respect to the language arts. Thus the term "industrial arts" refers to the broad field of study including such subject-matter areas as mechanical drawing, woodwork, metal work, electricity, leathercraft, radio, carpentry, and many others.

Largely manipulative in character, yet affording content of an informative, technical, and social kind, industrial arts contributes to complete living because it meets needs that are real and satisfies impulses that are inherent. It contributes in a unique and wholesome way to social awareness

²Ibid., p. 1.
and morale. Reading, discussion, observation, and experiment are combined with participation in activities which permit discovery and development of creative and artistic abilities. . . . In school and out, regardless of ages and interests, industrial arts makes a unique contribution to intellectual development, to social orientation, and to economic adjustment.³

In the above quotation one of Froebel's primary concepts is emphasized—that of the creative values inherent in manual and manipulative activities.⁴

Today it is recognized that young people must have "a real education—an education that takes place within the experience of . . . children, not merely something that happens in a schoolhouse."⁵ Being among the pioneers in education to recognize this truth, Froebel centered his educational philosophy around the personal interests and individual experiences of the young child.⁶ In fact,

It is to the influence of Friedrich Froebel . . . , known best as the founder of the kindergarten, that progressive education in the United States owes its greatest debt. Froebel expressed in a sublimated, mystical and religious form the naturalistic belief in the essential goodness of child nature. If the child is left free, the indwelling spirit—which is the spirit of God—will grow toward its preordained perfection. Education is an unfoldment of the divine essence of man, and at the same time a raising of himself to free conscious obedience to this selfsame divine principle that lives

³Ibid., p. 2. ⁴Supra, pp. 83 ff.

⁵Joseph K. Hart, Education for an Age of Power, p. 173.

in him. The main business of the teacher is to assist this
development by warding off experiences that prevent growth
of the child according to its own nature internally in harmony
with the ways of humanity. The teacher follows nature, di-
recting growth but not forcing it. At times the teacher will
interfere with spontaneous activities of a particular child or
group of children. Although the child is by nature good he
needs all the help he can get from adult wisdom, which em-
bödes the past racial experience. When the teacher inter-
fères he should not act arbitrarily but in accordance with an
ideal of right which the pupil as well as the teacher recog-
nizes. Direction is thus not conceived as a restriction of
inner development but as guidance given by a mature to an
immature being to help him reach the ideal toward which the
child is already developing.

The unfoldment of the inner nature of the child is not a
passive process; development takes place through interaction
between the inner and the outer world. The child makes the
inner outer, and the outer inner; he impresses the form of
his own life on external material and develops his own na-
ture by doing so. Through observation of and experience
with surroundings, the child is brought in contact with the
material world — "From every object of nature and life
there is a way to God"; and through play, "which is inde-
pendent outward expression of inner life and action," he
reshapes the materials supplied in observation and experi-
ence in conformity with his own nature. 7

Since education, considered as a whole, is of,
for, and by life, industrial education must deal with
some of the significant and vital aspects of life as
it is today and as it will probably be tomorrow. For
this reason, the subject matter, the methods, and the
techniques of instruction must be true to life. The
ideal today in all education is to build life-centered

curricula, which imply that subject matter is drawn from many related aspects of life and not limited to the facilities contained within the four walls of the school building. Pupils are encouraged to supplement what they learn at school by means of out-of-school contacts and interests, thus discovering avenues through which the school curriculum may become more meaningful and vital in its practical applications and relationships in everyday life. Home and school projects are welcomed if they can be made to fit logically into the work being done, and if they can be justified in terms of educational objectives and desired outcomes.⁸ All of this is especially true of the industrial arts, which possess unique opportunities to correlate the work of the school with the needs and interests of home and community.

Within recent years it has been discovered that industrial arts have unlimited value in the field of therapy. During World War II, the United States Army Medical Corps found the use of crafts and hobbies to be invaluable as an aid to the mentally and

⁸F. Theodore Struck, Creative Teaching: Industrial Arts and Vocational Education, p. 2.
physically injured combatants. Occupational therapy has been defined as "any activity, mental or physical, definitely prescribed and guided for the distinct purpose of contributing to and hastening recovery from disease or injury." Occupational therapy became a necessity for the physically and mentally injured of World War II. Since this program was entirely new, it was based almost completely upon the industrial arts. The aim of the treatment during the war, and the continuing aim now, is to divert the interests, feelings, thoughts, and activities of the patient away from himself and toward reality. In the past the aim of occupational therapy was to keep the patient busy, but now it is known that merely keeping busy is not sufficient. There must be a comprehensive program of arts and crafts applicable to the interests and abilities of the patients, whereby they may experience self-expression and creative activity. Since occupational therapy has proved to be highly effective, it has been

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9A. K. Rigas, "Inherent Therapeutic Values in Industrial Arts," Industrial Arts and Vocational Education, XXXVI (June, 1947), 237-238.
considered as a substitute for pills, powders, restraint, and force.\(^\text{10}\)

Why this emphasis upon occupational therapy in the midst of our discussion of the philosophy of industrial arts? Because it is interesting to note that the most popular courses included in the industrial-arts program in American schools are also the courses considered most effective for occupational therapy. Many students in school may also need to work with their hands to help relieve their minds of emotional stresses and worries. These students can profit immeasurably from work in the industrial arts, a field which provides a means for individuals to express themselves. Often, doing creative work in the industrial-arts shop is the only real avenue of expression which some students possess, and for these individuals shopwork becomes invaluable.

