A STUDY OF THE PROFESSIONAL CHARACTERISTICS OF FEMALE AND MALE LITHOGRAPHY INSTRUCTORS TEACHING IN COLLEGES AND UNIVERSITIES IN THE UNITED STATES, 1984

by

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Submitted to the Department of Art and Music Education and Music Therapy and the Faculty of the Graduate School of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Arts in Visual Arts Education.

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ABSTRACT

This study compared age, birthplace, educational background, institutional rank, salary, exhibition record, and awards of female and male lithography instructors teaching in the United States. The hypothesis was that these professional characteristics would be sex-differentiated.

Questionnaires were sent to 170 lithography instructors teaching in 166 colleges and universities in the United States. Twenty (20) of these instructors were known to be female, 128 were known to be male, and 22 were undetermined. There was a 46 percent return; 14 females and 64 males. These respondents represented 78 colleges and universities in the United States.

Frequency of responses were tabled and converted to percentages of comparison. Sex-differences were found among the female and male respondents in age, birthplace, educational background, institutional rank, salary, exhibition and awards.

ACKNOWLEDGEMENTS

I would like to dedicate this study to my Mother and Father who have supported me in all my adventures. I love you both.

This study could not have been accomplished without Dr. Ann Sherman's constant guidance. My appreciation for her support can never be expressed, but thanks.

My deep appreciation is expressed to Cima Katz, who is responsible for my interest in lithography and her understanding and knowledge have shown me and many other students how important female lithographers are to the art.

I would like to thank Dixie Glen for taking her time to review the study, offer suggestions, and being on my thesis committee.

This study could not have been possible without the instructors' responses. I appreciate all the instructors who took time to respond and I hope they feel there is knowledge gained.

Cathy, Barbara, Joela, Joan, Kim, Yvonna, and Charlene, you have certainly indicated what a female support group means, and Steve and Greg, you have been great too. Thank you all for believing and caring.

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CHAPTER I

INTRODUCTION

Background Information

This study compared age, birthplace, educational background, institutional rank, salary, exhibition record, and awards of female and male lithography instructors in universities and colleges in the United States (U.S.). The central hypothesis was that these factors would be sex-differentiated.

The 20th century fine art world has been and continues to be dominated by males (Packard, 1977). Males outnumber females in academic appointment, gallery representation, professional rank, and presentation in art history texts (Collins, 1978; Loeb, 1979; Lovano-Kerr, Semlar, and Zimmerman, 1981). Females have been confined by stereotypes of delicacy to the 'crafts' while art forms such as sculpture, painting, and lithography have been seen as 'unfeminine' pursuits (Garrard, 1979; Wayne, 1983). Yet, despite this general male dominance in the art world, the 1960's U.S. revival of lithography was primarily initiated by two females--June Wayne on the West coast and Tatyana Grosman on the East coast (Bloch, 1972; Castleman, 1976; Johnson, 1980). Yet, the printing establishment follows the pattern of the art world in that it is dominated by males (Tamarind, 1979, 1980).

June Wayne established the Tamarind Lithography Workshop in Los Angeles in 1960. Wayne's experience as an artist in search of a place to make prints, brought her to the conclusion that the U.S. needed fine art lithography printing workshops. She received a grant from the Ford Foundation in 1959 to set up a workshop where experienced lithographic printers would work with students, already trained in an art school or university, in a master-apprentice system (Castleman, 1976). In 1970, the Tamarind Lithography Workshop became the Tamarind Institute at the University of New Mexico, Albuquerque. Tamarind training continues to produce master-printers who work in or establish printing workshops or become teachers of lithography in art schools, colleges, and universities. Furthermore, although started by a woman, the majority of master-printers and lithography instructors at Tamarind have been male (Tamarind, 1979, 1980).

In 1957, Tatyana Grosman set up a lithography press in her home at West Islip, Long Island. Her initial ambition was to publish fine art illustrated books and portfolios in which artists and writers would collaborate. Grosman named the workshop Universal Limited Art Editions (U.L.A.E.). U.L.A.E. has been instrumental in the 'renaissance' of U.S. lithography with the collaboration

of printers and artists to publish prints as well as entire portfolios (Gale, 1979).

Yet, despite the involvement of these females in the 'renaissance' of lithography, there are still constraints placed on females who wish to pursue lithography:

> The reason there are so few (sic. female lithography instructors) is the double bind, I should think, of the non-physicality of women in the arts until recently. Lithography is physically very demanding. Also, there is the profound anti-female bias in teaching of the arts. Some universities, frozen by tenured men, simply still have no female teachers in their studio departments (Wayne, 1983, letter).

The field of lithography is multi-faceted. There are several levels of involvement: professional instruction in art schools, workshops, and colleges and universities; running and organizing a workshop, experimenting and researching; printing; designing; coloring and that of fine arts. Historically, it is important to know that females were involved at all these levels, but because of predetermined sentiment against females, their involvement has been limited, and when they were involved, little recognition has been given. The main focus of this study is on the professional instructors of lithography in colleges and universities who provide the initial interest and involvement in the process for students. Historically apprenticeship in workshops was the learning ground. Now

the actual student printer and fine artists have often attended a university prior to becoming involved in the workshop process of the printer and artist collaboration.

Need for Study

If statements such as Wayne's are to be affirmed or rejected and a causal hypothesis developed, data on the professional characteristics of lithography instructors must be collected and analyzed. At present, limited data exists on the professional characteristics of lithography instructors and no sex-difference research on this population has been conducted. Further information is educationally important for it effects on our understanding of the past and future prospects for equality in educational opportunity.

If sex-differences are confirmed by the study's data, these differences and their examination could promote future research and motivate students, educators, and administrators to examine the status of female and male instructors in their departments. Exploring these areas in relationship to lithography instructors can help those involved in education strive towards correcting sex inequities in the field of lithography instruction. These inequities affect not only the careers of lithography instructors, they also influence opportunities for role

models and the standards of and criteria of "good" art that are propagated in higher education.

If no sex-differences are indicated by the study's data, the departments listed can be researched further to understand how equality was developed. Similar research can be conducted on the professional characteristics of the instructors in other art departments and similarities and differences of male and female art educators can be used to further understand the educational and professional equity of these departments.

Purpose of the Study

The purpose of the study is to assess whether there is any sex-differentiation in the professional characteristics of female and male lithography instructors teaching in universities and colleges in the United States.

Null Hypothesis

There is no sex-differentiation in the professional characteristics of female and male lithography instructors teaching in universities and colleges in the United States.

Definition of Terms

Artist — refers to one who is responsible for the conception of an image.

Chop	refers to the printer's symbol which is used on a print to indicate their involvement.
Chromolithography	refers to when two or more colors are used in the printing process to produce a color lithograph. Separate drawings and separate plates and stones are often used for each color and these are referred to as color separations.
Colorist	refers to one who hand colors an image produced in printing. A colorist does not conceive the image.
Copier/ Illustrator	refers to one who copies an artist's conception.
Instructor	refers to one who professionally teaches the processes of lithography.
Intaglio	refers to a printing process where an image is engraved or etched into a metal plate. Ink is then forced into the lines and prints are made.
Lithographic Artist	refers to one who conceptualizes lithographic images.

Lithographic Printer — refers to one who prints lithography.

Lithography — refers to a planographic printing process where a grease image is drawn (wash and various techniques included) on a limestone or plate and prints are produced.

Serigraphy — refers to a printing process which involves the creation of one or more stencils which are composites of the whole design. The stencils are printed in succession through silkscreens.

Master-printer — refers to one who has been highly trained and certified to print lithographs and other printing processes professionally.

Workshop/shop — refers to a studio where lithographs are produced. Some shops are commercial and some shops exist within university and college departments.

Review of Literature

This section begins with a general survey of the history of the development of lithography and the training of lithographers noting any sex-differences in the development and in the training, thus providing the reader with a general background for this study.

Second, the section reviews studies of characteristics of art faculty in U.S. colleges and universities as a means for comparing the present study of lithography instructors with studies of other university art faculty. Third, research pertaining to the importance of female role models and the issues surrounding female generated questioning of traditional aesthetics will be reviewed for they elucidate the possible impact of single sex dominance in higher education.

Lithography in Europe

Alois Senefelder, a Bavarian author and actor, was responsible for the invention of lithography in 1798. There were others who had done relief printing from a stone, but the process was not the planographic printing process Senefelder discovered (Twyman, 1970).

Senefelder devoted himself to the further development and promotion of the process he discovered. He was the first to train others in the processes of lithography:

> No person in all branches of lithography, has effected any new improvement of consequence, which he had not received directly, or indirectly from me, that all those artists, and producers of prints, made their first essays under my immediate direction, or were trained and instructed by persons who derived their information from my instructions (Senefelder, 1818, p. 27).

It is important to understand that traditionally the term 'lithographer' referred to one who was skilled in the process of printing lithographs, and the term 'lithographic artist' referred to one who drew on a stone (Brown, 1930). The collaboration of printer and artist in the making of lithographic prints began with Senefelder. This distinction does not necessarily mean that the artist and printer could not be the same person.

Senefelder first took his invention to Franz Gleissner, a music composer. Gleissner was a close associate of Senefelder and the two became partners for the purpose of publishing Gleissner's music (Senefelder, 1818).

Senefelder's first press (maintained in Gleissner's home) was a copper-plate press with two cylinders. The cylinder press was far from perfect, but it enabled him to pull neat impressions from the stone with the aid of an assistant. He was able to print 120 copies of twelve songs composed by Gleissner on this press in less than two weeks. This was the first known lithographic publishing venture in history (Senefelder, 1818; Knigin and Zimilcs, 1974).

The first female to be directly associated with lithography was Gleissner's wife. As early as 1776, she assisted Senefelder in the printing of her husband's music and remained actively involved with the process for twenty years.

In 1799, Senefelder then opened his first commercial workshop in Munich. He employed his brothers, Theobald and George, and two apprentices. Senefelder used a lever press he had invented in this shop. Also in 1799, Senefelder's second workshop was opened by Senefelder's partner, Anton André. André had received instruction in the lithographic process from Senefelder. André's workshop had five lithographic presses, which were used exclusively for printing music (Senefelder, 1818).

Later in the same year, Mrs. Gleissner became interested in printing calico and consulted with a Mr. Von Hartl telling him of her interest. She introduced Senefelder to Hartl and a partnership between Senefelder and Hartl was formed (Senefelder, 1818). The calico printing for Mrs. Gleissner was prohibited as the shortage of English cotton created by the Napoleonic wars placed a great demand on German cotton. Hartl and Senefelder did open a shop in Vienna where they printed music and some works of art (Senefelder, 1818).

In 1800, Senefelder went to London and met with Anton André's brother, Phillip André, and instructed him in the processes of lithography. In 1803, Phillip André established a workshop in London in order to produce a collection of twelve artists' lithographs entitled "Specimens of Polyautography" (Weber, 1966). In 1801,

U.S. artist, Benjamin West, drew the first of these lithographs to bear a date (Twyman, 1970). These artists were all male.

In 1804, Mrs. Gleissner went to Munich where she and Mathias Grunewald, a former apprentice of Senefelder, set up a press to print music. She showed the process to a Mr. Vogler. He was so impressed he showed it to a wealthy friend, Baron Aretin, suggesting the establishment of presses with Senefelder's assistance (Senefelder, 1818).

In 1806, Baron Aretin and Senefelder set up presses in Munich to publish Albert Dürer's Prayer Book. This publication was very important to the promotion of Senefelder's invention (Senefelder, 1818; Twyman, 1970). It seems Mrs. Gleissner was instrumental in the formation of two very important partnerships for Senefelder and certainly was directly involved in the early development of lithography and lithographic publishing. She had printed with Senefelder and also established her own workshops.

