"WITHIN A FRAMEWORK OF LIMITATIONS" MARIANNE STRENGELL'S WORK AS AN EDUCATOR, WEAVER, AND DESIGNER

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A Thesis

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ABSTRACT

Dr. Douglas Forsyth, Advisor

A study into the life of Marianne Strengell, provides insight into the state of woman artists and designers in the 20th century. Although the work is mainly a biographical study of a single designer, this study also highlights the nature of Cranbrook Academy of Arts as a dominant force in shaping American art, architecture, and design. The study looks at Strengell's role as an educator at Cranbrook, innovator in cottage industry development, and active participant in design for architects and industry. Emigrating from Finland to the Detroit area in 1937, Strengell served as weaving instructor at Cranbrook Academy of Arts in Bloomfield Hills, Michigan. From 1937 until her retirement in 1961, Strengell inspired numerous Cranbrook weavers who would shape textile design in America and abroad, including Robert Sailors, Ed Rossbach, Jack Lenor Larsen, and Nelly Sethna. During her tenure at Cranbrook, Strengell pursued various projects outside of the Academy, including the development of a cottage industry for weaving in the Philippines through the United States Mutual Security Agency in association with the United Nations. Additionally, during the 1940s and 1950s Strengell worked in textile development with several architects and industrial designers, including the Saarinen-Swanson Group, Eero Saarinen and Associates, and the firm of Skidmore, Owings, and Merrill. In conjunction with Chatham Manufacturing Company, Strengell designed woven upholstery fabrics used in Ford and GM models, including the 1959 Lincoln Continental. Through her various projects, Strengell overcame sexual

stereotypes and established herself as a notable 20th century designer. Research methods for this thesis included archival research at Cranbrook Archives, as well as readings in published books, articles, and reports on related topics: woman designers in the United States, Scandinavian immigrants, and Cranbrook artists.

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TABLE OF CONTENTS

	Page
CHAPTER 1: CRANBROOK AND WOMEN IN THE ARTS	1
Functional Arts in the 20 th Century	1
George Gough Booth: Cranbrook Visionary	9
Projected Aspirations: Eliel Saarinen	11
The Dream Takes Shape	14
Women at Cranbrook	17
CHAPTER 2: EDUCATOR: MARIANNE STRENGELL AT CRANBROOK	22
The Evolution of Cranbrook Philosophy	22
Background: Strengell in Europe	24
Strengell Travels to the United States	27
The Textile Department	28
Strengell as Department Head	32
Eliminating the "Country Club" Mentality at Cranbrook	36
Strengell's Students	39
CHAPTER 3: WEAVER: STRENGELL'S WORK IN THE PHILIPPINES	46
Blending Education with Experience	46
Cottage Industry and Economic Improvement in Southeast Asia	47
Philippine Council for United States Aid	49
Cranbrook Connections in the Philippines	52
Strengell's Work in the Philippines	53

LIST OF IMAGES

Image		Page
1	Intricate design for "The Sermon on the Mount"	
	by Studio Loja Saarinen	. 1
2	Indicative of Strengell's early style, a rug designed	
	and woven in 1938.	. 4
3	Strengell examines fabrics in her studio	7
4	George Booth, Dorothy Sepeshy, Eliel Saarinen,	
	Loja Saarinen, and Zoltan Sepeshy in 1936	12
5	A Milles' sculpture in the Triton Pool, with the	
	Academy Art Museum in the background	. 15
6	Maija Grotell and Harry Weese load a kiln	18
7	Young Florence Schust photographed while on	
	vacation with her adoptive family, the Saarinens	19
8	Strengell as a young woman in Finland	24
9	Marianne Strengell's 1932 Drivers License	27
10	The Swedish Weavers are dwarfed by a rug woven	
	for Studio Loja Saarinen	. 29
11	Students observe Strengell, head of the department	
	in 1943	. 33
12	Weaving students at the power loom in 1953	. 34
13	Weaving studio at Cranbrook, Strengell's textiles	
	Are visible throughout	37

14	Strengell and Robert Sailors in the studio, 1944	40
15	Nelly Sethna at a Cranbrook loom in 1959	44
16	An informal discussion between Strengell and students	
	in 1952	46
17	Strengell demonstrates the "Strengell Loom" developed	
	specifically for use in the Philippines	56
18	A simple straw fabric, emblematic of the work	
	promoted by the MSA and UN in the Philippines	58
19	Filipino weaver Aida Fabriero, who, at Strengell's	
	urging, trained at Cranbrook in 1952	60
20	Screen printed jusi fabric designed by Strengell	
	for cottage industry	64
21	Screen printed jusi fabric designed by Strengell	
	for the Philippines cottage industry	65
22	Piña fabric from the Philippines, designed by Strengell	66
23	Strengell (right) at the loom with Loja Saarinen and	
	Eero Saarinen in 1958.	75
24	"Shooting Stars" fabric in orange	78
25	Logo for Saarinen-Swanson Group	79
26	Strengell poses in a publicity shot with her rug done	
	for the GM Technical Center Research Library	82
27	The GM Technical Center Research Lobby, featuring	
	a rug designed by Strengell	84

28	Strengell's color rug for Alcoa Aluminum	86
29	Jacquard upholstery fabric designed by Strengell	
	for Chatham Manufacturing Company	87
30	Simple yet elegant, Strengell's "Taj Mahal" fabric	
	was featured in the '59 Lincoln Continental	88
31	A watercolor design for a rug next to the final, machine	
	woven product by Tai Ping	89
32	Strengell, a notable 20 th century weaver	92

CHAPTER 1

CRANBROOK AND WOMEN IN THE ARTS

Functional Arts in the 20th Century

At the onset of the twentieth century the United States was a leader in textile

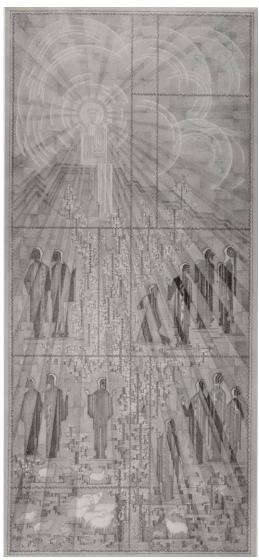


Image 1: Intricate design for "The Sermon on the Mount" by Studio Loja Saarinen. Cranbrook Academy Images: #5724 Copyright Cranbrook Archives

production. Rivaled only by the French silk weaving industry, expansive cotton fields as well as prolific calico printing and carpet weaving rendered the American textile industry the most successful in the world. Despite this success, industry leaders looked to European designs for inspiration well into the 1920s. At the Cranbrook Academy of Arts, noteworthy Finnish designer Loja Saarinen created large, figurative works in fiber. Her subjects included the architecture of Cranbrook, the Festival of the May Queen, and The Sermon on the Mount, amongst other depictions of people and objects. Under Loja's supervision, Swedish weavers Lillian Holm and Ruth Ingvarson toiled for months over a tapestry called "The Sermon on the Mount", which now hangs at the First

¹ Pat Kirkham, Women Designers in the USA, 1900-2000 (Yale University Press, 2002). 145.

Christian Church in Columbus, Indiana.

Although the Arts and Crafts Movement was in many ways socially and artistically radical, there is evidence that it reproduced and perpetuated the dominant Victorian patriarchal ideology.² The traditional male-female roles were apparent in fields of design, production, crafts skill, and income. An article written at the onset of the Arts and Crafts movement demonstrates the mindset that existed late in the 19th century, and would continue to exist well into the 20th:

We do not, on the whole, find that great opposition is offered by manufacturers to the wider employment of women. Indeed, even with the low estimate of the value of women's work, their assistance may be expected. "There is no reason," says one of them, "why we should object to employ women. They work for lower wages than men." On the score of strict justice we may possibly dispute the reasoning of such a view of things, wondering if good work, even if done by a woman, is not worthy of good payment. But we may, nevertheless, accept the position thankfully, and while we endeavor to secure the good work, leave for the present the question of its just reward.³

Not only resigned to working for lower wages, women were expected only to work in the so called "domestic" arts, especially the textile arts, which perpetuated a split between "high art" and crafts. What distinguished art from craft in the hierarchy is where the objects were made and for what purpose. The fine arts, like painting and sculpture, were considered a public, professional activity, while the crafts that women made were produced in the home for the use of the family.⁴

While it may appear that the Arts and Crafts movement, with its emphasis in the artfulness of everyday objects, would be a departure from the traditional gender divisions,

² Anthea Callen, "Sexual Division of Labor in the Arts and Crafts Movement," *Woman's Art Journal* 5, no. 2 (1985).

³ "Art-Work for Women," *Art Journal* 1872.

⁴ Rozsika and Griselda Pollock Parker, *Old Mistresses: Women, Art and Ideology* (New York: Pantheon, 1981).

Anthea Callen demonstrates that the division was perpetuated. "Although the Arts and Crafts Movement sought to eliminate the split between designer and maker, in many ways it failed," writes Callen. Significantly, the division between designer and executant was often also a division between male and female. William Morris, one of the founders of the Arts and Crafts Movement, taught himself the traditionally feminine craft of embroidery, however, his involvement was that of a pioneer. Once the techniques had been mastered he passed the mundane work of execution to the women of his workshop.⁵

Over time, of course, the idea of "women's work" expanded and was redefined.

Often through family links, women such as textile artist Loja Saarinen and her daughter

Pipsan established themselves as active designers, Loja working as the head of

Cranbrook's weaving department and Pipsan establishing herself as her husband's equal

partner in the Saarinen Swanson Group, designing home furnishings. Still, with a few

exceptions, larger-scale furniture, metalwork, industrial design, and anything that

required "getting your hands dirty" remained in the male realm well into the 1960s.

While family ties were often an avenue by which women achieved designer status, there were drawbacks. In the case of married designers Ray and Charles Eames, Ray was often portrayed as an auxiliary of her husband; she was a "pretty girl" and "faithful helpmate." Whereas she is now accepted as an equal partner in one of the most well known design firms of the twentieth century, Ray was, during the 1950s, portrayed as the wife behind the successful man.⁶ Similarly, Pipsan Saarinen Swanson developed her skills in the shadow of her father and brother, Eliel and Eero Saarinen, respectively.

⁵ Callen, "Sexual Division of Labor in the Arts and Crafts Movement." 4.

⁶ Ibid. 68

Interestingly, in her married life, her husband felt overshadowed by Pipsan's reputation and success.⁷

Like Ray Eames and Pipsan Saarinen,
Marianne Strengell had family ties in the arts.
Her father, Gustaf, was an architect and author
in Finland and her mother, Anna, was an
accomplished interior designer.

Strengell
married twice, first to furniture designer Charles
Dusenbury, who participated in the Saarinen
Swanson Group and later to architect Olav
Hammerstrom, who would travel with her to the
Philippines. However, she remained a separate
entity, in many ways achieving higher levels of
commercial success then the men in her life.

Although her background was similar to that of

Loja Saarinen, Lillian Holm, and Ruth

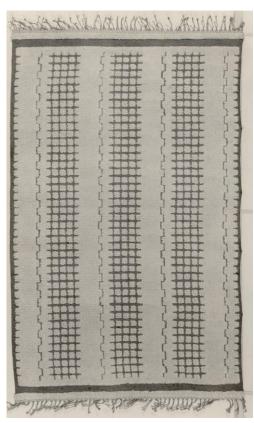


Image 2 Indicative of Strengell's early style, a rug designed and woven in 1938. Cranbrook Academy Images: #4766 Copyright Cranbrook Archives

Ingvarson, Marianne Strengell did not create breathtaking wall hangings or meticulously designed figurative rugs. Yet her simple design work would establish Strengell as a notable 20^{th} century weaver.

Born on May 24th 1909 to a family of Swedish ancestry, Strengell enjoyed an upper class upbringing, vacationing in the heart of Sweden and at Eliel and Loja

⁷ Ibid. 69-70.

⁸ Andrea P.A. Belloli, *Design in America: The Cranbrook Vision, 1925-1950* (New York: Abrams, 1984). 192.

Saarinen's studio home at Hvittrask in Finland. Strengell was educated in Helsinki, where she studied with renowned textile artist Elsa Gullberg. By age twenty she had received international acclaim, with exhibitions in Barcelona (1929), Antwerp (1932), Milan (1933), and Paris (1937). A letter requesting permission for her to enter the United States summarizes the intent of Cranbrook administrators in acquiring the young Finn: "Capable instructors are extremely scarce in the United States. The Art of Handweaving has almost died out except in a few centers. The Government is attempting to revive the art in some of its resettlement projects."

Unlike the most famous work of her weaving contemporaries at Cranbrook,

Strengell's approach was based on fabric and texture instead of representational design.

Having emigrated from Finland to the United States in 1936 and accepting a teaching position in 1937, she replaced Loja Saarinen as director of Cranbrook's weaving department in 1942. At this time, there was a decided shift in focus from what might be called "the monumental" in Loja's work to the practicality of Strengell's approach.

While a 1939 Catalogue states, "Emphasis is placed upon the design," by 1943 Strengell provided instruction not only in the creations of "rugs, drapery fabrics, dress materials, etc." but also introduced students to "construction, possibilities and limitations of a loom, warp windings, setting up warp, counting of materials" and "experiments in textures and techniques."

⁹ Mark Coir, "Interview: Marianne Strengell and Olav Hammarstrom," in *Cranbrook Archives Audio Tape/Oral History Collection* (Bloomfield Hills, MI: 1990). Cranbrook Archives, 1990-09. 4, 12.

¹⁰ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 193.

¹¹ R.P. Raseman, Mar. 13 1937. Cranbrook Archives: 1981-05, 3:15.

¹² Cranbrook Catalogues 1939-40, (Bloomfield Hills, MI: 1939). Cranbrook Archives: 1998-05, 1:2. Cranbrook Catalogues 1943-44, (Bloomfield Hills, MI: 1943). Cranbrook Archives: 1998-05, 1:2.

It is important to note that by the 1930s, handmade work done in the Arts and Crafts style was giving way to more affordable, mass produced items. By embracing technology, especially as will be demonstrated in the case of Strengell, Cranbrook continued to teach the concepts of austere beauty well into the twentieth century.

Renowned textile artists such as Robert Sailors, Jack Lenor Larsen, and Ed Rossbach developed their skills under Marianne Strengell's tutelage. The influence of her students in 20th century fabric has been immense: Sailors worked as Strengell's assistant at Cranbrook, and went on to design several textiles for Frank Lloyd Wright homes, as would Larsen. Rossbach established himself with studies of American basketweaving and textile design. International student Nelly Sethna of India also flourished under Strengell's guidance, returning to India to become a top textile artist and remaining Strengell's lifelong friend. In India to become a top textile artist and remaining Strengell's lifelong friend.

Strengell was innovative not only as an instructor. In the early fifties, she was part of group of craftspeople who, under the United Nations and the Mutual Security Agency, pioneered various cottage industries, including furniture design and textile production in the Philippines. At the time the largely agricultural island nation was suffering from unemployment and low living conditions, with the fields only requiring 100 working days out of a year. Instead of introducing a completely alien weaving industry to the islands, Strengell endeavored to "feel the pulse of the people and the country, to produce something indigenous of the Philippines, to help develop of sense of pride in Philippine products, and apply whatever technical know how possible to speed

¹³ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 51-53.

Ed Rossbach, "Fiber in the Forties," American Craft, Oct./Nov. 1982.

¹⁴ Nelly Sethna, Letter, Winter 1976. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 53.

up the production." In this endeavor, Strengell once again demonstrates her ability as a creative innovator, experimenting with waste materials from a nearby Del Monte Pineapple plantation, designing and ordering the production of about 5000 new looms for the Filipino weavers and bringing a Filipino woman to Cranbrook for an in-depth study of weaving.¹⁵

Another major achievement of Marianne Strengell, beyond pedagogy and humanitarianism, was her career as a textile designer. Although her accomplishments in



Image 3: Strengell examines fabrics in her studio. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

this respect are numerous, she is
most notable for her design projects
in the Detroit auto industry. In 1945,
the firm of Eero Saarinen and
Associates was selected by the
General Motors Corporation as
architects for the Technical Center
located on a 350-acre site in the
Detroit Metropolitan Area.
Marianne Strengell created and

supervising the production of the textiles for the project, a monumental task.¹⁶

During the heyday of the Detroit auto-industry, Strengell also designed textiles for the automobiles themselves. Though she was never officially included among the socalled "Damsels of Design", a group of women automobile designers who concentrated

¹⁵ Marianne Strengell, "A Report Following a Three Months Survey of Weaving as a Cottage Industry in the Philippines," (1951). Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, unindexed collection. 2, 3, 6, 7.

¹⁶ "General Story on Technical Center," (Detroit: General Motors). Cranbrook Archives, 1990-01, 3:1.

on color, texture and trim of interior fabrics, as well as the shaping of seats, door handles, and steering wheels, Strengell's influence in auto-design was apparent in the late 1950s.¹⁷ Her clients included General Motors and the Ford Motor Company, but also branched out into the designs for United Airlines upholstery fabric and projects for industrial designers Raymond Loewy and Russell Wright. Her simple fabric titled "Taj Mahal", a combination of cotton, rayon, and metallic strands, was used by Ford in the 1959 Lincoln Continental, and typifies many of the automotive fabrics that Strengell created.¹⁸

Of her approach to design, Strengell wrote, "Complete and unlimited freedom in our time of endless and various materials, expanded production methods and color availability often produces an overly rich, confused and impure product, while working within severe limitations can bring an end result of essential simplicity and purity." Although this statement refers to simplicity of material, it also provides a window into the "framework of limitations" which women face as designers in the twentieth century. While Strengell's career stretched far beyond the typical timeframe imposed for the Arts and Crafts movement, her training was rooted in this tradition, as was her philosophy of blending beauty with practicality.

Perhaps it was within the "framework of limitations" set out by the sexual divisions in the arts that Strengell developed her straightforward approach. For beyond the important issues of sexual division of labor, it was the individuality of Strengell's approach to problems in textiles and the clarity with which she dictated her objectives, which helped to assign her a lasting place in the roster of influential 20th Century crafters

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¹⁷ Sidney Fields, "Lady Auto Makers: Designs on Future," New York Mirror, May 2 1960.

¹⁸ Kirkham, Women Designers in the USA, 1900-2000. 152.