Self-expression is essential to the gaining of confidence in oneself. Froebel pioneered in this concept in his emphasis upon creativity and self-activity.\(^\text{11}\)

The present era of civilization is essentially an industrial age. For the past two or three decades,

\(^\text{10}\)Ibid. \(^\text{11}\)Supra, pp. 83-112.
and especially since World War II, modern society is largely dependent upon science, invention, and skill. The general education of every public-school pupil, his cultural development, and his social attitudes are incomplete without concepts, understandings, and appreciations regarding industry and its hosts of workers. The industrial arts provide these experiences.

Not until recently have educators considered the industrial-arts program as general education. Originally, industrial or occupational training was acquired in the home, and later by means of apprenticeship. Changes within the industrial world have pointed up the need for industrial arts, not only as preparation for adult occupations but as phases of general education to broaden concepts and understandings and to foster avocational and leisure-time interests. Even when it became apparent that the industrial arts should be taught in the schools, they were given an inferior rating in comparison with the more "academic" subjects. Fortunately, it is

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now agreed that public schools should adjust their work so as to develop the individual to the fullest extent of his ability for a maximum of success in living and for a maximum social adjustment and contribution to human welfare. Industrial arts are accepted as a vital curricular area in such an educational program, and may be, in some cases, the integrating core for less tangible elements. Approached from this point of view, the industrial arts contribute greatly to a functional educational program. The student acquires mechanical experience, knowledge of materials and construction, social understandings, and attitudes and habits which prepare him for homemaking, leisure-time activities, membership in the community, and initial employment in occupational fields in which specialized trade training is not required.

Within the industrial-arts shop opportunities are provided for both individual and group work. Whether the project is for the student, some member of his family, or the school, a plan must be formulated and perhaps modified before work can be started.
This brings up problems such as the amount of work involved, cost of materials, and comparative desirability of different designs, construction methods, and materials. Before actual work begins, the method of procedure is considered and properly organized. Then the student must stay with the job and see it through. This is a real-life situation which provides a splendid opportunity for practical education, resulting in the development of good work habits, attitudes, and appreciations. This type of procedure should assist the pupil in his attack on any problem, whether it be in the field of general education or out in the industrial world.

The industrial arts constitute a vital curricular area in the general educational program, and should be regarded and treated as such. They are prepared to stand shoulder to shoulder with the other departments of the public school in the attack upon and the solution of those problems which challenge public education, and they are capable of making unique contributions toward the solution of many problems.
which develop from the complex industrial civilization of the present. 13

Aims and Objectives

A careful examination of the objectives of general education and of those in the industrial arts suggests that there is, in reality, no conflict in the ideals set forth, and that legitimate and desirable objectives for general objectives are also legitimate and desirable aims for the industrial arts. It is the special function of the industrial arts to provide experiences which will develop certain traits, habits, and points of view which have been neglected altogether or merely touched upon in the other subject-matter fields. 14

Most students who expect to go to college are now offered an almost wholly verbal type of preparatory training, while hand training and the direct manipulation of objects and materials are mainly

13 James E. Hopkins, "Contribution of Industrial Arts to General Education," Industrial Arts and Vocational Education, XXXII (November, 1934), 375.

reserved for the vocational fields. This is a serious mistake. The bookish student needs to know how to do things and to make things fully as much as those students who do not plan to take further intellectual training. The direct contact with materials, the manipulation of simple tools, the capacity to create by hand and thus give material expression to a mental concept—all these are indispensable aspects of general education for everyone.  

This was one of Froebel's fundamental concepts, expressed in his idea that education should be a process of developing work skills as well as mental powers.  

Every child should be introduced to work through the area of industrial arts, and thus be given the benefits and responsibilities of effective work as an integral part of his total education. This concept, too, was in close accord with Froebel's insistence that a part of every school day should be devoted to productive work for the development of the manual,  


16 Supra, pp. 112 ff.
 occupational, and creative talents of the individual learner. In some manner, adequate work opportunities must be provided for the young people in the public schools. It is open to question whether the youth who has his mind trained and informed but is unable to do anything with his hands is truly educated. Definitely, Froebel would say that such a person is only half educated.

It has been said that "progressive education in America owes much to the cross-fertilization of the Froebelian kindergarten with the manual training movement." Since its entrance into the public-school curriculum, manual training (later broadened to be called "industrial arts") has been recognized not only as a form of basic vocational training, but also as a contribution to the efforts which some educators were making in the last two decades of the nineteenth century and the first two or three decades of the twentieth, to reform the general educational curriculum, which they felt had become too bookish and too remote from the life of the people.