Also in 1804, Herman Mitterer, a professor at a Munich public art school, Holiday School for Artists and Technicians, purchased a press with government funds. Mitterer requested Senefelder's brothers to instruct him in the technical aspects of lithography and to help put lithography on a sounder basis. They were paid an annual

sum of 700 German florins. Mitterer played a major role as the popularizer of the art and as a sponsor of artists interested in producing lithographs. He used lithography as an aid to teaching and made copies of his students' drawings. In 1805, Mitterer invented the star wheel press, which Senefelder felt was the only improvement to his invention that had not come directly or indirectly from him (Senefelder, 1818; Twyman, 1970). Mitterer then began the publication of a collection of prints by five of the most prolific Bavarian lithographic artists. The collection was entitled "Lithographische Kunstprodute." The artists were all male. The collection was published in 1807 and was the first important collection of artists' lithographs to be published in Germany. Each part contained six plates, 18 3/8" x 12 1/2", and consisted of two flower drawings, two landscapes, and two figure subjects or portraits (Twyman, 1970).

Lithography began in France (Paris) when Anton André's other brother, Frederic André, applied for a patent in 1801. He was granted the patent in 1802. In 1803, André sold his workshop to a Madame Révillon. Révillon was married to a paper manufacturer (Weber, 1966). There is no further mention of Révillon's shop in the literature reviewed for this study. As with Mrs. Gleissner, the information on the training, development, and enterprises of this female has

received minimal attention. Women's importance was mentioned only as it related to the men's involvement with lithography.

A few years later, Lasteyrie and Godelfray Engelmann, two men, established workshops in Paris which became influential in the early development of French lithography. Engelmann was primarily responsible for the development of color lithography (chromolithography) (Weber, 1966; Twyman, 1970). The development of lithography workshops in France was quite extensive and a review of this development would be far too extensive for this background review.

It is important to understand that lithography in Europe was being developed concurrently for both industrial and fine art uses. The lithographic process has always grown according to industries needs and artists have then used the processes developed (Katz, 1984). Senefelder was basically a commercial printer concerned with printing music and in promoting his inventions he emphasized the commercial merits of the process (Twyman, 1970). Lithography primarily was viewed as a process to make inexpensive reproductions of music, text illustrations, posters, etc. Even Toulouse Lautrec, who became famous for his lithography, was producing posters to advertise shows at the Moulin Rouge and other events in Montmartre (Rewald, 1978).

It is also important to understand the difference between a colorist and a copier. A colorist is one who hand painted a lithograph after it has been printed. A copier is one who copied an artist's illustration or drawing on to the stone to be printed. Often an artist would bring in a 'cartoon', illustration, or drawing for printing. The artist would not directly produce the drawing on the stone. The printing workshop had copiers employed to produce the drawing. These copiers were given little credit and their identity has been obscured through time. In literature reviewed for this study, it was noted that females were often hired for copying and coloring prints (Comstock, 1950; Freeman, 1971; Brodsky, 1979).

An artist is one who produces an original drawing. The artist offered the conception of what was to be printed. There were many artists who drew directly on the stone, but as mentioned above, often their conceptions were copies. In these early European workshops, artist and printer usually united their individual talents. The skills of each were of equal importance, the artist supplying the conception, the artisian the execution. The printers' techniques became a guarded secret in many workshops and was only handed down within a family of printers. Most workshops during the nineteenth century were family enterprises. During an apprenticeship, new

printers learned by observation and performance of various tasks. Only after years of grinding stones and conditioning rollers was the apprentice allowed, under the guidance of the master-printer, to roll ink on a stone (Knigin and Zimiles, 1974).

Other sources of information for workshops and apprentices were the various documents written about lithography. Senefelder's treatise, The Complete Course of Lithography, published in 1818, was translated into both English and French in the following year. It was a source for others as a training manual in workshops (Twyman, 1970).

In the second quarter of the nineteenth century, two other important treatises were written by Godelfray Englemann in France and Charles Hullmandel in England. Senefelder's treatise concentrated on the technical processes of lithography, while the other two manuals provided more information on instructing artists how to draw on the stone. Englemann's treatise entitled Manuel Du Dessinateur Lithographe, was published in Paris in 1822. Hullmandel's, The Art of Drawing on Stone, was published in London in 1824. The two printers exerted a powerful influence on the course of lithography, both through their workshops and their treatises (Twyman, 1970).

In summary, in the early development of lithography in Europe, the process was initially passed on by its inventor, Alois Senefelder. He seemed to instruct people in the process as he was promoting the development of lithographic workshops. Franz Gleissner was the first student of Senefelder. Senefelder apparently had apprentices, but there is no mention of their training per se. Senefelder only names Mathias Grunewald in his treatise. It is clear that a few females became involved with lithography, specifically Gleissner and Révillon, but unfortunately, they are mentioned only in relationship to the males. The André brothers, who Senefelder also trained, were responsible for the early development of lithography in England and France. There were apprentices who worked in the shops and their training was first through observation and through training manuals. Lithography was also taught at the Munich public art school by Professor Mitterer, who was instructed in the technical processes by Senefelder's brothers.

Lithography in the U.S.

The first artist to produce a lithograph in the United States was the artist Bass Otis. In 1819, Otis executed two small lithographs for the Philadelphia Magazine, Analetic (Weitenkamp, 1912). It is unclear where Otis obtained knowledge of the process, but he had worked in a limestone quarry in Kentucky (Dreppard, 1930).

No comprehensive history has been written on the training of lithographers, thus the following information was obtained from sources dealing with all printing processes and from the brief information on training in books on lithography techniques and history. A number of U.S. lithographers seemed to have established shops shortly after 1820. Many of the early U.S. lithographers were European born and trained in shops in Paris, Munich, or London. Europe remained the source of innovation and expertise for at least seventy-five years. The lithographers who drew and printed lithographs primarily used Senefelder's, Engelmann's and Hullmandel's treatises, Bavarian stones, and presses of English, French or German design (Morse, 1970).

The first major lithographic workshop was opened in Boston in 1825 by William Pendleton and his brother John who studied lithography in France. After the Pendleton shop opened, other printing shops were established in New York and Philadelphia (Morse, 1970). There is no mention of any females establishing lithography shops in the literature reviewed for this study.

In 1835, Nathanial Currier established a shop in New York. Currier was trained at the Pendleton shop where he had spent a five year apprenticeship. In 1850, Currier formed a partnership with James Ives. Currier and Ives

published a large volume of lithographs. They employed colorist, copiers, and artists; both male and female. The lithographs were not printed in color, but came off the presses in black ink and then went to a large center table where the colorist (usually female), working from a model, added the greens, reds, and blues (Crouse, 1930).

Arthur Tait, George Durrier, James Butterworth, Louise Moures, Voltaire Combo, Thomas Worth, Thomas Nast, and Fanny Palmer were some of the artists who drew the illustrations. Fanny Palmer was an English artist who drew primarily landscapes on the lithographic stones. She was noted to have been very skillful (Crouse, 1930).

In the 1840's, color lithography (chromolithography) developed in Europe. Peter S. Duval of Philadelphia and Louis Prang of Boston pioneered the development in the U.S., receiving their information from England and France, particularly from the writings of Godelfray Englemann (Morse, 1970).

Duval was born in France and was brought to the U.S. by lithographer, Cephas Childs, in 1831. Duval was an expert pressman (trained in France) and worked for Childs until 1834. Then he became his partner. Beginning in 1842, Duval was determined to produce a color lithograph. By 1846, he was publishing color lithographs in The Merchant Register or Business Man's Guide. Duval was

influential in the development of U.S. lithography for several reasons. First, he was the only lithographer in Philadelphia in the 1830's who had been professionally trained. This experience in France had allowed him to have both technical and artistic knowledge of lithography. Second, Duval promoted his work through trade cards he displayed in his window. Third, he was an innovator in both color printing and steam power presses (Marzio, 1979).

In 1842, Prang studied the chemistry of printing in Hagen, Wesphalia. He spent five years as a journeyman printer and dyer of colored textiles in Bohemia. In 1850, he moved to the U.S. settling in Boston (Freeman, 1971). Prang formed a partnership with Julius Mayer and began to produce color lithographs in 1856. In 1860, Prang bought Mayer out and named the company Prang and Company (Freeman, 1971). Prang's production of color lithographs was extensive and he printed many fine art reproductions (Marzio, 1979). Prang brought into his company a group of female artists and copiers who worked full or part-time. One of the artists was Maude Humphrey Bogart, another was Mary Dana Hicks, both produced many drawings for Prang's publications (Freeman, 1971).

Prang was also interested in the teaching of art which began from his contact with Professor Mitterer of the Munich public art school. Prang not only published

educational textbooks and produced art materials needed in public schools, but also provided for the training of teachers. Between 1884 and 1900, Mary Dana Hicks prepared alone or in collaboration with others, a number of books on art instruction that received recognition throughout the U.S. and Europe. Hicks was educated at the Allen Female Seminary of Rochester, New York, graduating in 1852. She supplemented her education by taking art courses at the University of Rochester from 1850 and 1852. In 1862, Hicks became the Editor for all of Prang's publications. She studied at the Massachusetts Normal Art School and the School of the Boston Museum of Fine Arts in the 1880's. In 1884, she was made Director of the Prang Normal Art classes. Until 1900, Hicks worked on publishing educational books on art instruction and industrial arts. Also in 1900, Mary Dana Hicks and Prang married after the death of his first wife, Rosa (Freeman, 1971).

Hicks was the most influential female who worked for Prang, but there were others. Fidelia Bridges drew nature, birds, flowers and grasses. She had been a pupil of William T. Richards of Philadelphia. Hermine Brownscombe, who had studied at the National Academy of Design in New York City and at the Art Students' League, New York, was also employed by Prang. Brownscombe also worked in Paris with Henry Mosler. Other employees of Prang were:

Christine Chaplin, a New York artist who was also a writer and who wrote "The Colonel's Opera Cloak" in the No Name series of novels; Rosinia Emmet Sherwood, who began her painting on china and had studied with William M. Chase in New York and at Julian's class in Paris. Sherwood also received a silver medal for painting at the Paris Exposition of 1889; Mrs. L. B. Field who had been a pupil of Ross Turner and was also a teacher; Ellen Fisher who began painting flowers for Prang at eighteen and specialized in water colors of the flora of New England; Elizabeth B. Humphrey who drew children for Prang and had studied art at Cooper Union, New York; Laura Hills who had studied at the Art Students' League, New York and in Boston; Phoebe Jenks, who did portrait paintings for Prang; Annie C. Nowell, who had studied at the Lowell Institute Drawing School, Boston and at Cooper Union; Elizabeth Parker, who had studied in Europe and had been a student of Ross Turner; Adelaide Palmer, who had been a pupil of John J. Enneking; Ellen Robins and Ellen Richardson, who painted flowers for Prang; Ida Waugh who had studied modeling at the Academy of Fine Arts in Philadelphia, and in 1888, had studied at the Julian Atelier in Paris under Lefebue and Benjamin Constant; and Dora Wheeler, who had studied with William M. Chase (Freeman, 1971). Fortunately, Prang kept very good records and a record of the female

artists who drew for him was available. Also, Freeman should be commended for providing brief biographical information on some of the artists who drew for Prang.

Prang made the first color lithographic reproductions of famous paintings in this country and reproduced pictures by Winslow Homer, Louis K. Hawlow, Joseph DeCamp, F. S. Church, J. J. Enneking, and Laura Hills. In 1899, Prang printed an extensive chromolithography collection--one-hundred and sixteen lithographic plates for the Walter Collection of Oriental Ceramic Art. This project required ten years and intensive work. Some of these color plates required as many as forty-four color separations (Freeman, 1971).