¹⁹ Marianne Strengell, "A Personal Approach to Textile Design," (Bloomfield Hills, MI: Cranbrook Academy of Art, 1960). Cranbrook Archives, Marianne Strengell Hammarstrom Papers, 1991-07: unindexed collection.

in the United States. It is my intention to demonstrate her value and ingenuity as a woman designer in the American Arts of the 20th Century through an in depth study of her career at Cranbrook, her work as a textile designer, and her involvement with the cottage industry program in the Philippines. First, though, it is important to describe the environment and minds that she would encounter when, in 1937, she became an integral part of the dynamic Cranbrook Academy of the Arts.

George Gough Booth: Cranbrook Visionary

The founder of the Cranbrook Community in Bloomfield Hills, Michigan, George Gough Booth was trained as an architect in his native Ontario. Prior to becoming one of the region's premier advocates of the arts, Booth designed wrought iron and was successful in book fabrication.²⁰ In pursuit of a better life, Booth's father relocated the family several times, to several locations in Ontario as well as Buffalo and Cincinnati before finally settling in the Detroit area in the 1870s.²¹

It was in Detroit where young George Gough Booth's future began to take shape. At the Reformed Episcopal Church of Detroit, his family was introduced to the successful Scripps family. George would marry the eldest daughter, Ellen Scripps, in 1887. Father James E. Scripps was the founder of the Evening News Association, which over time would own newspapers in several Midwestern cities, including the *Cleveland Press*, Cincinnati Post, and the St. Louis Chronicle. In 1888 James E. Scripps named his son-inlaw the new business manager of the Evening Post, the Detroit incarnation of which would become the *Detroit News*.²²

Mark Coir, "Cranbrook Fundamentals," (Saginaw Valley State University: 2003). 1-2.
 Arthur Pound, The Only Thing Worth Finding: The Life and Legacies of George Gough Booth (Detroit: Wayne State University, 1964). 19, 29.

²² Ibid. 7, 29, 97, 115-116, 124.

By the 1900s, Booth had established himself as a successful leader of the *Evening Post*, and began to search for suitable land, outside of bustling urban Detroit, where he and Ellen could raise their five children. A one-hundred acre farm in rural Bloomfield Township appealed to Booth, and on January 18, 1904 he bought the farm and the surrounding 400 acres of land at \$120 an acre, he soon added another 75 acres to the estate.²³

In 1907 construction, directed by fledgling architect Albert Kahn, began on the Cranbrook House where the Booths were to live. In 1914 Booth also ordered the construction of the Greek Theatre on Lone Pine Road, the first sign of the arts community that would develop on the grounds. The theatre's first performance, The Cranbrook Masque of 1916, "was preceded by ten days of intensive preparation by a dramatic cast of 132 persons, plus mechanics, who worked feverishly toward the presentation." Such busy events would become a tradition Cranbrook, with the annual Crandemonium Ball, fashion shows, and theme parties that would become a defining feature of the community. In addition to friends and the Booth family members, many notables from the Detroit elite were in attendance at the Cranbrook Masque, including Henry Ford.²⁴

At this time, it also becomes apparent that George Booth had a vested interest in expanding Cranbrook beyond a family estate. As a founder of the Detroit Arts and Crafts Society, supporter of the University of Michigan's architecture program, and donor of several artistic treasures to museum collections, Booth along with this wife were committed, through strengthening the state's cultural enterprises, to make Michigan a

²³ Ibid. 258, 263, 270.

²⁴ Ibid 270-271 311-313

more attractive place to live and do business.²⁵ Troubled by the Great War and the problems that it would bring to the production of arts in Michigan, in a 1917 address to the Detroit Arts and Crafts society, he referred to the need for a local "temple of all the arts" that would foster the creation of modern art, which had been excluded at the more traditional Detroit Museum. Pushed by the *Detroit News* and a fortuitous encounter, this dream would become a reality within a few years.²⁶

Projected Aspirations: Eliel Saarinen

The youngest of three sons, Henry Scripps Booth shared his parents' passion for the arts. As a student of architecture at the University of Michigan in Ann Arbor, Henry studied in an environment where "classes were for advanced students and limited to a small number so that each one would be given the opportunity to absorb the ideals, philosophy, and methods of approach of this man who for years has been considered one of Europe's great architects." This man was Finnish architect Eliel Saarinen, who went to the University of Michigan after a stay in Chicago, where he had been awarded the second prize in a competition to design the Chicago Tribune Tower. Booth and his colleague J. Robert F. Swanson, were among the fortunate few to study under the visiting professor. It was through this affiliation that the elder Booth had the opportunity to meet Saarinen, who in 1925 was planning to return with wife Loja to Finland.

Born in 1873 in Rantasalmi, Finland, Eliel Saarinen grew up in both Finland and the Baltic Provinces of Ingermanland, Russia, where his father, a Lutheran minister, was

²⁵ Coir, "Cranbrook Fundamentals." 2.

²⁶Pound, The Only Thing Worth Finding: The Life and Legacies of George Gough Booth. 276-277.

²⁷ J. Robert F. Swanson, "Eliel Saarinen," *Michigan Technic* 37 (1924). 5.

²⁸ Justus Bier, "Art: Cranbrook Built around 2 Men," *Detroit News*, July 1 1945.

²⁹ Albert Christ-Janer, *Eliel Saarinen: Finnish-American Architect and Educator* (Chicago: University of Chicago Press, 1979). 65.

head of a congregation of ethnic Finns (The Ingers) who only years earlier had escaped serfdom. Because of geographic proximity, The Hermitage was the site of young Eliel's most significant childhood training in the arts; "For hours I could walk around from gallery to gallery," he writes, "alone, silent, and happy; a country boy, familiar with pigs, cows, and hens, amid these most precious masterpieces of all time!" From this point forward, Eliel dedicated his life to the arts, studying both painting and architecture at Polytekniska Institutet from 1893 to 1897 and going on to co-found one of the most influential architectural groups in Scandinavia: Saarinen, Gesellius, and Lindgren. 30



Image 4: George Booth, Dorothy Sepeshy, Eliel Saarinen, Loja Saarinen, and Zoltan Sepeshy in 1936. Cranbrook Academy Images: #3486 Copyright Cranbrook Archives

³⁰ Ibid. 5-7.

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Saarinen first became internationally known through his design for Helsinki Railroad Station where huge, mythological "fathers of the city" guard the entrance to the building.³¹ Although time and geography would modify Saarinen's romanticism, it remains evident at Cranbrook, blending Scandinavian style with Booth's English influence to create the stunning retreat from the city's confusion.

In his unpublished work "The Story of Cranbrook" Eliel Saarinen paraphrases a conversation with George Gough Booth at the Cranbrook House, demonstrating Booth's aims and determination, which complimented Saarinen's passion for arts and education. In the story, Booth explains that he has both money and a great interest in art, and that it was his desire to use his money to foster an understanding and appreciation of art in other people. If he used his money only to collect art, he feared that the only benefactor would be the art-dealers. Ordering commissioned work from living artists had not, according to Booth, been encouraging, as he often did not get what he asked for.³² Booth's decided artistic taste and willingness to return a piece that displeased him marks him as one of the more discerning art sponsors of the twentieth century. The cohesive nature of the Cranbrook campus is perhaps due to this.³³

According to Saarinen, Booth went on to describe his ideal art community, based upon the American Art Academy in Rome that he had visited a few years earlier:

Supposing now that I would found somewhere on the Cranbrook grounds or elsewhere, if this will better further my ideas, an Academy of Art where artists of high standing and of different media would live and execute their

³¹ Eliel Saarinen, "Helsingfors Railroad Station," (Helsinki, Finland: 1914). Bier, "Art: Cranbrook Built around 2 Men."

³² Eliel Saarinen, "The Story of Cranbrook," (ca 1925). Cranbrook Archives, Saarinen Family Papers: 1990-08, 9:2. 13.

³³ For instance, according to Mark Coir, a tiled floor in the basement of Christ Church Cranbrook was completely removed and redone with the help of a new artist, as Booth did not approve of the work. This only came to light after artist who created the rejected mosaic was brought to the church as an elderly lady to revisit the piece and remarked, "This isn't my work!"

art work. Undoubtedly this would create a healthy atmosphere of art education about this place. Supposing, further more, that I would undertake such steps- as, for example, the gradual development of basic schools of various kinds- which would be apt to bring young people of various ages to live about these Academy grounds, with their atmosphere of art creation. Don't you think the young minds would be inclined to seek such inspiration from such an active art environment, particularly if they would be given the opportunity to do this during the course of several years?³⁴

With Booth's convincing, Saarinen agreed to bring his family to Cranbrook and work as both architect and instructor after a brief return to Finland in the summer of 1925.

The Dream Takes Shape

Over the next two decades Saarinen and his assistants developed the Cranbrook Community. Saarinen's first realized project in the United States, Cranbrook School for Boys, was completed in 1929, with Kingswood School for Girls and The Institute of Science reaching completion not long after. At the same time, Brookside School for Children was built under the direction of father and son Booth. Christ Church Cranbrook, an Episcopalian church by the New York firm of Goodhue Associates, sometimes referred to as "the last flowering of the Arts and Crafts movement" was consecrated in 1928.

Although it was the original conception for the Cranbrook grounds, and the institution integral to this study, The Academy of Art was the last of Saarinen's projects to reach fruition. Throughout the 1930s and into the 1940s, Saarinen worked with the assistance of architects David Evans and Hungarian immigrant Geza Meroti to create the

³⁴ Saarinen, "The Story of Cranbrook." 13.

³⁵ Mark Coir, *Cranbrook's First Century, a Dream Fulfilled* (2004 [cited Jan. 29 2006]); available from http://schools.cranbrook.edu/ftpimages/65/misc/misc_13724.pdf.

gardens, pools, and buildings that make up the Cranbrook Academy of Art.³⁶ During these two decades, Cranbrook Academy of Art would encompass Saarinen's monumental art museum and adjoining library, various arts and crafts departments, student housing, and the two homes which would, because of their occupants, be known as the Saarinen and Milles homes.

The year 1929 was especially significant to the development of the campus, as it was in this year that Swedish sculptor Carl Milles visited and was asked by Saarinen to

become the resident sculptor and director of the department of sculpture at the museum. The collaboration between Saarinen and Milles yielded the climax of both men's life's work, with Cranbrook boasting the largest collection of Saarinen architecture as well as Milles complimentary sculpture. In fact nearly the whole work of Milles can be studied at Cranbrook, since casts of Milles' earlier work, such as the famous Orpheus fountain at Stockholm, are employed in new combinations in the gardens of



Image 5: A Milles' sculpture in the Triton Pool, with the Academy Art Museum in the background. Cranbrook Academy Images: S.11.194 Copyright Cranbrook Archives

³⁷ Bier, "Art: Cranbrook Built around 2 Men."

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Cranbrook.37

³⁶ Pound, The Only Thing Worth Finding: The Life and Legacies of George Gough Booth. 389.

The original courses at Cranbrook were all, in some way, complimentary to the architectural aims of creating a successful educational environment. Various artists from throughout Europe and the United States were brought in to head departments of bookbinding, cabinet making, landscape design, and to establish the Cranbrook Press.³⁸ Saarinen, who was named president of the Academy in 1932, did not have to look far for the textile expertise which so characterizes the Cranbrook buildings. Loja Saarinen and her assistant Maja Andersson-Wirde set up Studio Loja Saarinen, and with a team of student weavers created textiles for the entire Cranbrook Community, not just the Academy of Art. Christ Church Cranbrook holds two impressive woven tapestries while Kingwood School is the site of a large collection of the studio's work. Working for a year with the assistance of a dozen weavers, Studio Loja Saarinen designed and produced the rugs, the curtains, and the furniture covering for Kingswood School, which opened in 1931.³⁹

As president of the Academy, Eliel Saarinen projected Booth's aspirations of creating a community where students, in Saarinen's own words "do their own work; and in being continuously in close contact with the master-artists, they can learn from them how to develop their own individualities... connection with the other artists and discussion with them provide sources for inspiration." It was in this spirit that Saarinen invited his friend, the Finnish weaver Marianne Strengell, to come to Cranbrook and assist in the weaving community. Apparently, he had always realized her value, as evidenced in an interview given late in her life where she says, "Eliel always wanted me not only to see [Cranbrook], but to work there. And from the time I was thirteen-years-

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³⁸ Pound, *The Only Thing Worth Finding: The Life and Legacies of George Gough Booth.* 389.

³⁹ Christ-Janer, Eliel Saarinen: Finnish-American Architect and Educator. 76.

⁴⁰ Ibid. 80-81.

old, he talked about it." ⁴¹ Strengell was in her late twenties when she finally committed to a job at Cranbrook. By the time of her arrival in 1937, the Cranbrook Catalogue had evolved to include courses in architecture, sculpture, painting, drawing, ceramics, pottery, and weaving.⁴²

Women at Cranbrook

Although the preceding story of Cranbrook's development places men at the helm, throughout the history of the institution there have been several notable women. Those who emigrated from Europe often found in Cranbrook an opportunity to develop their crafters' skills into the realms of art. As was the case with weaver Anni Albers at the Bauhaus, creative women in Europe were often encouraged to study fields that were traditionally viewed as crafts, thus lending character to functional pieces like rugs, curtains, or table settings. 43 While men could also enter these fields, they were freer to explore less functional art forms like painting and sculpture. This tendency toward studying the functional may have enabled women at Cranbrook to become exceptional practitioners of Arts and Crafts ideal, which aimed to create an austere beauty within ubiquitous objects. Although this thesis will focus on the achievements of Marianne Strengell, several women in the Cranbrook orbit deserve mention and merit in-depth studies of their own.

Serving the longest of all artists who have worked at Cranbrook, Swedish weaver Lillian Holm taught at Kingswood School from 1933 until 1965. Holm trained as a weaver in Sweden, and there came into contact with several weavers of the well-known

Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 10.
 Cranbrook Catalogues 1939-40.

⁴³ Sigrid Wortmann Weltge, Women's Work: Textile Art from the Bauhaus (San Francisco: Chronicle Books, 1993). 3-17.

Stockholm craft association of Handarbetets Vanner, including Loja Saarinen's assistant Maja Andersson-Wirde. It is probably through this connection that she found her way to Cranbrook. At Cranbrook, Lillian Holm headed up the United States' only high-school level weaving program of its kind, worked on Studio Loja Saarinen projects including the "Sermon on the Mount", and served as weaving instructor at Cranbrook Academy of Arts. 44 Outside of Cranbrook, Holm found success as a designer; her distinct tapestries were purchased by many private art collectors, most famously Eleanor Roosevelt. In 1936, Holm also headed the Works Project Administration in Michigan's Upper Peninsula. Upon her retirement in 1965, Holm was awarded the Founders' Medal by the Cranbrook Foundation. 45

Textiles were not the only realm where Cranbrook women could excel. Finnish ceramicist Maija Grotell was invited to join the Academy in 1938, having left her home



Image 6: Maija Grotell and Harry Weese load a kiln. Cranbrook Academy Images: #4857 Copyright Cranbrook Archives

country due to shortages in materials and the fact that there was only one ceramics teaching job available in the entire country. 46 In the 1920s and 30s, ceramics were seen as either a hobby or an industry, yet Grotell, with her earthy, strong pots, helped move the field forward as an art. The simplicity of her work with an emphasis on color and texture in a

⁴⁴ Mark Coir, "Lillian Holm: Creator of an Artistic Legacy," *Traditions*, nd. 24-25.

⁴⁵Dennis Barrie et al., *Artists in Michigan*, *1900-1976* (Detroit: Wayne State University Press in Association with the Archives of American Art, Smithsonian Institution, and the Founders Society Detroit Institute of Arts, 1989). 137-138.

⁴⁶ Jeff Schlanger and Toshiko Takaezu, *Maija Grotell: Works Which Grow from Belief* (Studio Potter Books Monographs, 1996). 1-4.

way mirrors Strengell's approach to textiles. Throughout her career she did research on glazes, among her discoveries was the use of chromium and iron in order to create an orange color. Grotell was a hard worker, as evidenced by her fluency in six languages and a statement in the 1938-1939 Academy Annual Report: "Maija Grotell... has proved satisfactory beyond our expectations... An indefatigable worker, she devotes her entire life to her students and their work." Such hard work as an artist and teacher established Grotell as one of the most notable Cranbrook names; she is memorialized in the "Maija Court" which lies among the studios of the Academy.

Despite Cranbrook's openness, women who dared to "get their hands dirty" in the traditionally male dominated arts faced adversity in their careers. Before coming into contact with the Saarinens, Florence Schust (later Florence Knoll) was inspired to become an architect by her teacher Rachel de Wolfe Rasemen, who, despite a degree in architecture from Cornell University, could only find employment at Kingswood



Image 7: Young Florence Schust photographed while on vacation with her adoptive family, the Saarinens.
Saarinen Family Papers: acc. #1990-08 CEC 530
Copyright Cranbrook Archives

School. 49 An orphan, Schust was essentially adopted by the Saarinens. Eliel, realizing her potential, arranged special meetings where he took the time instruct her personally while she was still at Kingswood. Schust studied at the Academy beginning

⁴⁷ Barrie et al., *Artists in Michigan*, 1900-1976. 131.

⁴⁸ "C.A.A. Annual Report," (Bloomfield Hills, MI: Cranbrook Academy of Art, 1938). Cranbrook Archives, CAA Administrative Reports, 1981-05.

⁴⁹Kirkham, Women Designers in the USA, 1900-2000. 61.

in 1934, leaving Cranbrook at times to study at Columbia University School of Architecture and the Architectural Association of London.⁵⁰

Despite the fact that she had studied architecture under the internationally acclaimed Eliel Saarinen since her teenage years, Schust was never recognized as an architect. In 1946 Schust married German immigrant Hans Knoll, who had recently founded a furniture company. As Vice President of Knoll Associates, one of the most important modern design companies in the United States, Florence Schust Knoll had great success in furniture design. By the 1960s, her work accounted for more than half of the pieces in the Knoll catalogue. Still, her aspirations as an architect were never fulfilled, partially owing to the fact that men would not accept a woman who created buildings. People ask me if I am a furniture designer, she said, I am not. I never really sat down and designed furniture; I designed the fill-in pieces no one else was doing. I designed sofas because no one was designing sofas. Apparently, there were enough men designing architecture.

Despite the many opportunities offered to women at Cranbrook, society and its expectations of women always imposed a "framework of limitations". Although Marianne Strengell mostly kept to the traditionally feminine work of textile design, she pushed the field's limits into industrial manufacturing and world aid, thus moving into realms of industry and politics, where men often dominate. Considering this, her work as an instructor at Cranbrook seems to be only one-third of her life's story. Yet it is this fraction that lays the foundations for her later endeavors, as will be demonstrated in the

⁵⁰ Ibid. 277.

⁵¹ The ideas concerning the sexism directed towards Florence Schust Knoll as an architect were first communicated to the author in a discussion with Mark Coir, director of the Cranbrook Archives, in January 2006.

⁵² Kirkham, *Women Designers in the USA*, 1900-2000. 276-278.

next chapter. By exploring her motivations for joining the Cranbrook Community, studying the changes that she made to the curriculum during her employment from 1937 to 1961, and studying the impact that several of her students made on the art world, I hope to demonstrate Strengell's important role in the development of American arts and American art education.

The third chapter will be a study of Strengell's work in the Philippines, done through the United States' Mutual Security Agency in conjunction with the United Nations in 1951. Here, I will investigate the motivations for setting up cottage industry in the Philippines, outline the various activities of the MSA and UN, and look at Strengell's involvement and achievements therein. The final chapter will outline Strengell's involvement with various industries in the Detroit area, including her work on the General Motors Technical Center, her expeditions into textile design for automobiles, and her work with the Saarinen Swanson Group as well as other industrial design projects in the 1940s and 1950s.

In this endeavor, my motivations are three-fold: (1) to create a thorough biography of Marianne Strengell in the United States during the period that she was on staff at Cranbrook, as such literature does not exist, (2) to contribute to the literature about the Cranbrook Community, which includes articles, art catalogues, and written histories, yet also offers, though the archival collections, innumerable opportunities for new studies and (3) to contribute to women's art history, a field which has become increasingly important as more and more women are freed to enter the arts and the majority of art texts tend to highlight the works of men.

CHAPTER 2

EDUCATOR: MARIANNE STRENGELL AT CRANBROOK

The Evolution of Cranbrook Philosophy

"Each one has to be his own teacher. But connection with the other artists and discussion with them provide sources for inspiration." This philosophy, where students learn from observation and discussion rather than lecture and traditional instruction, continues to dominate at Cranbrook Academy of Arts, as evidenced by current director Gerhardt Knodel's statement that "Cranbrook's program supports the solitary path of the creative individual... the use of time is largely self constructed... we live and work together and are energized by mutual accomplishment." Through the "Artist in Residence" program and regular critiques, Saarinen's vision for the Academy of Arts, which he would preside over from 1932 until 1947, continues.

Saarinen's successor to the office of President at Cranbrook Academy of Arts, painter Zoltan Sepeshy, wrote in a 1951 letter to the Board of Trustees that despite a continued emphasis on individualism, the preceding two decades had been transitional. In the letter, Sepeshy explains that the Academy was "coming down from an ivory tower" which it had set up for itself during the formative years. Sepeshy demonstrates the "ivory tower" with a series of observations: In the early years, granting degrees was un-necessary; in fact, any student who was concerned with earning a degree was not considered a "true artist". Also, during the first few years of the Academy's existence,

⁵³ Christ-Janer, Eliel Saarinen: Finnish-American Architect and Educator. 81.

⁵⁴ Gerhardt Knodel, *Director's Statement* (2006 [cited Feb. 4 2006]); available from http://www.cranbrookart.edu/site/about_directors.html.

the departments were highly specialized, like printing and bookbinding, and ultimately served the objectives of the architecture and sculpture departments that dominated the curricula. Sepeshy also observed that any reference to the industrialized, commercial, or educational utility of artwork was previously ignored.⁵⁵

Sepeshy believed that the earlier, somewhat elitist, state of Cranbrook Academy of Arts was necessary to project the unique character of the institution, but had given way to a more democratic principal. In this newer incarnation of the Academy, Bachelor's and Master's degrees were awarded and conformed to the standards of accreditation.

Architecture and sculpture, which were so popular under the "two geniuses" Saarinen and Milles, no longer dominated the Academy; instead, all departments were given equal stature and the instructors were conscious of their duty to prepare students to earn a living through art and art education. "Our great Founders have given us character, prestige, and artistic uniqueness," writes Sepeshy, "Our greatest tribute to [them] is the recognition that their contribution has been outstanding and that from now on we must enter the contemporary stream and swim on our own." 56

It was in this spirit of what Sepeshy termed "democratic education" that Marianne Strengell worked. Perhaps more than any other Cranbrook artist, Strengell exemplifies the rejection of "art for arts sake," with its general disregard for practicality and future employment. As will be demonstrated throughout this chapter, Strengell was deeply concerned with instilling within her students a sense of craftsmanship and purpose. She embraced the limitations and possibilities of commercial and industrial textile production

⁵⁵ Zoltan Sepeshy, Oct. 15 1951. Cranbrook Archives, CAA Administrative Reports: 1981-05, 4:3.

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^{2. 56} Ibid. 2-3.

and in this way led by example, thus inspiring some of the most notable textile artists of the twentieth century.

Background: Strengell in Europe

As has been mentioned, Strengell enjoyed a comfortable upbringing in Finland.

The daughter of an architect and an interior designer, she studied at the Central School of



Image 8: Strengell as a young woman in Finland. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

Industrial Art in Helsinki. Her Mother,
Anna, became an interior designer
while in her thirties. To stimulate
production of handmade fabrics, Anna
helped to set up a Finnish cottage
industry for agrarian wives. Young
Marianne helped by making sample
from the yarns and materials that her
mother collected. These samples were
copied by the women in the cottage
industries.⁵⁷ This marks a formative
period in Marianne Strengell's life, as
she would aid in the formation of similar

cottage industries years later and worlds away in the Philippines.

Strengell established herself as a serious weaver at a young age; in 1929 at the age of twenty she assisted in preparations for the Stockholm Exposition of 1930.⁵⁸ To support herself while in Sweden, Strengell worked as a "Girl Friday," attending to

⁵⁸ Marianne Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

⁵⁷ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 5.

errands for busy professionals.⁵⁹ In 1933 she worked as executive assistant for the Finnish exhibition at Milano's Triennale celebration.⁶⁰

Strengell was well-traveled, especially throughout Scandinavia. From 1930 until 1936 Strengell designed exclusive lines of rugs, upholstery, and drapery fabrics for both mass produced décor lines and specific, commissioned interiors for the Finnish company Ab Hemflit. At the same time, she became co-owner of the Koti-Hemmet design firm, where she created interiors, furniture and textiles. For two months out of the year throughout the early 1930s, Strengell traveled to Copenhagen to design rugs and fabrics for the Bo Aktieselskab home interiors firm.⁶¹

In Finland, the Strengells traveled in artistic circles and were close friends with the Saarinen family. Eero Saarinen, the notable designer of the St. Louis Gateway Arch and the TWA Terminal at New York's Kennedy airport among other works, was the same age as Strengell. The two would later collaborate on the GM Technical Center.

Perhaps more significantly in this story, Strengell's father Gustaf and Eliel
Saarinen were close friends, having studied architecture together in Helsinki. In 1922,
when Eliel won second prize in the contest for the Chicago Tribune Tower, Gustaf
Strengell accompanied him to the United States. Because Saarinen was not yet proficient
in the English language, Gustaf, who had worked in London for some time, spoke for
him. In this way, Gustaf Strengell was integral in bringing Eliel Saarinen to the United
States, and thus contributed to the future of George Gough Booth's plans for Cranbrook
Estate in Bloomfield Hills, Michigan. According to Marianne's second husband Olay,

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⁵⁹ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 7.

⁶⁰ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 4.

⁶¹ Ibid.

"Eliel sat there with a very beautiful smile and drank martinis" while Gustaf Strengell spoke of Saarinen's ideas about city planning and architecture. 62

Eliel had his eye on Strengell's talents from early on. During the summer, when the Saarinens would return to their home at Hvrittrask, Strengell recalled that he would talk to her about Cranbrook and how helpful she would be at Cranbrook. Although Marianne described the Saarinens as "formal people" who were "not buddy-buddy" with anyone, as early as 1931, Saarinen and Strengell were corresponding via long, descriptive letters. In the letters, Strengell shared stories of her busy life in Europe and Saarinen disclosed his hopes and dreams for Cranbrook as well as details from his travels. From there, the friendship grew, "We were very very good friends," recalled Strengell, "And that continued until the day he died."

The letters that Saarinen wrote to Strengell during the early 1930s were often recollections of his travels throughout the Americas, but more than this, they were unyielding invitations for Strengell to join him at Cranbrook Academy of Art.

Throughout the letters, he continuously implies that at any moment Strengell will drop all of her work in Europe and rush to the Cranbrook campus. In a 1931 letter he writes:

Where your arrival is concerned... I would be very happy if the question would be arranged in a positive direction. I believe you will like it here and that you will have a lot to do. Pity you are not already here. In the weaving studios they are busy producing a lot of beautiful things for the girls' school which we hope will be ready next fall... It seems like everything will be very nice. Well, you will see it in the fall... I hope I will receive a letter from you soon. Write me about your job in detail. In fall when you will be here we will work together. 64

⁶² Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 11.

⁶³ Ibid. 11

⁶⁴ Eliel Saarinen, Mar. 28 1931. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

When she did not arrive for the fall semester, Saarinen did not give up on luring his talented friend to the United States, despite the fact that work had slowed down considerably. In early 1932 he writes:

Loja has it quiet here in her weaving abode. No orders since the girls school, but even she hopes for better times... You should not believe that we have given up the thought of getting you here. Naturally, it depends on how times will turn out. But sometime will it well improve. Go on with your English. I would be extremely happy to see you here. 65

Strengell Travels to the United States

In 1936 Strengell had exhausted herself with the travel and hard work for several different textile firms. She wanted to get away for awhile, but instead of going to

Cranbrook, she went to
Hollywood and stayed with
friends. To get to the west
coast, she traveled on a small
fruit boat through the Panama
Canal and then up the coast.
She funded half of the trip by

selling her rugs and her antique



Image 9: Marianne Strengell's 1932 Drivers License. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

bed. To earn the rest of the money, Strengell wrote articles about the trip for Finnish newspapers. 66 Perhaps the impending war in Europe also helped convince Strengell to leave. She made her trip safely, but when her sister Sara came to the United States on the last boat from Finland during the war, the boat was bombed mid-route. Although Sara

⁶⁵ Eliel Saarinen, Jan. 15 1932. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

⁶⁶ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 10.

survived the attack, several family treasures, including hand-woven textiles and vases, were destroyed as the boat sank.⁶⁷

In 1937, when Lillian Holm, head of the Kingswood weaving department, returned to Sweden to take care of her ill mother, Eliel Saarinen finally had his opportunity to bring Strengell to Cranbrook. Further, it had probably become apparent to Saarinen that his wife Loja, head of the textile department, despite her immense talent as a textile designer, had no interest in teaching and needed Strengell's assistance in this capacity. After receiving a telegram from Saarinen, Strengell went immediately to Canada so that she could re-enter the United States on a work visa. 68

The Textile Department

In Cranbrook Academy of Art's "Plan for Operation of Textile Department" from 1930, it becomes quite apparent that the weaving department, like several other departments, was originally intended to serve architectural goals. "Rugs, curtains, etc. required for [the] Foundation for use in any of its schools or other buildings" were to be produced by Loja Saarinen and "a few special students". Beyond this, Loja was permitted to take orders from outside the community and "enter into arrangement with a suitable sales agent solely on her own account, or jointly with other departments." In this plan, there is little about the actual instruction that the weaving students would receive, only a brief statement that Loja would have the option of teaching weaving at the Girls'

⁶⁷ Ibid. 2.

⁶⁸ Ed Rossbach, "Marianne Strengell: The Quality of Strengell's Weaving of the 40s Relies on Subtleties of Color and Fiber Combinations. She Allowed the Warp and Weft to Function Almost Ideally.," *American Craft*, April/May 1984. 8.

School, or another capable individual could be hired.⁶⁹ Throughout her career as head of the weaving department at Cranbrook Academy of Art, Loja Saarinen's focus remained on her own designs; she did not teach.⁷⁰

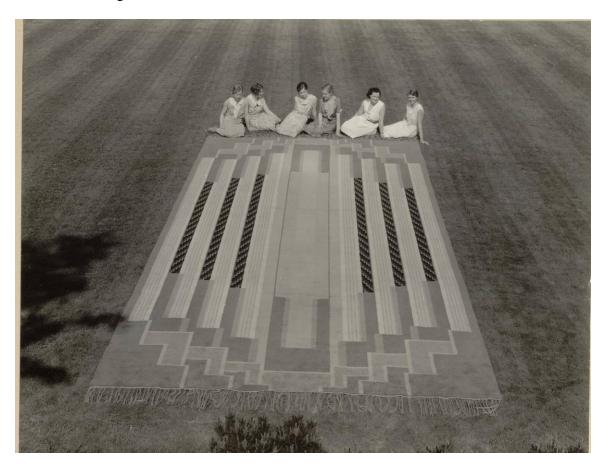


Image 10: The Swedish Weavers are dwarfed by a rug woven for Studio Loja Saarinen. Cranbrook Academy Images: #4266 Copyright Cranbrook Archives

Loja and her collection of Swedish weavers, who included Maija Andersson Wirde, Gerda Nyberg, Ruth Ingvarsson, and Lillian Holm, worked under the auspices of Studio Loja Saarinen. Today, their outstanding work, including "Festival of the May Queen Hanging" and "Animal Carpet", is still on display throughout the Cranbrook

⁶⁹ "Plan for Operation of Textile Department at Cranbrook," (Cranbrook Institute of Art, 1930). Cranbrook Archives, CAA Administrative Reports: 1981-05, 4:1.

⁷⁰ Coir, "Interview: Marianne Strengell and Olav Hammarstrom."

Community, both at Kingwood and in the art museum.⁷¹ The looms at Cranbrook, used by Studio Loja Saarinen and in teaching, were designed by Loja, as the first looms had been too heavy and difficult to work with. Loja's lighter and locally built loom, called the Cranbrook Loom, was based on Scandinavian design, and would be used to their fullest potential under Marianne Strengell.⁷²

Although Loja Saarinen and the Swedish weavers that she brought in to execute her works are responsible for exceptional work, statements made by Strengell about when she arrived in 1937 indicate that the quality of education was not equally magnificent. She indicates that there were only a few students, maybe six, when she arrived, and they did not do very good work. She describes them as "mostly hobby girls [with] nothing else to do" who were "not at all in it for fame and professionalism."

When she joined the textile department as an instructor, Strengell did not become a part of Studio Loja Saarinen, which operated within the department. Strengell never worked for Loja, she simply taught the Academy weaving classes. "She accepted me as if she liked what I did," said Marianne of Loja, "And she never mixed in – she never said a word about my work. Good or bad." Described as cold and distant, Strengell's statement defines the general character of Loja Saarinen. A well-trained sculptor and excellent textile designer, Loja was not interested in teaching others; her primary concern was the execution of her own designs. A student in the 1940s, weaver Ed Rossbach recalls that by the time Strengell had exerted her influence over the department, the work of Loja Saarinen seemed to be part of a "distant past that had nothing to do with [the

⁷¹ Belloli, *Design in America: The Cranbrook Vision*, 1925-1950. 180-187.

⁷² Rossbach, "Marianne Strengell." 8.

⁷³ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 18.

⁷⁴ Ibid. 18.

⁷⁵ Ibid. 13.

students] and [they] ignored it." Although Loja's legacy in the art world was great, she did not share Strengell's equally creative pedagogy.

It is not as though Loja Saarinen was solely responsible for the problems in the textile department. In her work *A Personal Approach to Textile Design* Marianne Strengell criticizes the overall state of weaving in the United States during this period:

The textile designer's status was a sad one in the United States before the Second World War. Only a few star names were recognized, and in general the designer was relegate to a drab and uncreative life... hand weaving was practically at a standstill and whenever a loom was used it was mostly to faithfully reproduce a colonial pattern, void of texture and color.⁷⁶

In response to these shortcomings, Strengell viewed World War II as a time of great innovation for the textile industry. Once again, Strengell saw great opportunity within a framework of limitations:

With foreign sources of these things cut off for possibly several years, the designing and creation of materials for clothing, furniture coverings, draperies, rugs and tables linen have already increased in importance and will continue to do so after the war. This is both an opportunity and a challenge. Not only are many woven things wanted which we can supply but we are in a position to enrich living by developing this handicraft in a way natural to Americans.⁷⁷

For these reasons, Strengell cites the era of World War II as the time when American textile design "came into its own." Under Strengell's direction, this era would also be a time of great development within Cranbrook's textile department. Because of utilization of limited supplies, small class size, and hands-on experience,

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⁷⁶ Strengell, "A Personal Approach to Textile Design." Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

⁷⁷ Cranbrook Catalogues 1943-44. Cranbrook Archives, Cranbrook Catalogues Collection: 1998-05, 1:2.

⁷⁸ Strengell, "A Personal Approach to Textile Design." 18.

Cranbrook hand-weaving and contemporary hand-weaving would become nearly synonymous.⁷⁹

In the classroom, Strengell enjoyed complete freedom in her teaching, although she remained for the first five years under Loja Saarinen's quiet supervision. During this period, Loja's focus, the "art" involved in designing textiles of weaving over the good craftsmanship required in textile production, remains evident. A Cranbrook catalogue of courses from the 1939-40 school year indicates that Strengell instructed in the making of "rugs, drapery fabrics, dress materials etc." Further, an emphasis was placed on design, rather than successful execution of the work on a loom.⁸⁰

Strengell as Department Head

Because of the Studio Loja Saarinen's lack of commissions in the early forties,
Loja stepped down as head of the department in 1942.⁸¹ This was the same year that the
Cranbrook Academy of Art was acknowledged as an institution of higher learning,
capable of awarding degrees under the State of Michigan. Operating as part of this
institution, the weaving department was now capable of operating a two-year graduate
program, and Strengell replaced Loja Saarinen as department head.⁸²

Examination of Cranbrook's catalogues indicates that by 1943 Strengell was making serious alterations to instruction methods. As evidenced below, the course-work was changing so that students would be instructed in the actual craft, as well as the design aspects, of weaving:

80 Cranbrook Catalogues 1939-40. Cranbrook Archives, Cranbrook Catalogues Collection: 1998-05, 1:2.

Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 3.

⁷⁹ Rossbach, "Marianne Strengell." 10.

⁸¹ Eliel Saarinen, "Annual Report," (Bloomfield Hills, MI: Cranbrook Academy of Arts, 1942). Cranbrook Archives, CAA Administrative Reports: 1981-05.

⁸² Belloli, Design in America: The Cranbrook Vision, 1925-1950. 196.

The Academy is interested in the various kinds of hand weaving along with design for power looms. The student, however, learns the fundamental processes of the craft and is therefore in a position to contribute something in the industrial and commercial field as well as to create individual objects of utility and beauty. ⁸³

Strengell's emphasis on the fundamentals of weaving is also evident in the descriptions of the three courses offered in weaving. The first year consisted of a study



Image 11: Students observe Strengell, head of the department, in 1943. Cranbrook Academy Images: #AA-226 Copyright Cranbrook Archives

of the loom; students
learned how a loom was
constructed, what its
possibilities and limitations
were, how to set up the
loom, as well as how to
compile materials. Further
the first year students
carried out several
experiments in texture and
techniques on small looms.

According to Rossbach, by the late 1940s all representational weaving had disappeared from students work. Strengell preferred to instruct her students to work in precise lines, pleasing texture, and careful combination of colors.⁸⁴

Further, Strengell wanted experimentation, not imitation from her students. In a written response to questions from a prospective student, Strengell writes that she prefers to have students with no previous experience, so that she does not have to "undo" any

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⁸³ Cranbrook Catalogues 1943-44.

⁸⁴ Rossbach, "Marianne Strengell." 9.

preconceived notions of how weaving is done, and can launch the students directly into simplified teachings. "The same goes for artstudy..." she writes, "I want [the students], most emphatically, to do their own thinking and creating, without outside sources." For this reason, weaving students were not allowed to go to the library during their first year at the Academy.⁸⁵

By the second year, students were looking into pattern analysis and were permitted to work on a larger loom. It is only at this point that students were given instruction in the designing of pieces. Even though students were given some leverage to experiment with larger productions at this point, Strengell continued to reject imitation.

Rossbach recalls an incident where Strengell entered the studio to find all of her students experimenting with

Scandinavian design and color.

"It was an electric moment," he writes, "She was not pleased.

She was emphatic in demanding that we get some other colors on the looms."

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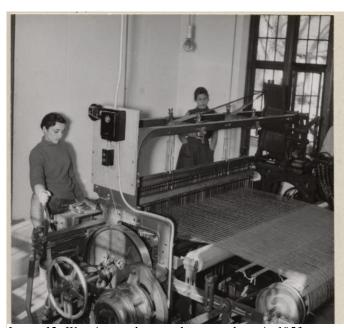


Image 12: Weaving students at the power loom in 1953. Cranbrook Academy Images: #AA2591-3 Copyright Cranbrook Archives

In addition to the fundamentals of weaving, Strengell also introduced second year students to the economics of textile production; students were faced with problems in correlating cost and price as well as merchandising issues. Sepeshy may have been

⁸⁵ Marianne Strengell, "Statement," (Cranbrook Institute of Art). Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

⁸⁶ Rossbach, "Marianne Strengell." 10.

thinking of the production-mindedness and emphasis on industrial production in the weaving department when he spoke of "coming down from the ivory tower." Strengell certainly did not reject the commercial and industrial possibilities of artful weaving. By the 1945-1946 school year students were being introduced to the power loom and in connection with this were conducting extensive research in designing for specific price brackets and in other matters pertaining to merchandising.⁸⁷

At this point, it is worth noting that Strengell did not think there was a correlation between "saleable" and "bad". "There seems to be a deep rooted feeling that good design is expensive – and that bad design sells," she writes in *A Personal Approach to Textile Design*, "It is time to explode this fallacy once and for all." Strengell believed that although good design demanded a lot of its designer, a well planned and executed product created in a certain price range would sell better, and was therefore more worthwhile than an astronomically expensive piece of art. Strengell saw value in all well conceived work, as evidenced in a statement written after her retirement from Cranbrook in 1961:

As a designer and an educator I have always believed good design is a way of life. I have tried to install this feeling in my students as well. Whether a textile is woven from straw in an Asian village or from the latest manmade fibers on a high powered loom, the approach is identical.⁸⁹

When conceiving a project, Strengell stressed to her students that they must research the framework of facts in which they were to produce the work including available labor and raw material, color, climate, end use, and price range. Acceptance of these sorts of factors in the production of student work rendered work that was not only

⁸⁷ Cranbrook Catalogues 1945-46, (Bloomfield Hills, MI: 1945). Cranbrook Archives, Cranbrook Catalogues Collection: 1998-05, 1:2.

⁸⁸ Strengell, "A Personal Approach to Textile Design." 1.

⁸⁹ Strengell, "Statement." 1.

pleasing to the eye, but also of exceptional craftsmanship and quality. By the "advanced", third year course, a student was expected to have mastered the techniques, and was at this point freed to select his own problems, completing necessary study and work under Strengell's supervision.⁹⁰

Eliminating the "Country Club" Mentality at Cranbrook

Beyond her concern with the techniques that she used in the classroom, Strengell seems to have been genuinely interested in the well-being of the entire student body at the Academy. Throughout the 1940s, the descriptions of the textile courses in the Academy catalogues stress the importance of interaction between departments. ⁹¹ In her oral history, Strengell recalls that this wasn't always the case. When she arrived at Cranbrook, the departments hardly intermingled; students in weaving were weavers only, they did not elect to take courses in painting, architecture, in sculpture, although there overall knowledge and artistic experience could have been expanded by such interaction. To stimulate inter-departmental communication, Strengell started throwing parties at the Academy. Often these parties would be based around design work; for example, fashion shows were held where the textile production, clothing designs, and sewing were carried out fully by students. ⁹² These types of parties, where student work was at the forefront, became a tradition and continued beyond Strengell's era at Cranbrook.

As evidenced by George Gough Booth's budget observations in 1939, Strengell's plan for increased student interaction was successful. He observes that architectural students had found it advantageous to take part in learning in the metal work, pottery, and weaving studios. Because of Strengell's instruction in "design, color questions, and an

⁹⁰ Cranbrook Catalogues 1943-44.

⁹¹ Ibid, Cranbrook Catalogues 1945-46.

⁹² Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 19.

understanding of the part fabrics play in all matters," the weaving department was especially popular amongst students of architecture. Although Booth was encouraged by the lively relations between departments, he also noted that it was in some ways disadvantageous, especially in the weaving studios. Because a student working at a loom would, by necessity, completely dominate that loom until the project was completed, the large amount of students entering the weaving department from other disciplines caused a shortage of supplies. Although Booth did not think the Academy could purchase enough looms to accommodate this rapid growth, from 1937 to 1942, 20 new looms, most of which were the 45" width used by students, had been acquired. 94



Image 13: Weaving studio at Cranbrook, Strengell's textiles are visible throughout. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

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⁹³ George Booth, "Some Observations on the Budgetproposed for the Art Academy for 1939-1940," (Bloomfield Hills, MI: Cranbrook Academy of Art, 1939). Cranbrook Archives, CAA Administrative Reports: 1981-05.

⁹⁴ "Looms and Weaving Accessories Belonging to Cranbrook Academy," (Bloomfield Hills, MI: Cranbrook Academy of Art, 1942). Cranbrook Archives, CAA Administrative Reports: 1981-05.

Also relating to her concern with student life, it appears that Strengell rejected the traditional stigma attached to art school: only wealthy students who did not have to worry about supporting themselves with a vocation could attend. One can already see evidence of this in Strengell's enthusiasm toward commercial and industrial production over "hobby-weaving". Her rejection of typical student stereotypes is further manifested in her various school related correspondence. Responding to industrial design instructor Walter Baermann's 1941 suggestion that the Academy begin awarding degrees, Strengell writes:

Desiring to develop as many good textile designers as only possible and knowing the demand for such designers, it is for me a great and sincere hope to be able to extend the course for each student over some years... and a plan like the only proposed by Mr. Baermann will insure a good student body, as the giving of degrees will make the Academy approachable by sincere students, planning to earn their living by their craft and wit. It will to a great extent eliminate the country club type recently prevalent. ⁹⁵

The concern with allowing talented students to attend Cranbrook regardless of their financial status continued throughout Strengell's career. In 1956, she used part of the funds gained through the sale of her own textiles for scholarship purposes, dedicating \$320, the amount of full tuition, to her student Arlene Franklin. Of Franklin, Strengell writes, "She is a most deserving and talented student, willing to work for her room and board but definitely unable to get together as well the sum necessary for tuition for another year of study." At the same time, she donated another \$160 to Samuel Gaillard's education in textiles, as he was also in need of assistance. ⁹⁶

⁹⁵ "Faculty and Staff Response to Baermann Report," (Bloomfield Hills, MI: Cranbrook Academy of Arts, 1941). Cranbrook Archives, CAA Administrative Reports: 1981-05.

Marianne Strengell, May 3 1956. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

Strengell's Students

Strengell's tenure at Cranbrook Academy of Arts produced a fine crop of American weavers, many of whom were men, interestingly. By promoting weaving as a creative process which, when done correctly, produces marketable work, Strengell destroyed the barriers between women's hobby-crafts and the more "substantial" and marketable fields like architecture and sculpture where men traditionally worked.

Of her male students, one of Strengell's most notable protégés was Robert Sailors. Arriving at Cranbrook in the summer of 1941, Sailors received his MFA in May 1943, making him one of the first students to be awarded a degree from the newly accredited Academy. Because of his excellent performance, Sailors was awarded a full fellowship for the academic year 1943-44 after which he became the assistant director of the weaving department under Strengell.⁹⁷ Sailors was integral in the introduction of power loom technology at Cranbrook. At Strengell's urging, he went to the Rhode Island School of Design in 1944 to familiarize himself with the power loom, and by January 1945 one had been installed in the Academy's Weaving department.⁹⁸ Although Strengell advocated the use of the power loom, she had not yet mastered the technology, so Sailors' primary role as her assistant was to instruct students in its use.

Stylistically, Sailors' work is similar to Strengell's, with an emphasis on texture, craftsmanship, and experimental fabrics and a wholesale rejection of pictorial creations. He especially embraced the importance of experimentation in fabrics. Like Strengell, he

⁹⁷ Marianne Strengell, June 18 1943. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

⁹⁸ "Cranbrook Foundation Minutes" (Bloomfield Hills, MI, Oct. 26 1944). Cranbrook Archives, CAA Administrative Reports: 1981-05.

used natural fabrics in combination with synthetics: burlap, floor mops, corn husks, wooden sticks, rayon, and leather have all found their way into Sailors' work.⁹⁹

Sailors stayed at Cranbrook until 1947, when his position was eliminated due to financial difficulties. Beyond Cranbrook, Sailors enjoyed a successful career, opening his own company in Bitely, Michigan which eventually employed twenty-three weavers

whose work would be represented in showrooms throughout the world.

Sailors was also commissioned by various clothing companies to design power loomed fabrics that looked like they were woven by hand. 100

During the post-war era,

Cranbrook, like many other
institutions in the United States,
received a number of male students
due to the G.I. Bill. One such student
was Ed Rossbach, who attended from



Image 14: Strengell and Robert Sailors in the studio, 1944. Cranbrook Academy Images: #6513 Copyright Cranbrook Archives

spring 1946 until the late summer of 1947. After graduating, Rossbach went on to teach at Washington University for three years and then joined the weaving faculty at University of California, Berkeley, thus expanding the Cranbrook emphasis on craftsmanship and skill to a much larger student body.¹⁰¹

⁹⁹ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 203.

¹⁰⁰ Ibid. 203-205.

¹⁰¹ Ibid. 205.

Beyond being a teacher and designer, Rossbach has also done a considerable amount of research and publication of books in textile related fields. In early 1980s Rossbach published a five part series in *American Craft* focusing on fiber arts in the 1940s. ¹⁰² In this work he highlighted the careers of Anni Albers, Mary Atwater, Dorothy Liebes, and Marianne Strengell. Although the comments from her other students, her personal writings, and the praise of her superiors at Cranbrook say otherwise, it is worth noting that Rossbach does not paint a favorable picture of Strengell as a teacher:

[Strengell] was in charge of weaving at Cranbrook when I was a student there in the 40's. I don't think she said more than two sentences to me in my year and a half. In never felt that she was remotely interested in teaching or in educational theories. We learned from her by occasionally seeing a piece of her own weavings as she swept through the studio... yet I think something important was communicated by osmosis. 103

Perhaps Rossbach did not realize that Strengell was not interested in *traditional* educational theories, and instead realized that under her guidance, students would be afforded the creative leverage to develop as artists. As is evident throughout this chapter, as well as a vast collection of photographs of Strengell working with various students throughout her career, Strengell certainly was interested in teaching, and even Rossbach notes that Strengell's students propagate the method of Cranbrook weaving throughout the country.

Informal as she may have been, Rossbach would not deny Strengell's impact on textiles in the 20th century. In his article about her, Rossbach points out that what has become known as "contemporary hand-weaving", with its uniformity, anonymity, and "serving" nature toward architecture, had its origins at Cranbrook under Marianne

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¹⁰² Rossbach, "Fiber in the Forties."

¹⁰³ Ibid. 17.

Strengell.¹⁰⁴ "One could feel about [Strengell's] work that anyone could do it. A wonderful deception, of course," wrote Rossbach about her style. As critical as he was, Rossbach realized that the craftsmanship and clarity of Strengell and her faithful students was a watershed in modern design.¹⁰⁵

It was through Ed Rossbach that Jack Lenor Larsen found his way to Cranbrook Academy of Arts. Larsen met Rossbach while studying under him at the University of Washington in 1948 and Rossbach eventually convinced him to relocate his studies to Cranbrook. Larsen came to the Academy with a decided set of expectations, having already studied textiles elsewhere, including an in-depth study of handweaving in Peru. 106 It is perhaps for this reason that he and Strengell did not get along well, as we recall that Strengell liked for her students to arrive with no preconceptions about what weaving should be.

When asked about Jack Lenor Larsen in her oral history interview, Strengell remarks, "Jack Larsen was the laziest student I had ever seen. He did absolutely nothing. Really." She recalls that Larsen's preconceived notions of what a teacher should be and how a teacher should teach were apparent at their first meeting:

A very funny thing was when I met Jack first... it was in early September or something like that and I was sitting on a table and I had short shorts on... and I was dangling my feet. When Jack comes in, you know, he couldn't believe it. I mean, that was his teacher for god's sake. I think he was terribly shocked. 108

Beyond this, Strengell recalls that Larsen was very adamant that he didn't "do anything too hard" and misused equipment, even ruining one of the looms. She recalls

¹⁰⁶ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 205-208.

¹⁰⁴ Rossbach, "Marianne Strengell." 10.

¹⁰⁵ Ibid. 9.

¹⁰⁷ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 51.

¹⁰⁸ Ibid. 52.

that when his time at the Academy was over, Larsen relocated to New York, where he "found some good friends who helped him with his career," and it was only at this point that he started weaving.¹⁰⁹

No matter when exactly Larsen became serious about his weaving, he certainly established himself as one of the more successful designers to have studied at the Cranbrook Academy of Arts. In his autobiography, *Jack Lenor Larsen: A Weaver's Memoir*, he goes into great detail about his textile work for Frank Lloyd Wright, his successful design firm Jack Lenor Larsen Incorporated, traveling exhibitions and various trips around the world to study native textiles. Interestingly, Larsen, like Strengell, traveled to the Far East to help develop cottage industries. In 1959 Larsen spent a year in Taiwan and South Vietnam, as part of a three-year contract with the State Department for research into grass weaving projects for both countries.¹¹⁰

Although it is interesting to study the various men who entered a craft that was previously recognized as a feminine pursuit, there were also several successful women who studied under Strengell. Of these, Nelly Sethna is one of the most noteworthy. In the archival collection, a handwritten note is attached to the correspondence between Sethna and Strengell. Placed there by Strengell herself when she was preparing to donate various materials to the archives towards the end of her life, Strengell refers to Sethna "My # one great Indian Student". This statement is not unfounded, as Sethna returned to India after studying at Cranbrook from 1957 to 1959 to become a leading modern textile designer in her native country.

¹⁰⁹ Ibid. 52.

¹¹⁰ Jack Lenor Larsen, *Jack Lenor Larsen: A Weaver's Memoir* (New York: Harry N. Abrams, Inc., 1998).

¹¹¹ Sethna. 1.

Strengell's story of meeting Nelly Sethna and bringing her to Cranbrook once again illustrates how dedicated Strengell was to bringing in students who would not traditionally be capable of attending an art school:

We met [Nelly Sethna] in Bombay where we were on a big tour. We were staying in this big hotel in Bombay and she wanted to meet me... she wanted to come to Cranbrook. And she had been one year in London and done something which she showed to me... [her original work was] not good but her personality was great. I could see that she had all the possibilities of developing into something really marvelous... she had an atmosphere, very ambitious... so I said, fine, I would present it to the meeting at Cranbrook... So we had a meeting and normally what happens is that we saw work done by the applicant, you know. And I didn't show any of it... how I got my way I don't know. But I did. I got her in... the next twenty years she was number one in India. She was fabulous.

Well into the 1970s Strengell and Sethna would stay in contact, exchanging letters

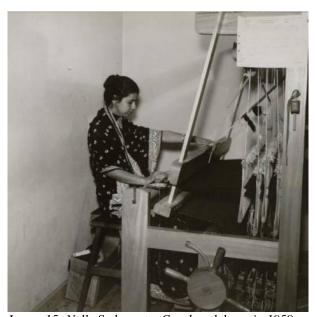


Image 15: Nelly Sethna at a Cranbrook loom in 1959. Cranbrook Academy Images: AA2823A Copyright Cranbrook Archives

and gifts from across the ocean. Pictures of Strengell's home in Wellfleet,

Massachusetts, where she moved after retiring from Cranbrook in 1961, reveal that the tasteful modern home was accented with Indian crafts and textiles. One can not help but guess that these were courtesy of Strengell's favorite student, Nelly Sethna.

Although only a handful of Strengell's students are mentioned here, it is apparent that her influence as a teacher was great, whether her students realized the decidedness of her approach or not. As evident in Larsen's work in Taiwan and South Vietnam, as well

¹¹² "A Breezy Hilltop Lookout," *House and Gardens Magazine* 1965.

as the roles various students would take in industrial design, Strengell's students were influenced not only by her instruction within the classroom, but also by "keeping tabs" on Strengell's work outside of Cranbrook, both in Detroit area industry as well as cottage industry projects abroad. The next two chapters will study these endeavors, beginning with Marianne Strengell's work in developing well-paying cottage industry in the Philippines.

CHAPTER 3

WEAVER: STRENGELL'S WORK IN THE PHILIPPINES

Blending Education with Experience at Cranbrook Academy of Art

Of all of Marianne Strengell's work, she claims that "teaching was maybe a third of it." Strengell did a tremendous amount of professional work outside of Cranbrook, yet often brought these experiences into the classroom, to give her students an idea of what textile work was like outside of the classroom. "We used to have no formal talks ever," says Strengell, "We used to sit around a table with a coffee or something and talk. And I told what I was doing... so that they [could understand] the relationship between the outer world and Cranbrook." These motivations were certainly at work in the early



Image 16: An informal discussion between Strengell and students, 1952. Cranbrook Academy Images: AA2540

became heavily involved
with the creation of a
cottage industry in the
Philippines. Not only was
Strengell interested in
improving the conditions
of the often underpaid

1950s when Strengell

Filipino village dwellers, she also saw her work as an opportunity for the inspiration and future employment for some of her weaving students at Cranbrook.¹¹⁵ This chapter will

Copyright Cranbrook Archives

¹¹³ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 19.

¹¹⁴ Ibid. 19.

¹¹⁵ Marianne Strengell, Sept. 27 1951. Cranbrook Archives, Marianne Strengell Hammarstrom Papers: 1991-07, un-indexed collection.

be an exploration of the successes and failures of the Philippines cottage industry project, with special emphasis placed on Marianne Strengell's role.

Cottage Industry and Economic Improvement in Southeast Asia

In the years following World War II, development plans in unindustrialized countries stressed the rapid introduction of powered industry, preferably on the large scale. Whether or not the capital and other necessities were available, modern mechanized industry was regarded, in the eyes of the industrialized west, as the trademark of a strong and advancing nation. 116 However, achieving complete industrialization in some areas of the world, in this case the Philippines, was nearly impossible. During the early 1950s, electricity was not yet widely available, especially in the rural areas. Beyond this, the life-style of the village dweller did not complement the typical industrial conditions like eight hour working days and year round labor. In highly agricultural countries like the Philippines, country-folk dedicated about a third of the year to working the fields, surviving the rest of the year on the meager wages earned through the creation of native handicrafts. 117 At mid-century, about seventy-five percent of the people lived in small villages and fifty percent of the national income was derived from agriculture. 118 Rather than completely rearranging the native living conditions, it seemed more feasible to rearrange, through government assistance, the cottage industries in which the natives worked in hopes of providing better wages and more business opportunities. It is therefore significant that even though many handicrafts were dying out in Asian countries

¹¹⁶ Theodore Herman, "The Role of Cottage and Small-Scale Industries in Asian Economic Development," *Economic Development and Cultural Change* 4, no. 4 (1956). 356.

¹¹⁷ Lysbeth Wallace, "Hand-Weaving in the Philippines," (New York: United Nations TEchnical Assistance Programme, 1953). 71.

¹¹⁸ Donn V. Hart, "Projects and Progress in the Philippines," *Pacific Affairs* 27, no. 4 (1954). 353.

under the impact of machine-made goods, government planners and administrators endeavored to revive and improve the cottage industries. 119

In his 1956 study of small-scale industries in Asia, economist Theodore Herman defined a cottage industry as being "carried on in the home as a part-time occupation primarily by members of one family using human or animal power... for household or local village use and [of] little commercial importance." Acknowledging that goods produced at the local level were at a disadvantage to mass-produced consumer goods from more developed economies, it was the goal of the United Nations, in cooperation with the Philippines Council for United States Aid (PHILCUSA) and the United States' Mutual Security Agency (MSA) to render these hand-made products more economically viable. These associations, which I will describe in the next few pages, adopted the stance that freedom and development work hand in hand; the better health and more economic opportunity that a citizen has, the more this citizen can do to help the native country develop. The cottage industry program in the Philippines seems to be an early example of the idea that all freedoms, political, economic, and social are intertwined. Such ideas have recently been advocated by economic historian and former World Bank presidential fellow Amartya Sen. Through the cottage industry program, the ability to utilize economic facilities for consumption, production, and exchange would hopefully lead to social opportunities like education and health care as well as heightened appreciation of political freedoms such as voting, possibility to scrutinize leaders, and freedom to express personal political views. 121 As will be described in this chapter's

¹¹⁹ Herman, "The Role of Cottage and Small-Scale Industries in Asian Economic Development." 356.

¹²¹ Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999). 5, 35-40.

conclusion, these goals were successful, although the program never reached its fullest potential.

Philippine Council for United States Aid

In the early 1950s, improvement of rural conditions was of primary importance in Filipino politics. President Ramon Magsaysay who served from 1953 until 1957 championed this cause, which been carried out to some extent by his predecessors. Significantly, previous president Elipidio Quirino passed a minimum wage law in spring 1952, in a move to eliminate unfair working conditions. Through irrigation projects, building of roads, and a four-year public works project, Magsaysay vowed "not to permit social justice to be an empty phrase in our constitution." Yet the President realized that he alone could not bring about a grass-roots renaissance in rural areas. Thus, a series of joint Filipino-American studies were carried out. These studies were certainly invaluable to the administration in providing technical advice and guidance for improving Philippine socio-economic conditions. 122 The reports were carried out through the Philippine Council for U.S. Aid (PHILCUSA) in association with the Mutual Security Agency (MSA) which would later be known as the Foreign Operations Administration (FOA). Beginning joint operations in April 1951, PHILCUSA and the MSA were supported by the United Nations, who helped to sponsor the various artists and technicians who made

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¹²² Generoso F. Rivera, "The Rural Philippines," in *A Cooperative Project of the Philippine Council for United States Aid and the United States Mutual Security Agency* (1952).

John H. and M. Ladd Thomas Romani, "A Survey of Local Government in the Philippines," (Manila: Institute of Public Administration, University of the Philippines, 1954).

John L. Cooper, "Report and Recommendations Concerning Agricultural Credit in the Philippines," in *Special Technical and Economic Mission to the Philippines* (Manila: United States of America, 1952). Irene Ellis Murphy, "The Philippines Program for Cottage Industries: An Evaluation," (Manila: U.S. Foreign Operations Administration, 1953).

Wallace, "Hand-Weaving in the Philippines."

up the study and development teams.¹²³ Marianne Strengell was sponsored primarily by the Economic Cooperation Administration of the MSA, although she worked in close contact with UN sponsored artists.¹²⁴

Especially helpful amongst the joint reports is Generoso F. Rivera's report, "The Rural Philippines" which includes photographs of various aspects of rural life as well as suggested lines of action, sociological summaries of the conditions in the various villages, and a brief population analysis. The main conclusions of this survey are that:

(1) the Philippines had vast undeveloped agricultural and other resources, (2) food production was not keeping pace with population increases, (3) a serious technological lag existed in agriculture and other industries, and (4) various institutional weaknesses hindered the organization of natural resources, people, and technology for the achievement of higher standards of living. All four of these problems are related to problems within the cottage industries.

Some of the problems with the cottage industries may be attributed to previous attempts at improving the status of weaving in the Philippines. In a 1953 report carried out as part of the PHILCUSA research program Irene Murphy, coordinator of Philippine cottage industries, provides a history of the Philippine cottage industry programs.

Murphy, who had been visiting the Philippines for two decades, was responsible for recommending the addition of Strengell to the program. Her report states that Philippine cottage industry programs can be divided into three periods: (1) the period from 1906 to 1926 when rural industries were under the guidance of public schools, (2) 1926 to 1947, a

¹²³ Hart, "Projects and Progress in the Philippines." 353.

¹²⁴ Marianne Strengell, "E.C.A. Technician Reports on Survey of Pi Weaving Industry," *The Philippines Herald*, Jan. 12 1952.

¹²⁵ Rivera, "The Rural Philippines." 60-77.

period of neglect, and (3) from 1946 onward, the revival of cottage industries. ¹²⁶ During the first period, the public schools "developed a strong curriculum of industrial education... deeply rooted in the crafts, the culture and raw materials of the rural areas."¹²⁷ By 1917, gross sales of goods produced by schools total 1.5 million annually, but by 1925 this increasing success had brought legitimate charges that students were being used as a labor force. In reaction to these charges, in 1926 industrial craft education in the rural areas was prohibited by law. 128

From 1926 to 1947, young Filipinos had no formal training in handicrafts; there was little research in raw materials, products or designs; and the national government did practically nothing to develop cottage industries. Although weaving still took place in the home during this period, it was not an economically viable craft until 1946 when President Roxas started devoting attention to the various cottage industries. The Price Stabilization Corporation (PRISCO) was created to oversee the schools, who were assigned the task of developing local handicrafts. United Nations Aid began in 1949, and United States Government started its aid program in July 1951, the same month that Strengell arrived in the Philippines. 129

In "The Rural Philippines", Rivera made broad suggestions for improving the problems, including voluntarily re-settlement on unoccupied arable land and development of adequate public assistance and social security programs. By 1954, these programs were under development. 130 More importantly for this study, Rivera also suggested strict enforcement of the new minimum wage laws and heightened research into the creation of

¹²⁶ Murphy, "The Philippines Program for Cottage Industries: An Evaluation."

¹²⁷ Ibid. 7.

¹²⁹ Hart, "Projects and Progress in the Philippines." 365.

¹³⁰ Ibid. 361.

successful economic ventures in the villages.¹³¹ It was in this spirit that several projects for the re-development of cottage industries, including woodcarving, furniture production, and hand-weaving, were undertaken. In addition to streamlining the way in which native goods were produced, technicians from the MSA and UN sought ways to introduce these goods into larger markets and assure fair pay to the craftspeople.¹³² With her enthusiasm for experimentation and concern for the common-person, as evidenced in her Cranbrook pedagogy, Marianne Strengell was an invaluable element in these redevelopment programs. Add to this the fact that she had previous cottage industry experience, helping her mother with the development of an in home weaving industry for Finnish housewives, and Strengell's credentials seem even stronger. Although she spent only a short time in the Philippines, her continued research and improvement of designs was a definite boon to PHILCUSA.

Cranbrook Connections in the Philippines

After completing the school year at the Cranbrook Academy of Arts, Marianne Strengell spent three months during the summer of 1951 as part of a team conducting research and development into the cottage industries of the rural Philippines. During this time, she also made trips to Japan to study successful cottage industry projects taking place within that country. Also involved in the project was Strengell's husband, furniture designer Olav Hammarstrom. Unlike Strengell, who was funded through the MSA, Hammarstrom was funded by the UN. Although not employed by Cranbrook, he was tied to the institution and the Saarinen family through his professional relationships.

¹³¹ Rivera, "The Rural Philippines." 81-89.

¹³² "Exciting New Fabrics' from Pineapple and Banana Fibers, Plus New-Type Loom, Aiding Philippines Weaving Industry," *Mutual Security Agency Press Release*, Jan. 9 1962.

¹³³ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 2.

Besides being married to the head of the weaving department, Hammarstrom worked with Eero Saarinen and Associates, building designers for the General Motors Corporation in Michigan. As part of the Philippines project, Hammarstrom brought samples of wood back to the United States to be designed into furniture for the Philippine export trade. His designs were distinctly Philippine, with all materials obtainable in the islands.¹³⁴

John H. Risley, instructor in sculpture at Cranbrook Academy of Art, accompanied the group to survey the possibility of designing for the Philippine wood carving industry. He remained in the islands for a year training Philippine personnel to carry on this work. Like Strengell, he was funded by the MSA. Finally, Lysbeth Wallace, hand weaving expert and textile designer, was the fourth member of the team. A former Academy student of Strengell's, Wallace also remained in the Philippines for a year, carrying out extensive research and training weavers in the use of new equipment. She was funded by the UN. ¹³⁵

Strengell's Work in the Philippines

Strengell spent the first two weeks of her three month stay conducting an intense survey of the living conditions, materials, and techniques of the natives. Early on, she realized that the human resources needed to produce an economically viable weaving industry were certainly present, although poorly developed. In a 1951 report, Strengell observed that agricultural duties such as sowing seeds, tending the fields, and harvesting crops only occupied about 100 working days per year and were not nearly enough to produce three square meals a day. This translated to a low living standard and poor

 ^{134 &}quot;'Exciting New Fabrics' from Pineapple and Banana Fibers, Plus New-Type Loom, Aiding Philippines Weaving Industry," *Mutual Security Agency Press Release*, Jan. 9 1952.
 35 Ibid. 3.

health. The remainder of the year, according to Strengell, was spent in "idleness and unemployment". When weaving took place, the product was cut away from the loom a few yards at a time, taken to market, and sold for a cheap price, usually just enough to provide subsistence for a day or two.¹³⁶

Despite the problems with the industry, Strengell's writing indicates that knowledge of weaving was vast, with 25,000 available weavers trained both in the home and also by the newly re-established in-school weaving programs described by Murphy. Once again, Strengell realized that identifying a "framework of limitations" was the best approach to the project at hand. Drawbacks were numerous, including primitive equipment, obsolete and impractical designs, lack of standardization in products, difficulty in instruction of new techniques, a nonexistent market, and difficulty of acquisition and transportation of raw materials.¹³⁷

Strengell and her team approached these problems one by one in search of indigenous solutions. Although she embraced large scale industry in the United States, where population density, capital, and availability of materials made such projects possible, Strengell realized that weaving "factories" were not feasible in the rural, agricultural Philippines. Ever the forward thinker, Strengell believed that practical solutions could be found within the Philippines, thus creating a work-ethic that was familiar to the cottage workers. Of this idea she writes:

Above all, and I cannot stress this enough, this program is to be a Philippine program, and the products typical of the very best in Philippine raw materials and craftsmanship. I tried to feel the pulse of the people and the country, to produce something indigenous of the Philippines, to help develop a sense of pride in Philippine products, and apply whatever

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¹³⁶ Strengell, "A Report Following a Three Months Survey of Weaving as a Cottage Industry in the Philippines." 3-6.

¹³⁷ Ibid. 2-3.

technical know how possible to speed up production, rather than to dictate an answer to the problems at hand. In case of another country the procedure might be similar, but the problems seldom are; the raw materials, the consumption of goods, the labor situation might all be radically different. ¹³⁸

Solving the Problems

Problem 1: Primitive Equipment

One of the first problems that Strengell identified was that the looms available to local weavers were not capable of turning out large amounts of marketable fabric in a short amount of time. Most of these looms were antiques left over from the Spanish rule which lasted from 1565-1899 and they had been used to weave the husks of pineapples. Only eighteen inches wide, these looms turned out small amounts of fabric that were too narrow to be used in clothing or upholstery. Further, as noted by Lysbeth Wallace in "Hand-weaving in the Philippines", World War II had destroyed many of the looms and the weavers did not have the capital to rebuild them.

Although it was possible to import looms from other countries to be installed in the weavers' households, Strengell realized that certain conditions would limit the usefulness of western looms. "Our first consideration was the Philippine weaver's short arm span. The physical limitations made it impossible for her to throw the heavy shuttle for standard 42-inch material," Strengell said. Beyond this problem, the humid conditions in the Philippines caused rusting in the metal parts that make up a typical

¹³⁹ Joy Hakanson, "Detroit Weaver Revitalizes Philippines' Ancient Craft," *Detroit News*, July 20 1952.

¹³⁸ Ibid 4

¹⁴⁰ Wallace, "Hand-Weaving in the Philippines." 4.

¹⁴¹ Hakanson, "Detroit Weaver Revitalizes Philippines' Ancient Craft."

loom. Although the looms that were at use at Cranbrook worked well in a dry Michigan studio, they would quickly become useless in a damp, Philippine cottage.

With the help of her carpenter husband, Olav Hammarstrom, Strengell developed a loom that worked around these problems. This loom, unlike the previous Philippine looms that required manually pulling the thread across the length, used a fly-shuttle, which moves across with a slight hand pull and twist, thus enabling even the smallest weaver to create a 42-inch wide piece of fabric. In her 1951 report, Strengell notes that



Image 17: Strengell demonstrates the "Strengell Loom" developed specifically for use in the Philippines.

Marianne Strengell Papers: acc. #1991-07

Copyright Cranbrook Archives

the loom, which would become known at the Strengell Loom, also increased the speed of production five to eight times.¹⁴³

To overcome the problems of rusting metal, The Strengell
Loom was designed to be fully built out of indigenous hard wood.
Sturdy enough to weave rugs and heavy upholstery materials yet also capable of weaving fine, sheer

cloth, the Strengell Loom became an integral part of Philippines cottage industry. Of simple design, the loom could be copied and built by village craftsmen, thus providing further employment within rural industry. By 1952, a goal of 5,000 Strengell Looms

¹⁴⁴ Ibid. 7.

¹⁴² Wallace, "Hand-Weaving in the Philippines." 1-4.

¹⁴³ Strengell, "A Report Following a Three Months Survey of Weaving as a Cottage Industry in the Philippines." 7.

had been set; by mid-decade looms were at work within the various weaving districts of the Philippines.¹⁴⁵

So that she could continue to experiment with fabrics and designs for the MSA, Strengell also had one of her looms set up in her Cranbrook studio. Due to the interest of fellow weavers, she realized that there was also a need for a similar loom, capable of multi-tasking, in the United States. Although there is no evidence that this task was undertaken, it is worth mentioning that Strengell was concerned enough about the development of Philippine industry that she suggested a study be made about cottage industry production of Strengell Looms to be exported and sold in the United States.

146

Problem 2: Obsolete Designs

When Strengell began her work at Cranbrook Academy of Art in 1937, her style was quite different from the other Cranbrook weavers. Headed by Loja Saarinen, these weavers were primarily interested in producing intricate patterns depicting scenes from mythology, nature, and architecture. As described in the Chapter 2, Strengell emphasized texture, color, and craftsmanship and rejected such patterns, feeling that they were out-of-date and of little use in the modern world. The styles that she encountered during her survey of Filipino weaving were, in this way, not unlike the traditional Scandinavian weaving style that Strengell rejected at Cranbrook. In her report "Handweaving in the Philippines" Strengell's student and PHILCUSA team-member Lysbeth Wallace makes some recommendations to overcome the reliance on patterning. Not only is the innovativeness of the research team demonstrated, but we also see the influence that

¹⁴⁵ Marianne Strengell, "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines," (1952). 9.
¹⁴⁶ Ibid. 11.

Strengell's ideas had on her student, who also saw value in departing from set ideas and adopting design that makes the best use of raw materials:

Although pattern weaving is very effective, it is often too time consuming, and it was felt that some very interesting results could be obtained in other ways. For instance, by changing the spacing in the reed one could achieve a variety of effects from the very sheer to a heavy texture appearance. Also by winding together... yarns of different colors and sizes, and even a combination of cotton and fibers, unlimited varieties of materials could be produced. 147

Among the various materials that were incorporated into the new, simpler designs, are traditional Filipino weaving fibers like hemp, a reed like fiber called agas, jute, cotton, pineapple fibers, and coconut husk.

When she returned to Cranbrook,

Strengell brought hundreds of pounds of these and other native materials which she continued to experiment on the Strengell Loom, creating samples and testing the strengths of the fibers. 148



Image 18: A simple straw fabric, emblematic of the work promoted by the MSA and UN in the Philippines. Marianne Strengell Papers: acc. #1991-07
Copyright Cranbrook Archives

¹⁴⁸ Hakanson, "Detroit Weaver Revitalizes Philippines' Ancient Craft."

¹⁴⁷ Wallace, "Hand-Weaving in the Philippines." 24.

Problem 3: Lack of Standardization and Difficulty of Instruction

Prior to the 1950s, weaving produced in one Filipino cottage could be of a completely different design and style than a piece of fabric produced in a neighboring village. Although this individualism had interesting results, one-of-a-kind fabrics had little marketability outside of the village. To overcome this, Strengell and her team devised a set of designs which were to be taught by UN/MSA trained instructors, who would travel to the various villages and insure that the regularized designs were being carried out correctly.

Because different languages were spoken in different provinces, carrying out such regulation from one area to another was a problem. Through extensive staffs and cooperation, the UN and MSA managed to overcome the language barrier to some extent. Lysbeth Wallace, an UN trained instructor, describes the process of determining what type of work each weaver would carry out in "Hand-weaving in the Philippines". According to her, each weaver was interviewed separately to find out what type of article she had been accustomed to weaving. To avoid language difficulty, there were members of the staff, drawn from the many provinces, present who were capable of translating whatever dialect was being spoken.¹⁴⁹

After her first interview the weaver was given an assignment that was comparable to the weaving that she was accustomed to doing within the home, with emphasis on improving quality and design. She would be assigned to weave at a greater width, or to use the fly-shuttle Strengell Loom if her experience warranted it. After completing this first assignment, the weaver was then given a new assignment introducing another technique or a new design. Following this, various techniques would be demonstrated

¹⁴⁹ Wallace, "Hand-Weaving in the Philippines." 20.

and personal instruction, with a ratio of two or three weavers to every instructor, would be carried out. 150

Overcoming the obstacles the lack of standardization and difficulty of instruction required several willing employees. Strengell saw this as an opportunity to find employment for various students from Cranbrook Academy of Arts. In her at letter to Academy president Zoltan Sepeshy she writes, "[The successful program] is wonderful, for me, if I can set a precedent, and for Cranbrook, as it means employment in the future for our students. Right now Lysbeth Wallace and Mary Kring Risley are employed, in Manila, along with John Risley." ¹⁵¹ Beyond this, Strengell encouraged talented Filipino



Image 19: Filipino weaver Aida Fabriero, who, at Strengell's urging, trained at Cranbrook in 1952. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

weaver Aida Fabriero to study at Cranbrook. In early 1952, Fabriero, of the fiber plant industry in Manila, arrived at the Academy for a six week study of weaving, screen printing, and spinning. Strengell was convinced that this experience proved helpful for Fabriero, but regretted that the stay was so short, recommending that in the future, trainees be permitted a semester's stay at Cranbrook. 152

¹⁵⁰ Ibid. 20.

¹⁵¹ Strengell. "Letter to Zoltan Sepeshy."

¹⁵² Strengell, "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines." 13.

Problem 4: Non-existent Market

One of the main problems that plagued cottage industries in the Philippines was the lack of a market, beyond the immediate village, where goods could be sold. As was the case in several non-industrialized nations, industrial made goods from other countries dominated the market in the Philippines. Materials, such as cotton, from outside of the Philippines was cheaper than native cotton, thus crippling the industry further. Of this, Wallace writes:

Another contributing factor to this situation was the influx of inexpensive cotton material from abroad. The weavers found that they could purchase these materials at less expense than they could weave them themselves. In other regions where fibers were used a similar situation prevailed: fishnets and mosquito nets made of cotton were available on the market at a low cost and the market value of the fishnets and mosquito nets made of [native] fibers was thereby reduced. All over the islands the market value of handwoven articles was losing ground. 153

One way to ensure better standing in native markets was to regulate the products being woven in each village so that they were of similar form and quality. Through the training techniques described earlier, cottage industries started producing high quality, predictable products which were capable of entering the commercial market. The sophisticated textures and colors of fabrics produced under Strengell's guidance became popular with city-dwelling Filipino businessmen. Native enthusiasm, possibly stirred by the new social programs championed by President Magsaysay, led to an increased market within the Philippines. Manila businessmen, who used to import all fabrics for their homes and offices, became enthusiastic buyers of the cottage industry goods. 154

Strengell's goals for the marketing of cottage industry goods stretched beyond selling them within the Philippines. So impressed was she with a particular fabric, called

¹⁵³ Wallace, "Hand-Weaving in the Philippines." 4.

¹⁵⁴ Hakanson, "Detroit Weaver Revitalizes Philippines' Ancient Craft."

piña and woven from the leaves of pineapple, that she suggested marketing the fabric within the United States. A silk fabric called jusi was also, in Strengell's eyes, capable of breaking into American markets. Of her plans for these fabrics Strengell writes:

I have surveyed the possibilities of introducing printed, ready to wear clothes with a specific Philippine flavor, in the American market... there would be a distinct possibility of introducing silk screened jusi, piña-jusi, jusi-cotton, and later other fabrics in the American market, possibly as yard goods, sold over the counter, but preferably as specifically designed for and introduced by one of our big stores; Bonwit Teller, Neiman and Marcus, Saks Fifth Avenue, etc. I feel that the great amount of extremely capable seamstresses in the islands here could have a chance for earning a good living. Sizes and patterns should be of American standards, the flavor and appeal Philippine in origin... It is my hope that [the introduction of Philippine fabrics] will not be delayed too long, as the competition from other countries is getting greater all the time... I emphatically recommend and early introduction of the Philippine products in the United States, even if the initial collection is small. 155

In her 1952 report Strengell made similar recommendations for rugs that were being produced in the Philippine cottage industry, stressing that these goods needed to be introduced as soon as possible, before imported eastern goods from other countries had saturated the market. In these plans, as well as in the plan for marketing the Strengell Loom within the United States, Strengell's primary concern was with providing fair wages through a successful market. Although none of the Philippine cottage industry goods were very successful within the U.S. market, the successes within the Philippines, due to native enthusiasm, ensured fair wages to several Filipino cottage workers. With innovative new looms, a training program, and a developing native market, cottage industry workers were no longer just producing narrow pieces of fabric a few yards at a

¹⁵⁶ Ibid. 13.

¹⁵⁵ Strengell, "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines."11-12.

time to provide a day's worth of food. Strengell's innovations allowed weavers to earn a fair wage as their products found success beyond the immediate village.

Problem 5: Acquisition and Transportation of Raw Materials

In Strengell's initial study of the hand-weaving in the Philippines, she notes that the fibers used were limited in number and laborious in preparation. During the Second World War, cotton growing had all but ceased, with cotton goods arriving from international markets. Other fabrics, such as pineapple and silk, were also difficult to obtain, especially considering that the responsibility for gathering such products often fell into the hands of the weaver herself, thus occupying valuable weaving time. When these materials were available, their woven product was often fragile and unable to withstand various climatic conditions. These things considered, it was Strengell's objective to find fibers that were plentiful in the islands, relatively easy to spin and weave, and capable of withstanding various conditions. She dedicated a majority of her time for the MSA to researching the possibilities of easy acquisition and safe transportation of Filipino raw materials.¹⁵⁷

As mentioned earlier, Strengell saw great possibilities for the introduction of jusi and piña fabrics into international markets. Of jusi, a fine silk fabric, Strengell observed that its production was prolific during Spanish occupation but had since ceased. She attributed this problem to the fact that the traditional decoration of jusi involved sewing metallic threads and colorful designs onto the woven fabric. Although the results were beautiful, Strengell noted that acquiring special embroidery thread was prohibitively expensive for the cottage weavers, and there was no affordable way to produce such

¹⁵⁷ Strengell, "E.C.A. Technician Reports on Survey of Pi Weaving Industry." 4-5.

thread within the cottage industry.¹⁵⁸ To overcome this problem, Strengell introduced the technique of screen printing into the cottage industry. Screen printing, a method where ink is forced through a design bearing screen, often silk, onto the fabric being decorated, sped up the production of fabric. With this method, reams of affordable jusi could be produced, all bearing a regulated yet attractive design.¹⁵⁹



Image 20: Screen printed jusi fabric designed by Strengell for cottage industry. Marianne Strengell Papers acc #1991-07 Copyright Cranbrook Archives

Piña, which Strengell called "one of the most beautiful materials I have seen," carried its own set of drawbacks. Like jusi, piña's use had been limited to elaborate embroidery fabric thus increasing its price and limiting its marketability and standardization. Because the fabric was made from pineapple husks, there were also problems with acquisition and preparation of materials. A majority of the Philippines' pineapple crop was under the control of the Del Monte Company, thus taking crop production out of the hands of village

farmers, from whom weavers would collect left-over husks, and placing it in the hands of big business. In the summer of 1951, Strengell contacted Del Monte and discovered that their monthly harvest yielded about three hundred tons of potential fiber. Before Strengell established contact between Del Monte and PHILCUSA, these fibers were going to waste. Strengell was granted permission to experiment with the leftover

¹⁵⁸ Strengell, "A Report Following a Three Months Survey of Weaving as a Cottage Industry in the Philippines." 7.

¹⁵⁹ Ibid. 7.

¹⁶⁰ Ibid. 7.

husks and within a year had introduced them to the cottage weavers, thus increasing the production of piña and reducing its cost tremendously. Because of Strengell, piña once again became a popular fabric for home decoration within the Philippines, and promised success in other countries as well. 161

However, preparation of the pineapple husks was not an easy process; the method

by which fabric was prepared by hand, carded, and spun was difficult and time consuming, once again limiting available weaving hours. 162 Strengell felt that although there might be better solutions offered by heavy machinery, preparing the fibers by hand would actually help the goals of PHILCUSA, the MSA, and the UN by employing more people. Of this she writes:



Image 21: Screen printed just fabric designed by Strengell for the Philippines cottage industries. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

It is most certainly true that probably a better and more even yarn supply could be produced mechanically, but on the other hand, there is also much that speaks for the hand process. The thought that mostly appeals to me is that by making the yarn processing a manual and cottage industry, you can employ a vast amount of people that otherwise might not be reached or benefit under the minimum wage law. The possible slight increase in cost should be taken up elsewhere, in a faster weaving procedure and more economic patterns. 163

Here it is once again evident that Strengell's heart was with the people, she realized that at times speed and economy must be sacrificed in order to assure

¹⁶¹ Strengell, "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines." 3.

¹⁶² Strengell, "E.C.A. Technician Reports on Survey of Pi Weaving Industry." 5. ¹⁶³ Ibid. 5.

employment and fair wages to the native people. To assure that the best possible preparation tactics would be employed within the industries, Strengell called on the advice of other textile experts, namely the Hughes Fawcett Company in New York City and Markrafters in Simsbury, Connecticut, to experiment with spinning techniques for various materials, including the Del Monte pineapple husks as well as fiber from banana leaves from the Philippines.¹⁶⁴

When Strengell returned to the United States in late summer of 1951, she brought



Image 22: Piña fabric from the Philippines, designed by Strengell. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

back hundred of pounds of
fiber to experiment with
inside her Cranbrook studio.
In addition to testing various
dying, bleaching, and
spinning techniques, Strengell
also tested the ability of the
fabrics to withstand various
climatic conditions. It was

here that she discovered the problems of transportation. All of the fabrics that were made of grass materials became, after a few months storage, too brittle for weaving. To solve this problem, Strengell suggested that the spun fiber be sprayed with a plastic coating, thus preserving the fabric. Beyond this, Strengell also suggested that synthetic fabrics, when available inexpensively, be blended with the natural fabrics to produce a

¹⁶⁴ Strengell, "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines." 3.

¹⁶⁵ Hakanson, "Detroit Weaver Revitalizes Philippines' Ancient Craft."

sturdier fabric. 166 Although she sought native solutions to all problems, Strengell realized that at times outside technologies must be used to keep the industry from failing altogether.

Outcomes

Despite Strengell's ideas, most Filipino products proved too brittle to be successful within the United States market. All products that were woven out of grasses were kept out of the market altogether, and the line of Philippine-inspired clothing that Strengell so enthusiastically supported failed to catch on in the U.S. fashion industry. Despite these international failures, Strengell certainly left her mark on the future of cottage industry development.

As she suggested in her 1951 letter to Cranbrook president Zoltan Sepeshy, Strengell opened up an avenue for Academy weaving students to find successful employment in cottage industry development. 167 As has been demonstrated by the multiple quotes throughout this essay, student Lysbeth Wallace became, in many ways, Strengell's successor in the Philippines. Her work would further expand the depth of Strengell's study, as Wallace's approach was equally scientific and careful. ¹⁶⁸ In his autobiography, Strengell's student Jack Lenor Larsen, who would do similar cottage industry development in Taiwan and South Vietnam in 1959 and 1960, gives Strengell credit for inspiration and innovation. To him, she demonstrated the seriousness with which such projects should be handled. 169

¹⁶⁶ Strengell, "E.C.A. Technician Reports on Survey of Pi Weaving Industry." 5.

¹⁶⁸ Wallace, "Hand-Weaving in the Philippines."

¹⁶⁹ Larsen, Jack Lenor Larsen: A Weaver's Memoir. 61.

Strengell's reputation for ingenuity in development of rural industry helped her to find employment beyond Cranbrook. In 1966 the government of Jamaica invited Strengell to start a weaving program. Once again, Strengell did an in depth analysis of available natural fibers, chose equipment, and set up a studio where she trained fifteen initial weavers. In 1967 the United Nations took over the program, hiring Strengell to train additional weavers and tour the country as a lecturer. In 1968 she acted as a consultant to a similar cottage industry for weaving in Appalachia, sponsored by the American Federation of Arts. ¹⁷⁰ Unfortunately, the stories of the Jamaican and Appalachian cottage industry programs are not as extensively documented as Strengell's work in the Philippines.

In conclusion, the reader should not assume that the weaving program through PHILCUSA with the assistance of the MSA and the UN was a failure. As was mentioned earlier, there was great national pride and enthusiasm in the 1950s for native made goods, and Strengell's designs were quite successful in this respect. Wallace commented on this in 1953:

In addition to the economic factor there is the sociological one. It would seem advisable to encourage a supplementary industry, in order to provide the individual not only with added income, but also with added interest in his country and community, since he would be able to contribute to the nation's needs by weaving articles such as clothing and furnishings... such an interest would make the individual feel that he is an integral part of the national effort. ¹⁷¹

In line with Sen's argument that the ability to function within a market opens up other avenues for freedom as well, it is perhaps in this respect that Strengell, Wallace,

¹⁷⁰ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 2-3.

¹⁷¹ Wallace, "Hand-Weaving in the Philippines." 2.

and others who worked in the development of cottage industry were most successful. ¹⁷² It is worth noting that during the 1950s, when several cottage industries were under development, participation in the Philippine government increased greatly, with a higher reported faith in the government and better voting turnouts. ¹⁷³ Further, Strengell's early efforts at creating a cottage-industry were successful in that the project, along with many similar endeavors in other countries, laid the groundwork for more successful cottage-industries in the future. These successes are most evident in the 10,000 Villages and UNESCO gift shops, where hand-made goods from around the world are available to the western consumer.

Given Strengell's interest in fair wages, the obstacles that she herself would overcome as a woman working in a male-dominated business world, and her overall interest in the advancement of the abilities of the common man, the humanitarian feats achieved by Strengell's work in the Philippines perhaps outweigh the short term marketing failures. Strengell's experiences within the "framework of limitations" of the Philippines prepared her to design successfully in the vastly different landscape of Detroit area industries, as will be demonstrated in the next chapter.

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¹⁷² Sen, *Development as Freedom*. 6-8.

¹⁷³ Hart, "Projects and Progress in the Philippines." 356.

CHAPTER 4

DESIGNER: STRENGELL'S WORK FOR INDUSTRY

Women in Industry

Although the Arts and Crafts period unofficially ended in the 1920s, the idea of blending practicality and good design has continued throughout the 20th century. In fact, just as the Arts and Crafts movement was coming to a close, industrial design was coming to the forefront as a way to produce attractive yet functional merchandise. While the designers of the Arts and Crafts school found value in handmade wares and wellplanned craftsmanship, industrial designers sought to instill functional beauty into mass produced goods. This transition from handcrafted to mass-marketed was partially the result of the Great Depression. Suddenly, fewer Americans were capable of purchasing handmade goods; what was affordable before the depression had become far too expensive for anyone but the most elite members of society. At the same time, American companies, in an attempt to stay viable in the struggling market, began to compete intensely to produce the most appealing products. Visual form became an important instrument to increase sales, thus "industrial designer" became a distinct profession. 174

Just as women were able to create for themselves a distinctive niche within the Arts and Crafts, often as executants or behind-the-scenes designers, several women also became notable industrial designers. Perhaps it was their familiarity with mundane, mass-produced objects, tea-kettles, dishes, and home wares, which rendered them capable of success. More convincingly, it was these women's practicality and ingenuity which rendered them able to cope in the male-dominated industries and establish themselves as

¹⁷⁴ Kirkham, Women Designers in the USA, 1900-2000. 270-273.

forces in the design world. As has been demonstrated in the previous chapters, Marianne Strengell was a forward thinking tradition breaker. Considering this, it is no surprise that some of Strengell's most striking and famous work was produced for industry.

Interestingly, several other women from Europe, particularly Eastern Europe and Scandinavia, became well established practitioners of modern design in the United States. Hungarian designer Ilonka Karasz was one of the earliest immigrant women to make a name for herself in the United States. Primarily a furniture designer, Karasz demonstrates how industrial design and interior design overlap significantly, as tables, chairs, shelves, and more could now be produced in the factory. Some of Karasz's most innovative designs were for the nursery; in 1935 Saks Fifth Avenue featured her design for a metal bassinet that converted into a perambulator and featured Bauhaus-style primary colors and geometric shapes. Although Karasz's work was distinctly modern, other women, such as Swedish born designer Anne Swainson, became more closely involved with industry. In response to the Depression, Montgomery Ward hired her to re-design their line to be more modern and appealing. In 1931 she established the firm's Bureau of Design. By 1935 she and a staff of thirty-two industrial designers worked to redesign radios, toasters, flatware, and other house-wares.