One of the leaders in the manual-training movement was Dr. Calvin M. Woodward of Washington University in St. Louis, who in 1880 was the first to introduce "manual training" when he founded the St. Louis Manual Training School. One of Woodward's famous maxims was, "Put the whole boy to school, his hands as well as his head." This idea met with a ready response from educational reformers of the day. Thus, although it was introduced primarily as a means of educating young people for holding jobs in industry, the motivating emphasis in manual training soon began to shift from its purely vocational values to its disciplinary and cultural values. Its rapid spread throughout American secondary schools has been largely on the basis of its value as a phase of general education. Educators now look upon industrial arts as being both cultural and vocational — and that was Froebel's idea exactly in regard to manual training.

In the same way that one's philosophy of life is the outgrowth of careful, mature consideration of

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human living in all of its ramifications, so likewise
one's philosophy of industrial arts comes about
through serious reflection and analytical thinking in
terms of the basic meanings contained within this
field of learning. Any vital philosophy is a living,
growing series of concepts which may be different
today from what they were yesterday, and in all
probability will be different tomorrow from what
they are today. In the same way, the philosophy of
industrial arts may be thought of as "a growing and
evolving group of carefully evaluated ideals, values,
or goals. Out of, and in close harmony with them,
will emerge guiding principles, valid standards,
and effective methods and techniques of teaching."19

As industrial-arts shopwork possesses the
unique ability to hold the interest of high-school
pupils to a much greater degree than is true of most
areas of learning, it is able to make many valuable
contributions leading to the attainment of educational
objectives. Many cases can be cited to prove that
industrial arts has "saved" many boys to a full

19 Struck, op. cit., p. 1.
high-school course, and in many cases also has inspired them to go on to higher educational levels. 20

In an address delivered to the convention of the American Vocational Association in 1944, Superintendent Alexander J. Stoddard of the Philadelphia public schools expressed clearly the modern views of leaders in public education in regard to vocational education or industrial arts. Among his remarks were the following:

The real question is not whether there should or should not be vocational education. It is rather the extent to which the facts, knowledge, and skills involved in certain processes of service should be taught in school or college or left to apprenticeship or direct experience on the job. The question is further complicated by the fact that attitudes, appreciations, and ideals are also involved with the service processes, resulting properly in a mixing of the civic, cultural, and social with the practical aspects of the service. . . . Vocational education and what might be called general or academic education do not differ, or should not be regarded as differing in the respect to which they are usually regarded as being different. The former is not "training of the hand" and the latter "training of the brain." The former is not for those only of low ability, capable only of learning how to work with their hands. Everyone ought to be educated vocationally, according to his ability and his occupational desires, and everyone ought to be educated for citizenship, for effective living as an individual, and for successful participation in the society of which he is a part. In other words, every American should be prepared adequately for productive service, that is, for employment at useful occupations, and all Americans should be prepared so as to enable them to live richly and effectively in accordance with our cultural

heritage. Every American should know how to make a living at a useful occupation and also be able to pursue happiness with some assurance of a reasonable expectation of success.\footnote{Mays, \textit{op. cit.}, p. 52.}

That Froebel strongly advocated constructive work as a means of self-expression and development, not only for the early years of the child's life but also for the period of adolescence, is indicated by his elaborate plan for a manual-training school which he proposed to establish at Helba, Germany. This school never became a reality because of lack of financial backing, but the plans were complete and detailed. Although other educators were advocating the same kind of educational program at the same time, and wholly independently of Froebel, three aspects of Froebel's scheme should be mentioned and remembered: (1) his plan included the elements of practically all manual-training programs that have since been developed; (2) the success of Froebel's kindergarten tended to emphasize the values of manual training for older children; and (3) Froebel was the first to advocate manual work on the educational grounds which are employed to justify it today.
Rousseau, although he believed in handwork and wanted everybody to learn a trade, was interested in work only for social and economic reasons. Pestalozzi’s manual work was primarily to train in sense-perception in order to enable the child better to acquire ideas and knowledge. (Froebel emphasized manual work as a form of expression of individual concepts, as a way of developing creative powers.) For this reason, the manual training which he advocated must be distinguished from industrial education, which has since competed with it for a position in the school curriculum. (Froebel’s plan made use of constructive activities for general educational purposes and was to be provided for every child, whatever his future vocation, in exactly the same manner as was geography or arithmetic, as part of the regular curriculum.) Industrial education tends to look mainly toward the development of industrial efficiency in some particular branch of trade, and has a specific educational purpose—that of preparation for occupation. 22

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22 Duggan, op. cit., pp. 263-264.
The objectives of industrial arts are identical with the accepted aims for any good high-school program. If properly conceived and administered, the industrial-arts program will contribute its full share to the education of the whole child, which is the over-all goal of the modern school. Subject matter, teaching methods, activities in which the pupils engage—all provide some of the finest situations for developing ethical character, creating a sense of good citizenship, promoting thrift, developing a keen appreciation of fine things produced by good craftsmen, and building a clear understanding of the problems which confront those who perform the manual work of the world. 23

The primary duty of our public schools is to provide educational training for citizenship in a democracy. Among the important responsibilities of citizenship is that of participation in the work of the community. Every good citizen is a worker and a producer, whether in commerce, professional pursuits, public service, transportation, agriculture, manufacturing, or other occupational fields. He is also an appreciative consumer who is affected by the intricate interdependence of all occupations. Industrial arts, parallel with other subjects and curriculums and correlated with them, contributes to the realization of the goal of enlightened citizenship.

... The general education of every public-school pupil—his cultural development—is incomplete without

concepts, understandings, and appreciations regarding manufacturing and its hosts of workers. Industrial arts as an educational field makes this desired contribution to the pupil's development. It concerns itself with the aesthetic and economic values of materials, with basic processes of manufacture, and with many problems of the workers.\textsuperscript{24}

Froebel agreed with Pestalozzi and Herbart that the aim of education is the development of the child. He differed with them, though, in his conception of the nature of this essential development.

According to Froebel, the aim of education is the development of the inborn capacities and powers of the child, and the latent powers of the individual. . . . Froebel is the first real educational evolutionist. He believes that education is an essential element in the process of cosmic evolution. Education to him is the process by which the race and the individual evolves to a higher and ever higher level on to the end of time.\textsuperscript{25}

The modern program of industrial-arts education has certain specific objectives. Some of the objectives of industrial arts have been well stated by Gruhn and Douglass as follows:

1. To develop in each pupil an active interest in industrial life and in methods of production and distribution. (Guidance values, general information, better social understanding, working conditions, sanitation.)

2. To develop in each pupil the ability to select, care for and use properly the things he buys or uses. (This is sometimes referred to in less specific terms as "consumer's knowledge."

\textsuperscript{24}Ibid., p. v. \textsuperscript{25}Wilds, op. cit., p. 471.
3. To develop in each pupil the appreciation of good workmanship and good design. (Aesthetic values, consumer knowledge.)

4. To develop in each pupil an attitude of pride or interest in his ability to do useful things. (Self-respect, worthy home membership.)

5. To develop in each pupil a feeling of self-reliance and confidence in his ability to deal with people and to care for himself in an unusual or unfamiliar situation. (Self-confidence, initiative, forcefulness, aggressiveness, leadership, judgment.)

6. To develop in each pupil the habit of self-discipline which requires one to do a thing when it should be done, whether it is a pleasant task or not. (Reliability, idealism, obedience to authority.)

7. To develop in each pupil the habit of an orderly method of procedure in the performance of any task. (Efficiency, purposeful activity.)

8. To develop in each pupil the habit of careful, thoughtful work without loitering or wasting time. (Industry, usefulness, productivity.)

9. To develop in each pupil an attitude of readiness to assist others when they need help and to join in group undertakings. (Co-operation, unselfishness, getting along with people.)

10. To develop in each pupil a thoughtful attitude in the matter of making things easy and pleasant for others. (Consideration for others, courtesy, refinement, good citizenship.)

11. To develop in each pupil desirable attitudes and practices with respect to health and safety. (Health and safety habits.)

12. To develop in each pupil a knowledge of and an understanding of mechanical drawing, the interpretation of the conventions used in drawings and working diagrams, and the ability to express his ideas by means of a drawing. (Skill in rendering and understanding of drawings.)
13. To develop in each pupil elementary skills in the use of the more common tools and machines, and a knowledge of the methods of procedure in tasks frequently encountered by the average man, together with a knowledge of the working qualities and characteristics of some of our most used materials. (Tool skills, procedures, principles of machine operation, and construction practices.)

This list, of course, does not complete the objectives of industrial arts. There are many more general objectives, and each teacher in the field has certain specific objectives that other teachers may not have. Community needs often do and should influence the objectives of the industrial-arts program. The general trend in industrial arts, however, is to work toward the realization of the recognized aims of general education.

Some of the same objectives as those indicated above, together with additional ones, are reflected in the following list of "values" which are to be expected from the modern program in industrial arts:

- Keeps pupils in school.
- Tends to systematize work through planning.
- Cultivates imagination.
- Has moral force.
- Dignifies manual labor.
- Provides discipline.
- Furnishes physical exercise.

Trains powers of observation.
Gratifies and stimulates desire of mastery and control.
Rounds out the development of the pupil.
Inspires an interest in art.
Provides an opportunity for expression.
Contributes to the general culture of the individual.
Offers vocational guidance.
Provides vocational training.
Gives proper social outlook.  

Long ago Froebel spoke of the dignity of manual labor, the disciplinary influence of creative work, and the all-round development of the learner by means of the twofold education of head and hand. In his own conception of the aims of education, Froebel was a pioneer thinker who was able to anticipate trends in educational thought; in fact, he himself was the founder of a number of such trends. As to the field of industrial arts, his conceptions here constituted the foundation for most modern aims and practices. He knew, almost before anyone else, the true value of manual labor; and he conceived that the best way for the individual to develop is through outward expression of inner ideas by means of creative activities. 


28Supra, pp. 61 ff.  
29Supra, pp. 83 ff., 122 ff.
Emphasis upon Individual Differences

The trend in the modern industrial-arts program has been away from the development of specialized skills for all and toward the recognition of individual differences. Modern educators realize, as did Froebel, that every individual is a different personality, possessing distinct interests, capacities, and characteristics. Every person has what Froebel called a "self," which is the sum of all the traits which make him what he is and which distinguish him from other persons. It follows, then, that individuals, being different, will react to different stimuli and will require different educational procedures. Uniformity in educational offerings and requirements would be practical only in instances in which all learners were uniform in interests, abilities, and needs. Such situations, of course, do not exist, although not many decades have elapsed since no concessions whatsoever were made in the educational program in order to meet individual needs. Education was stereotyped, because it was believed that all persons were mentally and educationally of the
same mold. Though Froebel recognized the worth of the individual personality and knew that education must undergo adjustment accordingly, his doctrines went unrecognized for long years. Now, however, the most universal principle in modern education is the acceptance, in theory at least, of the idea of individual differences.

From earliest times individual differences have been observed in human beings; and it has long been known that such differences are varied and great. But only within comparatively recent years has anything been done about these differences in an organized way in educational practice. Today, the adaptation of instruction to individual needs has become far more than a slogan; it is, indeed, a practice that is coming to be more and more widespread.

Since one cannot well think of teaching as having been done, unless learning has taken place, and since learning is an individual matter requiring individual effort, it can readily be deduced that good teaching calls for a rather accurate understanding of individual differences. 30

Although persons are different and have different needs, interests, and abilities, they develop these

qualities in the midst of social situations, in relationship to other individuals.

Regardless of their future vocations or professions, pupils when they work in the school shops meet on common ground. Here they may create material things in accordance with their individual ideas and interests, and in doing so reveal their own interpretation and understanding of modern industrial civilization. Here they may explore and experiment; here they may bring their mathematics, science, language, and even history and put them to work; here tangible material results give evidence of technical knowledge and skill. Here is an opportunity to bring skill, knowledge, and attitudes together in the development of character. 31

Even as Froebel has been shown to have emphasized individual development as one of the cardinal objectives of education, there is a widespread tendency for industrial-arts activities to center around the one general objective of personal growth of the pupil. In the truly modern industrial-arts shop, all problems and projects are pupil selected according to individual interests and needs, and are limited only by the ability of the pupil and the nature of the equipment at hand with which he may work. Specific skills and knowledge are not taught except as they are needed to further the completion of the problem being undertaken. In other words, learning

is the direct result of felt needs. According to this concept, it is far more important for a pupil to have an opportunity to think through a problem and to express himself according to his own interpretation of its nature than it is for him to proceed methodically through a dull series of adult-selected tool skills and processes. This more modern concept of industrial arts is known as the "open shop" philosophy. At the same time there is a still more generally accepted philosophy which maintains, in terms of its more traditional nature, that certain standards should be upheld by requiring that the pupil must acquire specific skills and information as he works in the several school shops. 32

The school curriculum must be flexible enough to meet the individual differences of children and to permit the individual to profit to the utmost from learning situations that suit his needs, interests, and abilities. There is no longer any justification for "failing" a pupil merely because he cannot do what others accomplish. In its new conception, the

curriculum can offer to him learning situations and problems that will provide him with a challenge and that will foster his development.

Not only is the nature of the curriculum to be conceived in terms of child-nature, but, since that nature is infinitely variegated, the curriculum must be individualized. Since individuality is of the ultimate nature of reality, no educational authorities can make a uniform curriculum for a multitude of children. Accordingly, each child must have his own curriculum. 33

The individuality with which the child is born constitutes his "self." This self, however, is not static but is subject to growth and development through varied stimuli which reach it from its environment. It is a self to be realized. In order to achieve self-realization, there must be evident self-activity, or the exercise of the self in terms of its environment. Only as the child puts forth effort and assumes responsibility for his conduct and for his activities can he hope to realize development and attain his destiny. 34 This reaction of the individual to his surroundings was one of the fundamental concepts of Froebel, who maintained that only through


34 Ibid., pp. 134-135.
such self-activity could individual development be attained. 35

The American concept of democracy has changed during the period of the national history. With the changes in economic and social life has come a larger view of its implications. It has grown from a naive ideal of liberty, equality, and fraternity, pertaining chiefly to government, to a concrete program of social and economic development. Many factors have contributed to the evolution of the idea of democracy, but the industrial revolution, bringing the modern city into being, has been one of the most potent influences in the process. Democracy now demands equality of opportunity in those aspects of life where unfair privilege and social inequality traditionally have been tolerated and perpetuated. In the effort to extend democracy into these areas, it has become clear that universal vocational training must be provided. To meet this requirement many types of vocational education have become necessary to meet the needs of many different groups and individuals. 36

