(Collection 086)

G. Robert Le Ricolais, 1894-1977

A Finding Aid for
Papers, 1923-1997 (bulk 1954-1975),
in
The Architectural Archives, University of Pennsylvania

Archival Description

Descriptive Summary

Title: Papers, 1923-1997 (bulk 1954-1975).

Coll. ID: 086.

Origin: G. Robert Le Ricolais, 1894-1977, structural engineer.

Extent: Architectural drawings: 106 sheets;
Structural models: 186 models;
Boxed files (including photographs): 16 cubic feet.

Repository: The Architectural Archives, University of Pennsylvania
102 Meyerson Hall
Philadelphia, Pennsylvania 19104-6311
(215) 898-8323

Abstract: The largest part of this collection comprises records of Robert Le Ricolais's academic career at the University of Pennsylvania (1954-1975). The collection also contains professional and personal papers related to his activity as engineer and inventor and published writings by other authors about him and his work.

Cataloging: Collection-level records for materials in the Architectural Archives may be found in WorldCat, an international union catalogue of library and archival holdings. The record number for this collection is 140746939

Publications: *Robert Le Ricolais. Visiones y Paradojas. Visions and Paradox*
(Madrid: Fundación Cultural COAM, 1987)

Biographical/Historical Sketch

Born in La Roche-sur-Yon, France, in 1894, George Robert Le Ricolais studied and worked in his native country until 1951. At that date he started his academic career in the United States, leading structures workshops at the University of Illinois-Urbana, the University of North Carolina, Harvard, the University of Michigan, and the University of Pennsylvania. In 1954 he joined the faculty of Penn's Department of Architecture in the Graduate School of Fine Arts. He was appointed to the Paul Philippe Cret chair in 1974, and taught until he retired in 1975. He died in Paris in 1977.

Le Ricolais studied mathematics and physics from 1912 to 1914, but the First World War interrupted his academic plans. He was seriously wounded in the war and received the Military Cross and the *Croix de Guerre* with two citations for his valor.

Between 1918 and 1943 he practiced as a hydraulics engineer while pursuing research on the topic which was to occupy him for the rest of his career: structural configurations of "zero weight and infinite span." During that period he published two ground-breaking research papers, for which he received the recognition of his peers.

His 1935 article titled "Les tôles composées et leurs applications aux constructions métalliques légères" ("Composite Sheets and their Application to Lightweight Metallic Structures") introduced the concept of corrugated stress skins to the building industry. For this research he was awarded the Medal of the French Society of Civil Engineers.

His 1941 pioneering article, "Essai sur des systèmes réticulés à trois dimensions" ("Research on Three-Dimensional Network Systems") introduced many architects to the concept of space frame. Le Ricolais devoted much of his research to this subject, and received many patents for the innovative spatial structures developed in the course of his investigations. In 1962, he received the "Grand prix" of the Cercle d'études architecturales de France for this body of research. When André Malraux, the then Minister of Culture, presented the award, he declared, "The French State needs your audacity and vision." The daily Le Monde wrote that Le Ricolais was "the father of space structures."

In addition to his theoretical studies, Le Ricolais maintained an active consulting and contracting practice, working with architects on several projects, some of which were built. Between 1947 and 1958 he thus collaborated on a school, a vacation colony, an aircraft hangar, a covered market, a factory, two exhibition pavilions, an observatory and meteorology station, experimental housing, and a church.

Le Ricolais's importance to the field of structural engineering derives mostly from publications on his experimental structures and on his "way of thinking" during twenty years of research at the University of Pennsylvania. His belief that he had "found no better discipline in this unpredictable problem of form, than to observe the prodigies created by nature," led to his studies of soap-films and radiolariae. His observation that "it is an enormous reservoir of unexploited forms, mathematics and its symbols," led to his unique use of topology. Being against "people eating symbols all day," and believing that "the contact with things is full of meaning," he insisted on the building and testing of physical models of all concepts. His use of the paradox as a logical construct meant that in his structures, "the order of destruction should follow the order of its construction," and that in his studies for the partition of urban space he proposed that "the future objective is not how to structure buildings but how to structure circulations."

Le Ricolais felt that "the secret is to be curious." His curiosity was productive, as was his teaching. In acknowledgment of these achievements the American Institute of Architects made him a Fellow in 1973, and awarded him the A.I.A. Research Medal in 1976.

In addition to his professional career, Le Ricolais also maintained an interest in art and poetry throughout his life. In the 1920s he studied fine arts at the celebrated Académie de la Grande Chaumière in Paris, and later on he exhibited his airbrush paintings on multiple occasions. The Museum of Fine Arts in Nantes holds several examples of his paintings. Some of his poems were published under the title "A toute vapeur," in Cahiers de l'école de Rochefort (n.d.)

This biographical sketch is based in great part on the catalogue *Robert Le Ricolais. Visiones y Paradojas. Visions and Paradox* (Madrid: Fundación Cultural COAM, 1987).

Scope and Content Note

This collection consists for the most part of records of Robert Le Ricolais's academic career at the University of Pennsylvania (1954-1975), together with professional and personal papers relating to his activity as an engineer and inventor both before and during that period. The collection also contains many published writings by other authors about the works of Le Ricolais. The documents span the period from 1923 (a blueprint for a gyroscopic pump designed by Le Ricolais) to 1997 (a copy of the exhibition catalogue devoted to his work), with the bulk of the collection covering the years 1954-1975.

Series I consists of structural models, most of which were built by University of Pennsylvania architecture students under Le Ricolais's direction during the twenty-one year period in which he taught at the Graduate School of Fine Arts. The models were built to evaluate the resistance of particular structural configurations—many of which were of Le Ricolais's own invention. Most of the models were load-tested in the GSFA structures laboratory at the time of their completion, and some show the patterns of failure which were of particular interest to Le Ricolais. Some of the configurations and load tests were documented by students as part of their coursework; the collection includes a number of such student reports, filed in Series VII. Throughout his life, Le Ricolais built or had others build many other models which have not survived in physical form; photography for some of those models may be found in the collection (Series III).

The collection contains a very small number of large-format drawings, mostly related to Le Ricolais's built projects: these are filed in Series II. Series III comprises photography relating to the structural models built by Le Ricolais or under his direction before and during his tenure at Penn. While some of the photography is contemporary with the models, most prints and all the slides were taken later, as part of a systematic documentation effort under the direction of Peter McCleary. The collection also includes a certain number of photographs of models which were destroyed or have otherwise not survived.

Another important part of the collection relates to Le Ricolais's activity as an engineer and as an inventor. The documents fall into two broad categories: personal notes and patent files. Series IV groups the notes, sketches, and calculations which were found in Le Ricolais's office at the time of his death; they have been left in the order in which the Architectural Archives received them. Series VI gathers the papers and correspondence relating to Le Ricolais's applications for patents. Most of those papers had been organized by patent application prior to their being given to the Architectural Archives; this organization has been preserved. The other correspondence has been filed separately in Series V.

A significant part of the collection consists of manuscript, typescript, and printed versions of research papers by Le Ricolais, as well as articles published about his work. The organization of this material derives from an earlier processing and cataloguing campaign, which divided the collection of articles by Le Ricolais into two distinct categories: "unpublished," meaning in manuscript or typescript form, whether or not the text was eventually published; and "published," for which the collection holds either offprints or photocopies. This organization has been preserved. Within the "unpublished" (Series VIII) and "published" (Series IX) categories, the original subdivision between "French" and "English" papers has also been preserved.]

In the course of processing this archive, other writings by Le Ricolais were found among the unsorted notes, sketches, and calculations (Series IV). Those writings which appeared to be complete papers

were pulled and moved to Series VIII A ("Unpublished French") or VIII B ("Unpublished English"). The record for each of the moved items includes the identification number of the folder in which it was found, for reference.

Photocopies of many of the writings included in Series VIII and IX can also be found in the 15 bound volumes titled *G.Robert Le Ricolais / 1894-1977* only available at the Architectural Archives of the University of Pennsylvania. Among those, "unpublished" French and English articles are cross-referenced as UF #-# [volume number, item number] or UE #-#, respectively; "published" French and English articles are cross-referenced as PF #-# or PE#-#, respectively.

Series X groups the materials published about Le Ricolais, written by other authors. The collection also contains some teaching records, filed under Series VII, of which the student reports mentioned above are also a part; printed materials kept by Le Ricolais but which were neither about him nor his work (Series XI); and a very small number of personal materials, including a 34-page manuscript personal journal and some of his poetry, for the most part offprints of published poems (Series XII).

In addition, two final series group materials which are peripherally related to the collection. Series XIII contains personal papers of Abraham Beer, who was Le Ricolais's business associate and played a role in the latter's patent applications. Series XIV consists of a single document, the "M/P list," which is a master list of most of the structural models in the collection, put together by Professor McCleary at the time of the systematic documenting campaign described above. The identification number ("M/P #") of each model on that list is cross-referenced in the Project Index which appears in Appendix A of this finding aid.

The collection does not include any significant holdings related to the period before 1954. Very little personal correspondence has survived; the great majority of the letters in Series V and VI are purely professional. Series XII Personal Materials contains very few manuscripts and primarily contains financial information related to Le Ricolais's employment at the University of Pennsylvania. The collection contains very few items related to Le Ricolais's artwork or poetry.

The collection contains many photocopies, some made during Le Ricolais's lifetime, others after his death. Le Ricolais seems to have used photocopies as a help in the editing process, annotating copies rather than (or alongside with) the original. In addition, for some of his writings, no original but one or several photocopies have been found; those are filed and counted as if they were originals. Photocopies made during the processing of this archive, for legibility purposes, are clearly marked as archival copies, and although they are filed with the original, they were not counted.

Series Overview

I. Structural Models

II. Large-Format Drawings

III. Photographic Materials
- A. Photoprints
- B. Large-Format Photoprints
- C. Negatives
- D. Slides [and Transparencies]

IV. Notes, Sketches and Calculations

V. Correspondence

VI. Patent Files (applications, notes, and correspondence)
- A. Early French Patent Files
- B. Heliport
- C. Structural Systems [Systèmes de construction]
- D. Hydraulic Dams and Other Tension Structures [Barrages hydrauliques et autres structures tendues
- E. Adjustable Tension Structures [Structures à tension réglable]
- F. Internal Pressure Structures with Adjustable Deformations [Structures à pression interne et à déformations réglables]
- G. Radar Antennae and Other Tension Structures
- H. Tension Systems in the Shape of Bodies of Revolution [Procédé de construction]
- I. Antibuckling Structural Systems
- J. Aerial Transit System [Système de transit aérien]
- K. Transmission Towers
- L. Internal Pressure Bubble Materials For Stressed Skin or Thin-Walled Structures [Matériaux à cavités sphériques pressurisées et Mode d'utilisation]
- M. Additional French Patent Files
- N. Mixed Patent and Business Files

VII. Research Proposals, Teaching Records, and Student Reports
- A. Research Proposals
- B. Teaching and Lecture Records
- C. Student Reports and Examinations

VIII. Unpublished Writings, Lectures and Interviews
- A. French
- B. English

IX. Published Writings and Interviews
- A. French
- B. English
- C. Whole Issues of Periodicals Containing Articles by Le Ricolais

X. Published and Unpublished Materials about Le Ricolais
- A. Articles
- B. News Clippings
- C. Catalogue and Whole Issues of Periodicals Containing Articles about Le Ricolais
- D. Miscellaneous Biographical Materials about Le Ricolais
- E. Bibliographies of Le Ricolais' writings

XI. Published and Unpublished Materials kept by Le Ricolais
- A. Articles
- B. News Clippings
- C. Whole Issues of Periodicals
- D. Technical Brochures and Information Booklets
- E. Research Proposals by Colleagues
- F. Miscellaneous Materials

XII. Personal Materials

XIII. Abraham Beer Papers

XIV. M/P List

The collection contains many photocopies, some made during Le Ricolais's lifetime, others after his death. Le Ricolais seems to have used photocopies as a help in the editing process, annotating copies rather than (or alongside with) the original. In addition, for some of his writings, no original but one or several photocopies have been found; those are filed and counted as if they were originals. Photocopies made during the processing of this archive, for legibility purposes, are clearly marked as archival copies, and although they are filed with the original, they were not counted.

A full index to projects represented in this collection is found in Appendix A.

Access Points for Indexing (Controlled Vocabulary)

Le Ricolais, Robert, 1894-1977
Beer, Abraham
McCleary, Peter
Engineers -- Archives
University of Pennsylvania.-- Graduate School of Fine Arts – History -- Sources.
Structural engineering -- Study and teaching – History -- Sources.
Structural design -- Study and teaching -- History -- Sources.
Structures, Theory of -- History -- Sources.
Structural analysis (Engineering) -- History - Sources.
Models.
Manuscripts.
Photographs.
Architectural drawings.

Administrative Information

Restrictions on access: This collection is available for research by appointment only.

Preferred citation: Robert Le Ricolais Collection, The Architectural Archives, University of Pennsylvania.

Acquisition: Gift of Robert Le Ricolais. Additional materials received by internal transfer from the Graduate School of Fine Arts, University of Pennsylvania.

Processing: The collection was processed and the finding aid prepared by William Whitaker, Nancy Thorne and Emily Cooperman with the research assistance of Anne Lutun. Work was substantially completed in 2005, with additions and corrections in 2008.

Container list

Series I. Structural Models.

Extent: 186 models.
Note: Arranged at the object level by date. Includes material and size description (H x W x D). For the soap film structures (S.F.S) the number attributed is for identification purposes only; it does not imply a chronology.

Call#	Descriptive Title
[086.I.1]	Composite Corrugated Sheet Structure; structural model; ca. 1935; sheet metal; ½ x 36 x 4 ½ inches.
[086.I.2]	Stellar Octahedron; structural model; Spring 1958; steel and sheet metal; 19 ½ x 24 ½ x 28 ½ inches.
[086.I.3]	Pretensioned Monkey Saddle, Minimal Surface Structure; structural model; Fall 1958; steel pipe and cables; 8 ½ x 23 ¼ x 22 ¾ inches.
[086.I.4]	Suspension Bridge with Wire Network for Skyrail; structural model; 1958; wood and string; 8 ¾ x 7 ½ x 45 inches.
[086.I.5]	Monkey Saddle, Model #1; structural model; 1959; steel tube, aircraft cable; 3 ½ x 14 x 15 ¾ inches.
[086.I.6]	Monkey Saddle, Model #2; structural model; 1959; steel tube 5/8 inch diameter, cable; 12 ¼ x 45 ¼ x 52 ¼ inches [including base].
[086.I.7]	Aplex Space Frame; structural model; 1959; steel bars ¼ x 1/8 inch cross section, rods 1/8 inch diameter; 30 ¼ x 30 ¼ x 2 ½ inches.
[086.I.8]	Octahedron; structural model; 1959-1960; steel rods ¼ inch diameter; 5 5/8 x 6 ¼ x 7 inches.
[086.I.9]	Octahedron, Minimum Surface Structure [wires inside]; structural model; 1959-1960; steel rods ¼ inch diameter and cable; 15 ½ x 11 x11 inches.
[086.I.10]	Octahedron, Minimum Surface Structure [wires outside]; structural model; 1959-1960; steel rods ¼ inch diameter and cable; 15 ½ x 11 x11 inches.
[086.I.11]	Double-Curvature Network #1 (D.C.N.), Concave, Reactive; structural model; 1959-1960; bicycle tire, steel cables; 2 ½ x (diameter) 26 inches.
[086.I.12]	Orthogonal Grid System; structural model; ca. 1960; steel rods 1/8 inch diameter; 1 ¾ x 20 x 20 inches.

[086.I.13] Vault, Orthogonal Grid; structural model; ca. 1960; steel rod 1/8 inch diameter; 7 ½ x 22 ¼ x 27 ¼ inches.

[086.I.14] Orthogonal Space Frame, Regular Truss System; structural model; before 1960; steel rods ¼ inch and 1/8 inch diameter; 4 ½ x 31 ½ x 31 ½ inches.

[086.I.15] Diagonal Grid System; structural model; before 1960; steel rods 1/8 inch diameter; 1 ¾ x 20 x 20 inches.

[086.I.16] Micro-Bubble System (M.B.S.) Model; structural model; 1960; ping-pong balls, laminates; 1 ¾ x 21 x 21 inches.

[086.I.17] Funicular Polygon of Revolution, Pseudosphere; structural model; 1960; steel tube 1 inch diameter, rings, aircraft cable; 27 x (diameter) 19 inches.

[086.I.18] Double-Curvature Network, Convex Non-Reactive; structural model; ca.1960; steel rods, cables; 5 ¼ high x 22 3/8 inch diameter.

[086.I.19] Lenticular Dome of Double-Curvature Network (D.C.N.), a.k.a. Two-Curvature Network (T.C.N.); structural model; ca. 1960; steel tube, 1 inch diameter and cable; 7 ¼ x (diameter) 60 inches.

[086.I.20] Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive; structural model; ca. 1960; steel; 8 x (diameter) 24 1/8 inches.

[086.I.21] Double-Curvature Trigrid with Tension Ring; structural model; ca. 1960; steel and cable; 4 x (diameter) 36 inches.

[086.I.22] Tensegrity Dome; structural model; ca. 1960; steel tube 5/16 inch diameter, rods ¼ inch diameter, cable; 10 x (diameter) 33 inches.

[086.I.23] Le Ricolais Space Frame; structural model; ca. 1960; steel rods ¼ inch diameter, wires; 3 x 19 ¼ x 19 ¼ inches.

[086.I.24] Funicular Polygon of Revolution, Lemniscate B; structural model; 1960-1962; steel tube ¾ inch diameter and discs, aircraft cable; 38 x (diameter) 7 inches.

[086.I.25] Funicular Polygon of Revolution (Queen Post); structural model; 1960-1962; steel tube and discs, aircraft cable; 22 x (diameter) 3 inches.

[086.I.26] Automorphic Tube, T-6, Model #2; structural model; 1961; steel tubes ¼ inch diameter, rods 1/8 inch diameter; 9 ½ x (diameter) 4 ¾ inches.

[086.I.27] Automorphic Tube, T-6, Model #3; structural model; ca. 1961; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 x (diameter) 8 ½ inches.

[086.I.28] Tension Net Construction; structural model; 1961-1962; bronze welding-rod, thread, clothing snaps; 9 x 5 x 1 ½ inches.

[086.I.29] Funicular Polygon of Revolution, for Skyrail; structural model; 1961-1962; steel tubes/rods, aircraft cables; 132 x (diameter) 25 inches.

[086.I.30] Automorphic Tube, T-12, Model #4, Showing Harmonic Buckling; structural model; 1961-1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 11 3/4 x (diameter) 8 ½ inches.

[086.I.31] Automorphic Tube, T-12, Model #1; structural model; May 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 15 3/8 x (diameter) 8 5/8 inches.

[086.I.32] Automorphic Tube, T-12, Model #2, after Buckling; structural model; 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 ¾ x 10 ¾ x 7 ¾ inches.

[086.I.33] Automorphic Tube, T-12, Model #3, after Buckling; structural model; 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 1/8 x (diameter) 8 ¾ inches.

[086.I.34] Automorphic Compression Member; structural model; ca. 1962; steel; 17 ¾ x (diameter) 8 ½ inches.

[086.I.35] Pretensioned Transmission Tower, Model #1; structural model; 1963; steel tube ½ inch diameter, plastic discs, plastic wires; 19 x (diameter) 9 inches.

[086.I.36] Pretensioned Transmission Tower, Model #2; structural model; ca. 1963; steel tube, rings, wires; 39 x 18 ½ x 21 ½ inches [including base]

[086.I.37] Pretensioned Transmission Tower, Model #3; structural model; 1963; steel tube ¾ inch diameter, rods ¼ inch diameter, cables; 61 ½ x 17 ¼ x 20 inches [including base]

[086.I.38] Tensioned Water Tower; structural model; 1963; steel rods, 1/8 and 3/16 inch diameter, rings, cables, wood base; 33 ½ x 18 ½ x 16 inches [including base]; plaster "reservoir", 4 ½ x (diameter) 9 ½ inches.

[086.I.39] Tension Net Tube Coated with Epoxy and Fiberglass; structural model; 1964; steel tube, aircraft cable, fiberglass, epoxy; 47 ¼ x (diameter) 7 inches.

[086.I.40] Boat Frame; structural model; ca. 1964; steel rods 1/8 inch diameter and wire; 3 ¼ x 30 ½ x 16 inches.

[086.I.41] Lenticular Tension Net Tube Bridge for Skyrail; structural model; ca. 1964; steel plate, cable, rings, hardware; 16 x 8 x 188 inches.

[086.I.42] Tension Net Structure; structural model; before 1965; steel rods ¼ inch diameter, rings 5 inches diameter; 5 ¼ x (diameter) 21 5/8 inches.

[086.I.43] Octen Antenna, Compression Frame; structural model; 1965-1966; steel rods 1/8 inch diameter; 71 x 4 ½ x 5 inches.

[086.I.44] Octen Antenna, a.k.a. Octagrid Antenna, Model #2; structural model; ca. 1965-1966; steel rods 1/8 inch diameter, aircraft cables; 100 x 5 ½ x 5 ½ inches

[086.I.45] Octagon Truss Transmission Tower; structural model; before 1966; steel rods ¼ and 1/8 inch diameter; 42 x 11 5/8 x 5 1/8 inches.

[086.I.46] Octen Antenna, 54' tall; support; structural model; ca. 1966; steel; 30 x 21 x 24 inches.

[086.I.47] Trihex Truss Tube; structural model; before 1967; steel rods 1/8 inch diameter; 28 ¾ x (diameter) 9 ¾ inches.

[086.I.48] Trihex [Suspension] Bridge; structural model; before 1967; steel and cables; 10 x 120 x 5 ½ inches [including base].

[086.I.49] Triangulated Octahedron, Model #1; structural model; 1967; steel rods 1/8 inch diameter; 5 ¼ x 5 ¾ x 6 inches.

[086.I.50] Triangulated Octahedron, Model #2; structural model; 1967; steel rods 1/8 inch diameter; 8 ½ x 5 x 5 inches.

[086.I.51] Elongated and Triangulated Octahedron, Three-Cell Unit, Model; structural model; 1967; steel rods 1/8 inch diameter; 25 x 5 x 5 inches.

[086.I.52] Elongated and Triangulated Octahedron, Model #4 [Three-Cell Unit after Buckling]; structural model; 1967; steel rods 1/8 inch diameter; 25 x 5 x 4 inches.

[086.I.53] Tri-Hex Tension Roof a.k.a. Six-Sided Monkey Saddle; structural model; May 1967; steel and cable; 14 ¼ x 43 7/8 x 50 inches [including base]

[086.I.54] Warren Truss, Metal; structural model; 1967; steel rods ¼ inch diameter; 7 x 39 ½ inches.

[086.I.55] Trihex Truss; structural model; 1967; steel rods ¼ inch diameter; 7 x 39 ½ inches.

[086.I.56] Parabolic Warren Truss, Wooden; structural model; Fall 1967; wood; 7 ¼ x 39 ½ inches.

[086.I.57] Parabolic Trihex Truss, Wooden; structural model; Fall 1967; wood; 7 ¼ x 39 ½ inches.

[086.I.58] Parabolic Trihex Truss, Metal; structural model; ca. 1967; steel rods 1/8 inch diameter; 5 ¼ x 23 ¾ inches.

[086.I.59] Triangulated Pyramidal Truss [Trihex]; structural model; ca. 1967; steel rods 1/8 inch diameter; 4 ¼ x 6 x 35 3/8 inches.

[086.I.60] Howe Truss, Metal; structural model; ca. 1967; steel rods 1/8 inch diameter; 3 1/8 x 18 inches [2 identical models].

[086.I.61] Octagon Truss, Metal; structural model; ca. 1967; steel rods ¼ inch diameter; 7 x 39 5/8 inches.

[086.I.62] Trihex Pyramid; structural model; ca. 1967; steel rod 1/8 inch diameter; 10 ¼ x 21 5/8 x 21 5/8 inches.

[086.I.63] Trihex Bridge; structural model; 1967-1968; steel rods of 3/32 and 1/8 inch diameter; 47 ¼ x 4 7/8 x 5 ½ inches.

[086.I.64] Trihex Dome; structural model; 1967-1968; steel rods of 3/32 and 1/8 inch diameter; 12 x (diameter) 42 inches.

[086.I.65] Double Parabolic Trihex Bridge for Skyrail, a.k.a. Fish-bridge; structural model; 1967-1968; steel rod and aircraft cable; 13 ½ x 80 x 4 ¼ inches.

[086.I.66] Study for Polyester-Reinforced Boat; structural model; 1967-1968; steel rods 3/16 and 3/32 inch diameter, cables; 6 x 9 ¾ x 30 ½ inches.

[086.I.67] Omega Tower for Nineteen Wires; structural model; 1967-1968; steel rods, aircraft cables; 1 ¾ x (diameter) 17 inches.

[086.I.68] Polyten Bridge, Queen Post System, Model #2; structural model; Fall 1968; steel rods 1/8 and ¼ inch diameter, aircraft cable 1/32 and 1/64 inch diameter; 4 ½ x 37 x 13 ½ inches.

[086.I.69] Hexaflex Floor System, Model #1 a.k.a. King Post Hex; structural model; Spring 1968; steel bars ¼ x 3/16 inches, cables; 5 x 42 ½ x 37 inches.

[086.I.70] Hexaflex Floor System, Model #2 a.k.a. Queen Post Hex; structural model; Spring 1968; steel bars, ¼ x 3/16 inch cross section, cables; 5 x 37 x 42 ½ inches.

[086.I.71] Trigrid with Hexagonal Perimeter, [Hexaflex] Floor System; structural model; Spring 1968; wood; 36 ½ x 42 x 3/4 inches.

[086.I.72] Starhex Grid with Hexagonal Perimeter, [Hexaflex Floor System]; structural model; Spring 1968; wood; 36 ½ x 42 x 3/4 inches.

[086.I.73] Starhex Dome; structural model; 1968; steel rods 1/8 inch diameter; 12 x 48 x 48 inches [including base].

[086.I.74] Antitorsion Beam; structural model; 1968-1969; steel rods 1/8 and ¼ inch diameter; 84 x 4 ¾ x 4 ¾ inches.

[086.I.75] Torsion Study Model; structural model; ca. 1969; steel rods ¼ inch and 1/8 inch diameter; 53 ½ x 4 ¼ x 4 inches.

[086.I.76] Diagonal Tetragrid, Parabolic, Delta System [Hangar Roof Model]; structural model; 1968-1969; steel rods 1/8 and ¼ inch diameter; 9 ¾ x 27 ¾ x 27 1/8 inches.

[086.I.77] Polyten Bridge, Queen Post System, Model #1; structural model; 1968-1969; steel rods 3/16 and ¼ inch diameter, steel tube ½ inch diameter, aircraft cable 1/16 inch diameter; 72 x 7 ¾ x 7 inches.

[086.I.78] Polyten Bridge, Model #4; structural model; Spring 1969; steel tubes ½ inch diameter, rods 1/8 inch diameter, cables 1/8 inch diameter; 10 x 11 ½ x 120 inches.

[086.I.79] Diagonal Tetragrid, Cylindrical, Delta System [Hangar Roof Model]; structural model; 1969-1970; steel rods 1/8 inch and ¼ inch diameter; 8 x 28 3/8 x 29 ¼ inches.

[086.I.80] Suspension Bridge with Trihex Panels; structural model; 1970-1971; steel bars; 20 ½ x 131 x 14 ¼ inches

[086.I.81] Tetragrid Dome, Delta System; structural model; 1970-1971; steel rods 1/8 and ¼ inch diameter; 7 ½ x (diameter) 40 1/8 inches.

[086.I.82] Footbridge with Trihex Panels and Polyten Cable Supports; structural model; 1970-1971; steel bars 1/8 x ¼ inches, cables; 8 ¾ x 4 3/8 x 77 ¾ inches.

[086.I.83] Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; structural model; 1970-1971; steel rods 3/16 inch diameter; 4 x 41 x 45 inches.

[086.I.84] Octagrid Cupola; structural model; 1970-1971; steel rods 1/8 inch diameter; 13 ¼ x (diameter) 28 ¼ inches.

[086.I.85] Synclastic Suspended Floor System (S.S.S.), Model #1; structural model; 1970-1971; steel rods ½ inch diameter, bars ¼ x ¼ inch cross section, aircraft cable 1/32 inch diameter; 12 ½ x 18 ½ x 18 ½ inches.

[086.I.86] Synclastic Suspended Floor System (S.S.S.), Model #2; structural model; 1970-1971; steel tubes 1 inch diameter, bars ¼ x ¼ inch cross section; 49 ½ x 23 ½ x 23 ½ inches.

[086.I.87] Cantilevered Suspended Floor, Queen Post Truss; structural model; 1970-1971; steel tubes 1 x 1 inch cross section, bars ½ x ¼ inch cross section, rods ¼ inch diameter; 26 x 47 ½ x 47 ½ inches.

[086.I.88] Suspended Floor System, Orthogonal Grid; structural model; ca. 1970-1971; steel bars ¼ x ¼ and 1/8 x ¼ inch cross section, rods 3/16 inch, tubes 3/8 inch diameter, cables; 17 ¼ x 24 ½ x 24 ½ inches.

[086.I.89] Suspended Floor System, Triangular Grid, Model #1; structural model; ca. 1970-1971; steel tubes 3/8 inch diameter, rods 1/8 inch diameter, cables; 14 ½ x 19 ½ x 20 inches.

[086.I.90] Suspended Floor System, Triangular Grid, Model #2; structural model; ca. 1970-1971; steel tubes ½ inch diameter, rods 1/8 inch diameter, cables; 18 ¾ x 38 ½ x 38 ½ inches.

[086.I.91] Octagrid Panel; structural model; ca. 1970-1971; steel rods ¼ inch diameter; 5 ½ x 51 ½ x 56 ½ inches.

[086.I.92] Octagrid Pyramid, structural model; ca. 1970-1971; steel rods 3/32 inch diameter; 16 ¾ x 23 x 23 inches.

[086.I.93] Synclastic Floor, Hexagonal Plan; structural model; before 1971; steel bars ¼ x ¼ inch cross section, cables; 2 3/8 x 35 ¼ x 30 ½ inches.

[086.I.94] Lattice Bridge Study #1; structural model; ca. 1971; steel bars ¼ x ¼ inch and ¼ x 1/8 inch cross section; 4 ½ x 3 ½ x 31 ½ inches.

[086.I.95] Lattice Bridge Study #2; structural model; Spring 1972; steel bars ¼ x ¼ inch and ¼ x ½ inch cross section; 4 ½ x 3 ½ x 31 ½ inches

[086.I.96] Thin Wall Hexagonal Tube, Delta System, Model #2; structural model; Spring 1972; steel rods 1/8 inch diameter; 12 x (diameter) 4 3/8 inches.

[086.I.97] Thin Wall Cylindrical Tube, Delta System, Model #4; structural model; spring 1972; steel rods 1/8 inch diameter; 10 7/8 x (diameter) 5 1/8 inches.

[086.I.98] Orthogonal Tetragrid, Cylindrical, Delta System; structural model; Fall 1972; steel rods 1/8 inch diameter; 8 3/8 x 21 ½ x 27 inches.

[086.I.99] Tetra Joint; structural model; ca. 1972; steel tubes 1 x 1 inch cross section, rods ¼ inch diameter; 15 x 15 x 7 1/8 inches.

[086.I.100] [Plexiglas Tetragrid Model]; structural model; ca. 1972; Plexiglas sheets 3/8 inch thick, steel tube 1/8 inch diameter; 2 3/8 x 24 x 24 inches.

[086.I.101] Tetragrid Tube, Delta System, Model #2; structural model; 1972-1973; steel rods ¼ inch and 1/8 inch diameter; 12 ¼ x (diameter) 9 ½ inches.

[086.I.102] Tetragrid Fuselage, Delta System, Model #1; structural model; 1972-1973; steel rods 1/8 inch diameter, rings 1 ½ inch diameter; 36 ¾ x (diameter) 12 ½ inches

[086.I.103] Tetragrid Fuselage, Delta System, Model #2; structural model; 1972-1973; steel rods 1/8 inch diameter, rings 1 inch diameter; 39 ½ x (diameter) 7 ¾ inches

[086.I.104] Tetragrid Ship Hull, Delta System; structural model; 1972-1973; steel rods 1/8 inch diameter; 6 ¾ x 6 x 41 ¾ inches.

[086.I.105] Aleph Bridge I, Tension Net Tube; structural model; 1972-1973; steel tube and cable; 10 ¾ x 74 x 9 ½ inches.

[086.I.106] Orthogonal Tetragrid, Parabolic, Delta System; structural model; before 1973; steel rods 1/8 inch diameter; 16 ½ x 43 ½ x 31 ¼ inches.

[086.I.107] Aleph Bridge II, with Tension Rod; structural model; 1973; steel tube; 10 x 80 ¾ x 10 inches.

[086.I.108] Diagonal Tetragrid Panel, Delta System; Spring structural model; 1973; steel rods ¼ inch and 1/8 inch diameter, channels 2 inches; 2 x 47 ¾ x 47 7/8 inches.

[086.I.109] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #2; structural model; Spring 1973; steel rods ¼ inch and 1/16 inch diameter; 1 ½ x 17 ¾ x 18 inches.

[086.I.110] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #1; structural model; ca. 1973; steel rods 1/8 inch diameter; 2 x 14 x 14 ¼ inches.

[086.I.111] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #1; structural model; ca. 1973; steel; 12 x 24 x 24 inches.

[086.I.112] Tetragrid, [Delta System], Circular Hyperboloid; structural model; ca. 1973; steel tube 1/8 and ¼ inch diameter; 13 ½ x 23 x 42 ¾ inches.

[086.I.113] Tetragrid Tube, Model #3; structural model; ca. 1973; steel tube 1/8 and ¼ inch diameter, steel cable; 105 x (diameter) 12 inches.

[086.I.114] Diagonal Tetragrid Tube, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 18 x (diameter) 10 ½ inches.

[086.I.115] King Post Floor System with Tetragrid Panels, Delta System; structural model; ca. 1973; steel rods 1/8 inch and ¼ inch diameter, bars ¼ x 1/8 inch cross section, cables; 18 ¼ x 9 3/8 x 9 3/8 inches.

[086.I.116] Tetragrid Pylon Element, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 53 ½ x 4 x 4 ¼ inches.

[086.I.117] Tetragrid Sphere; structural model; ca. 1973; steel rods 3/16 inch and 1/8 inch diameter; 9 ¾ x 9 ¾ x 9 ¾ inches.

[086.I.118] Tetragrid Study Model, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 31 1/8 x 11 ¾ x 10 ¼ inches [including base].

[086.I.119] Octahedron, Soap Film Structure; structural model; ca. 1974; steel; 5 ¼ x 6 ¼ x 7 inches.

[086.I.120] Circumferentially Prestressed Tube; structural model; 1974-1975; steel tube ½ inch diameter, steel cable, steel plate 1/16 inch thick; 2 x 2 x 65 ¼ inches.

[086.I.121] Diamond Network System (D.N.S.) Bridge, Model #1; structural model; Spring 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 3/32 inch diameter; 54 ¼ x 7 ¼ x 11 ½ inches.

[086.I.122] Funicular Polygon of Revolution, Lemniscate A; structural model; Fall 1975; steel tube and discs, aircraft cable; 18 ¼ x (diameter) 2 ¾ inches.

[086.I.123] Diamond Network System (D.N.S.) Bridge, Model #2; structural model; ca. 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 1/16 inch diameter; 41 3/8 x (diameter) 8 ¼ inches.

[086.I.124] Diamond Network System (D.N.S.) Bridge, Model #3; structural model; ca. 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 1/16 inch diameter; 121 x 16 x 8 ½ inches.

[086.I.125] Parabolic Floor Network, Study #1, with 2 Struts; structural model; Spring 1976; steel tube ½ x ½ inch and ½ x ¼ inch cross section, rods 1/8 inch diameter; ½ x 2 ½ x 42 7/8 inches

[086.I.126] Parabolic Floor Network, Study #2, with 5 Struts; structural model; Spring 1976; steel tube ½ x ½ inch and ½ x ¼ inch cross section, rods 1/8 inch diameter; ½ x 2 ½ x 42 7/8 inches.

[086.I.127] Parabolic Floor Network, Orthogonal; structural model; Spring 1976; steel bars ½ x ½ and ¼ x ¼ inch cross section, rods 1/8 inch diameter; 2 3/8 x 39 ½ x 39 ½ inches.

[086.I.128] Trigrid [Triangular panel]; structural model; n.d.; steel channels 1/8 inch wide; ¾ x 14 ¾ x 13 ¼ inches.

[086.I.129] Trigrid; structural model; n.d.; steel rods 3/32 inch diameter; 12 x 12 ½ inches.

[086.I.130] Octahedronal Tetrahedron; structural model; n.d.; steel rods ¼ inch diameter; 5 ½ x 51 x 56 ¾ inches.

[086.I.131] Rhombohedral Unit; structural model; n.d.; steel rods 1/8 inch diameter and wires, nuts and bolts; 24 x 21 ¼ x 1 ½ inches.

[086.I.132] Woven Starhex Panel; structural model; n.d.; steel rods ¼ inch diameter; 27 ½ x 31 inches.

[086.I.133] Tied and Braced Arch; structural model; n.d.; steel tube ¾ inch diameter, bars ¼ x 1/8 inch and ¼ x ¼ inch cross section; 4 5/8 x 3 ¼ x 33 inches.

[086.I.134] Spatial King Post; structural model; n.d.; steel tube ½ inch diameter, rods 3/16 inch diameter, cables; 29 ¾ x (diameter) 4 ½ inches.

[086.I.135] Spatial Queen Post; structural model; n.d.; wood and strings; 14 ½ x (diameter) 3 ½ inches.

[086.I.136] Octagon Truss; structural model; n.d.; wood; ¼ x 12 ¼ x 10 ½ inches.

[086.I.137] [King Post]; structural model; n.d.; steel tube 1 x 1 inch cross section, steel rod ½ inch diameter, cable, hardware; 5 3/8 x 1 5/8 x 48 inches

[086.I.138] [Unidentified model fragment]; structural model; n.d.; steel rods, ¼ inch diameter, 40 ¼ x 13 x 13 inches.

[086.I.139] [Rectangular Plasteel Panel]; structural model; n.d.; Plasteel?, 3/32 x 22 ¾ x 23 ¾ inches.

[086.I.140] [Hexagonal Plasteel Panel]; structural model; n.d.; Plasteel?, 3/32 x 28 ¾ x 33 3/8 inches.

[086.I.141] [Funicular Polygon of Revolution]; structural model; n.d.; steel tube, steel rod, steel discs; 42 x (diameter) 6 inches.

[086.I.142] [Cable Net Tube Bridge]; structural model; n.d.; steel , wire; 6 ¼ x 5 ½ x 83 inches.

[086.I.143] [Double Curvature Network]; structural model; n.d.; 4 ½ x (diameter) 31 inches.

[086.I.144] [Tensegrity Dome, Hexagonal Frame]; structural model; n.d.; wood dowels, 3/8 inch diameter, string, wood frame; 25 x 52 x 45 ¼ inches.

[086.I.145] [S.F.S. #1]; structural model; n.d.; metal rods 1/16 inch diameter; 7/8 x 11 ½ x 3 ¾ inches.

[086.I.146] [S.F.S. #2]; structural model; n.d.; metal rods 1/16 inch diameter; 1 3/8 x 13 ½ x 3 inches.

[086.I.147] [S.F.S. #3]; structural model; n.d.; metal rods 1/8 inch diameter; 2 ¼ x 15 ½ x 2 ¾ inches.

[086.I.148] [S.F.S. #4]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 4 x 5 ½ inches.

[086.I.149] [S.F.S. #5]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 11 ½ inches.

[086.I.150] [S.F.S. #6]; structural model; n.d.; metal rods 1/16 and 3/32 inch diameter; 1 ½ x 1 ½ x 8 inches.

[086.I.151] [S.F.S. #7]; structural model; n.d.; metal rods 1/16 inch diameter; 1 x 4 ¼ x 8 ½ inches.

[086.I.152] [S.F.S. #8]; structural model; n.d.; metal rods 1/16 inch diameter; 6 ½ x 7 ½ x 7 ¾ inches.

[086.I.153] [S.F.S. #9]; structural model; n.d.; metal rods 1/16 inch diameter; 4 x 7 ¾ x 7 ¾ inches.

[086.I.154] [S.F.S. #10]; structural model; n.d.; steel bars ¼ x 1/8 inch cross section, wire; 6 ¾ x 7 1/8 x 7 1/8 inches.

[086.I.155] [S.F.S. #11]; structural model; n.d.; metal rods 1/16 inch diameter; 5 ¾ x 7 ¾ x 7 ¾ inches.

[086.I.156] [S.F.S. #12]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ½ x 8 inches.

[086.I.157] [S.F.S. #13]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 6 ¼ inches.

[086.I.158] [S.F.S. #14]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 7 ½ inches.

[086.I.159] [S.F.S. #15]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 ¼ x 7 ¾ inches.

[086.I.160] [S.F.S. #16]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 11 ¾ inches.

[086.I.161] [S.F.S. #17]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¾ x 9 inches.

[086.I.162] [S.F.S. #18]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¼ x 8 inches.

[086.I.163] [S.F.S. #19]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 ¼ x 9 inches.

[086.I.164] [S.F.S. #20]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 8 ¼ inches.

[086.I.165] [S.F.S. #21]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¼ x 8 inches.

[086.I.166] [S.F.S. #22]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ½ x 2 x 9 ½ inches.

[086.I.167] [S.F.S. #23]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 8 ½ inches.

[086.I.168] [S.F.S. #24]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 9 ¾ inches.

[086.I.169] [S.F.S. #25]; structural model; n.d.; metal rods 1/16 inch diameter; 3 x 3 x 12 ¾ inches.

[086.I.170] [S.F.S. #26]; structural model; n.d.; metal rods 1/16 inch diameter; 9 ¼ x 12 x 6 ¾ inches.

[086.I.171] [S.F.S. #27]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 3 ¾ x 16 inches.

[086.I.172] [S.F.S. #28]; structural model; n.d.; metal rods 1/16 inch diameter; 3 x 4 ¾ x 12 ¼ inches.

[086.I.173] [S.F.S. #29]; structural model; n.d.; metal rods 1/16 inch diameter; 12 ¾ x 2 ¾ x 2 1/8 inches.

[086.I.174] [S.F.S. #30]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 x 8 ¼ inches.

[086.I.175] [S.F.S. #31]; structural model; n.d.; metal rods 1/16 inch diameter; 6 x 4 ½ x 1 ½ inches.

[086.I.176] [S.F.S. #32]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 6 ½ x 9 ¾ inches.

[086.I.177] [S.F.S. #33]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 4 ½ x 9 ¾ inches.

[086.I.178] [S.F.S. #34]; structural model; n.d.; metal rods 1/8 inch diameter; 2 3/8 x 3 ¼ x 14 1/8 inches.

[086.I.179] [S.F.S. #35]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 9 ½ inches.

[086.I.180] [S.F.S. #36]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 1 ½ x 9 ¼ inches.

[086.I.181] [S.F.S. #37]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 3 1/8 x 11 inches.

[086.I.182] [S.F.S. #38]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 3 x 11 inches.

[086.I.183] [S.F.S. #39]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 ¼ x 9 ¼ inches.

[086.I.184] [S.F.S. #40]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 ¼ x 8 inches.

[086.I.185] [S.F.S. #41]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 x 3 7/8 inches.

[086.I.186] [S.F.S. #42]; structural model; n.d.; wood dowel, 1/8 inch diameter; 6 x 6 ½ x 7 ½ inches; [note: this model consists of several pieces]

Series II. Drawings.

Note: Some of the drawings and prints below do not have any project identification. Wherever possible, project names have been supplied in brackets.

[086.II.1] Assorted architectural drawings and prints for Saint-Wandrille Church, Belleville-en-Caux; architectural prints; 1 print dated 7/1/1954, 1 print dated 9/6/1955; (2 prints).

[086.II.2] Assorted architectural drawings, prints, and posters for the following projects (16 drawings, 19 prints):

- Assorted ink and pencil drawings for publications; n.d.; (11 drawings)
- Poster for "Le Ricolais, Espace, Mouvement, Structures" exhibition at the Palais de la Découverte, 1965.
- M.R.U. Pavilion; architectural drawings; 1 drawing dated 1951; (1 drawing).
- Hangar Prototype, Masevaux; architectural drawings; 1 drawing with manuscript annotation "construit 46 ?" ["built in 1946?"]; (1 drawing).
- Yaounde Parking Garage; architectural drawings; 1 drawing with manuscript annotation "Construit" ["built"]; n.d.; (1 drawing).
- Hangar, Luxeuil; architectural drawings; n.d.; (1 drawing).
- Project Comet; architectural prints; drawn by F.B.Loving; 2 prints dated 11/25/1960; 1 print with sketch on verso; (2 blueprints).
- Gyroscopic Pump; ["Pompe champ gyroscopique"]; architectural prints; 1 print dated 5/4/1923; (1 blueprint).
- "Octet Truss, Hexagonal Boundary"; architectural prints; 2 prints with color highlights; n.d. (2 prints).
- Beam with tension member for a 6-meter span ["Poutre à tirant de 6 m de portée"]; architectural prints; n.d.; [1 print originally filed with contents of folder # 086.VIII.A.11]; (2 blueline prints).
- "Ogive. Portée 32 m. Procédé Aplex. Calcul des arcs au vent" [graphic statics]; architectural prints; n.d.; (3 prints).
- "Procédé Aplex. Echafaudage Système Aplex"; architectural prints; 1 print dated 4/8/1948 and 6/15/1949; (1 print).
- [Isoflex Tube]; architectural prints; 1 print dated 2/16/1937 and stamped "O.P.L. 4/30/1937; (1 print).
- Tetrahedron Glass Skylight Structure; architectural prints; n.d.; (1 blueline print).
- Hexacore Building Frame System; architectural prints; n.d. (1 blueline print).
- "Maison Hexacore"; architectural prints, one print dated 4/30/1959, 1 print dated 4/30/1959 and 5/15/1959; 1 print with manuscript annotations on recto and sketch on verso; (2 prints).
- Agricultural Hangar Prototypes; architectural prints; 1 print dated 10/12/1947 (1 print).
- [Tetragrid Unit, Delta System]; architectural drawings; n.d.; (1 drawing).
- "Procédé Aplex. Hexagonal Blg. Isometric Space Frame"; architectural prints; n.d.; (1 print)
- [Corrugation Process]; architectural prints; n.d.; [originally filed with contents of folder # 086.VIII.A.104]; (1 print).

[086.II.3] Assorted architectural drawings and prints [miscellaneous] (5 drawings; 16 prints):

- Tetragrid Fuselage Model #1, architectural drawings; (1 drawing)
- Floor System using Queen Post trusses; architectural drawings; (2 drawings).
- "Dome Layout, House for Mr. and Mrs. Wm. Kennedy " [Brigham and Lee, architects]; architectural prints; one print with sketch and manuscript annotations on verso; date? (1 print).
- "Immeuble d'habitations suspendues (I.H.S.) [Pierre Forestier, architect]; architectural prints; prints dated 5/5/1975 and 7/15/1975; (3 prints)
- [3-D Structures Classification Table]; architectural prints; n.d.; (1 print).
- Tetragrid Space Frame System drawings; architectural prints; n.d.; (8 prints).
- [Tension Net Tube structure]; architectural prints; n.d. (1 print).
- "Derby Square, Salem"; architectural drawings; sketches on tracing paper; ca. 1974; (2 drawings) [see also correspondence between Ed Bacon and the Salem Corporation]
- "Proposal for a 24-lane bowling facility for A.M.F. Pinspotters, Inc. N.Y.; R. Le Ricolais & A. Beer, Architects and Engineers, Paris, France"; architectural prints; dated 1/14/1960; (1 print)
- Unidentified project using the Aplex floor system; architectural prints; n.d.; 1 print.

[086.II.4] Assorted architectural drawings and prints for the following projects [Double-curvature Networks] (2 drawings, 1 print):

- [Double-Curvature Network]; one print with manuscript annotations; one print dated 6/11/1959; (1 print).
- [Double-Curvature Network]; one drawing; n.d.; (1 drawing).
- [unknown project]; one drawing on tracing paper; n.d. (1 drawing)

[086.II.5] Tension Transmission Tower; assorted architectural drawings and prints [Colorado Fuel and Iron Corporation, John A. Roebling's Sons Division]; 32 prints ranging in date from 11/1963 to 4/1964; (32 prints).

[086.II.6] Assorted architectural prints for the following projects [other transmission towers] (10 prints):

- Proposed High Tension Transmission Tower; architectural prints; one print with manuscript annotations, one print marked "confidential"; n.d.; (2 blueline prints).
- Mars Pedestal with Pickup Structure for 60' Reflector; architectural prints [American Machine and Foundry Company]; one print dated 6/5/1962; one print dated 6/6/1962; one print dated 6/7/1962; (3 blueline prints).
- 60' Paraboloidal Steerable Antenna; architectural prints [American Machine and Foundry Company]; one print dated 3/30/1961; (1 blueline print).
- Aluminum Transmission Tower Type 13; architectural prints [Reynolds Company]; one print dated 10/17/1961; one print dated 11/1/1961; (2 blueline prints).
- Standard Suspension Tower; architectural prints; dated 12/3/1962; (1 print/photocopy).

- Unidentified tower project; architectural prints; n.d.; (1 print)

[086.II.7] Drawing on illustration board; "Elastic Curve"; (1 drawing).

[086.II.8] Drawing on illustration board; "Variation of a Spheric Cone"; (1 drawing).

[086.II.9] Drawing on illustration board; "Stress Distribution in a Membrane Shell Under Hydrostatic Pressure"; (1 drawing).

Series III. Photographs.

III. A. Photoprints.

[086.III.A.1] Composite Corrugated Sheet Structure; model photoprints; n.d.; (3 photoprints).

[086.III.A.2] Prototype Isoflex Tubes; model photoprints; 1 photo of load test; n.d.; (3 photoprints).

[086.III.A.3] [Space Frame]; model photoprint; 1 photo with caption "maquette exécutée à IPO Nantes" [model made at the IPO, Nantes] and dated 1937; (1 photoprint).

[086.III.A.4] Three-dimensional reticulated beams; model photoprints; n.d.; (1 photoprint).

[086.III.A.5] Model of a Vault; model photoprints; 1 photo with caption "Maquette de voûte" [Model of a Vault]; 1 photo dated 1944; (1 photoprint).

[086.III.A.6] [Hangar Prototype, LFB]; model photoprints; 1 photo with caption "Essai à LFB" [Trial at LFB] and dated 1944; (3 photoprints).

[086.III.A.7] Model of an Airplane Wing; model photoprints; 1 photo with caption "Maquette d'aile d'avion à grand allongement et à haute résistance en torsion" [Model of an airplane wing with great elongation and with high resistance to torsion]; n.d.; (1 photoprint).

[086.III.A.8] Shell Structure, Three-Dimensional Network; model photoprints; 1 photo with caption "Ossature de coque intégralement travaillant en réseaux à 3 dimensions" [Structure of a shell working entirely in three-dimensional networks.]; n.d.; (1 photoprint).

[086.III.A.9] Hangar Model, Orthogonal Net Structure; model photoprints; n.d.; (1 photoprint).

[086.III.A.10] Hangar Model, "Shed" Type; model photoprints; 1 photo by Henrot; n.d.; (3 photoprints).

[086.III.A.11] Hangar Model, Flat Arch Profile; model photoprints; 1 photo with caption "Maquette de hangar en arc surbaissé" [Hangar Model, Flat Arch Profile]; 1 photo by Henrot; n.d.; (5 photoprints).

[086.III.A.12] Highway Shelter Model; model photoprints; 1 photo with caption "Maquette d'abri routier. Porte à faux de 3,50 m. Poids au m^2 : 15 ko." [Highway Shelter Model. Cantilever: 3.5 m. Weight per m^2: 15 kg.]; n.d.; (1 photoprint).

[086.III.A.13] Hangar Model, Doubly-Curved Structure; model photoprints; 3 photos by Henrot; 1 photo with caption "Maquette de hangar à double courbure" [Hangar Model, Doubly-Curved Structure]; n.d.; (3 photoprints).

[086.III.A.14] Model of a Hangar with a Symmetrical Roof; model photoprints, 1 photo with caption "Maquette de Hangar à 2 versants symétriques" [Model of a Hangar with a symmetrical roof slope]; n.d.; (4 photoprints).

[086.III.A.15] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[086.III.A.16] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[086.III.A.17] [Hangar Model]; model photoprints; n.d.; (1 photoprint).

[086.III.A.18] [Hangar Model]; model photoprints; n.d.; (1 photoprint).

[086.III.A.19] [Roof Structure Model]; model photoprints; n.d.; (3 photoprints).

[086.III.A.20] [Curved Triangulated Beam Prototype]; model photoprints; n.d.; (3 photoprints).

[086.III.A.21] Aplex Hangar; as-built photoprints; 1 photo dated 1945; (5 photoprints).

[086.III.A.22] [Studies of Polyhedra]; model photoprints, 1 photo with caption "A gauche: Tetrakaidekaèdre de Lord Kelvin. A droite, cubo octaèdre" [Left, Lord Kelvin's tetrakaidekahedron. Right, cubo-octahedron.]; n.d.; (2 photoprints).

[086.III.A.23] Model of a Pedestrian Bridge; model photoprints; 1 photo with caption "Maquette de pont passerelle en 3 dimensions. Poutres de [illegible word] – réseaux à mailles triangulaires. Platelage en réseaux à mailles carrées" [Model of a pedestrian bridge in 3 dimensions. Beams of [illegible word] – network with triangular units. [unknown word]: network with square units.]; n.d.; (1 photoprint).

[086.III.A.24] [Hangar Project]; construction and as-built photoprints; n.d.; (9 photoprints).

[086.III.A.25] [Hangar Project]; construction and as-built photoprints; n.d.; (6 photoprints).

[086.III.A.26] Hangar Prototype, Doubly-Curved Vault; as-built photoprints; 1 photo with caption "1er prototype exécuté en 1946. Voûte à double courbure. Poids de la charpente 12 ko/m^2" [First prototype, erected in 1946. Double-curvature vault. Weight of the roof: 12 kg/m^2] and dated 1946; (26 photoprints).

[086.III.A.27] [Hangar Prototype, Nantes]; construction and as-built photoprints; 1 photo with caption "Noeud d'assemblage. Pièce en forme de V pesant 0,700 ko. Boulons de 16 mm [Assembly joint. V-shaped part, 0.7 kg. Bolts of diameter 16 mm]," 1 photo with caption "No. 2. Le voile terminé on place les goussets d'angles. Les poteaux préparés d'avance sont mis à leurs places respectives [Once the network is fully assembled, the corner gusset plates are placed in position. The preassembled posts are place in their final respective locations]," 1 photo with caption "Hangar de Nantes [Nantes hangar]," 1 photo with caption "No. 3. Le voile est placé sur cale

avant le levage [The network is placed on a temporary support before being lifted into position],"; n.d.; (25 photoprints).

[086.III.A.28] [Hangar Vault Model]; model photoprints; n.d.; (1 photoprint).

[086.III.A.29] Yaounde Parking Garage; as-built photoprints; 1 photo with caption "View of aisles," 1 photo with caption "Montage du hangar à Yaoundé-Cameroun [Construction of the hangar in Yaounde, Cameroon]," 1 photo with caption "Chantiers. Hangar à Yaoundé. Montage au sol [Construction sites. Hangar in Yaounde. Assembly on the ground]," 1 photo with caption "Chantiers – Elevation [Construction sites – Elevation]," 1 photo with caption "Interior view of the Parking Garage of Youndé Congo [sic]" and dated 1947-1948; (34 photoprints)

[086.III.A.30] Parabolic Diagonal Network; model photoprints, 1 photo with caption "Maquette de dôme [Dome model]" and dated 1947 (2 photoprints).

[086.III.A.31] Roof Structure, Paraboloid of Revolution; model photoprints; 1 photo with caption "Maquette de charpente. Paraboloïde de révolution" [Roof Structure, Paraboloid of Revolution] and dated 1948; (1 photoprint).

[086.III.A.32] Rhombohedral Dome; model photoprints, 1 photo with caption "Maquette de dôme [Dome Model]" and dated 1948 [sic], 1 photo with caption "Maquette de dôme tridimensionnel [Three-dimensional dome model]" and dated 1948. (2 photoprints).

[086.III.A.33] Diagonal Grid With Adjustable Deflections; model photoprints; 1 photo dated 1948 (1 photoprint).

[086.III.A.34] 'Umbrella Roof'; model photoprints, 1 photo with caption "Maquette de cellules d'habitation hexagonales [Model of hexagonal residential units]" and dated 1949 (1 photoprint).

[086.III.A.35] [Temporary Exhibition Pavilion, Aplex system]; as-built photoprints, 1 photo with caption "Cours la Reine. Exposition des Provinces et de l'Union française, 1949. Pavillion 100 m^2" [Exhibition of the French Union and Provinces, 1949. Exhibition pavilion, 100 m^2]; n.d.; (6 photoprints).

[086.III.A.36] [Hangar Prototype, Masevaux]; as-built photoprints, 1 photo with caption "Récent hangar réalisé à Masevaux, Ht Rhin, Filatures Nap. Koechlin" [Hangar recently erected in Masevaux, Haut-Rhin, Nap. Koechlin Textile Mills]; n.d.; (9 photoprints).

[086.III.A.37] Low-Cost Wooden Housing Units; as-built photoprints; n.d.; (1 photoprint).

[086.III.A.38] Lightweight Hexagonal Structure; model photoprints; 1 photo with manuscript caption "Maquette de structure hexagonale légère" [Model of a Lightweight Hexagonal Structure], 1 photo with roof covering; 2 photos by Henrot; n.d.; (9 photoprints).

[086.III.A.39] [Model, Lightweight Hexagonal Structure]; model photoprints; 5 photos with skin stretched over the structure; n.d.; (6 photoprints).

[086.III.A.40] M.R.U. Pavilion; construction and as-built photoprints; 1 photo with caption "Pavillion MRU" [MRU Pavilion] and dated 1950; 1 photo by Henrot dated 1950; (2 photoprints).

[086.III.A.41] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[086.III.A.42] [Hangar Model]; model photoprints, 2 photos with caption "Bhongse", 2 photos with caption "Sindhusake"; ca. 1950; (4 photoprints).

[086.III.A.43] [Roof Structure]; model photoprints; n.d.; (2 photoprints).

[086.III.A.44] Parabolograph; model photoprints; n.d.; (2 photoprints).

[086.III.A.45] [Vault Model]; model photoprints; n.d.; (6 photoprints).

[086.III.A.46] [Square-Cell Network Model]; model photoprints; 3 photos by Henrot; 1 photo with caption "Réseau à mailles carrées (Diagonales)" [Network with square cells (Diagonales)]; n.d.; (3 photoprints).

[086.III.A.47] [Hexagonal Cell Structure]; model photoprints; n.d.; (1 photoprint).

[086.III.A.48] Space Frame of Hyperbolic Paraboloid Form; model photoprints; 4 photos by Rasche; n.d.; (4 photoprints).

[086.III.A.49] [Minimal Surface Models]; model photoprints; n.d.; (6 photoprints).

[086.III.A.50] [Bridge Model]; model photoprints; n.d.; (2 photoprints).

[086.III.A.51] Sports Arena; model photoprints; 1 photoprint with caption "A600 Fall 56 Le Ricolais Sports Arena Ketzitgis"; dated 1956; (1 photoprint).

[086.III.A.52] [Stadium Roof Structure]; model photoprints; 1 photo dated 1956; (2 photoprints).

[086.III.A.53] Saint-Wandrille Church; construction and as-built photoprints; 1 photo by Ellebé; 6 postcard photoprints, 6 photos by E. Mignon; 1 photo dated 1957; (9 photoprints).

[086.III.A.54] Parabolic Dome, Triangular Grid; model photoprints; n.d.; (1 photoprint).

[086.III.A.55] [Parabolic Dome, Triangular Grid]; model photoprints; n.d.; (1 photoprint).

[086.III.A.56] Parabolic Dome, Six-Pointed Star Grid; model photoprints; n.d.; (1 photoprint).

[086.III.A.57] Parabolic Reflector; model photoprints; 3 photos dated May 1957; (3 photoprints).

[086.III.A.58] Parabolic Grid With Composite Beam Unit; model photoprints; n.d.; (1 photoprint).

[086.III.A.59] Orthogonal Network With Flat Surfaces; model photoprints; n.d.; (2 photoprints).

[086.III.A.60] Diagonal Network With Flat Surfaces; model photoprints; n.d.; (2 photoprints).

[086.III.A.61] Stella Octahedron; model photoprints; n.d.; (7 photoprints).

[086.III.A.62] [Monkey Saddle, Hexagonal Frame]; model photoprints; n.d.; (2 photoprints).

[086.III.A.63] Pretensioned Monkey Saddle, Minimal Surface Structure; model photoprints, 1 photo dated 5/11/1959; (10 photoprints).

[086.III.A.64] Suspension Bridge with Wire Network for Skyrail; model photoprints, 1 photo with caption "Modèle ancien (1958) de pont suspendu par nappes croisées" [Old model (1958) of a suspension bridge with crossed tensioned surfaces]; 1 photo dated 1958; (4 photoprints).

[086.III.A.65] [Airplane Hangar, Project T-56]; model photoprints, two photos by Henrot, two photos dated 9/8/1958 (7 photoprints).

[086.III.A.66] Monkey Saddle, Model #1; model and drawing photoprints; 1 photo of drawing; 2 photos of model; n.d.; (3 photoprints).

[086.III.A.67] Monkey Saddle, Model #2; model photoprints; n.d.; (3 photoprints).

[086.III.A.68] Aplex Space Frame; model photoprints; n.d.; (6 photoprints).

[086.III.A.69] Floor Panel; model photoprints; 1 photo with manuscript mention "Floor Panel"; n.d.; (3 photoprints).

[086.III.A.70] "Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive" [Hangar Roof]; model photoprints; n.d.; (3 photoprints).

[086.III.A.71] Monkey Saddle With Parabolic Arched Edge Beam; model photoprints; n.d.; (1 photoprint).

[086.III.A.72] [Monkey Saddle, With Skin]; model photoprints; n.d.; (1 photoprint).

[086.III.A.73] Octahedron; model photoprints; n.d.; (1 photoprint).

[086.III.A.74] Octahedron, Minimum Surface Structure; model photoprints; n.d.; (4 photoprints).

[086.III.A.75] Octahedron, Minimum Surface Structure; model photoprints; n.d.; (9 photoprints).

[086.III.A.76] Double-Curvature Network #1 (D.C.N.), Concave, Reactive; model photoprints; 1 photo with caption "Convex Reaction Tension Grid" and dated 7/4/1960; (4 photoprints).

[086.III.A.77] Orthogonal Grid System; model photoprints; n.d.; (1 photoprint).

[086.III.A.78] Vault, Orthogonal Grid; model photoprints; n.d.; (11 photoprints).

[086.III.A.79] Orthogonal Space Frame, Regular Truss System; model photoprints; n.d.; (3 photoprints).

[086.III.A.80] Diagonal Grid System; model photoprints; n.d.; (1 photoprint).

[086.III.A.81] Micro-Bubble System (M.B.S.) Model; model photoprints; n.d.; (3 photoprints).

[086.III.A.82] Funicular Polygon of Revolution, Pseudosphere; model photoprints, two photos by James Bryan; n.d.; (6 photoprints).

[086.III.A.83] Double Curvature Network, Convex Non-Reactive; model and drawing photoprints, 1 photo of drawing; 12 photos of model; two photos by James Bryan; n.d.; (13 photoprints).

[086.III.A.84] Lenticular Dome of Double Curvature Network (D.C.N.); model photoprints, 1 photo with caption "Structure à double courbure convexe en paraboloide de revolution" [Structure with double, convex curvature, paraboloid of revolution]; n.d.; (6 photoprints).

[086.III.A.85] Double-Curvature Network #2 (D.C.N.); model photoprints; n.d.; (4 photoprints).

[086.III.A.86] Double-Curvature Trigrid with Tension Ring; model photoprints; n.d.; (3 photoprints).

[086.III.A.87] Octagon Tension Grid; model photoprints; n.d.; (2 photoprints).

[086.III.A.88] Tensegrity Dome; model photoprints; n.d.; (7 photoprints).

[086.III.A.89] Set-up for Study of Trihex, Starhex, and Trigrid; model photoprints; 1 photo with manuscript mention "Set-up for Study of Trihex, Starhex, and Trigrid"; 3 photos of frame only; 8 photos of the Trigrid set-up; 7 photos of the Trihex set-up; n.d.; (18 photoprints).

[086.III.A.90] [Large Monkey Saddle]; model photoprints, 2 photos taken during construction, 4 photos of load tests; n.d.; (8 photoprints).

[086.III.A.91] [Multi-Story Hotel Complex]; model photoprints; n.d.; (2 photoprints).

[086.III.A.92] Le Ricolais Space Frame; model photoprints; n.d.; (3 photoprints).

[086.III.A.93] [Antenna, Reactive System]; model photoprints, 2 photos by George Pohl; n.d.; (4 photoprints).

[086.III.A.94] Cosmorama; model photoprints, 1 photo by George Pohl, 1 photo with caption "Maquette au 1/100 Cosmorama. 40.000 spectateurs dans une sphère creuse de 100 m de diameter" [Model of Cosmorama, scale 1:100. 40,000 spectators in a hollow sphere of 100 m diameter]; n.d.; (14 photoprints).

[086.III.A.95] Funicular Polygon of Revolution, Lemniscate B; model photoprints, 1 photo by James Bryan; n.d.; (9 photoprints).

[086.III.A.96] Funicular Polygon of Revolution (Queen Post); model photoprints; n.d.; (1 photoprint).

[086.III.A.97] [Tensioned Sphero-Vector]; model photoprints; n.d.; (7 photoprints).

[086.III.A.98] [Double-Curvature Network, Paraboloid of Revolution; model photoprints; n.d.; (3 photoprints).

[086.III.A.99] Automorphic Tube, T-6, Model #1; model photoprints; n.d.; (6 photoprints).

[086.III.A.100] Automorphic Tube, T-6, Model #2; model photoprints; n.d.; (2 photoprints).

[086.III.A.101] Automorphic Tube, T-6, Model #3; model photoprints; n.d.; (8 photoprints).

[086.III.A.102] Tension Net Construction; model photoprints; n.d.; (4 photoprints).

[086.III.A.103] [Tension Net Model]; model photoprints; n.d.; (1 photoprint).

[086.III.A.104] Funicular Polygon of Revolution, for Skyrail; model and drawing photoprints; 2 photos of drawings; 1 photo by James Bryan; 1 photo with caption "Tube automorphique comprimé par réseaux tendus" [Automorphic tube put in compression by tension nets]; three load test photos, including 1 photo with caption "Tube automorphique, essai en compression" [Automorphic tube, compression test], dated 1960, and 1 photo with caption "Essai en flexion d'un tube automorphique" [Automorphic tube in flexion, load test]; n.d.; (11 photoprints).

[086.III.A.105] Automorphic Tube, T-12, Model #4, Showing Harmonic Buckling; model photoprints, 3 photos by James Bryan; n.d.; (15 photoprints).

[086.III.A.106] T-12 Automorphic Tube; model photoprints; n.d.; (3 photoprints).

[086.III.A.107] Automorphic Tube, T-12, Model #1; model photoprints; n.d.; (3 photoprints).

[086.III.A.108] Automorphic Tube, T-12, Model #5; model photoprints; n.d.; (2 photoprints).

[086.III.A.109] Automorphic Tube, T-12, Model #2, after Buckling ; model photoprints; n.d.; (3 photoprints).

[086.III.A.110] Automorphic Tube, T-12, Model #3, after Buckling; model photoprints; n.d.; (2 photoprints).

[086.III.A.111] [Automorphic Tube, T-12, Unidentified Model, after Buckling]; model photoprints, two photos with caption "Elément d'un tube automorphique après essai de compression [Automorphic Tube Element After Buckling]", 1 photo with caption "Tube automorphique après compression [Automorphic Tube After Buckling]"; n.d.; (7 photoprints).

[086.III.A.112] Automorphic Compression Member; model photoprints; n.d.; (2 photoprints).

[086.III.A.113] [Funicular Polygon of Revolution, Momentless Structure]; model photoprints; n.d.; (2 photoprints).

[086.III.A.114] [Funicular Polygon of Revolution, Spheroid]; model photoprints; n.d.; (2 photoprints).

[086.III.A.115] T-6 Automorphic Tube; model photoprints; n.d.; (7 photoprints).

[086.III.A.116] [Pretensioned Transmission Tower]; model photoprints; n.d.; (2 photoprints).

[086.III.A.117] [Pretensioned Transmission Tower]; model photoprints; n.d.; (1 photoprint).

[086.III.A.118] [Pretensioned Transmission Tower]; model photoprints; n.d; (1 photoprint).

[086.III.A.119] Pretensioned Transmission Model #1; model photoprints, n.d.; (2 photoprints).

[086.III.A.120] Pretensioned Transmission Tower, Model #2; model photoprints, n.d.; (3 photoprints).

[086.III.A.121] Pretensioned Transmission Tower, Model #3; model photoprints, n.d.; (8 photoprints).

[086.III.A.122] [Transmission Tower]; model photoprints, 2 photos of load tests; n.d.; (2 photoprints).

[086.III.A.123] [Transmission Tower]; model photoprints, 1 photo of detail; n.d.; (1 photoprint).

[086.III.A.124] Tensioned Water Tower; model photoprints, n.d.; (5 photoprints).

[086.III.A.125] Tension Transmission Tower; model photoprints; 8 photos dated 4/17/1964; (8 photoprints).

[086.III.A.126] Plasteel Panel #1; model photoprints; n.d.; (1 photoprint).

[086.III.A.127] Plasteel Panel #2; model photoprints; n.d.; (1 photoprint).

[086.III.A.128] Tension Net Tube Coated with Epoxy and Fiberglass; model photoprints; n.d.; (3 photoprints).

[086.III.A.129] [Tension Net Tube Coated with Epoxy and Fiberglass]; model photoprints; n.d.; (1 photoprint).

[086.III.A.130] Plasteel Boat; model photoprints; n.d.; (2 photoprints).

[086.III.A.131] Boat Frame; model photoprints; n.d.; (1 photoprint).

[086.III.A.132] Catenary System With Web Under Tension; model photoprints, 9 photos of load tests, 8 photos with load test data; n.d.; (13 photoprints).

[086.III.A.133] [Catenary System with Web under Tension]; model photoprints; n.d.; (1 photoprint).

[086.III.A.134] [Lenticular Tension Net Tube Bridge for Skyrail]; model photoprints, 1 photo with mention "Bielles d'articulation du modèle de pont" ["Hinged supports of the bridge model"], 1 photo with mention "Pont prétendu – partie médiane" ["Pretensioned bridge – middle part"], two photos of load tests, 1 photo with load test data; n.d.; (9 photoprints).

[086.III.A.135] Tension Net Structure; model photoprints, one with caption "Modèle de surface torique en nappes tendues, par Mme M. Menendez" [Model of a toroidal surface with tensioned networks, by Mrs. M. Menendez]; n.d.; (3 photoprints).

[086.III.A.136] Octen Antenna, Compression Frame; model photoprints; n.d; (4 photoprints).

[086.III.A.137] Octen Antenna, a.k.a. Octagrid Antenna, Model #1; model photoprints; n.d.; (18 photoprints).

[086.III.A.138] Octen Antenna, a.k.a. Octagrid Antenna, Model #2; model photoprints; n.d.; (3 photoprints).

[086.III.A.139] Octagon Truss Transmission Tower; model photoprints; n.d.; (5 photoprints).

[086.III.A.140] Octen Antenna, 54' tall; model photoprints, 1 photo with caption "Octen Truss composed of superimposed ocathedra forming the compression members. The pretensioned cables are set at the 6 apices of the octahedra," 1 photo with caption "Poutre Octen [Octen Beam]"; n.d.; (13 photoprints).

[086.III.A.141] Triangulated Octahedron by Edge Trisection; model photoprints; n.d.; (2 photoprints).

[086.III.A.142] Trihextension Grid; model photoprints, 1 photo with caption "Pretension of a Trihex Grid," 1 photo with caption "Pretensioning Frame for 'Trihex' network, or a semi-regular tesselation of hexagons and equilateral triangles. The laminates, fiberglass & resin are bonded to the steel network," 1 photo with caption "Pretensionned plastic frame for hexagonal 'Plasteel' panels"; n.d.; (7 photoprints).

[086.III.A.143] Pretensioning Frame for a Laminate Shell; model photoprints, 2 photos with caption "Pretensioning Frame for a Laminate Shell. The pretension is achieved by a jackscrew acting on the diagonal cables. The adjustment of peripheral screws yield an uniform pretension in the orthogonal network"; n.d.; (3 photoprints).

[086.III.A.144] [Laminate Shell]; model photoprints; n.d.; (2 photoprints).

[086.III.A.145] Trihex Truss Tube; model photoprints; n.d.; (6 photoprints).

[086.III.A.146] Trihex [Suspension] Bridge; model photoprints, one with caption "H.V.T. side view"; n.d.; (31 photoprints).

[086.III.A.147] Triangulated Octahedron, Model #1; model photoprints; n.d.; (2 photoprints).

[086.III.A.148] Triangulated Octahedron, Model #2 ; model photoprints; n.d.; (2 photoprints).

[086.III.A.149] Elongated and Triangulated Octahedron, Three-Cell Unit, