

Northfield Historical Society

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www.northfieldhistory.org

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Sheldahl, Inc. Collection Finding Aid

Accession Nos. 2004.25, 2014.56, 2017.08, and 2017.42

CREATOR

Sheldahl, Inc. departments and employees

EXTENT

Linear Feet:

2004.25: 13 feet

2014.56: 5 inches

2017.08: 20 feet

2017.42: 5 inches

Total: 33 feet 10 inches

Number of Containers:

2004.25: 17 boxes, including archival/document boxes, clamshells, and original boxes

2014.56: 1 clamshell

2017.08: 16 boxes, including archival/document boxes and a clamshell

2017.42: 1 clamshell

Total: 34 boxes

Number of Catalog Records:

2004.25: 635

2014.56: 81

2017.08: 675

2017.42: 164

Total: 1,555

Inclusive Dates: 1954-2004

Bulk Dates: 1955-1995

COLLECTION SUMMARY

This collection consists of archival records, photographs, oral histories, and artifacts documenting the history of the G. T. Schjeldahl Company, later Sheldahl, Inc. Some of the strengths of the collection include samples of the Echo I and II satelloons, records from Gilmore T. Schjeldahl's time as president, and advertising materials for various Sheldahl products.

After the sale of Sheldahl Inc., a representative from the company donated historical materials to the Northfield Historical Society in 2004 (Accession No. 2004.25). A representative from Multek donated more historical materials to the NHS in 2017 (Accession No. 2017.08). Jerry Odette, a former technician and photographer for Sheldahl, donated photographs in 2014 (Accession No. 2014.56). His wife, Sue Odette, donated more material in 2017 (Accession No. 2017.42).

LANGUAGES

Large majority of collection materials are in English. Some materials are in German, French, and Spanish and are noted in the object description.

PHYSICAL LOCATION

Materials in this collection are stored at the Northfield Historical Society in the Collections North Room, row DB and the Archives room, row CB. For current information on the location of specific materials, please check the Northfield Historical Society's PastPerfect catalogue.

PROCESSOR

Shelby Reidle, 2018

Collection Details

HISTORICAL NOTE

Gilmore T. "Shelly" Schjeldahl founded the G. T. Schjeldahl Company on June 29, 1955. The company began operations in Northfield, Minnesota and expanded to locations across the United States, including Osseo, Minnesota; East Providence, Rhode Island; Nashua, New Hampshire; Linden, New Jersey; and Irvine, California. Schjeldahl Co. also had a subsidiary location in Bracknell, England. Northfield remained the headquarters of the company until it was sold to the Multek Corporation in 2004.

Significant company highlights over the years include:

- 1955: G. T. Schjeldahl Company founded
- 1958: Introduced Schjel-dome, air-supported buildings
- 1960: Designed and fabricated Echo I, a NASA satelloon
- 1962: Acquired Thin Film Division of Electrocraft Corporation
- 1962: Established laboratory at St. Olaf College to study ion bombardment for thin films
- 1964: Purchased Paper Bag Machinery Division form St. Regis Paper and Pulp Company
- 1964: Established Electrical Products and Advanced Programs Divisions

- 1969: Launch of Apollo 11, whose command module's thermal coating was made by Schjeldahl
- 1971: James S. Womack named president/CEO
- 1974: Company name changed to Sheldahl, Inc. for ease of pronunciation and spelling
- 1975: Launch of Viking 1 & 2, whose bio-shield and parachute were made by Sheldahl
- 1975: Constructed pyramid-shaped white balloon for the Pink Floyd Wish You Were Here tour
- 1976: Sale of Bracknell subsidiary to STAM, Inc.
- 1977: Introduced FlexSwitch, a line of membrane switches
- 1984: Acquired Symbolic Displays, Inc. of Irvine, California
- 1986: Manufactured inflatable blanket (approx. 9 acres) to cover test area of hydrogen bomb simulations in New Mexico
- 1987: Signed agreement with Sumitomo Bakelite Company of Tokyo, Japan
- 1987: Acquired Cirtel / Cirpak of Irvine, California and Nashua Flexible Circuits of Nashua, New Hampshire
- 1990: Introduced NovaClad, a copper on film flexible material
- 2000: Merged with International Flex Technologies, headquartered in New York
- 2004: Purchased by Multek Corporation

ARRANGEMENT DESCRIPTION

The collection has been organized first by item type (ex: photographs, objects, archives) before being arranged chronologically (when dates were known) or by subject. All items received an accession number and were catalogued in the NHS's PastPerfect system. Many photographs have been digitized and saved on the NHS's server for greater accessibility.

SUBJECT THEMES

Personnel

Facilities

Equipment

Construction/Renovation

Technology

NASA

Marketing/Advertising

Administration/Corporate history

Using the Collection

ACCESS STATEMENT

The collection is open and available for research and use.

RIGHTS STATEMENT

Copyright held exclusively by G. T. Schjeldahl Co. and Sheldahl, Inc. has been transferred to the Northfield Historical Society. For permission to publish materials in the collection, submit a request in writing to the Northfield Historical Society.

Multek still retains intellectual property rights to names, trademarks, product designs, etc. originally created and used by Sheldahl, Inc. Permission must be granted by the appropriate company to publish materials created by or featuring products manufactured by other companies, including but not limited to: Windmoeller & Hoelscher, Plymouth Industrial Products, Polaroid, and Texas Instruments. Materials created by or for the National Aeronautics & Space Administration (NASA), U.S. Navy, U.S. Air Force, National Oceanic and Atmospheric Administration (NOAA), and U.S. Border Patrol are works of the federal government, and thus fall under public domain.

PREFERRED CITATION

[ITEM DESCRIPTION], Sheldahl, Inc. Collection, Northfield Historical Society, Northfield, Minn.

Scope and Content of Collection

COLLECTION DESCRIPTION

This collection consists of archival records, photographs, oral histories, and artifacts documenting the history of the G. T. Schjeldahl Company, later Sheldahl, Inc. The majority of the collection dates from 1955-1995, but some materials cover the Herb-Shelly company founded by Gilmore T. Schjeldahl in the early 1950s.

Some of the strengths of the collection include samples of the Echo I and II satelloons, records from Gilmore T. Schjeldahl's time as president, and advertising materials for various Sheldahl products. The company's work with NASA has been well-documented, as well as other collaborations with well-known brands and companies, such as Polaroid and Texas Instruments. Surprisingly, the later years of the company 1980-2004 are not represented in the business records held by the NHS.

Many of the audiovisual materials were originally created for increasingly obsolete technology, such as audiocassette and VHS tapes.

The materials are listed by accession number and then the object number given when cataloguing. If a number contains multiple boxes, the subjects and/or dates covered in each box have been listed.

Other miscellaneous items created by or featuring Schjeldahl/Sheldahl can be found by searching the subject and description fields of the NHS's PastPerfect catalogue.

Collection Details

2004.25

Large collection donated by a representative of Sheldahl, Inc. in 2004.

.001 Annual reports and advertisements

Product information, profile of company, annual meetings, journal articles, publicity materials, articles of incorporation, by-laws, prospectus, attitudinal study, progress reports,

Box 1 contains advertisements covering the year 1976 and annual reports from the years 1966-1994

.002 Office files through employees, photographs and biographies

Archival materials including employee profiles and management hierarchy chart.

.003 Equipment and facilities

Photographs and diagrams of equipment and facilities.

.004 Historical materials (correspondence, memorandums, news releases)

Historical materials dating from the 1960s - 1990s. Includes annual reports; J. Thompson's work reports; interviews of officers of the company, c. 1995; journal articles, notably *The Schjeldahl Secretary*, c. 1967; *The Inside Story*, c. 1988; and "Multinational Trade Negotiations: Position Paper on Behalf of the Packaging Machinery Manufacturers" by John S. McClintock, c. 1974.

.005 Name change through news releases, including Echo satelloon project

Records regarding the name change from G. T. Schjeldahl Company to Sheldahl Inc. in 1974. Includes legal paperwork re: trademarks, announcements to customers and other businesses, stationery with new name and logo, correspondence with Gordon Cowan & Associates regarding public relations. Records of corporate changes and use of new logo. Also includes corporate identification manual, c. 1974; Corporate Report, c. May 1974. News Briefs, c. May 1959 - December 1967. *Sheldahl Today* c. 1974-1986.

Correspondence with NASA regarding Echo Project and press release drafts and mailing lists from Gordon Cowan & Associates and their correspondence with national journals and magazines, c. 1962-1964. Also includes engineer's kit for flexible circuits and sample balloon material.

.006 News releases: thin films and cooperative research with St. Olaf College

News releases and mailing lists regarding joint laboratory and research with St. Olaf College as well as other personnel and project updates, c. 1962.

.007 Publicity materials through Texas Eastern Transmission Co. and Sheldahl telephone directories

Memorandums; FlexSwitch design guide, c. 1982; company profile; Alaskan Pipeline Weather Seals booklet, c. 1975; Update on Sheldahl, c. 1964 and 1975; patent certificate and paperwork, c. 1964 and 1970; Gilmore T. Schjeldahl visit, c. October 1971; management profiles; correspondence between James Womack and Gilmore T. Schjeldahl regarding the future of Sheldahl; correspondence regarding and text, both in English and Spanish, of Central American Peace Treaty, c. 1987; Gilmore T. Schjeldahl biographical information, c. 1988-1993, including records of Gilmore T. Schjeldahl honored by Minnesota Business Hall of Fame, c. 1986 and Gilmore T. Schjeldahl awarded honorary doctorate in engineering from the University of North Dakota, c. 1993. Correspondence with personnel at U.K. Division, c. 1979.

.008 Audio cassettes of interviews with G. T. Schjeldahl, James Womack and others

Interviews with Gilmore T. Schjeldahl, James Womack, Marion Christophersen, Clarice Krenik, Dick Slater, Jack Robinson, and Jim Donaghy, c. 1995. 9 audio cassette tapes.

.009 Corporate embossing presses

.010 Advertisements for Sheldahl products and letters from schoolchildren requesting samples of Echo satelloon material

Letters and envelopes from schoolchildren and teachers requesting Echo material samples and information, as well as carbon copies of reply letters sent by Gilmore T. Schjeldahl and company employees.

.011 *Out from Behind the Eight Ball: Project Echo* by Donald C. Elder and draft of dissertation

Small, blue, bound book of dissertation published by the American Astronautical Society, c. 1994. Loose papers of dissertation draft in two folders.

.012 Photographs and slides, see .021

.013 Scrapbooks of clippings and photographs, re: events and activities at Sheldahl, Inc.

Eight scrapbooks containing photographs depicting events, activities, and research projects at Sheldahl, c. 1950-1980. Albums arranged chronologically. In photographic scrapbooks, each photograph has been assigned a number by the original creator/arranger.

.014 Scrapbooks of clippings and photographs, re: work of Sheldahl, Inc.

Thirteen folders of newspaper clippings, c. 1961-1965. Date of publication and newspaper name attached to each clipping by Burrelle's Press Clipping Bureau, however some have deteriorated. Three scrapbooks containing newspaper clippings and photographs, c. 1960s.

.015a NORINCO(G) China North Industries Group brass plaque

.015b Chinese god figurine

.015c East Asian decorative vase

.016 Video and audio cassettes and slides from annual meetings and other presentations

Three video cassette tapes of presentations, one of a financial presentation, c. December 1986; one for an annual meeting, c. 1988; corporation slide show, c. 1989. Nine audio cassette tapes of presentations and slide shows, c. 1986-1989.

.017 News clippings and album of advertising slides

News clippings from local, regional, and national papers and journals regarding Sheldahl, c. 1980-1995. Arranged chronologically. Date of publication and newspaper name attached to each clipping by Western Press Clipping Services, the ATP Clipping Bureau, Inc., and other clipping services.

.021 - .584 Photographs and slides

Photographs depicting employees, facilities, equipment, special projects of Schjeldahl Co. later Sheldahl, Inc. Folders arranged alphabetically by title of subject:

Aerial Views of Northfield, c. 1955

Aerial Views, Echo Project, Apollo Project. 1960-1970

Aerostats & Flexible Circuitry, c. 1965

Alaska Pipeline, c. 1976

Balloon Landing, 1963. Sheldahl "Ball", c. 1987. Plastic building, c. 1979. Assembly Buildings, Interior, c. 1979.

Computer Components, c. 1980

Demonstrating Equipment, c. 1985

Echo Project, c. 1963. Silo Project, c. 1965

Employees at their Stations, c. 1967

Employees: Board of Directors & Management, c. 1965-1985

Employees & Equipment, n.d. c. 1970

Employee Retirements, c. 1980s

Employees & Machinery, c. 1965-1980

Facilities, c. 1986

Facilities, U.S. and U.K., c. 1965-1975

Japanese Partnership: Sumitoma Bakelite Co., Tokyo, c. 1987

Manufacturing Facilities & Processes, c. 1965-1975

Manufacturing Projects & Facilities, including Balloon Project, c. 1960s

Manufacturing Equipment & Facilities, c. 1963, 1971

Publicity Photos for Annual Report, c. 1966

Sheldahl Expansion: Acquisition of Three Companies, c. 1982-1986

Slides: Annual Report, c. 1999 & Sales Presentations, n.d. c. 1980

.028 Artist's rendition of space shuttle launch

.031 Sample of Sheldahl material

.042 Sample of Sheldahl material

.381 Artist's rendition of Apollo flying towards moon

- .399 Drawing of milk bag machine**
- .400 Drawing of filling magazine for 12" records**
- .401 Drawing of marathon continuous bander schematic**
- .405 Drawing of bread packaging machine**
- .406 Drawing of frozen vegetable filing mechanism**
- .613 Advertising posters, c. 1974**
- .614-.615 Large photographic prints**
- .616-.621 Masonite advertising plaques, c. 1974**
- .622 Teal blue flexible circuitry**

2014.56

Photographs collected and donated by Jerry Odette, a former Sheldahl technician and photographer. See accession folder for interview notes and transcript.

Folders:

- Magellan Mission
- Aerostat
- Aerostat - The TCOM System Album
- Viking
- Polaris
- Pipeline Wrap
- Inflatable/Collapsible Buildings
- ECHO & ECHO II
- Hydrogen Bomb Simulations - clippings
- Tethered Satellite
- Voyager
- Solar Mirror/Generator
- Promotional Materials, Brochures
- Projects Developed, Never Bought
- Sheldahl News, 1994-1997 scattered
- Miscellaneous Staff & Projects

2017.08

Large collection donated by a representative of Multek Corporation in 2017.

.001 Business records in pressboard covers labeled Chronological History of G. T. Schjeldahl Company.

Collection of business records regarding the operations of the G.T. Schjeldahl Company stored in pressboard report covers with metal fasteners. Included are letters, memoranda, reports, lists, charts, blueprints, drawings, conference proceeding minutes, meeting notes and speeches, news releases, agreements, by-laws, job candidate resumes, financial statements, purchase orders, corporate acquisition documents, periodical and newspaper articles, product brochures, product samples and photographs.

Box 1 contains books covering the years 1957, 1958, 1959

Box 2 contains books covering January 1960 – July 1961

Box 3 contains books covering August 1961 – March 1963

Box 4 contains books covering April 1963 – April 1964

Box 5 contains books covering May 1964 – December 1965

Box 6 contains book covering 1965

.002 Early years – other companies Schjeldahl worked for: Herb Shelly / Brown & Bigelow

Collection of business records regarding the operations of the G.T. Schjeldahl Company and its predecessor (Herb-Shelly), other companies where Gilmore T. Schjeldahl earlier worked and a second company started by Schjeldahl. Documents include letters, memoranda, charts, agreements, purchase orders, reports, lists, outlines, financial statements, carbon-copy fastened message/reply sheets, photographs, periodical articles, conference proceedings and newspaper clippings. Early documents include correspondence and research reports covering Gilmore T. Schjeldahl's employment with Armour & Company and Associated Activities. Later documents pertain to the operation of Herb-Shelly Inc., its purchase by Brown & Bigelow, and records relating to the G.T. Schjeldahl Company and Giltech Corporation.

Box 1 contains correspondence and book covering 1949 – 1954; folders 1-19

Box 2 contains business records and project proposals; folders 20-51

.003 Minutes

Collection of conference, executive committee, finance, shareholder and board of director meeting minutes of the G.T. Schjeldahl Company originally stored in both blue expandable file folders with flaps and elastic cord closures and pressboard fastener binders. Now stored in folders. Included with the minutes are annual reports and other business correspondence and documents.

Box 1 contains minutes and documents from September 1957, January - November 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965

Box 2 contains annual reports from 1966, 1967, 1968, 1969, 1970

.004 G. T. Schjeldahl's small business journals

G.T. Schjeldahl's personal journals. The chronologically-arranged notebooks contain drawings, financial tallies, summaries of daily business operations and personal observations. Also included are Norman Buck's notebook, pocket calendars, and notecards.

Box 1 contains journals and notebooks covering the years 1956 - 1968

.005 Product brochures

Company, equipment and product brochures for the G.T. Schjeldahl Company, Sheldahl and other manufacturers, c. 1960s - 1970s. Samples of Sheldahl materials included. A few of the product brochures are in Spanish.

.006 Operating manuals

Quality assurance and equipment operating and maintenance manuals for Sheldahl, G.T. Schjeldahl Company and other manufacturers. The manuals are alphabetically arranged by product name in the box.

Company, product and model name(s) [if known]:

Sheldahl Air Actuated Perforator

Rite-Size BMC-55 Box Machine

Rite-Size FP-36, FP-55 Flexograph Printer

Schjeldahl Flying Knife Attachment for 108 poly bag machine

Schjeldahl Jog Indexer 10550 & 10560

Sheldahl Mixed Sealer 308-56" & 308-30" L.H.

Schjeldahl Cuchilla Volante 108 (Spanish)

Schjeldahl 108, 208, 308 Poly Bag Making Machine

Schjeldahl 108, 208 Side-Weld Bag Making Machine

.007 Windmoeller & Hoelscher brochures

Windmoeller & Hoelscher product brochures and technical data sheets. The brochures are arranged alphabetically in the folders by the main product name listed on the front covers. Data sheets are arranged in the red notebooks behind tabbed dividers. Materials are in English, German, and French.

.008 Plymouth Industries products

Business records covering the operations of Plymouth Industrial Products, Inc. of Sheboygan, Wisconsin. Documents include letters, memoranda, charts, agreements, reports, financial statements, meeting notes and product brochures. Included in the records are documents relating to the Blue Rock Refining Company, an asbestos refiner, and to a possible business relationship between G.T. Schjeldahl Company and Plastics and Fibers Inc. of New Jersey.

Binder contains sample material containing asbestos and is housed in Tyvek bag outside of the box.

.009 G. T. Schjeldahl personal documents

Documents of a personal nature relating to Gilmore T. Schjeldahl. Includes a biography, correspondence from children and others, university documents, newspaper clippings, "Planting People and Growing Ideas", "Echo: A Symbol for Faith", and other speech drafts,

.010 Identification badges

Thirteen plastic identification badges with metal fastener pins. Names and titles are engraved in white against a wood grain background.

.011 Echo skin sample

Samples of ECHO II sateloon skin foil, lamination designed by the G.T. Schjeldahl Company, comprised of E.I. Dupont Mylar and Alcoa aluminum bonded together by Schjelbond adhesive.

.012 Unidentified samples

Three unidentified samples, the first being a cardboard sphere, 12 1/2 inches in diameter with a navy blue-painted coating, upon which is an E.I. Du Pont de Nemours shipping label addressed to Schjeldahl Company from R.L. Lester. The label also reads "For Experimental Use" and the sample number 290-42. A "Date of Letter" line reads "Our O.N. NT-327". Pieces of adhesive tape line the perimeter. The second unidentified sample is a burlap-covered piece of cardboard, 9 x 12 inches in size, upon which is stapled a piece of cardboard with a glued sheet of black plastic. Traces of silver foil fragments are visible on the plastic. On the back side is a glued order sheet fragment reading "To cover towle service from Jan. 2 thru Dec. 31, 1964" and a handwritten "cancel" notation. A G.T. Schjeldahl business card is also glued on the back side with the typewritten message, "Returned to Jim Womack with affection," signed "Shelly" and dated January 4, 1975. A third unidentified sample is a wrinkled, yellowed cardboard fragment with burned spots, 13 x 5 inches in size.

.013 Circuitry booklet

A collection of sample circuitry and overlays with touch control panels and buttons, with accompanying datasheets, glued to cardboard paper originally housed in a large three-ring binder. Also included are four sheets illustrating the scale, color and texture of Sheldahl graphic display systems.

.014ab Towel and holder

Yellowed white, possibly cotton, hand towel with brown stains. Blue stitching runs along the border and green stitching runs along the middle. A hole in the fabric appears near the edge. The towel is folded into pleats to fit into a wooden towel ring.

.015-.675 Photographs, negatives, and transparencies

Box 1 maintains original order, see 2017.08.444 for more information on arrangement.

Folder 1 - Photo Library Inventory List, c. 1996; Unidentified Photographic Materials

Folder 2 - Circuitry, Electronic Devices, Factory Floor

Folder 3 - Negatives of Circuitry, Employees at Work, Company Meetings

Folder 4 - Flexible Circuitry, Sheldahl Displays, Keyboards, Texas Flag and Folks

Folder 5 - Employees, Special Projects - Apollo, Echo; Windmoeller & Hoelscher Equipment

Folder 6 - Circuitry, Inflatables, Electronic Devices, Pepsi-Cola Pavilion

Folder 7 - Company Photos: Mostly PhD; Products; General*

Folder 8 - FLAG GIRL ON CLOUD? Photos*

Folder 9 - Stargazer*

Folder 10 - Polydome; EXPANDABLE SHELTER PIX*

Folder 11 - STRATOSCOPE II*

Folder 12 - Misc. Photos*

Folder 13 - Photos: Governor's Visitor - Solar Energy Promotion*

Folder 14 - Sheet Film Negatives

Folder 15 - Negatives

Folder 16 - Transparencies of Control Panels, Circuitry, FlexSwitch

Note: * denotes original folder names

Box 2 is arranged by subject and/or photographic type.

Folder 1 - 8" x 10" Photographs

Folder 2 - Sheldahl Facility: Interior & Exterior

Folder 3 - IRI After Clean-up, c. 1988

Folder 4 - After Hale

Folder 5 - Factory Interior Views, c. 1992

Folder 6 - Redhill Facility, c. 1994

Folder 7 - Sheldahl Materials Division

Folder 8 - Trade Show Displays

Folder 9 - Employees: Portraits and at Work

Folder 10 - Research Balloons, Aerostats, Interlocking Circles
Folder 11 - Plastic Netting Machine Company, c. 1972
Folder 12 - Expanding Mine Cover, c. 1978
Folder 13 - Helicopter Landing w/ Load
Folder 14 - Circular Patch Tests, c. 1967
Folder 15 - Folding Circular Device
Folder 16 - Bag w/ Ties, Balloon, Tubing,
Folder 17 - Texas Instruments Speak & Spell and other Children's Toys
Folder 18 - Circuitry
Folder 19 - Material Circuitry, c. 1990
Folder 20 - Electronic Keypads, FlexSwitch
Folder 21 - Metallic Film, Weaving Materials
Folder 22 - PMTs of Sheldahl Pen & Circuitry
Folder 23 - Miscellaneous Photographs
Folder 24 - Transparencies
Folder 25 - Sheet Negatives & Transparencies
Folder 26 - Negative Film
Folder 27 - Slides
Folder 28 – Slides

.444 - Inventory list

Inventory list of photo library contents and cover letter.

List is sorted by photograph size and assigns each photograph an identification number beginning with SH. Further, the subject of each photograph is noted.

Letter is dated March 21, 1996. Sent to Terry Origer of Sheldahl Inc. from Jane Hughes of Selling Technology in Southampton, England. Jane notes that she was unable to identify a few of the subjects of the photographs in the collection and asks Terry to tell her what they are.

2017.42

Photographs and archives collected by Jerry Odette, a former Sheldahl employee, and donated by Sue Odette in 2017.

Folder 1 - Loose Papers

- Folder 2 - Employee Portraits
- Folder 3 - Sheldahl Plant
- Folder 4 - Shelters
- Folder 5 - Echo I/II Satelloon
- Folders 6-8 - Balloons (Apollo - Saturn V)
- Folder 9 - Airplane Survival Hood
- Folder 10 - Rib Lacing
- Folder 11 - Stargazer Balloon
- Folder 12 - Apollo
- Folder 13 - Stratoscope
- Folder 14 - Pegasus
- Folder 15 - Discs
- Folder 16 -Plastic Products
- Folder 17 - Misc. Products
- Folder 18 - Haspa, Failure Analysis