Pupil Participation and Growth

Social situations and social participation in creative activities are highly stressed in modern education, not only in the industrial arts but also in all fields of learning. Education that is socially conceived stresses the development of social sensitivity, social understanding, and social participation. The central purpose that motivates such instruction is that of the progressive and co-operative development of a better and happier social order

stressing individual participation and co-operative effort for the good of society as well as for the happiness and development of the individual. Such a conception breaks down barriers such as those of wealth, social standing, creed, and race, which are, at best, only artificial obstacles to progress in social living. Socialized instruction, whether it be in the school shop, the laboratory, or the classroom, emphasizes "pupil purposing, pupil planning, pupil co-operating, and pupil evaluating. The teacher's function is to guide, to advise, to assist, and to stimulate." \(^{37}\)

Perhaps the most significant development in the field of the industrial arts in recent years is the recognition of their social contributions. Many of the most progressive educators now look upon industrial arts in their broader concept as a great integrating force in the development of a new educational program to meet changing social and economic needs. For pupils in their early adolescent years, especially, the industrial arts exert an almost

\(^{37}\)Struck, op. cit., p. 2.
universal appeal. There is something about working with tools and materials that holds and strengthens the interests of boys and girls, although these same persons may have different purposes motivating their activities. These purposes may range all the way from recreation to serious problems of research, but the real and vital interests on which they are founded provide a means for the development of character and social adjustment. 38

As a result of their industrial arts experiences, pupils should show evidence of growth not only in the matter of tool skills, but also in their understanding of and the reasons for the things which they have done. They should have developed a wholesome attitude toward their fellow workers in situations which, by their very nature, require consideration for others as well as co-operation with them. The outcome of industrial arts experiences should be of at least three kinds: First, skill in the use of tools, the development of good methods of procedure, and in the selection of appropriate designs and types of construction; second, information concerning the qualities and characteristics of materials, their source, their abundance or scarcity, their relative values, and their past and present contribution to industrial and social activities; and, third, social habits and attitudes which help one to be successful in his relations with his associates. The third group includes a reasonable willingness to co-operate with others and to have consideration for their convenience and welfare, a reasonable willingness to assume responsibility, and a reasonable reliance on one's own ability. When properly organized and properly presented these industrial arts experiences provide excellent opportunities for exploration and guidance. 39

38 United States Office of Education, op. cit., p. 56.
39 Ibid., pp. 56-57.
Informal, social types of education possess a very conspicuous advantage: they are the easiest and most effective ways to learn. The reason for this is quite obvious, as the social process is the natural teaching and learning process, and the social situation is the natural situation in which teaching and learning can best be accomplished in the most effective manner. The materials, methods, agents, and objectives of the learning process are all social in nature. The motivation of incidental education is ideal. Froebel was right, therefore, in his pedagogical doctrine of social participation; and so are Dewey and his followers in urging that the learning process in the school be conditioned as similarly to the social process of the Great School of Life as possible. 40

The individual's natural tendency to manipulate, together with his curiosity concerning what things are and how they operate, provide a strong motive for learning. There is a strong tendency on the part of all persons throughout life to manipulate

and to investigate material things which concern or interest them and to do things in certain ways or according to certain patterns. Industrial arts, as well as the other practical arts, provide guidance and wholesome avenues for the realization of these tendencies and thus constitute a vital means of self-expression. 41

Skillful teaching is not for the purpose of coercion; but, instead, it is to provide understanding guidance for the expression of the interests, needs, and abilities of the learner and at the same time to develop gradually an appreciation of refinement in workmanship, for there is no particular value to the individual in having made something unless his product gives evidence of his or her own thinking, planning, and painstaking effort. The development of such an appreciation among children and young people often becomes the first step in the recognition and acceptance of adult standards of good workmanship upon which modern industrial arts is so dependent. 42


42 Ibid., p. 42.
Froebel himself might be speaking the following words reflecting the modern educational philosophy of self-activity and self-realization:

... the individual is himself the originating source of energy, an original cause. Because he is self-active, he is self-directive, self-determining. He is the author of his own deeds, the captain of his destiny. This enables him to modify the stream of causation which is operating upon him. He is free to coincide or interfere with it at will. Freedom is a primary quality of reality. It is God-given.

... self-activity on the part of the pupil must not be confused with self-expression or self-assertion. These three phases, apparently meaning the same thing, are generally distinguished in technical usage. Self-expression and self-assertion tend to emphasize the self one is at the level of the present. Self-activity, on the other hand, bears down not so much on the self as on the activity. It does not so much seek the intrenchment of the existing self as the realization of another, the self to be found in the social culture, the ideal self. This may sound as if the present self had to be sacrificed on the altar of the future, as if one had to choose between self-sacrifice and self-realization. As a matter of fact, this is not the case, for while some sacrifice naturally occurs in self-realization, the highest selfhood is often realized in sacrifice.43

Doing, performing, executing, making, and controlling and directing activity are among the most vital experiences that can come to the learner.

These activities imply the existence of perceptions and impressions, for without these no constructive activities could occur. In fact, to see and to hear

is to do—to do in co-operation with head, arm, hand, and leg. In this connection John Dewey has written:

It must remain part of the imperishable renown of Froebel that he first of all educational reformers seized upon the primordial significance of this phase of child nature, and insisted upon modes of education which should give it outlet. What his exercises did for the kindergarten, that, and more, constructive and occupation work of various sorts must do for the . . . school. 44

Above all, Froebel believed that education is growth. 45 The development of the individual into a well-rounded person was his goal, which he thought could be attained only through the education of the hand and the creative powers as well as the informing of the mind.

Today, industrial arts places strong emphasis upon the developmental growth of pupils and their possible future avocational interests, with some attention to the acquisition of skills and a knowledge of industrial processes. 46 Primarily, though, stress is not upon preparation for an occupation, but rather upon the provision of opportunities to develop and

45 Cooke, op. cit., p. 243.
46 Stombaugh, op. cit., p. 162.
broaden the whole self. Industrial arts are today emphasized for their educational value rather than their usefulness in preparation for occupations. This was Froebel's concept also: he would have the child learn to work with his hands and to construct useful objects in order that his education should not be confined to one-sided development—that of the mental powers. Froebel believed, as do modern educators, that education should produce socially efficient beings. A significant part of social efficiency revolves around the concept of creative activity.

Froebel's recognition of the significance of the native capacities of children, his loving attention to them, and his influence in persuading others to study children and to teach them according to his revolutionary concepts, "represent perhaps the most effective single force in modern educational theory in effecting widespread acknowledgment of the idea of growth."47 Thus Froebel's ideas have come to fruition.

Functions and Values of Industrial Arts

In summary of the preceding discussion in this chapter, let us note briefly some of the modern concepts relating to the functions and values of industrial arts in the school curriculum. Friese, in his summation of industrial-arts philosophy, emphasizes the following points:

1. Learning and developmental experiences in the industrial arts, through types of experiences not otherwise available, are essential in the complete social education of every boy in a dominantly industrial democracy.

2. The industrial arts constitute a group of school experiences which embrace the most fundamental procedure in education, namely, learning through a combination of seeing, hearing, thinking, and doing. Too much of our school work today centers around the life experiences of others. Children have such education served to them on a platter, as it were, mostly ready prepared, the recorded experiences of others. Such experiences are pseudo. Such education is unreal. A few can profit by it. For the many, an education of recorded second-hand thoughts only is socially dangerous. Herein lies a particular educational significance of industrial arts and the other so-called practical subjects. Providing real-life situations, or something closely approaching them as agencies of learning, is one of the chief reasons that students have keen interests in vital industrial arts education.

3. Industrial arts is a convenient and natural agency for educational correlation.

4. The interest factor plays a prominent part in the kind and amount of learning accomplished in the industrial arts.
5. The vehicle of learning, the problem, job or educational project is the physical expression of a pupil's educative experiences and growth.

6. Industrial arts provides a ready avenue of self-expression for large numbers of persons who find many other avenues for such experiences closed.

7. Industrial arts is fundamentally and naturally child-centered in its concepts and in its practice of methods, subject matter, and control.

8. Some phases of industrial arts are applicable to girls as well as boys.

9. In industrial arts, as in other school activities, what little carry-over value or transfer of training occurs takes place more as a result of the methods of teaching employed than through the significance of subject matter.

10. Industrial arts and vocational industrial education are complementary parts of a complete industrial education --- an education based upon important factors of current industrial life and development.

11. Objectives of a particular industrial arts course or activity must be in harmony with those of the industrial arts department of which it is a part; the aims of the junior high school, senior high school, or secondary education as a whole; and finally, the aims of secondary schools must culminate in recognized and logical contributions to all organized or formal education.

12. The teacher's plan of organization and his control of personnel, equipment, supplies, products, and safety, contribute many of the desirable educational outcomes of the industrial arts.

13. Industrial arts abounds in natural situations conducive to thinking or problem solving. Industrial arts has particular contributions to make in this matter: (1) a need is recognized, (2) a plan to fill the need is made, (3) the job or work is executed, and (4) the results are evaluated.
14. Industrial arts provides a ready and natural agency for a degree of foundational training in industrial versatility.

15. In the teaching of industrial arts, the teacher is more important than space, equipment, and supplies.\textsuperscript{48}

From such a program of industrial arts as that outlined above, the following pupil attainments in growth and development may logically be expected.

The pupil:

(1) Gains knowledge of the changes made in materials to meet the needs of society, of tools and industrial processes used to effect these changes, of the constant adaptation of materials, tools, and processes to meet changing needs and conditions, and of industrial workers and working conditions.

(2) Grows in appreciation of the value of information regarding occupations as a background for a wise choice of a career, of the importance in modern life of tools and industrial processes, of the artistry of the designer and the skill of the artisan, and of the dignity of productive labor.

(3) Increase in ability to plan constructive projects, to select and use sources of industrial and related information, to handle tools and materials, to express with material things his individual interests, to use effectively his recreational time, to work and share as a member of the group, and to evaluate work and its product.

(4) Develops attitudes of concern for safety practices, of consideration for workers in all fields, of regard for co-operation among the members of a group, and of respect for property.\textsuperscript{49}

Thus it is seen that the field of industrial arts possesses the potentiality of making invaluable


contributions to the general education and the well-rounded development of the individual learner. This chapter has indicated, also, that the modern philosophy of industrial arts parallels very closely Froebel's concepts relating to the functions of education, the recognition of individual differences, the value of creative effort, self-realization through self-activity, and the well-rounded development of the individual through a recognition of the educational worth of manual activity.
CHAPTER V

SUMMARY

This study has presented a discussion of the educational philosophy of Friedrich Froebel in its relationship to the present-day philosophy of industrial arts in American schools. Following a brief biographical treatment of Froebel in the second chapter, the third chapter launched into a discussion of his educational theories, practices, and philosophies. No effort was made to mention all of his ideas, but special emphasis has been placed upon those conceptions which were either directly or indirectly related to the so-called "practical arts."

The fourth chapter contains a brief presentation of the present-day philosophy of industrial arts as formulated by modern educators.

That the ideas and concepts of Froebel are definitely reflected in modern educational theory and philosophy has been clearly demonstrated in the preceding pages of this paper. In fact, a comparison
of Froebel's ideas with modern industrial-arts philosophy leads to the conclusion that many of Froebel's fundamental concepts have been employed almost bodily in the philosophy of modern industrial arts.

Froebel's central idea that education is a process of growth and development of the individual is the same statement of purpose as that with which modern education is primarily concerned. That education is life and growth and development is now recognized by educators as the dominant theme in school programs; and it had its origin in the pioneer thinking of Friedrich Froebel.

Froebel, at the same time, recognized that each person is fundamentally different from every other person and therefore responds to different stimuli and must be permitted to experience learning situations that suit his personal needs, interests, and capabilities. This theory of individual differences is commonly recognized throughout the system of modern education, at least in thought and theory. Too often, the school knows that individual
differences must be taken into consideration, but then does little about the problem in actual practice. The curriculum, throughout all education as well as in the industrial arts, must be flexible enough to permit the individual learner to experience subject matter, materials, and situations that will prove worth-while and challenging to him. In other words, the curriculum must be adapted to the individual learner. Education cannot be stereotyped—it must be individualized.

Through creative effort Froebel believed that the child is able to attain his highest development. Creating something gives expression to the divine powers within the individual and enables him to give shape to his inner thoughts and plans. Creativity, Froebel looked upon as the spontaneous expression of self by the use of materials in worth-while and meaningful projects. The individual should be allowed to choose the channels through which his creative efforts will be fostered, and the teacher should be his guide to help him use his materials and abilities to the best advantage—not a dictator
to make him conform to adult conceptions of what he should do and how he should do it.

Self-activity was one of the primary elements in the theory and practice of Froebel, as it is in the philosophy of the modern school, not only in the field of industrial arts but throughout many of the curricular areas of learning. Self-activity, in Froebel's sense of the term, implies not only that the learner shall do all himself, not merely that he will be most highly benefitted by that which he does himself; but it implies also that at all times the whole self shall be active, that the activity should enlist the entire self. Thus self-activity requires not activity alone, but all-sided activity of the whole being, the whole self. / Froebel's system of education was democratic in that each individual was to be recognized for what he was, he was to have the opportunity to develop his own interests and needs, and he was to exercise his individuality in creative activity of the type which was natural and beneficial for him. These concepts prevail widely in modern industrial arts.
Froebel was very certain that the entire child should be recognized in the educational program—that the body as well as the mind should receive training and development. Hence, he worked out his plan of devoting half of the school day to the study of subject matter and the other half to creative, constructive work, such as gardening, caring for animals, building, farming, and crafts of all types. His concept was that a child was only half educated if his mind was trained and his hand was given nothing to do under the guidance of the teacher.

Thus it becomes obvious that some of the predominant elements in the modern philosophy of industrial arts had their origin in the thinking of Froebel. It becomes difficult to conceive what the industrial arts would be if all the elements in the program directly traceable to Froebel were suddenly removed. His was a practical philosophy of education, aimed not only at preparation for occupations, but also—and primarily—at the training of the
entire person for more efficient living in society.

This, too, is the over-all aim of the industrial arts
in the school of today.
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