With the development of chromolithography in the 1840's and with the development of photographic printing in the 1860's, an immense market was developed for lithographic printing. There were few lithographic shops devoted primarily to printing for artists and the apprenticeship type of instruction became more difficult (Antreasian, 1971). "The lithographic establishments have hither had to depend largely on artists and printers educated in the old country, where a more thorough education is provided for..." (Prang from Marzo, 1979, p. 1970).

Prang felt trade schools should be established as schools in lithography in London, Paris and Vienna had been successful (Marzio, 1979). Trade schools were developed but the fine art printer diminished. Lithography had grown into a commercial industry and few original images emerged (Marzio, 1979). When off-set lithography was introduced, shortly after 1900, printing from stone became all but obsolete (Antreasian, 1971).

As a result, U.S. artists who made the most significant contributions to the history of late nineteenth century lithography, Whistler foremost among them, did their work in England, France, and other parts of Europe (Antreasian, 1917). Whistler's first lithographs were done at West Point in 1852. In 1878 and 1880, under the encouragement of Thomas Way, who had a lithographic shop, he began to experiment with the medium (Levy, 1975). Joseph Pennell later became a student of Whistler's (Goldman, 1980).

Although limited in number and capacity, some U.S. fine art printers managed to survive. Until the 1960's, lithography was unfortunately considered as a secondary art form. An artist who worked with the technology of lithography was considered a 'craftsman' (Goldman, 1981). Bolton Brown, artist/lithographer, printed in New York. Brown studied at Syracuse University, where he received a

Bachelor of Painting in 1885 and Master of Painting in 1888. In 1891, Brown became the first member of the art faculty at Stanford University. He later became professor and head of the University's Department of Drawing and Painting. In 1901, with Radcliffe Whitehead and Henry White, he founded Byrdcliffe, the utopian art colony in Woodstock, New York. Brown received limited instruction in lithography in 1915 in London at the County Council School (Adams, 1982) but obtained a great deal of knowledge from his own experimentation.

In 1916, Brown set up a press in New York City for public printing and he taught lithography at Woodstock. He called his press the 'artist' press. Arthur Davis, Cesare, Chauncey Ryder, George William Edgars, John Taylor Arms, George Bellows, Hugh Ferris, Mary Bonner, and Anna Frost were some of the artists Brown either taught or did prints for. Anna Frost was a Brooklyn school teacher who requested Brown to purchase a lithographic press for her. He gave her a course of instruction in the technicalities of printing. Mary Bonner, from Austin, Texas, studied with Brown at Woodstock (Brown, 1982 from Tamarind Papers).

In 1917, George Miller established a shop in New York. Miller served an apprenticeship with the American Lithographic Company. When Miller was working at the company, he was asked to help an artist, Albert Sterner,

correct a damaged stone. Sterner, Arthur Davis, and Joseph Pennell were part of a small group of artists who wanted to develop the artistic possibilities of lithography in the U.S. and needed a printer. Miller was able to save the image on Sterner's stone. As a result, the artist recommended Miller to George Bellows, who was also working on his own lithography. Miller, from this point, began to print for Bellows, Sterner, and other artists in their studios. In 1917, he opened his shop which is still opened today and directed by his son, Burr Miller (Flint, 1976). Knigin and Zimiles (1974) listed 142 artists who had printed at the Miller shop and, of these artists, twenty-two were female.

In the West, Lynton Kistler and Lawrence Barrett operated workshops in Los Angeles and Colorado Springs. Lynton Kistler's father was a letterpress printer, and was among the first to convert his letterpress into an offset lithography operation. In 1833, Lynton Kistler printed his first lithograph for artist, Jean Charlot. In the 1940's, June Wayne studied the process at the shop. Between 1948 and 1956, she issued some thirty-eight prints and in 1955-1958 she worked some in off-set lithography (Johnson, 1980).

Lawrence Barrett studied at the Colorado Springs Fine Arts Center. He taught fine arts at the University of

Colorado from 1936-1952. He was interested in lithography and printed for some artists when lithography was still considered of little importance. He worked with Boardman Robinson, Jean Charlot, Rice Lebrun and Adolf Dehn (Who's Who in American Art, 1953; Johnson, 1918).

In the 1920's and the 1930's, lithography was seldom found among subjects taught in U.S. art schools, colleges, and university art departments. Joseph Pennell was one of the few instructors to set up a program. Pennell studied at the Pennsylvania Academy of Fine Arts and at the Pennsylvania School of Industrial Arts (Dictionary of American Sculptors and Engravers, 1974). He also studied under Whistler in England and admired his work. In 1922, he set up a lithographic workshop at the Art Students League in New York (Adams, 1980). According to Goldman (1980), Pennell was an opinionated and evangelical teacher, but he spread the word about printmaking. Goldman listed and showed plates of 35 artists' lithographs in One-Hundred Prints by One Hundred Artists of the Art Students League of New York, 1875-1975. Of these artists, thirty-two were male and three are female. Helen Frankenthaler, Wanda Guy, and Victoria Hutson Huntley were the female artists represented by Goldman.

Other art schools, colleges and universities were late in adding lithography to their curriculum. Except for

Pennell's instruction, lithography was not taught in art schools until after World War II (Adams, 1981).

In 1935, the Work Progress Administration organized and set up graphic workshops in various cities throughout the U.S. These workshops were planned and equipped to give meaningful employment to the American artist. The largest percentage of WPA workshops were located in New York. These workshops somewhat revived the interest in lithography and a few artists produced lithographs (Johnson, 1980).

The late 1950's and the early 1960's witnessed what has been referred to as the "renaissance" of American lithography. This may be traced to the resurrection of the art by a number of outstanding workshops. Several of these workshops were initiated by females. The emphasis on lithography in these shops was to produce fine art prints.

In 1949, Robert Blackburn opened a self-supporting cooperative print workshop in New York. Blackburn had learned lithography from Riva Helfond at the Harlem Community Arts Center, where she taught courtesy of the WPA (Saft, 1981). Blackburn named the shop the Printing Workshop and Will Barnet, Boris Margo, John Van Wicht, and Chaim Koppelman were artists who worked at the shop (Johnson, 1980).

In 1952, painter and printmaker Margaret Lowengrund, with the aid of a Rockefeller Foundation grant, opened Pratt Contemporaries in New York City. The entire range of printmaking was taught including lithography. The Pratt Institute took over the workshop in 1956 and it became the Pratt Graphic Art Center (Johnson, 1980). After Lowengrund's untimely death in 1957, Fritz Eichenberg assumed responsibility for the liaison between the Rockefeller Foundation and the Pratt Institution (Goldman, 1981).

In 1957, Tatyana Grosman established a center for fine art lithographic printing. Grosman was educated in Japan and Germany. She and her husband, Maurice, moved from France to the U.S. in 1943 to escape the Nazi occupation (Goldman, 1982). The Grosmans settled in West Islip, Long Island where she later established the printing shop. The shop was originally set up in the garage of their home and became known as Universal Limited Art Edition, U.L.A.E. (Saff, 1978).

Grosman's father, publisher of the Russian Newspaper, Ural Life, had given her a love of fine books. Grosman's desire to publish 'livres de luxes' lead to the publication of fine illustrated books and portfolios on which artists and writers would collaborate (Saft, 1981). For the first project, Grosman had artist Larry Rivers

and poet Frank O'Hara work together, combining words and images to create twelve lithographs that were published as a portfolio entitled Stones (Gale, 1979). Other artists and writers followed, but by invitation only. Lee Bontecou, Jim Dine, Marisol Escobar, Sam Francis, Fritz Glarner, Helen Frankenthaler, Jasper Johns, Barnett Newman, Robert Rauchenberg and James Rosenquist have worked at U.L.A.E. (Art in America, 1982). The facilities at Long Island were restricted, and Grosman felt she could collaborate only with people whose work appealed to her and with whom her printers could develop a close relationship (Gale, 1979). Grosman felt it was important for the aritsts and printers to be allowed to work at a carefully controlled pace and to be sensitive to one another.

By 1979, only twenty-seven artists had worked at U.L.A.E., which indicates that Grosman held to her beliefs. The shop greatly influenced the development of U.S. fine art lithography (Gale, 1979). U.L.A.E. prints set a standard for quality. The shop has never been a business in the usual sense of the word: editions are small, and time is not a factor in their production (Saft, 1981).

A listing of Grosman's early printers was not found in the literature reviewed for this study, but, in a Tamarind listing of lithography workshops (Glahn, 1981), there were five printers listed at U.L.A.E., all of whom

were male. No information was found for this study on the training of these printers.

Carol and Morton Rapp have collected lithographs by virtually all the artists and writers who have published at U.L.A.E. (Gale, 1979). In a 1979 catalogue for the Rapp collection there are seventeen of these artists listed, thirteen of these artists are male and four of them are female. The four females are Lee Bontecou, Helen Frankenthaler, Grace Hartigan and Marisol Escobam.

The Tamarind Lithography Workshop was founded in 1960. It has been a major force in the revival of fine art lithography and the training of skilled master-printers in the U.S. The result has been many technical developments and increased knowledge of the process. The Tamarind Lithography Workshop was established by June Wayne in 1960 with the aid of a Ford Foundation grant. June Wayne dropped out of school early but now holds an honorary Doctorate of Fine Arts (Longstreet, 1979). She studied lithography at Kistler's shop in Los Angeles and in Paris with Marcel Durassier (Knigin and Zimiles, 1974).

Wayne worked with Marcel Durassier, master-printer, in 1957. The following year, on her return to Paris to work on a 'live de luxe' on the poetry of John Donne, she stopped in New York and discussed with W. McNeil Lowry, then Director of the Program in Humanities and the Arts

of the Ford Foundation, the disappearance of master-printers and the poor state of lithography in the U.S. Wayne suggested that an attempt be made to restore lithography by creating a population of master-printers (Block, 1972).

The Ford Foundation approved Wayne's proposal in 1959, and commissioned her to organize and direct a new workshop, which she chose to locate on Tamarind Avenue in Hollywood adjacent to her own studio. The first Ford grant to the Tamarind Lithography Workshop was renewed twice. The Tamarind Institute in New Mexico, formed in April, 1970, was partially supported by the Ford Foundation (Block, 1972).

The six original goals for Tamarind listed by Wayne were: 1) to create a pool of master-printers in the U.S., 2) to develop U.S. artists, working in many styles, into masters of the medium, 3) to accustom artists and printers to intimate collaboration so that each becomes responsive to the other; to encourage both to experiment widely and extend the expressive potential of the medium; 4) to stimulate new markets for the lithography, 5) to guide the printer to earn a living outside of subsidy or dependence on the artist as a source of income, and 6) to restore the prestige of lithography by creating a collection of extraordinary lithographs (Knigin and Zimiles, 1974).

By 1970, Tamarind had produced 2,900 lithographs, extended grants to 103 artists, and graduated over fifty master-printers (Goldman, 1982). However, in this period, not one female went through the Tamarind master-printer program (Wayne, 1983:

> During the Tamarind years of 1960 to 1970, no women were trained as printers although a few applied to me. Those who did, arrived in spiked heels, waist cinchers, long lacquered fingernails, etc., and their self-image and physicality stereotyping prevented their serious consideration for printer training (Wayne, letter, 1983).

Many workshops have been formed by Tamarind printers. Irwin Hollander founded the Hollander Workshop in 1964 in New York. Hollander also studied at the Brooklyn Museum, Art Students League, and in Mexico. Hollander was a printer-fellow at Tamarind for two years and the technical director of Tamarind from 1963-64. Hollander also was a student-printer, at the age of thirteen, at the Amsterdam Graphic School. In 1967, he received a grant from Tamarind and worked as a master-printer at U.L.A.E. (Knigin and Zimiles, 1974).