Women in design met a great deal of sexism when entering the male dominated industrial world. Russian immigrant Belle Kogan, who did freelance design for Quaker Silver Company and created iconic Bakelite jewelry, spells out the problems she encountered as a consulting industrial designer during the 1930s and well into the future:

Manufacturers were quite antagonistic when a woman came around proposing new ideas- they didn't think a woman knew enough about the

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¹⁷⁵ Ibid. 270.

¹⁷⁶ Ibid. 273.

mechanical aspects of the situation. I had to prove I have a practical mind. 177

Kogan found that sometimes the men were just not willing to accept her into the field, despite her impressive portfolio and talent for mechanical drawing. In an interview she describes an incident where a large electrical appliance company in Ohio, whose name she does not mention, invited her to meet with them in a letter addressed to "Mr. Bell Kogan". When she arrived at the meeting, the shocked engineers decided they could not possibly work with a woman, so they gave her \$200 for expenses and showed her out. Kogan, who remained single throughout her life, also found that several of the men she worked with would not respect professional boundaries. She had to make a rule for herself to never meet clients for dinner, as she described the situation as "a battle every time I went out with somebody." Despite these obstacles, Kogan is recognized as one of the premier industrial designers in the first half of the twentieth century.

Students from Cranbrook Academy of Art did not become active in industrial design until the years just preceding World War II, coinciding with the era when Cranbrook was, according to Zoltan Sepeshy, "coming down from the ivory tower." Several of the students and faculty who were at Cranbrook in the late 1930s became influential in American industrial design, often for home interiors. Many of these designers were women. It is interesting to note, however, that many of these women were part of a husband and wife team, which perhaps helped them avoid the sexism that Kogan encountered. Florence Schust Knoll established, with her husband Hans Knoll, one of the most important modern interior design companies in the United States. Ray

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¹⁷⁷ Jane Corby, "Smart Girls," *Brooklyn Eagle*, July 26 1939.

¹⁷⁸ Kirkham, Women Designers in the USA, 1900-2000. 272.

¹⁷⁹ Zoltan Sepeshy, Apr. 21 1952. Cranbrook Archives: CAA Administrative Reports, 1980-05.

Eames, who met her husband and design partner Charles Eames at Cranbrook, is now recognized as an equal partner in another of the 20th century's most innovative design teams.

Another notable Cranbrook woman, and one who is integral to this story, is Pipsan Saarinen Swanson. Having worked with her father, Eliel Saarinen, on design projects since a young age, Pipsan studied design at the University of Helsinki before the family's move to Michigan in 1923. Pipsan taught Cranbrook's first formal class on contemporary furniture design in 1935. Immensely creative, Pipsan worked in various media: costume design, textiles, and interior design to name a few. Beyond this, she holds a patent for a steering wheel.

Like Schust and Eames, Pipsan Saarinen Swanson was also part of a husband and wife design team: The Saarinen-Swanson Group. In 1939, she and husband J. Robert F. Swanson introduced the Flexible Home Arrangements Line through Johnson Furniture Company, a project that ultimately expanded to include an entire line of home goods. Several of Pipsan's Cranbrook associates, including Marianne Strengell, were involved in the project. It is worth noting that Pipsan was considered an equal, if not greater, force in the partnership, perhaps owing to her last name, as she was daughter of Eliel Saarinen, or maybe because of her talent in so many fields. From 1944 to 1947 Pipsan was a partner in Saarinen, Swanson and Saarinen with her husband, father, and brother Eero, whose designs include the General Motors Technical Center near Detroit, Kresge

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¹⁸⁰ Fedderson, *Scandinavians in Michigan*, vol. I (1968). 85-87.

¹⁸¹ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 189.

¹⁸² Pipsan Saarinen, "Steering Wheel Patent," ed. Packard Motor Company (U.S.A.: 1930). Cranbrook Archives: Swanson Papers, 1990-01, 1:7.

¹⁸³ Kirkham, *Women Designers in the USA*, 1900-2000. 69-70.

auditorium at Massachusetts Institute of Technology, and the girls' dormitory at Drake University. 184

Strengell as a Designer

Alongside Florence Schust Knoll, Ray Eames, and Pipsan Saarinen Swanson, Marianne Strengell exemplifies the success that Cranbrook women achieved in industrial design. When Strengell arrived in the United States in 1937, she already had a great deal of experience in designing for industry, having designed rugs and other textile fabrics for various companies throughout Scandinavia. From these experiences, she gained an acute understanding of the integral role that textiles played in architecture and industry. It was in the arenas of architecture and industry that some of Strengell's most famous work was produced.

Her association with the Saarinen family was most helpful in establishing

Strengell in design for the home and for industrial architecture. With the SaarinenSwanson Group, who designed a complete matching line of products for the home,

Strengell was responsible for the creation of designs for rugs, bedsheets, curtains, and
various other textiles. Established in the late 1930s, the line would achieve its highest
success during the post-war boom. Working for the firm of Eero Saarinen and Associates
throughout the 1950s, Strengell designed all interior textiles for the General Motors

Technical Center, as well as the stage curtain at Kresge Auditorium, and the rugs and
fabrics at Drake University's dormitory for women.

186

¹⁸⁴ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 189.

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¹⁸⁵ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 1.

¹⁸⁶ Ibid. 3.



Image 23: Strengell (right) at the loom with Loja Saarinen and Eero Saarinen in 1958. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

Beyond her work with associates from Cranbrook, Marianne Strengell participated in several design projects outside of the institution. During World War II, Strengell created all of the woven and printed fabrics and rugs for the Terrace Plaza Hotel in Cincinnati for the architecture firm of Skidmore, Owings, and Merrill. She is also responsible for the interior fabrics at the Owens-Corning Fiberglass building in New York City. In 1947 she created a curtain pattern for Knoll Associates.

Many of Strengell's projects were focused on the creation of interior fabrics for cars. The earliest of these projects was her work for Owens Corning Fiberglass in the development of synthetic yarns from 1946 to 1949. From 1954 to 1960, a time when

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¹⁸⁷ Alice Adams, "Marianne Strengell: '...Good Design Is a Way of Life...'". 51.

¹⁸⁸ Belloli, Design in America: The Cranbrook Vision, 1925-1950. 200.

women were entering the automobile industry as designers of car interiors, Strengell worked as a consultant and designer for Chatham Manufacturing Company, manufacturer of seat upholstery. Strengell's paramount achievement in the design of upholstery fabric can be found in the 1959 Lincoln Continental, a top-of-the-line luxury car that featured her "Taj Mahal" fabric.¹⁸⁹

Textiles at the Terrace Plaza Hotel

Begun during World War II, the project for the Terrace Plaza Hotel in Cincinnati, Ohio, was in many ways emblematic of the work that Strengell would do in industrial design, which at times is synonymous with interior design, throughout her career. As with her projects in the Cranbrook studios and in the Philippines, Strengell's work in interior design was often carried out within a framework of limitations. Such was the case when, in 1944, Strengell was contracted to design rugs and printed fabrics for the Terrace Plaza Hotel by Skidmore, Owings, and Merrill, a Chicago architectural firm that would later become famous for designing the John Hancock Building and Sears Tower. 190

According to Strengell, the Terrace Plaza Hotel, her first major design project in the United States, was notable for two reasons. First, the project was a triangular collaboration between the architect, the fabric designer, and the textile manufacturer. The team started from scratch in planning to provide all the woven fabrics from table mats to rugs and curtains. Collaboration remained a defining feature of Strengell's industrial work throughout her career. Of such close work between all involved parties

¹⁸⁹ Kirkham, Women Designers in the USA, 1900-2000. 152.

¹⁹⁰ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 9.

¹⁹¹ Marion H. Bemis, "Marianne Strengell: Textile Consultant to Architects," *Handweaver & Craftsman*, Winter 1956-1957. 8.

Strengell writes, "As you can see, I worked closely with architects, not as an 'Interior decorator and designer' but along from the very first beginning of a building. My part was an integral part of the whole." 192

The Terrace Plaza Hotel project was unique in that it began during World War II, which limited the supplies available to the weaver and manufacturer. Even after the war had ended, there was still a shortage of supplies. However, as Strengell always valued the creative opportunities available within the framework of limitations, the project still had some outstanding results. According to Strengell, "because of [the shortages] it was difficult to get a manufacturer to cooperate, but George Royle met the limitations and we wove the power-loomed materials on a common warp, using yarn dye or piece dye for radical changes in the looks and the hand of the fabrics." ¹⁹³

Looking at fabric samples from this period, it becomes apparent that Strengell was now experimenting with bolder colors, deep reds and vibrant greens, as well as non-traditional fabric combinations, rayon with goat wool, for example. Strengell's work at the Terrace Plaza Hotel so impressed architects as Skidmore, Owings, and Merrill that she was asked to design the textiles at the Manhattan House and the Owens Corning Fiberglass building, both in New York.¹⁹⁴

Curtain Design for Knoll Associates

As early as 1943, Strengell was showing enthusiasm for screen printing, a technique which she would later employ in the Philippines to fulfill problems of fast and attractive decoration of the native fabrics. A 1943 Cranbrook Academy of Art course catalogue indicates that the technique was, at this time, being introduced to her

¹⁹² Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 9.

¹⁹³ Bemis, "Marianne Strengell: Textile Consultant to Architects." 8.

¹⁹⁴ Adams, "Marianne Strengell: '...Good Design Is a Way of Life...'". 51.

students. 195 The process, where ink is forced through a patterned silk screen onto the fabric, was employed for the curtain designs that she would do for Knoll and Associates in 1947. The fabric, called "Shooting Stars" was not only Strengell's first manufactured silk-screened textile, it was also the first printed fabric that Knoll carried. It was produced in bright colors such as orange and green, as well as in a highly modern

contrasting black and white version.

Interestingly, the popularity of the traditional weaving style, such as the monumental pieces produced by Studio Loja Saarinen, had, in Scandinavia, been replaced by screen printed fabrics. The Finnish design firm Marimekko, which would produce some of the most iconic fabrics of the 1960s, used the screen



Image 24: "Shooting Stars" fabric in orange. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

printing technique to imprint bright

flowers, waves, and geometric shapes onto reels of cotton. Strengell's "Shooting Stars" pattern, though not as intricate as the later Marimekko designs, was certainly a nod in this direction. This indicates that she was certainly ahead of her time when, at Cranbrook, she rejected the pictorial weaving techniques in favor of the simpler technique that would become so popular later on. Strengell would continue to design in silkscreen throughout her career, well into the 1970s. 196

¹⁹⁵ Cranbrook Catalogues 1943-44.

¹⁹⁶ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 3-8.

The Saarinen-Swanson Group

In the boom that followed World War II, people were looking to industry for home furnishings. Mass production allowed good design to enter the home at a much more affordable rate than handcrafting had ever afforded. As the "American dream" promoted home ownership and the suburbs grew, department stores began to carry coordinated lines of furnishings that provided almost anything a homeowner could imagine filling his home with. The Saarinen-Swanson group, which debuted in 1947, was a modern and stylish option for homeowners. ¹⁹⁷ That same year, *House and Gardens Magazine* dedicated an entire issue to showcasing the collection, which was originally available at Hudson's department store in Detroit Michigan, but soon became available throughout the country. ¹⁹⁸

Combining the expertise of husband and wife team J. Robert F. Swanson and Pipsan Saarinen-Swanson as the main furniture designers, the collection featured clean, simple designs, made of North Michigan Birch, for every room of the house. All furniture was manufactured by Johnson

Furniture Company in Grand Rapids,



Image 25: Logo for Saarinen-Swanson Group. Swanson Papers: acc. # 1990-01 Copyright Cranbrook Archives

Michigan. Pipsan also designed the drapery fabrics, glassware, and lamps. She was a dominant force in the Saarinen-Swanson Group, often overshadowing the accomplishments of her husband, yet Pipsan was not immune to the sexism still present

¹⁹⁷ "Art, Architecture and Decoration Merge Ideally in Saarinen-Swanson Modern," *House and Garden*, Oct. 1947. 221.

¹⁹⁸ Ibid.

toward female designers. Reading a 1947 article in the Detroit News about the group, one notices that the author introduces Pipsan as the pretty wife of J. Robert F. Swanson, rather than one of Detroit's most talented women. "They will be known as the Saarinen-Swanson Group, and are headed by J. Robert F. Swanson, architect of the contemporary school, and his blue-eyed, blond wife, Pipsan Saarinen-Swanson," writes author Florence Davies. 199 It is questionable what kind of bearing the color of her hair and eyes has on the matter.

The Saarinen-Swanson collection, which sought to blend beauty and functionality, was certainly an offshoot of the Cranbrook philosophy, although definitely a more modern one than Eliel Saarinen had originally envisioned. In this respect it is worth noting that all participants in the group were tied to Cranbrook, many of them talented women. A Cranbrook graduate and daughter of architect Albert Kahn, Lydia Winston designed ceramics, pottery, and dinnerware for the collection. Strengell's first husband, Charles Dusenbury, provided the decorative glass sculpture featured in the collection's displays. Strengell loom-designed all of the fabrics and planned the color for the floor coverings in the Saarinen-Swanson group. 200

Strengell's work for the Saarinen-Swanson collection once featured both screenprinted and machine woven fabrics available in a wide variety of bold colors. The entire collection featured the bright colors, such as chartreuse, cobalt, and citrus yellow, that have become emblematic of the "Atomic" style that was popular during the late 1940s and throughout the 1950s. Strengell hand-wove the prototype fabrics and then worked with the manufacturer to ensure that the mass-produced results would keep the feeling

¹⁹⁹ Florence Davies, "For Use and Beauty: Artist Group Creates Home Backgrounds," *Detroit News*, Feb. 23 1947. ²⁰⁰ Ibid.

and appearance of the original weaves, thus bringing the luxury and beauty of hand-woven fabrics into the reach of the general public. The carpets for the collection, manufactured by Bigelow-Sanford, were monochromatic and of a shaggy texture, using the colors from the Saarinen-Swanson palette.²⁰¹

The entire collection was featured at Hudson's "House of Michigan Modern", a large display of various modern home wares in their Detroit department store.

Altogether, the Saarinen-Swanson Group's collection dominated several floors of the department store. This indicates the positive feelings present in the automobile-industry dominated Detroit economy during the late 1940s and into the 1950s. More than just a designer of bed sheets, Strengell's work has a definite role in Detroit at midcentury. This is evident in the projects that she would undertake during the 1950s, both for the GM Technical Center as well as in her work as a designer of automobile upholstery fabrics.

The General Motors Technical Center

Perhaps one of the largest undertakings of her career, the GM Technical Center in Warren, Michigan was a mid-century showcase for Strengell's thoughtful and creative textile design. Build in response to Detroit's booming auto-industry, the GM Technical Center was designed by the firm of Eero Saarinen and Associates and is a monument to modern design in the 1950s. Construction began in 1949 and was finished by 1955, with the formal dedication of the building taking place in 1956.²⁰³ The atmosphere of the Technical Center is that of a campus; rather than high rise towers, the buildings are no

²⁰¹ "Michigan Designs Modern in the Saarinen-Swanson Group," *The J.L. Hudson Company*, October 1947. 12. Cranbrook Archives: 1990-01, 3:4.

 $^{^{202}}$ Ibid.

²⁰³ "General Motors Technical Center: General Information," (Detroit: General Motors, 1961). Cranbrook Archives: 1990-01, 3:1.

more than three stories high. All buildings are situated around a large artificial lake which features a "water ballet" fountain designed by Alexander Calder and a space-age looking stainless steel clad water tower the height of a twelve story building.²⁰⁴

Consisting of 25 buildings altogether and situated on a 350 acre site, the center originally housed GM's research staff, engineering staff, styling, process development and service sections. The buildings for each section were clustered together. Reflecting Saarinen's modernist style, the exterior of each building group is differentiated by glazed bricks in red, orange, yellow, royal blue, grey, and black. Saarinen intended that each building group would have its own personality while conforming to the overall theme. So successful were the overall effects, done through close collaboration of the architect

with the designers, that the Central Restaurant and the building group for the Engineering Staff had won top awards from the American Institute of Architects before the buildings had even been completed.²⁰⁵

Saarinen intended that the individuality of each building group would be expressed through the furnishings of the interiors, including curtains, rugs, and upholstery textiles. A well-established and obviously creative designer, having proven herself worthy through projects with the Saarinen-Swanson Group as well as her interior work for



Image 26: Strengell poses in a publicity shot with her rug done for the GM Technical Center Research Library. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

²⁰⁵ "Technical Center Architecture," (Detroit: General Motors 1961). Cranbrook Archives: 1990-01, 3:4. 1.

²⁰⁴ "Technical Center Shorts," (Detroit: General motors, 1961). Cranbrook Archives: 1990-01, 3:4. 1.

Skidmore, Owings, and Merrill, Strengell was brought in to create all textiles for the center. Saarinen asked Strengell to become textile consultant to his firm in 1951, not long after the site design had been laid out for the GM Technical Center and some of the buildings started.

Working continuously with Warren Platner, one of Saarinen's associates,

Strengell first designed a black and brown rug of heavy wool, plus black and silver curtains for the lobby of the engineering building. Not long after, she began working on design and color for the other eight lobbies as well as the main restaurant. In an article for *Handweaver and Craftsman* magazine published in 1956, Marion H. Bemis describes Strengell's motivations as she worked on the project:

The underlying thought in Miss Strengell's mind as she worked out the fabric schemes for the various General Motors buildings came from two sources: the architect's strongly expressed desire to soften and humanize the great expanses of glass, the pre-fabricated units of walls, the use of stainless steel and aluminum with off-white terrazzo floors, and the desire of the client for strong, practical, masculine interiors. This meant careful planning of color for contrast as well as harmony, plus contrasts in texture.²⁰⁷

It is worth noting that all rugs for the technical center were designed by Strengell and hand-woven by her longtime assistant, Swedish weaver and Studio Loja Saarinen employee Gerda Nyberg, on the handloom in her basement. "One of the biggest jobs for the Center," says Strengell, "was the lobby, the library, the executive suite and the offices of the department heads in the research building." For the lobby Strengell had a rug woven in pure wool, measuring 18' by 32'. Considering the scale of these projects,

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²⁰⁶ Bemis, "Marianne Strengell: Textile Consultant to Architects." 6.

²⁰⁷ Ibid. 6-7.

²⁰⁸ Ibid. 6.

Nyberg can not be dismissed as a contributor to the Technical Center, although she did not design, her craftsmanship is evident in the rugs throughout the building.

One might question why specially designed and woven rugs for so huge a building development were necessary, why not mass produced rugs? According to Bemis, from the standpoint of cost, the wholesale prices of special fabrics were no more expensive than their mass-produced counterparts. More importantly, considering Saarinen's meticulous feeling for every aspect of a building, custom-made fabrics were a satisfying result of conferences between client, architect, and fabric designer. ²⁰⁹



Image 27: The GM Technical Center Research Lobby, featuring a rug designed by Strengell. Marianne Strengell Papers: acc. #1991-07 Copyright Cranbrook Archives

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²⁰⁹ Ibid. 7.

According to Strengell, one of the most exciting of the Technical Center projects was the designing and weaving of fabrics for Harley Earle, Vice President in Charge of Design. Interestingly, Earle played a large part in the advancement of women in industrial design during the 1940s and 1950s, as he hired a group of women known as the "Damsels of Design" to plan the interiors of various GM models. Earle believed that women were especially attuned to good design, and this was certainly the case of his office in the Technical Center. The office, a glass box sitting in the open-floor plan of the styling building, was curtained in a sheer white fabric, which allowed Earle to look out on to the design floor while affording an element of privacy. The chairs in the office were upholstered in brilliant colors: orange, red, and blue. For Earle's private dining room, Strengell designed all curtains, table mats, and chair fabrics.

Simultaneously with the GM Technical Center job, Strengell also designed a huge stage curtain for the Kresge Auditorium at Massachusetts Institute of Technology and all fabrics for the girls' dormitory at Drake University in Des Moines, Iowa, also in collaboration with Eero Saarinen and Associates. Strengell's huge undertaking in the GM Technical Center was not, however, the end of her involvement with the autoindustry. Although she herself was never named one of the "Damsels of Design", her expansive collection of upholstery fabrics are present in several vehicles manufactured during the late 1950s.

Textile Design for Industry

In 1946 Strengell was contacted by Owens Corning Fiberglass, for whom she had earlier designed textiles at their headquarters in New York, to develop a line of novelty

²¹⁰ Fields, "Lady Auto Makers: Designs on Future."

²¹¹ Bemis, "Marianne Strengell: Textile Consultant to Architects." 6.

²¹² Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 5.

yarns and fabrics from synthetic material. She valued this chance to experiment with synthetics, and would later use this expertise in her cottage-industry projects in the Philippines and Jamaica. Her work with synthetic fibers at Owens Corning resulted in several innovative projects, including sheer curtains called "demisheers" made of extruded glass thread. In a similar project for Alcoa Aluminum Company, Strengell also wove a colorful rug using aluminum strips blended with more traditional fibers.²¹³



Image 28: Strengell's colorful rug for Alcoa Aluminum. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

Her work during this time indicates that Strengell was branching out into the use of all different colors throughout the 1940s. Whereas in the past Strengell encouraged her students to limit their color palette and seemed to conform to this rule herself, her Alcoa rug demonstrates that she did not always feel that a limited palette was necessary. Still, in her industrial work, Strengell remained concerned about good design. It was Strengell's belief that during the post-war period, there was too much emphasis on novelty for its own sake

and that it was her job as an industrial textile designer not to conform to, but to shape public taste by maintaining high standards in her own work.²¹⁴

²¹³ Ibid. 7.

Strengell's high standards for good design eventually led her to the Chatham Manufacturing Company, who, from 1954 to 1960 employed her to create "handsome but unobtrusive" upholstery fabrics for automobiles.²¹⁵ On her handloom she designed some samples, working directly in yarns spun at the Chatham mill. She also designed for the

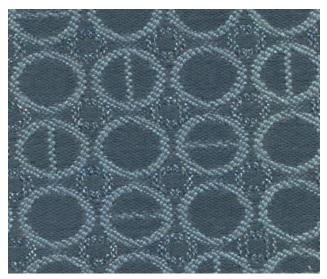


Image 29: Jacquard upholstery fabric designed by Strengell for Chatham Manufacturing Company. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

jacquard loom, often using crayons to create a mock-up of the work. Her drawings were then submitted to the automotive styling departments and industrially woven by Chatham from the designs chosen. From the beginning, she worked directly with the styling departments, keeping in mind what the mill was capable of and

what they could not afford to do, a move which saved the mill thousands of dollars. ²¹⁶

Strengell's designs found their way in to several Ford and GM Models, including the 1959 Lincoln Continental. For this vehicle, Ford used her "Taj Mahal" fabric design, which incorporated metallic fabrics into the black design for simple yet attractive effects. Other upholsteries were more colorful, such as those used in GM's "Motorama" concept car exhibits in 1958 and 1960.²¹⁷ Interestingly many of the auto designers during those

²¹⁶ Bemis, "Marianne Strengell: Textile Consultant to Architects." 8.

²¹⁴ Adams, "Marianne Strengell: '...Good Design Is a Way of Life...". 51.

²¹⁵ Ibid. 51.

²¹⁷ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 7.

years were the "Damsels of Design", including Susan Vanderbilt, who received her

Master's Degree in design from Cranbrook Academy of Arts and designed Cadillacs. 218

Of her automobile upholstery design, Strengell recalls an exciting moment in her life when she realized the scope of her work. Visiting Japan to study their textile industry, Strengell was transported from the airport to the hotel in a car that, by coincidence, was upholstered in one of her fabric designs.²¹⁹ Strengell's upholstery

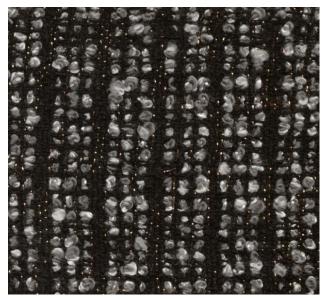


Image 30: Simple yet elegant, Strengell's "Taj Mahal" fabric, was featured in the '59 Lincoln Continental. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

fabric was also featured in United
Airlines Jets designed by Raymond
Loewy, known as the father of
industrial design.²²⁰

Of her work, both in design and elsewhere, Strengell says, "I enjoy my work so tremendously because of its wide variety- from sticks and straws to the latest synthetic materials. The technical facts make the framework of

limitations within which the artist can work in any medium, and the limitations often determine the design."²²¹ Such principals carried Strengell in all of her projects, beyond those described in this chapter.

²¹⁹ Coir, "Interview: Marianne Strengell and Olav Hammarstrom." 50-51.

²¹⁸ "G M Press Release," May 27 1957.

²²⁰ Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer."

²²¹ Bemis, "Marianne Strengell: Textile Consultant to Architects." 8-9.

After Cranbrook

After her retirement from Cranbrook in 1961, Strengell did a considerable amount of design for Tai Ping, a rug Chinese company with headquarters in New York City. The designs for these rugs, done with crayon, watercolor, and torn construction paper, are still in existence. Comparing the sketches with the final projects, it becomes evident that the textile companies valued Strengell's design expertise, carrying out her plans with great detail.



Image 31: A watercolor design for a rug next to the final, machine woven product by Tai Ping. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

Well into the 1980s, Strengell would continue to work as a consultant to architects and industrial designers worldwide. In the 1960s she worked to produce a monthly collection of rug designs for Karastan Rug Mills. She was also contracted by I.B.M. to do a series of large wall-hangings and photographs. Her work, not only as a textile designer but also as a photographer and painter, two fields that she would become more

intensely involved with after retirement from Cranbrook, has been featured in numerous exhibitions. These exhibits include the "Masters of Contemporary American Crafts" show at the Brooklyn Museum in 1961, a large one-man exhibition at the Boston Architectural Center in 1970, and "Design in America", a traveling exhibit of work from Cranbrook artists in 1982.

Beyond exhibiting, Strengell also actively traveled, studying trends and lecturing in good design. In 1963 she did a study and lecture tour throughout Europe, especially Scandinavia and Spain. In the 1970s she traveled through Mexico, Portugal, Algeria, Morocco, Yugoslavia, and Columbia studying detail and color in the indigenous fabrics.²²² Her work during this period reflects her international interests.

Conclusion

Looking at Strengell's work as an educator at Cranbrook Academy of Art, an innovator in the Philippines Cottage-Industry Program, and a designer in various industries, it is apparent that Strengell was a valuable contributor to the Arts in the 20th Century. At Cranbrook, she led by example, inspiring some of the most notable weavers of the 20th Century, among them Jack Lenor Larsen, Robert Sailors, Ed Rossbach, and Nelly Sethna. Many of these talented students took their experience to other classrooms, instructing yet another generation in Strengell's principals of good design. In the Philippines, Strengell not only helped to revive a dying weaving tradition, but she also helped to strengthen the sense of national pride in native-made objects, a tradition that lives on in UNESCO cottage-industry projects throughout the world. Finally, her work in industrial and interior design has left a visual legacy, apparent in architecture and automobiles, attesting to her ability to weave appealing and functional fabrics.

²²² Strengell, "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer." 8-9.

In light of her many achievements, in 1995 Strengell was presented with the Founders' Award at Cranbrook Educational Community.²²³ As an elderly woman, suffering from the health problems and money difficulties that so often accompany oldage, Strengell died in 1998, leaving behind a legacy of good design. 224 Certainly not forgotten in the pages of art history books, Strengell is recognized by members of the Cranbrook community and by weavers around the world. But beyond this, Strengell, an innovative designer, educator, and weaver, deserves to be placed alongside the most notable artists and designers of the 20th Century. A talented woman by all accounts, Strengell's ability to work within a "framework of limitations", overcoming not only limited resources but also the gender biases that plagued women in art and design, renders her an inspiration to artists, designers, teachers, and humanitarians alike.



Image 32: Strengell, a notable 20th century weaver. Marianne Strengell Papers: acc. # 1991-07 Copyright Cranbrook Archives

²²³ 1995 Founders' Dinner Award Recipient: Marianne Strengell, (Bloomfield Hills, MI: Cranbrook Academy of Art, 1995). Marianne Strengell Hammarstrom Papers: 1991-07.

224 Niraj Warikoo, "Marianne Hammerstrom: Weaver, Artist, Teacher," *Detroit Free Press*, May 15 1998.

BIBLIOGRAPHY

Archived Sources

- 1995 Founders' Dinner Award Recipient: Marianne Strengell. Bloomfield Hills, MI: Cranbrook Academy of Art, 1995.
- Booth, George. "Some Observations on the Budgetproposed for the Art Academy for 1939-1940." Bloomfield Hills, MI: Cranbrook Academy of Art, 1939.
- "C.A.A. Annual Report." Bloomfield Hills, MI: Cranbrook Academy of Art, 1938.
- Coir, Mark. "Interview: Marianne Strengell and Olav Hammarstrom." In *Cranbrook Archives Audio Tape/Oral History Collection*. Bloomfield Hills, MI, 1990.
- Cranbrook Catalogues 1939-40. Bloomfield Hills, MI, 1939.
- Cranbrook Catalogues 1943-44. Bloomfield Hills, MI, 1943.
- Cranbrook Catalogues 1945-46. Bloomfield Hills, MI, 1945.
- "Cranbrook Foundation Minutes." Bloomfield Hills, MI, Oct. 26 1944.
- "Faculty and Staff Response to Baermann Report." Bloomfield Hills, MI: Cranbrook Academy of Arts, 1941.
- "G M Press Release." May 27 1957.
- "General Motors Technical Center: General Information." Detroit: General Motors, 1961.
- "General Story on Technical Center." 4. Detroit: General Motors.
- "Looms and Weaving Accessories Belonging to Cranbrook Academy." Bloomfield Hills, MI: Cranbrook Academy of Art, 1942.
- "Plan for Operation of Textile Department at Cranbrook." 1-2: Cranbrook Institute of Art, 1930.
- Raseman, R.P., Letter, Mar. 13 1937.
- Saarinen, Eliel. "Annual Report." Bloomfield Hills, MI: Cranbrook Academy of Arts, 1942.
- ——. Letter to Marianne Strengell, Jan. 15 1932.
- ——. Letter to Marianne Strengell, Mar. 28 1931.

——. "The Story of Cranbrook." (ca 1925).
Saarinen, Pipsan. "Steering Wheel Patent." edited by Packard Motor Company. U.S.A., 1930.
Sepeshy, Zoltan. Letter to Board of Trustees, Apr. 21 1952.
——. Letter to Board of Trustees, Oct. 15 1951.
Sethna, Nelly. Letter to Marianne Strengell, Winter 1976.
Strengell, Marianne. Letter to George Booth, May 3, 1956.
——. Letter to Zoltan Sepeshy, Sept. 27 1951.
———. Letter to Board of Trustees, June 18 1943.
——. "Marianne Strengell: Weaver, Designer, Interior Designer, Photographer."
——. "A Personal Approach to Textile Design." Bloomfield Hills, MI: Cranbrook Academy of Art, 1960.
——. "Statement." Cranbrook Institute of Art.
"Technical Center Architecture." 4. Detroit: General Motors 1961.
"Technical Center Shorts." Detroit: General motors, 1961.

Secondary Sources

- Adams, Alice. "Marianne Strengell: '...Good Design Is a Way of Life...'", 34-36,51.
- "Art-Work for Women." Art Journal 1872, 66.
- "Art, Architecture and Decoration Merge Ideally in Saarinen-Swanson Modern." *House and Garden*, Oct. 1947, 152-57, 221-26
- Barrie, Dennis, Jeanie Huntley Bentley, Cynthia Newman Helms, and Mary Chris Rospond. *Artists in Michigan, 1900-1976*. Detroit: Wayne State University Press in Association with the Archives of American Art, Smithsonian Institution, and the Founders Society Detroit Institute of Arts, 1989.
- Belloli, Andrea P.A. *Design in America: The Cranbrook Vision*, 1925-1950. New York: Abrams, 1984.
- Bemis, Marion H. "Marianne Strengell: Textile Consultant to Architects." *Handweaver & Craftsman*, Winter 1956-1957, 6-9.
- Bier, Justus. "Art: Cranbrook Built around 2 Men." Detroit News, July 1 1945.
- "A Breezy Hilltop Lookout." House and Gardens Magazine 1965.
- Callen, Anthea. "Sexual Division of Labor in the Arts and Crafts Movement." *Woman's Art Journal* 5, no. 2 (1985).
- Christ-Janer, Albert. *Eliel Saarinen: Finnish-American Architect and Educator*. Chicago: University of Chicago Press, 1979.
- Coir, Mark. 2004. Cranbrook's First Century, a Dream Fulfilled. In, http://schools.cranbrook.edu/ftpimages/65/misc/misc_13724.pdf. (accessed Jan. 29, 2006).

- Cooper, John L. "Report and Recommendations Concerning Agricultural Credit in the Philippines." In *Special Technical and Economic Mission to the Philippines*, 88. Manila: United States of America, 1952.
- Corby, Jane. "Smart Girls." *Brooklyn Eagle*, July 26 1939.
- Davies, Florence. "For Use and Beauty: Artist Group Creates Home Backgrounds." *Detroit News*, Feb. 23 1947.

- "Exciting New Fabrics' from Pineapple and Banana Fibers, Plus New-Type Loom, Aiding Philippines Weaving Industry." *Mutual Security Agency Press Release*, Jan. 9 1952, 3.
- Fedderson. Scandinavians in Michigan. Vol. I, 1968.
- Fields, Sidney. "Lady Auto Makers: Designs on Future." New York Mirror, May 2 1960.
- Hakanson, Joy. "Detroit Weaver Revitalizes Philippines' Ancient Craft." *Detroit News*, July 20 1952.
- Hart, Donn V. "Projects and Progress in the Philippines." *Pacific Affairs* 27, no. 4 (1954): 353-66.
- Herman, Theodore. "The Role of Cottage and Small-Scale Industries in Asian Economic Development." *Economic Development and Cultural Change* 4, no. 4 (1956): 356-70.
- Kirkham, Pat. Women Designers in the USA, 1900-2000: Yale University Press, 2002.
- Knodel, Gerhardt. 2006. Director's Statement. In, http://www.cranbrookart.edu/site/about_directors.html. (accessed Feb. 4, 2006).
- Larsen, Jack Lenor. *Jack Lenor Larsen: A Weaver's Memoir*. New York: Harry N. Abrams, Inc., 1998.
- "Michigan Designs Modern in the Saarinen-Swanson Group." *The J.L. Hudson Company*, October 1947.
- Murphy, Irene Ellis. "The Philippines Program for Cottage Industries: An Evaluation." 64. Manila: U.S. Foreign Operations Administration, 1953.
- Parker, Rozsika and Griselda Pollock. *Old Mistresses: Women, Art and Ideology*. New York: Pantheon, 1981.
- Pound, Arthur. *The Only Thing Worth Finding: The Life and Legacies of George Gough Booth.* Detroit: Wayne State University, 1964.
- Rivera, Generoso F. "The Rural Philippines." In A Cooperative Project of the Philippine Council for United States Aid and the United States Mutual Security Agency, 217, 1952.
- Romani, John H. and M. Ladd Thomas. "A Survey of Local Government in the Philippines." 151. Manila: Institute of Public Administration, University of the Philippines, 1954.

- Rossbach, Ed. "Fiber in the Forties." *American Craft*, Oct./Nov. 1982, 15-19.
- ——. "Marianne Strengell: The Quality of Strengell's Weaving of the 40s Relies on Subtleties of Color and Fiber Combinations. She Allowed the Warp and Weft to Function Almost Ideally." *American Craft*, April/May 1984, 8-10.
- Saarinen, Eliel. "Helsingfors Railroad Station." Helsinki, Finland, 1914.
- Schlanger, Jeff, and Toshiko Takaezu. *Maija Grotell: Works Which Grow from Belief:* Studio Potter Books Monographs, 1996.
- Sen, Amartya. Development as Freedom. New York: Anchor Books, 1999.
- Strengell, Marianne. "E.C.A. Technician Reports on Survey of Pi Weaving Industry." *The Philippines Herald*, Jan. 12 1952, 4-5.
- ——. "A Report Following a Three Months Survey of Weaving as a Cottage Industry in the Philippines." 1951.
- ———. "A Report Following Three Months of Experimental Work Regarding the Cottage Industry in the Philippines." 1952.
- Swanson, J. Robert F. "Eliel Saarinen." Michigan Technic 37 (1924): 5.
- Wallace, Lysbeth. "Hand-Weaving in the Philippines." New York: United Nations Technical Assistance Programme, 1953.
- Warikoo, Niraj. "Marianne Hammerstrom: Weaver, Artist, Teacher." *Detroit Free Press*, May 15 1998.
- Weltge, Sigrid Wortmann. *Women's Work: Textile Art from the Bauhaus*. San Francisco: Chronicle Books, 1993.