Kenneth Tyler founded Gemini, Ltd. in 1966 in Los Angeles. Kay Tyler was co-founder, but she was not a Tamarind master-printer (Knigin and Murray, 1974). Tyler's previous educational background was not found in literature reviewed for this study (Knigin and Zimiles, 1974).

Cirrus Editions, also in Los Angeles, was founded by Jean Milant. Milant received his Master of Fine Arts from the University of New Mexico. As a Ford fellow, he went to Tamarind in 1968 and became a Tamarind master-printer in 1969.

Ernest de Soto founded Editions Press in San Francisco in 1967 (Knigin and Murray, 1974). Other than de Soto having been a recipient of a Tamarind fellowship, no other educational background was found in the literature reviewed for this study.

In 1970, Jack Lemon founded Landfall Press, Inc. Landfall has an educational program of exhibits, lectures, and demonstrations in addition to being a fine art lithographic publishing workshop. At a 1983 Print Symposym at the University of Kansas, Lawrence, Jack Lemon was a guest lecturer with Pat Steir who has worked extensively at Landfall. Steir discussed the importance of the relationship of the artist and the printer and stated that the printer is the teacher. Steir is a female artist and is still involved with Landfall Press (Kellas Gallery, 1984).

Landfall Press, Inc. (1981) listed 58 artists who had produced lithographs at Landfall from 1980-81. Fifty of the artists were male, and 8 were female: Pat Steir, Martha Enlebacher, Jeanette Pasin Sloan, Lynda Benclis,

Ellen Lanyon, Freya Hansell, Phyllis Branson, and June Leaf. Landfall employed 13 printers from 1970 to 1981; Jack Lemon also prints. Of these printers, only one was female, Mary McDonald (Landfall Press, Inc., 1981). Landfall now employs a female shop assistant, Barbara Spies (Kapalka, 1984).

After Tamarind Lithography Workshop's ten year program, the Tamarind Institute was formed at the University of New Mexico as a permanent professional educational program supported by the Tamarind Institute and the University. Clinton Adams is the Director and Garo Antreasian is the Technical Director. Adams received his Bachelors of Education in 1940 from the University of California at Los Angeles and his Master of Arts in 1942 from the same institution. He was Assistant Professor of Painting and Lithography at the University of California at Los Angeles from 1946-1954, Chairman of the Department of Art at the University of Kentucky from 1957-1960, Dean of the College of Fine Arts at the University of New Mexico from 1961 to 1976, and Professor of Art at the University of New Mexico from 1961 to present (Who's Who in American Art, 1983). Adams was a consultant to the Tamarind Institute Board of Directors from 1960-1970. He has been involved with Tamarind from the very beginning (Bloch, 1972).

Garo Antreasian received his Bachelors of Fine Arts from Herron School of Art at Indianapolis. He taught at Herron from 1948-1964 and became a professor of lithography at the University of New Mexico in 1964 and became Chairman of the Department of Art in 1981 (Who's Who in American Art, 1983). Antreasian was also a consultant to the Tamarind Institute Board of Directors and has been involved with Tamarind from the very beginning (Bloch, 1972).

Antreasian has had a tremendous influence on the development of lithography in the United States. Through his teaching and creative activities, his contributions to the techniques and aesthetics of lithography have had considerable influence. Antreasian has been involved with the process since he was seventeen years old. He first experimented with lithography at Ansenal Technical High School in Indianapolis in 1939. In 1939, he received a scholarship to the Herron School of Art. The lithography classes originally taught by Francis Chapin and M. Max Kahn had been discontinued and Antreasian had to rely on his own knowledge to experiment with the process (Lewis, 1973).

Antreasian's education was interrupted by World War II, but he returned to school in 1946 and received his B.F.A. from Herron in 1948. He still relied on his own resources in his involvement with lithography.

In the summers of 1948 and 1949, Antreasian studied with Stanley Hayter at Atelier 17 and with Will Barnet at the Art Students League (Lewis, 1973). Antreasian expressed in the questionnaire for this study that he was self-taught with the exception of his experience at the Art Students League.

Tamarind Institute continues with the goals of the Tamarind Lithography Workshop in the training of professional artisians and continuing research into both the technical and the economic aspects of lithography. Foremost among Tamarind's objectives is the training of master-printers. Master-printers who complete the program have had intensive experience in the workshop, including full responsibility for collaboration with artists in the proofing and printing of editions, participation in workshop management and conducting research projects. Beginning in June, 1984, the program will consist of a brief but intensive summer course in professional lithography followed by a fifteen to eighteen month fellowship in the master-printer program (Tamarind Papers, 1983).

The Tamarind Institute also has a curatorial training program, which comprises one academic year, and provides interns with the necessary skills and experience in the care and handling of fine prints; in documentation and

exhibition; and in catalogue research, preparation, and publication. As these fellowships are half-time appointments (20 hours a week), it is possible to concurrently enroll in graduate study in the history of art at the University of New Mexico (Tamarind Papers, 1983).

In the 1978 issue of the Tamarind Papers, there is a listing of printers whose chops appear on the Tamarind lithographs printed since 1960. When a Tamarind printer demonstrates an ability to print an edition of professional calibre, he or she receives a personal chop (symbol designed by a printer to identify they printed an edition) (Roberts, 1971). There are 102 printers included on this list. Of these, only six appear to be female (determined by first name). Data on the number of females who applied to the program was not obtainable. In correspondence with Clinton Adams, Director of the Tamarind Institute, requesting differential educational background information on male and female lithographers, he replied that this information was not available but that he personally felt that there was no difference in the background of male and female lithography students who applied to Tamarind (Adams, 1983).

As with the Tamarind Lithography Workshop, many artisians trained at Tamarind Institute and have either established workshops or are teaching in colleges,

universities and art schools (Chapter III of this study will specify Tamarind trained instructors).

In the Tamarind Papers (summer, 1981) there was a listing of lithography workshops. The listing was not definitive, but included all the workshops which responded to a Tamarind questionnaire (Glahn, 1981). There were 93 workshops listed, with a total of 129 printers. Ninety-one of the printers were determined by first names to be male, 21 were female, and the sex of 8 printers was not determinable as only the first name initial was cited. Even if the undetermined printers were female, the number of female printers is clearly disproportionate to the number of male printers (29/93) who work in the U.S. workshops listed in the 1981 Tamarind survey.

Fourteen of the printers participated in Tamarind's Professional Printer program: 11 males and 3 females. Fifteen of the printers received a Tamarind Master-Printer certificate: 13 males and 2 females.

Many workshops for teaching lithography have emerged in U.S. art schools, colleges and universities since the 1960's. This development has a direct correlation to the 'renaissance' of lithography and the recognition of lithography as a fine art form. In 1980, the Tamarind Papers listed 200 art schools, colleges and universities which Tamarind surveyed to assess the status of lithography courses. The listing also included the instructors who

responded to the survey. Of the 200 institutions listed, 177 were either colleges or universities. Fifty (50) offered an undergraduate major in lithography, 54 offered a graduate major in lithography. One-hundred and seventy (180) instructors taught lithography; 132 were determined by the first name to be male, 22 female, and 26 whose sex could not be determined.

Fine art lithography is now a part of many college and university art curriculum and, in these schools, there are shops that are better equipped than any shop that existed in any school in the 1950's (Adams, 1980).

In summary, there have been females who have been influential in the development of lithography beginning with Gleissner in 1799 and continuing with Grosman and Wayne. Wayne's role in the revival of U.S. lithography was not overlooked as Gleissner's role was in the late eighteenth and early nineteenth century. Information on females involved with lithography and even general information on the training of lithographers is lacking. Histories of lithography have focused on the development of the process not on how this process was taught or passed on to others. The number of female lithographic artists has also been obscured through time since very little information has been given on the lithographic artists, copiers, and illustrators who drew for the

Pendletons, Currier and Ives, Duval, Prang and other early nineteenth century lithographic publishing shops. It does appear, however, from the information available, that the fine art lithography workshops, beginning with Bolton Brown and continuing through today, had considerably more males than females who became printers or had done work through the shops. Even the Tamarind Lithography Workshop, which was founded by a female, had no females who went through the master-printer training program from 1960-1970. The Tamarind Institute still has fewer females than males who are trained to be printers. Throughout the history of lithography, females have been involved and their influence has often been strong, yet, this influence has been often neglected. Grosman and Wayne are not the only females who have taken a role in the development of lithography. The number of females who have had influence is certainly not proportionate to the number of males. This could have resulted from a number of personal and societal factors. Two of these factors, the lack of female role models available to students of lithography and the barriers and inequities of female employment as lithography instructors, is addressed in the last section of this review.

Status of Females and Males Teaching in Art Departments

In the College Art Association Newsletter (CAA 1979-1980), annual placement review, 468 males and 449 females were listed as having earned a Masters of Fine Arts. Five-hundred and sixty-seven (567) males applied for employment in fine art departments, and 543 females applied. In 1979, 55 percent of the males received full-time employment, and 40 percent of the females received full-time employment. In 1980, 55 percent of the males received full-time employment, and 42 percent of the females received full-time employment. In 1979, 25 percent of the males received part-time employment and 34 percent of the females received part-time employment. In 1979, 20 percent of the males remained unemployed while 25 percent of the females remained unemployed. In 1980, 17 percent of the males remained unemployed while 21 percent of the females remained unemployed (CAA, 1980).

In the area of printmaking, 53 males earned masters in 1979-1980 and 56 females. Sixty-nine (69) males and 73 females applied for jobs in colleges and universities. Fifty-four percent (54%) of all applicants (artists, art historians, museum professionals, art educators, art and slide librarians and administrators) were female. Among artists, the proportion was 49 percent (CAS, 1980).

The rank and salary of the job placement for all studio artists in 1979 and 1980 included 23 placements at the rank of instructor, salary range $8,000 - $17,000, median $13,500; and 53 at the rank of assistant professor, salary range $13,000 - $20,000, median $15,500. Fourteen (14) associate professorships were filled, with salaries ranging from $13,000 to $25,000; and five full-professorships, with salaries from $35,000 to $45,000 (CAA, 1980).

Of 95 CAA usable reports at the lower ranks, 50 per cent of the positions were filled by males and 50 percent by females; 67 percent of the associate professorships and all but 1 percent of the full professorships were filled by males (CAA, 1980).

In summary, in 1979 there were 3 percent more male artist applicants than female applicants; eighty percent (80%) of the male applicants were employed and only 74 percent of the female applicants. Nine percent more females were employed part-time than males (CAA, 1980).

In 1980, 83 percent of the male artist applicants received jobs, and 79 percent of the females. For 1979-1980, males received the majority of the higher rank placements. The number of females who received employment is lower than the number of males, more females were

employed part-time, and more males received the high rank positions (CAA, 1980).

For comparison, the 1982-1983 College Art Association placement review stated that 46 percent of the artist applicants were female. In 1983, 82 percent of the male artists received jobs and 78 percent of the females. Six percent more females were employed part-time. Of 145 usable reports, 30 placements were at the rank of instructor, salary range $8,400 to $22,000, median $16,000; and 88 were at the rank of assistant professor, salary range $9,000 to $27,000, median $19,500. Eleven placements were at the rank of associate professor, salary range $22,000 to $38,000, and 3 appointments were made at the rank of full professor, with salaries ranging from $30,276 to $38,000. Thirteen placements were unranked, salary range $9,000 to $24,432. There was not a breakdown of male to female rank placement (CAA, 1983). These salaries may be used for comparison with salary ranges for female and male instructors discussed and tabled in Chapter III (see Tables XIII and XIV).

In studio, 43 percent of the positions went to females in 1982-1983; whereas in 1979-1980, 48 percent of the positions went to females. From 1979-1980 to 1982-1983, the percentage of female artist applicants receiving jobs

decreased one percent and the over-all percentage of jobs filled by females in studio fell 4 percent.

Unfortunately, in the area of printmaking, the ratio of applicants to positions available in 1980 and 1983 was greatly disproportionate. In 1980, there were 142 applicants and only 24 openings. In 1983, there were 148 applicants and only 29 openings. The 1980 Tamarind Survey of art schools, colleges and universities indicated that out of 170 lithography instructors, only 24 were females. Since there are few openings in printmaking, it is plausible that the proportion of male to female instructors will not equalize unless, in the next few years, all the positions are filled by females.

A similar pattern has existed in other art departments. In 1963, 22 percent of the art faculties were female, in 1974 females comprised only 19 percent (Packard, 1977). In 1976-1977, there were 1,141 studio applicants and 520 positions, in 1981-1982, there were 1,489 applicants for 487 positions, and in 1982-1983, there were 1,283 applicants for 410 positions. In 1976-1977, the ratio of applicants per position was 1:6 where in 1982-1983 the ratio was 2:5 (CAA, 1980, 1981, 1982, 1983).

With females comprising only 19 percent of the art faculties in 1974 and the ratio of applicants per position, it is unlikely that the proportion of male art faculty

members to female will equalize unless the ratio of females to males hired is greatly increased. Unfortunately, it appears that the ratio is becoming less rather than more proportionate. For females to have equal opportunity in art departments, a proportionate number of female faculty members to male faculty members needs to be met. Art departments need to adjust this inequity by hiring a larger percentage of females if they are to provide equity in education.

Importance of Role Models and the Female Aesthetic

It was not until the 1870's that females gained access to a higher education equivalent to that which had been available to males in the U.S. since the seventeenth century (Hedges and Wendt, 1980). Even equal access however, does not guarantee that females are receiving an equal education. Female students who do gain access to education do not have opportunity for role model association. Given that male faculty members outnumber female faculty members in U.S. colleges and universities (Ross, 1978), the opportunity for female students to gain same sex role model stimulation is not equal to that of male students.

In a 1974-1975 Women's Caucus for Art survey of MFA programs, students, and faculty, it was found that teaching/learning situations in the company of female

artists were rarely available. Although there were 1,414 female MFA candidates in the 82 reporting institutions, there were only 176 female faculty members of whom 146 were full-time and 96 were full-time graduate faculty. The ratio of female MFA candidates to full-time female graduate faculty was 15 to 1 compared to a 2 to 1 ratio of male graduate faculty members to male students. Consequently, the female MFA candidates at schools in this study lacked contact with significant numbers of female faculty who could have been expected to function as role models for them (Ross, 1978).

Nochlin (1979) questions why it is that we call a college co-educational when it has a half-male, half-female student body, but not a half-male and half-female faculty? It is this area of overt discrimination which Nochlin feels is the primary injustice in higher education that must be changed.

Equity in education for females cannot be met until females have a proportionate number of female role models as teachers who allow them to realize that they can succeed. The importance of female role models in the arts has a fundamental impact in asserting that females are creative individuals who can make a meaningful contribution in all creative endeavors (White, 1978).

In the late 1960's, Horner found that even the brightest, most capable female students were handicapped by fear of success (Loeb, 1978). Certainly, some of this fear would be relieved if females were allowed to view other females as instructors and as successful artists. Drexler (1974) believes one is not born a 'creative' genius, one becomes a 'creative' genius, and that females have not been allowed an equal opportunity in education to achieve their potential:

> Traditionally, women artists, art historians and critics have been scoffed at, rejected and belittled because our experience, approaches, and expertise differs from that of the male dominated academic and artistic communities. Perhaps it is the culture that creates the prostitute. If so, then it is time to reexamine the culture along new lines. The inroads made by dedicated women and enlightened women and enlightened men in recent years have been moving in just this direction (Moulton, 1978, p. 85).

Plummer (1979) postulates that the present inequitable status of females in the practice and teaching of art in higher education began with the U.S. frontier concept of females as practitioners of the deocrative as opposed to the fine arts. Plummer also feels the lower status of females has been caused by deep-seated convictions that advanced work in the fine works is pernicious, especially to mixed classes of males and females.

Pollock (1983) feels in as much as society is structured by unequal relations at the point of material production, so, too, is it deeply founded on unequal relations between the sexes.

> Literary appreciation and art history as appreciation are concerned with positive and negative evaluations of artifacts. Careful gradations and distinctions are established between major and minor, the good and bad, the eternally valued and momentarily fashionable. This kind of evaluative judgement has particular implications for women. Art created by women is consistently assessed as poor art (Pollock, 1983, p. 42).

Nochlin (1978) has questioned her own article, "Why have there been no great women artists?" Originally, Nochlin became concerned over the lack of female artists cited in regular art history curriculum and in most survey textbooks. Along with this concern, Nochlin began to question the reasons why so few females were being historically brought forth. Nochlin first postulated that there had not been many great female artists. She has now questioned herself by questioning the standards and values by which we have judged art. Were there "no great women artists" or was there a male dominated opinion on what "good" art was? If we have more females in academic positions to contribute to this issue, female and male students will have a more equitable view for establishing criteria for evaluating aesthetic judgements.

> Healthy self-love and independence makes one question the male establishment point of view we always have lived by: their view of what is great art, great women, a great society. The way out is a desire to take responsibility for the restructuring of ourselves (Stone, 1971, p. 91).

Females need the support systems; professional, emotional, and financial, which are necessary for creative activity (Stone, 1971). If the number and status of female lithography instructors is not found to be equal to male lithography instructors, then female lithography students are not seeing role models which indicate females are capable of becoming successful lithographers as potential printers or artists. In addition, both sexes are then limited in their experience of points of view, standards, and values on what "good" art is, what art is, and who is capable of creating it. In addition to documenting the employment and status characteristics of male and female lithography instructors, the documentation of other demographic characteristics can aid us in searching for similarities and differences in male's and female's routes to becoming lithography instructors.

CHAPTER II

PROCEDURES AND METHODS

Procedures

As stated in the introduction to Chapter I, this study compared age, birthplace, educational background, institutional rank, salary, exhibition record, and awards of female and male lithography instructors in universities and colleges in the United States. The central hypothesis was that these factors would be sex-differentiated. In order to compare the above professional characteristics of female and male lithography instructors, a questionnaire was developed which included eleven questions. The questions on the questionnaire were modeled on the College Art Association annual placement data categories, and additional questions were included to obtain information on the instructors' relationship to lithography. The questionnaires were not pretested on any group or individual. This questionnaire is included as Appendix B of this study.

The names of the instructors and the institutions where they teach was obtained from a Tamarind Survey of instruction in lithography in art schools and universities listed in The Tamarind Papers (1980). The Survey listed

200 institutions, of which 177 were universities or colleges. There were 170 instructors listed as lithography instructors in the 166 institutions used in this study; 20 were determined to be female by the first name listed, 128 were determined to be male, and 22 were labeled as 'undetermined' since only the first initial of their name was cited.

The Post-Secondary Educational Directory (1983) and Who's Who in American Art (1983) were used to obtain the addresses of the instructors. One hundred and seventy (170) instructors' addresses were obtained.

For the respondents' convenience and to facilitate the questionnaire's return, the questions were contained on one page. The back of the questionnaire was left blank in order to allow the respondents adequate space to respond to each question. A stamped self-addressed envelope was also included to facilitate the questionnaire return.

A post card reminder was mailed to each instructor who had not responded to the questionnaire after a two week period. As each questionnaire was received, a cross reference listing was checked to assure that an accurate record was kept of replacements, resignations, relocation, and deaths.

Methods

The returned questionnaires were first collated according to the respondent's sex, age, institutional rank, and salary to facilitate the tabulation of the frequency of responses. Each instructor's response was tabulated in the categories set out by the questionnaire in order to access the frequency of responses of female instructors, as compared to the frequency of responses of male instructors. Second, the frequency of responses according to sex were converted to percentages of the designated category's sub-totals and totals. First, the frequency of female responses and the frequency of male responses for each category designated by the study were tabled. Second, the frequency of these responses were converted to percentages of the total responses.

The tables were grouped according to their relation to each professional characteristic designated by this study. The first category was personal data (age and the geographical location of the respondent's place of birth). For geographical division of the U.S., states were placed in the sub-divisions: Northwest, West, Midwest, North, Northeast, Southwest, Southeast, and South. Western Europe, China and Japan were also included. The list of states according to the regions follows:

West	Northwest	Midwest	North
California	Oregon	Minnesota	Ohio
Nevada	Idaho	Iowa	Pennsylvania
Colorado	Washington	Nebraska	Indiana
Hawaii	Montana	Kansas	Michigan
Utah	Wyoming	Missouri	
	North Dakota	Wisconsin	
	South Dakota	Illinois	
	Alaska		

Southwest	South	Southeast	Northeast
Arizona	Arkansas	West Virginia	Washington D.C.
New Mexico	Louisiana	Virginia	Maryland
Oklahoma	Mississippi	N. Carolina	Rhode Island
Texas	Tennessee	S. Carolina	New York
	Florida		Delaware
	Kentucky		New Jersey
	Alabama		Maine
	Georgia		Massachusetts
			Vermont
			Connecticut
			New Hampshire

The second category grouping focused on the information pertaining to the instructor's involvement in lithography: whether lithography was their primary area of instruction, how long they had taught lithography and the type of training they had received. Exhibition record, work description and influential lithography instructors were also included in this category, but due to the wide range of variance, was not tabled. A discussion of these sub-categories is, however, included in the text of Chapter III.

The third category was the instructor's educational background; what degrees were obtained, dates these degrees were obtained, and the geographical area the institutions are located in. The geographical areas were divided in the same regions as the area location of place of birth.

The fourth category grouping was the professional status of the instructors; location of teaching institutions, ranks of the instructors, the present annual salary range, and the instructors' starting salary range. The median salary range was also tabulated.

The tables and a discussion of the questionnaire's results are included in Chapter III of this study. Percentages have been rounded off to whole numbers.

CHAPTER III

RESULTS

The null hypothesis was that there is no sex-differentiation in the professional characteristics of female and male lithography instructors teaching in universities and colleges in the United States. In order to assess the age, birthplace, educational background, institutional rank, salary, exhibition record, and awards of female and male lithography instructors, questionnaires were sent to 170 instructors known to be teaching lithography at 166 colleges and universities throughout the United States (Tamarind, 1980). Twenty (20) of the instructors were determined to be female, 128 were determined to be male, and 22 were undetermined. Fourteen (14) females and 64 males returned questionnaires. Seven of the returned questionnaires had been included in the undetermined sex count sent; 2 female and 5 male. Also included in the returned questionnaires, were four respondents who had replaced instructors; 3 females had replaced males and 1 male had replaced a female. In total, 24 females are assumed to have received questionnaires, and 131 males are assumed to have received questionnaires. There was a 58 percent return for females,

and a 49 percent return for males. There was a 46 percent return on the total questionnaires sent. Table I gives the frequency by sex of the questionnaire's returned.

TABLE I

Questionnaire Return

Question-naires	Female	Male	Unde-termined	Replacement	Total
Total Sent	20	128	22		170
Total Returned	9 (2U) (3R)	58 (5U) (1R)	2(F) 5(M)	3(F) 1(M)	78 64
	14	64			
Percent Returned	56%	49%			46%

Abbrecivations F = Female U = Undetermined
M = Male R = Replacement

The lithography instructors who responded represent institutions which are located throughout the United States (see Table IX). The largest percentage of institutions (29%) are located in the Midwest, and the smallest percentage are located in the Southeast (1%). The largest percentage of females who responded (29%) are teaching in institutions located in the West region, and the largest percentage of males (34%) are teaching in institutions located in the Midwest region.

There is at least one lithography instructor who responded, of each sex, who is teaching in an institution located in one of the seven regions designated by this study. A total of 78 institutions are represented by respondents. This category will be discussed more extensively in the educational background section of this chapter.

Personal Data

Age

The largest percentage (43%) of the female respondents were born between 1945 and 1948, and the largest percentage (28%) of male respondents were born between 1940 and 1944. All the female respondents were born after 1930. Sixteen percent (16%) of males were born before 1930. The median age for the female respondents is 39, for the male respondents 45. Seventy-two percent (72%) of the females are in their thirties, 23 percent of the males. Twenty-eight percent (28%) of the females are in their forties, and 46 percent of the males. Twenty-three percent (23%) of the males in their fifties, and 9 percent are in their sixties (see Table II).

TABLE II

Age

Birthdate	Female	Male	Total	Percent of Female Respondents	Percent of Male Respondents	Percent of Total Respondents
1915-1919		4	4		6%	5%
1920-1924		3	3		5%	4%
1925-1929		3	3		5%	4%
1930-1934	1	10	11	7%	16%	14%
1935-1939	2	7	9	14%	11%	11%
1940-1944	1	18	19	7%	28%	24%
1945-1949	6	11	17	43%	17%	22%
1950-1955	4	2	6	29%	3%	8%
No Reply		6	6		9%	8%

Birthplace:

The largest percentage (43%) of females who responded were born in the Northeast region of the United States, and the largest percentage (28%) of males were born in the Midwest region of the United States. The second largest percentage (21%) of females were born in the Midwest and the second largest percentage (14%) of males were born in the Northeast and the North region designated by this study. From these figures it can be established that the largest percentage of respondents, both female and male, were born in the Midwest and Northern sections of the United States.

The remainder of female respondents (5) birthplaces are equally distributed in the other five regions designated by this study. The remainder of male respondents (28) birthplace distribution varies in numbers somewhat, and 4 males were born in foreign countries (see Table III).

Lithography Instructors

Involvement With Lithography

Lithography Primary Area of Instruction

Forty-three percent (43%) of the female instructors and 25 percent of the male instructors who responded stated that lithography was their primary area of instruction.

TABLE III

Birth Place

Area	Female	Male	Total	% of Females	% of Males	% of Total Responses
Northwest U.S.	1	3	4	7%	5%	5%
West U.S.	1	4	5	7%	6%	6%
Midwest U.S.	3	18	21	21%	28%	27%
North U.S.	1	9	10	7%	14%	13%
Northeast U.S.	6	9	15	43%	14%	19%
Southwest U.S.	1	3	4	7%	5%	5%
Southeast U.S.	1	1	2	7%	2%	3%
South		5	5		8%	6%
China		1	1		2%	1%
Japan		1	1		2%	1%
Western Europe		2	2		3%	3%
No Reply		8	8		11%	10%

Forty-three percent (43%) of the females and 25 percent of the males stated that they taught lithography along with other printmaking processes (intaglio, woodcut and serigraphy).

Forty-two percent (42%) of the males stated that lithography was definitely not their primary area of instruction, whereas only 14 percent of the females stated that lithography was definitely not their primary area of instruction. One male responded that the lithography program had been cut since an art major had been terminated at this teaching institution (see Table IV).

It is known from the Tamarind survey of lithography institutions (1980), that in 10 of the institutions where 10 of fourteen (14) female respondents teach, two or more courses are offered in lithography. Two of the institutions where female respondents are teaching have 4 presses, 4 institutions have 3 presses, 7 institutions have 2 presses, and the remaining institutions of female respondents have 1 press. Three institutions where the female respondents are teaching offer an undergraduate major in lithography, 7 institutions offer an undergraduate major in printmaking with a concentration in lithography. Four institutions where the female respondents are teaching offer a graduate major in lithography, and 6 institutions offer a graduate major in printmaking with a concentration in lithography.

It is known from the Tamarind survey (1980) that 45 institutions where this study's male respondents are teaching offer 2 or more courses in lithography. One institution where a male respondent is teaching has 5 or more presses; 8 institutions; where male respondents are teaching have 4 presses, 12 institutions have 3 presses, 16 institutions have 2 presses, and 17 institutions have 1 press. Sixteen institutions where the male respondents are teaching offer an undergraduate major in lithography and 14 offer a graduate major in lithography. Thirty-six institutions where male respondents are teaching offer an undergraduate major in printmaking with a concentration in lithography, and 21 offer a graduate major in printmaking with a concentration in lithography.

TABLE IV

Lithography Primary Area of Instruction

Response	Female	Male	Total	% of Female Respondents	% of Male Respondents	% of Total Respondents
Yes	6	16	22	43%	25%	28%
Partial (all Printmaking)	6	18	24	43%	28%	31%
No	2	27	29	14%	42%	37%
Program Cut		1	1		2%	1%
No Reply		2	2		3%	3%

Semesters Teaching Lithography

The largest percentage (43%) of female respondents have been teaching lithography for 15-19 semesters (7-9 years). The largest percentage (16%) of male respondents have been teaching lithography for 10-14 semesters (5-7 years). None of the female respondents have taught lithography more than 24 semesters (12 years), while 50 percent of the males have been teaching lithography from 25 to 50 plus semesters (12-25 years). These figures indicate that 100% of the female respondents did not teach lithography before 1971. Several (4) of the male respondents were teaching lithography as early as 1959 and 41 percent of the instructors began teaching lithography prior to 1970.

From this data it can be assumed that the instruction of lithography in colleges and universities before 1970 was almost entirely done by males (see Table V).

Additional Training in Lithography:

Forty-three percent of the female respondents have not received additional training in lithography outside a college setting, and 30 percent of the male respondents stated that they had not received additional training outside a college or university setting. There were 7 females who stated they had received training in a workshop

TABLE V

Semesters Teaching Lithography

Semesters	Female	Male	Total	% of Female Respondents	% of Male Respondents	% of Total Respondents
1- 4	2		2	14%		3%
5- 9	3	8	11	21%	12%	14%
10-14	1	10	11	7%	16%	14%
15-19	6	7	13	43%	11%	17%
20-24	2	7	9	14%	11%	11%
25-29		7	7		11%	9%
30-34		5	5		8%	6%
35-39		3	3		5%	4%
40-44		7	7		11%	9%
45-50						
50 +		4	4		6%	6%
No Reply		6	6		9%	8%

setting, 3 of these 7 females received their training at Tamarind. Sixteen (16) males stated they had received additional training at Tamarind, and 18 stated they had received training at other various workshops throughout the country and in Europe. Three of the male respondents stated they had been certified as master-printers by The Tamarind Institute.

TABLE VI

Additional Training in Lithography

Type	Female	Male	Total	% of Female Respondents*	% of Male Respondents*	% of Total Respondents*
European Workshop		4	4		6%	5%
Individual	1	1	2	7%	2%	3%
Industrial		3	3		5%	4%
New York	2	2	4	14%	3%	5%
Specific Printer	1	1	2	7%	2%	3%
Tamarind	3	13	16	21%	20%	25%
Other Workshops	4	18	22	29%	28%	28%
No	6	19	25	43%	30%	32%
No Reply		5	5		8%	6%

*Percentage total not 100% since an individual might have received more than one type of training.

The additional training female respondents had received was obtained at Pratt Graphic Center in New York, California College of Arts and Crafts, Printmaking workshops in New York, Editions Press Atelier in San Francisco, Tamarind Workshop for professors, Tamarind summer workshops, and a summer workshop at the University

of New Mexico. Individuals the females mentioned who were involved in the training, were John Sommers of Tamarind and George Miyasaki who taught at the University of California at Berkeley. Miyasaki was included in this study's questionnaire mailing and he unfortunately is no longer living. One of the female respondents stated she had just recently established her own printing shop and had recently completed lithographs for artist, Bryon Rogers.

The additional training the male respondents had received was obtained at Tamarind, Seog May's Plate Lithography workshop in Provincetown, commercial off-set lithography, Landfall Press, Lakeside studio, Art Students League, Meathies in Zurich, George Miller's studio in New York, National Academy of Germany, a workshop in London, commercial lithography workshops, and the John Herron School of Art with Garo Antreasian. One male respondent established a shop which employs a master-printer, David Keister, and an assistant to the printer, and a female curator (Katz, 1984).

Exhibitions and Awards

Both female and male instructors submitted lengthy lists of exhibits (select shows, museum exhibits, solo shows, private collections and purchase exhibits). The

male instructors' exhibits and awards outnumbered the female instructors exhibits and awards on the whole.

The interesting information obtained from the listing of exhibits and awards was the great variety of work lithography instructors are involved with. Many have combined lithography with other forms of visual expression. The trend throughout their work seems to have developed from a technical expression to more of an expressive freedom with the use of lithography.

The female respondents seem to be more directly involved with lithography. Many of the male instructors expressed they did not exhibit lithographic prints primarily. Several produced serigraphs, intaglio prints and many did paintings.

A great number of the instructors had received purchase awards, many had received fellowships for research in the United States and in Europe. The male instructors definitely listed a great many more museum exhibits than the female instructors listed. The male instructors have promoted themselves internationally to a much greater extent than the female instructors indicated. A large number of the instructors had exhibited in selected print making exhibits. Each instructor indicated their largest percentage of exhibits were in the regions in which they were employed. Twenty-six percent (26%) of the male instructors included their resumes with the questionnaire

and 21 percent of the females. The male instructors had more exhibits listed than females listed. Three (3) male instructors included exhibition catalogues, and 4 male instructors included publications on their work. One female instructor enclosed a publication and 4 female instructors enclosed their professional resumes. These documents were not requested because of mail cost, but their inclusion was informative.

Educational Background

Years Degrees Obtained

The largest percentage (29%) of females obtained their undergraduate degree between 1970 and 1974, and the largest percentage (20%) of males obtained their undergraduate degrees between 1965-1969. None of the female respondents received their undergraduate degrees prior to 1955. Fifteen percent (15%) of the males obtained undergraduate degrees prior to 1955. The largest percentage (21%) of females obtained their graduate degrees equally between 1965-1969, 1970- 1974, and 1975-1979. The largest percentage (30%) of males obtained their graduate degrees between 1970 and 1974. None of the female respondents received graduate degrees prior to 1955. Eight percent (8%) of the males received their graduate degrees prior to 1955.

These figures are consistent with the years instructors have been teaching lithography. None of the females had taught lithography more than 12 years, where male instructors had taught lithography up to 25 years. These figures further substantiate that lithography instruction was almost entirely male dominated prior to 1970 (see Table VII).

Location of Institutions Where Degrees Were Obtained:

The largest percentage (29%) of female instructors who responded obtained their undergraduate degrees in institutions located in the Midwest, and the largest percentage (36%) of males obtained their undergraduate degrees in the Northwest or Southwest. None of the males received their undergraduate degrees in the South. The largest percentage (29%) of the female respondents received their graduate degrees in the Midwest as well as the largest percentage (36%) of males. The distribution of locations where degrees were obtained for the remaining regions is fairly equal. The least respondents, 2 females and no males, obtained graduate degrees in the Southeast. The largest percentage (27%) of respondents were born in the Midwest and the largest percentage (undergraduate 35%, graduate 35%) received their degrees in the Midwest.

The percent of respondents who obtained undergraduate degrees in the Southeast and the South decreased for

TABLE VII

Years Degrees Obtained

Undergraduate							Graduate					
Year	Female	Male	Total	% of Females	% of Males	% of Total	Female	Male	Total	% of Females	% of Males	% of Total
1941-1944		3	3		5%	4%						
1945-1949		3	3		5%	4%						
1950-1954		3	3		5%	4%		5	5		8%	6%
1955-1959	1	7	8	7%	11%	10%	1	7	8	7%	11%	10%
1960-1964	3	8	11	21%	12%	14%	1	6	7	7%	9%	9%
1965-1969	2	13	15	14%	20%	19%	3	10	13	21%	16%	17%
1970-1974	4	9	13	29%	14%	17%	3	19	22	21%	30%	28%
1975-1979	1	1	2	7%	1%	2%	3	5	8	21%	8%	10%
1980-1984							1		1	7%		2%
No reply	3	17	20	21%	27%	26%	2	12	14	14%	19%	18%

graduate degrees, and the percent for respondents who obtained undergraduate degrees in the West and Northeast increased for graduate degrees. These figures indicate respondents moved from the South to the West and Northeast to obtain graduate degrees. Two male respondents had received their undergraduate education in Western Europe and their graduate work was completed in the United States (see Table VIII).

Influential Lithography Instructors

This question proved to be very informative for it made the connection between lithography instructors clear. Since fine art lithography has primarily been developing in the United States for the past twenty-five years, a definite network of influence is apparent. Garo Antreasin, (2F, 7M) University of New Mexico and Tamarind, was given credit for influence by both female lithography instructors and male lithography instructors for being influential. John Sommers (1F, 2M), also an instructor at Tamarind, was also given credit for influence by several instructors. A number of instructors stated they had learned from the Tamarind Book of Lithography Techniques.

Another influence which became evident was from professional workshops. Jack Lemon and Landfall Press was mentioned by male instructors (2) as having an influence.

TABLE VIII(a)

Location of Institutions
Where Degrees Were Obtained
(Undergraduate)

Area	N.R.	W.E.	N.W.	W.	M.W.	N.	N.E.	S.W.	S.E.	S.
Female	1	-	-	2	4	3	2	-	1	1
Male	13	2	2	6	23	6	7	1	1	4
TOTAL	14	2	2	8	27	9	9	1	2	5
Percent of Female Respondents	7%	-	-	14%	29%	4%	14%	-	7%	7%
Percent of Male Respondents	20%	3%	3%	9%	36%	9%	11%	2%	4%	6%
Percent of Total Respondents	18%	3%	3%	10%	35%	11%	11%	1%	3%	6%

Abbreviations
N.R. - No Reply
W.E. - Western Europe
N.W. - Northwest U.S.
W. - West U.S.
M.W. - Midwest U.S.
N. - North U.S.
N.E. - Northeast U.S.
S.W. - Southwest U.S.
S.E. - Southeast U.S.
S. - South U.S.

TABLE VIII(b)

Location of Institutions
Where Degrees Were Obtained

(Graduate)

Area	N.R.	W.S.	N.W.	W.	M.W.	N.	N.E.	S.W.	S.E.	S.
Female	-	-	-	2	4	2	3	2	1	-
Male	7	-	2	8	23	7	7	7	-	5
Total	7	-	2	10	27	9	10	9	1	5
Percent of Female Respondents	-	-	-	14%	29%	14%	21%	14%	7%	-
Percent of Male Respondents	11%	-	3%	12%	36%	11%	11%	11%	-	8%
Percent of Total Respondents	9%	-	3%	13%	35%	11%	13%	11%	1%	6%

Abbreviations

N.R. - No Reply
W.E. - Western Europe
N.W. - Northwest U.S.
W. - West U.S.
M.W. - Midwest U.S.
N. - North U.S.
N.E. - Northeast U.S.
S.W. - Southwest U.S.
S.E. - Southeast U.S.
S. - South

A number of instructors (1F, 4M) mentioned they had primarily taught themselves and the influence of commercial lithography became evident.

Several male instructors (4) listed a female instructor as having influenced their work, and two female instructors listed females as having influenced them. The following list includes the names of individuals who were listed as having an influence on the instructors.

Females Listed	Males Listed
*Anna Wong	*Gordon Kluge
*Judith Solodkim (first female to be certified a Tamarind Master-Printer)	*Charles Gill
Ruth Weisberg	Bohuslau Horak
Margaret Lowengrand	Irvin Hollander
Myrna Burks	Gordon Gilkey
Birgit Skiold	Leon Goldin
	Clifford Smith
	Serge Lozingot
	Peter Bodner
	Tom Piper
	Harry Westlund
	Charles Morgan
	*Wayne Kimball
	*Robert Gardner (1F, 1M)
	*Emil Weddige
	*John Sommers (1F, 2M)
	*Garo Antreasian (2F, 7M)
	Jack Lemon (2M)
	David Keister
	Kurt Lohwasser
	Robert Wolfe
	Fred Gude
	David Selgado
	Loren Jansen
	Dan Steward
	*Byron McKeeby (1F, 1M)
	Max Kahn
	Robert Von Newman (2M)

Males Listed (cont'd)

David Bernard
Paul Darro
George D. O'Connell
Wayne Entice
Jim Butler
B. Manley
Robert Everyman
Clinton Cline
Dean Wayholtz
Zigmeunds Priede
Fran Noel (2)
*Richard Beachtle
*Nathan Oliveira
(1F, 1M)
*Steve Cortright
*Robert Bechtle
*Brian Wells
*Theo Wujick
*John Sparks
*Jack Catterall
*Jack Damer
*George Miyasaki
*Arthur Flory
*Rornas Vasulas
Kenneth Farley
Dieter Roth
Maltby Sykes
Larry Barker
Rudy Pozzatti
Alfredo Zalce
Richard Zoebner
Alfred Sessler
Eric Munch

*listed by female instructors

Professional Status

Area Location of Teaching Institutions

The largest percentage (29%) of female respondents teach in institutions which are located in the West

region designated by this study. The largest percentage (34%) of males teach in institutions located in the Midwest (see Table X). Fifty-seven percent (57%) of the female instructors are teaching in different regions from where they received their graduate education. Forty-two percent (42%) of the males are teaching in different regions from where they received their graduate education (see Tables VIII and Table IX).

TABLE IX

Area Location of Teaching Institution

Area	Female	Male	Total	% of Females	% of Males	% of Total Respondents
Northwest	1	2	3	7%	5%	4%
West	4	7	11	29%	11%	14%
Midwest	1	22	23	7%	34%	29%
North	1	8	9	7%	12%	12%
Northeast	3	7	10	21%	11%	13%
Southwest	2	8	10	14%	12%	13%
Southeast	1		1	7%		1%
South	1	8	9	7%	13%	12%
No Reply		2	2		2%	1%

TABLE X

Teaching-Education Region Changes

Female			Male		
Total	Graduate Location	Teaching Location	Total	Graduate Location	Teaching Location
1	MW	S	5	MW	N
1	NE	SW	1	NW	SW
1	MW	NW	2	W	NW
1	MW	W	1	S	N
1	SW	N	3	W	MW
1	N	MW	1	MW	SW
1	N	W	1	N	SW
1	SE	NE	1	N	MW
Percent		57%	1	SW	MW
			1	MW	S
			1	W	MW
			1	N	NE
			1	W	S
			1	NE	W
			1	MW	NE
			1	MW	NW
			1	MW	W
				Percent	42%

Institutional Rank

An equal percentage (36%) of female respondents are assistant professors and associate professors. Seven percent (7%) are instructors. Only 14 percent of the females are full professors, and 7 percent are administrators. Two percent (2%) of the males are lecturers and none of the males are instructors. The largest percentage (49%) of males are full professors, only 12 percent are assistant professors, 28 percent are associate professors. Nine percent (9%) of the males are administrators.

This study showed 16 percent of the male instructors are older than the female instructors (see Table II). Forty-one percent of the males have been teaching lithography for a longer period of time than the female instructors (see Table V). Eight percent of the male instructors received their graduate degrees before the female instructors. These figures indicate a larger percentage of males would be expected to be in higher ranks, but the percentage is in excess of the above differences. There are only 16 percent of the male instructors who are older, but 49 percent of the males are full professors. Although 41 percent of the males have been teaching lithography longer than the females, again 49 percent of the males are full professors. This

discrepancy also holds true with the percentage (8%) of males who received their graduate education earlier.

Other discrepancies exist when the years graduate degrees were obtained are evaluated. Forty-two percent (42%) of the females received their graduate degrees between 1970 and 1979, whereas 38 percent of the males received their graduate degrees in this period. It can be reasonably assumed that these instructors would be the assistant and associate professors. Only 12 percent of the males are assistant professors, where 36 percent of the females are assistant professors. Only 28 percent of the males are associate professors where again 36 per cent of the females are associate professors (see Table XI

Salary Range

The beginning salaries for female respondents ranged from $9,000 to $18,000 (1983). The beginning salaries for males ranged from $2,000 - $14,500. The present median salary for females who are assistant professors is $21,775 and for males is $23,216. The median salary for females who are associate professors is $22,219 and for males $27,896. The median salary for females who are professors is $32,000, and for males is $37,771. There is only one female administrator, associate professor, and her salary

TABLE XI

Institutional Rank

Rank	Female	Male	Total	% of Female	% of Male	% of Total
Inst.	1		1	7%		1%
Lect.		1	1		2%	1%
Asst.	5	8	13	36%	12%	17%
Asso.	5	18	23	36%	28%	29%
Prof.	2	30	32	14%	49%	41%
Adm.	*1	6	7	7%	9%	9%
No Reply	1	7	8	7%	11%	10%

*female associate
males, 3 associates, 3 professors

(These ranks are included in two categories so percentage total is above 100%).

Abbreviations: Inst. - Instructor Professor
Lect. - Lecturer Professor
Asst. - Assistant Professor
Asso. - Associate Professor
Prof. - Professor
Adm. - Administrator

is $40,000. The median salary for male administrators is $38,244 and the largest salary for an administrator is $45,000.

These figures indicate females have a lower median salary than males of the same rank. There is little age difference of the female and male assistant and associate professors or little difference in the years graduate degrees were obtained. The median salary for male assistant professors is $1,441 higher than the median salary for female assistant professors. The median salary range for male associate professors is $5,677 higher than the median salary for female associate professors. These discrepancies are consistent with the salaries for males and females in art departments in U.S. colleges and universities (see Tables XII, XIII and XIV).

TABLE XII

Female Salary Range
Starting-Present

Starting	Present	Rank	Birthdate	Graduate Degree
NR	15,000	Inst.	1950	1975
12,000	19,600	Asst.	1950	1976
18,000	18,000	Asst.	1953	1981
*22,000	*22,000	Asst.	1939	1963
NR	24,500	Asst.	1947	1971
NR	25,000	Asst.	1948	1976
9,000	21,300	Assoc.	1949	1974
9,000	24,000	Assoc.	1942	1966
11,998	22,000	Assoc.	1948	NR
12,132	21,576	Assoc.	1947	NR
10,500	29,000	Prof.	1945	1972
NR	35,000	Prof.	1945	1972
9,000	40,000	Assoc.Adm.	1933	1967
15,000	36,000	NR	1935	1959

*1/3 annualized to 22,000

Abbreviations
Inst. - Instructor Professor
Lect. - Lecturer Professor
Asst. - Assistant Professor
Assoc.- Associate Professor
Prof. - Professor
Adm. - Administrator
NR - No Reply

TABLE XIII

Male Salary Range
Beginning-Present

Beginning	Present	Rank	Birthdate	Graduate Degree
2,800	4,200	Lect.	1947	1975
12,500	19,800	Asst.	1939	1974
13,500	20,000	Asst.	1941	1967
14,400	36,000	Asst.	1943	1968
14,500	23,000	Asst.	1939	1974
NR	18,000	Asst.	1946	1974
NR	22,500	Asst.	1941	1968
4,150	22,500	Asso.	1934	1962
5,800	NR	Asso.	1944	1978
6,000	28,000	Asso.	1929	1958
8,000	26,000	Asso.	1943	NR
9,000	23,280	Asso.	1949	1977
9,000	36,000	Asso.	1943	1967
9,500	23,800	Asso.	1939	1971
10,000	22,370	Asso.	1949	1974
10,000	30,000	Asso.	1944	1971
11,500	36,600	Asso.	1948	1974
13,000	20,400	Asso.	1947	1972
14,000	20,000	Asso.	1953	1977
NR	38,000	Asso.	1940	1964
NR	27,600	Asso.	1944	1970
NR	36,000	Asso.	1934	NR
2,000	45,000	Prof.	1918	1955
3,000	NR	Prof.	1925	1950
3,750	32,000	Prof.	1919	1957
4,800	32,000	Prof.	1930	1955
5,200	NR	Prof.	1937	1963
6,500	40,000	Prof.	1947	NR
8,000	47,000	Prof.	1936	1966
9,000	35,000	Prof.	1930	1955
9,500	NR	Prof.	1945	1970
12,300	33,400	Prof.	1943	NR
NR	36,333	Prof. Ch.	NR	1970
12,000	45,000	Assoc. Ch.	1942	1972
25 NR for salaries				

TABLE XIV

Median Yearly Salary Range
by Rank and Sex

Present Rank	Female				Male			
	Beginning Range	Median	Present Range	Median	Beginning Range	Median	Present Range	Median
Inst.	NR		$15,000	$15,000				
Lect.					$2,800		$4,200	
Asst.	12,900-18,000	15,000	18,000-25,000	21,775	12,000-14,500	13,725	18,000-36,000	23,216
Asso.	9,000-12,132	10,532	21,300-24,000	22,219	4,150-14,000	9,162	20,000-38,000	27,896
Prof.	10,500		29,000-35,000	32,000	2,000-12,300	6,405	32,000-47,000	37,771
Adm.	9,000		40,000		12,000		36,333-45,000	38,244

CHAPTER IV

DISCUSSION AND CONCLUSION

The null hypothesis of this study, that there is no sex differentiation in the professional characteristics of female and male lithography instructors teaching in universities and colleges, was disconfirmed. Questionnaires were sent to 170 instructors teaching at 166 colleges and universities throughout the United States. There was a 58 percent questionnaire return rate for female instructors and a 46 percent return rate for males. All geographic regions in the United States were represented in the respondents' return, and there were respondents from each professional rank.

This study indicated that 16 percent of the male respondents were older than the females. None of the female respondents were born before 1930. The age differences indicate that males almost entirely dominated the instruction of lithography prior to 1970, thus, there were few female role models for female students to emulate. Males continue to dominate in instruction. There were at least five male instructors for every female instructor.

The Midwest and the Northern regions of the U.S. seemed to have produced the largest percentage of

lithography instructors. This study indicated that there is little sex-difference in the birthplace of female and male lithography instructors.

A larger percentage (43%) of females stated that lithography was their primary area of instruction. Only 25 percent of the male respondents stated that lithography was their primary area of instruction. These percentages could indicate that female instructors, since younger, are more specialized than the older male lithographers. Forty-two percent of the males stated lithography was definitely not their primary area of instruction. Only 14 percent of the females had this response. Again, this could indicate some attitudinal differences in specialization of teaching functions.

Twenty-nine percent (29%) of the institutions where the female respondents are teaching offer a graduate major in lithography, and 43 percent of the instruction where the female respondents are teaching offer a graduate major in printmaking with a concentration in lithography. Twenty-two percent (22%) of the institutions where the males are teaching offer a graduate major in lithography, and 33 percent offer a graduate major in printmaking with a concentration in lithography (Tamarind, 1980). These figures could indicate that female instructors are promoting

lithography majors to a slightly greater extent than the male instructors or that they, because specialized, have been more likely to be hired in specialized programs.

Fifty percent of the males have been teaching lithography for 25-50 plus semesters (12-25 years). None of the females has taught lithography more than 24 semesters (12 years). These figures indicate that female students did not have female role models prior to 1970. It is interesting that female administrators (e.g., Wayne, Grosman, and Lowengrund) did not encourage more females to pursue lithography. Wayne states that females did not receive her serious consideration for printer training (1960-1970) because of their self-image and physicality stereotyping. It is curious that Wayne did not discuss these 'problems' with female applicants. Given that they would have had no female role models prior to application to Wayne, it is no wonder that they appeared the way they did.

Perhaps Wayne's unwillingness to risk supporting these female applicants was tied to some realistic sense that Tamarind would lose status if it became 'female identified'. At any rate, although we can only speculate on these reasons, Wayne's characterization of the students who applied to her reveals some of the affects of the lack of role models has on female students. Twenty-five

percent (25%) of the total respondents received additional training at Tamarind. This percentage would indicate that Tamarind remains a strong influence. Yet, there were other workshops indicated, and 3 males mentioned commercial lithography as their training ground. A higher percentage (62%) of males than females (57%) received additional training outside a college or university setting.

The responses (resumes, exhibit and award listings) indicated that males are more actively involved than females in promoting their work or are more likely to be encouraged through gallery acceptance. Brodsky (1979) suggests that females are discriminated against in exhibition selection. Studies indicate that galleries devote only 15 percent of their one-person shows to female artists (The College Art Association Newsletters, 1976 from Brodsky, 1979). In a survey of over 40 museums, Dickenson and Loach (1976) found the ratio of male exhibitors to female exhibitors in one artist shows was about 95 to 1. The same study revealed females exhibited much more frequently in juried shows where the artist's name is covered, than in one artist or group invitationals (Packard, 1977). These studies suggest that male instructors may have been encouraged by a higher percentage of selection.

Packard (1977) also states that visibility and recognition through art reviews has been limited for females.

This might explain why more males enclosed publications on their work in the questionnaire return.

Only four (4) female respondents indicated that they exhibited to a great extent. These exhibition records could explain the rank positions. Unfortunately, if females are victims of exhibition selection discrimination, as numerous studies indicate, they are penalized in professional advancement. The study did not acquire substantial data in this area from the respondents, but future studies might be conducted to assess the female lithography instructors' experiences with exhibition selection.

None of the female respondents acquired graduate degrees prior to 1955, whereas 8 percent of the males had obtained graduate degrees before this date. These figures again substantiate that female students did not have female role models for a period of time.

The largest percentage (35%) of respondents, both female and male, received their graduate degrees in the Midwest. A larger percentage of females (57%) moved to different regions when they were employed. Forty-two percent (42%) of the males moved to different regions. This data could indicate that female respondents had more difficulty in obtaining jobs, or that they were more mobile,

more likely to return to being close to friends or family, or a variety of other factors.

The influence of lithographers on one another is an interesting area of study. Garo Antreasian obviously had a tremendous influence on the second generation of lithographers. Only seven females were listed by respondents as being influential; this was not surprising since so few females have been employed for a long time in the field. There were twenty-one female printers listed by Tamarind (1978) working in commercial fine art lithography workshops. It was encouraging to discover females are beginning to open their own shops. One female respondent in this study recently established a shop in California. Judith Solokim (first female to be a certified Tamarind Master-Printer) established a shop in New York and Myrna Burks (who taught lithography at the Kansas City Art Institute) has opened a shop in Oregon (Katz, 1984). If a larger percentage of females were encouraged to become master-printers, teach lithography in colleges and universities, and to print lithographs, their influence might increase.

Sixty-two (62%) percent of the females are either assistant or associate professors, where only 40 percent of the males hold these ranks. Only 14 percent of the females are full professors, where 49 percent of the males

are full professors. Only 7 percent of the females are administrators, where 19 percent of the males are administrators. These discrepancies indicate that sex differences in rank are apparent. Packard (1977) states that the situation for promotion and tenure has been discriminatory for females in academia. In general, females have been concentrated in the lower, non-tenured positions (26.7 percent of females are tenured, 57 percent of males are tenured), with many females in part-time positions which lack the fringe benefits of full-time employment. The proportion of female faculty members has changed little in the past ten years, there has been a rise in the proportion of females with the rank of instructor, meaning a sharp decrease in females in upper level ranks (HEW, 1973 from Packard, 1977).

A major discrepancy between female and male respondents was found in the median salaries for two ranks. The median salary for male respondents who are assistant professors was $1,441 dollars higher than the median salary for females respondents who are assistant professors. The median salary for male respondents who are associate professors was $5,677 higher than the median salary for female respondents who are associate professors.

Limitations

There were limitations to the study which were dictated by an oversight in the questionnaire's form. The instructors were not requested to state the year they began teaching. Other additions might have been made: a request for the instructors to enclose resumes or a more precise listing of their exhibitions and awards, so a more valid comparison could have been made; information on the instructor's views on discriminatory practices might have been requested, but a prejudicial bias might have been provoked; requests for more information on the specific training in lithography instructors received; and instructors' opinions on the reasons there are so few female lithography instructors. After conducting the study knowledge was obtained from the instructors' various responses and there are areas which future research can address.

The study presented percentage comparisons, and did not do a statistical analysis of the percentages. In some cases, where the study stated there were differences, these differences may or may not have been significant; but many differences were great enough where the significance is obvious.

Recommendations

Now that data has been obtained on the professional characteristics of lithography instructors a future study might contact only the female instructors and request information on their professional experiences. Have barriers existed? How do they view their roles as educators and as artists? Has the male dominance in the profession effected their development?

A study could be conducted on the educational procedures in commercial workshops. How many females have gone through training? How many female artists have produced lithographs in the workshops?

Also, a study could be conducted to assess the instructors' views on the teaching of lithography. Do instructors encourage female students to pursue careers in lithography? Are they teaching lithography as a primary art form?

A study could be conducted of lithography students' responses to their feelings on the importance of same sex-role models. What are students' perceptions of their instructors as role models? Do students perceive their instructors as supportive, authoritarian, and as models to emulate? What do female students feel about female instructors and male instructors, and what do male students feel about female instructors and male instructors?

A study could be conducted on how aesthetic opinions influence lithographic imagery. What is the criteria instructors use to judge what "good" art is? Does the criteria in which female instructors use differ from the criteria male instructors use? How does the instructor's criteria for what "good" art is limit or broaden lithographic imagery or fine art visual imagery on the whole.

Hopefully, the study will promote future research and a greater understanding of the problems females encounter in all levels of lithography will be fostered. Knowledge of the problems could lead to correction.

APPENDIX A

COVER LETTER

Elizabeth Hatchett
220 Deerfield Lane
Lawrence, Kansas
66044

Dear

Your answering of this questionnaire would be most appreciated. The purpose of the questionnaire is so that I might find out more information on instructors of lithography in American colleges and universities.

I am currently conducting research for my Master's thesis which deals with professional characteristics of lithography instructors.

Your cooperation will be greatly appreciated since the information contained in the questionnaire is essential for my thesis. This information is not obtainable from any other source.

A self addressed stamped envelope is contained for your convenience. Thank you for your attention.

Sincerely,

Elizabeth Hatchett
Graduate Student
University of Kansas

APPENDIX B

QUESTIONNAIRE

LITHOGRAPHY INSTRUCTOR
QUESTIONNAIRE

NAME:	SEX:	INSTITUTION CURRENTLY TEACHING:
BIRTHDATE:	PLACE OF BIRTH:	

1.) Is lithography your primary area of instruction?

2.) How many semesters have you taught lithography? Please state institutions.

3.) What degrees have you obtained? Please state institution and location for each degree obtained. State year degree was obtained.

4.) Have you received additional instruction in lithography outside a college or university setting?

5.) What is your institutional ranking?

6.) Please list your major exhibitions.

7) Please list awards you have received.

8.) What is your salary for this semester? What was your starting salary?

9.) Briefly describe your work.

10.) Who do you consider to be your influential lithography instructors?

11.) If you have any questions or additional comments please state them.

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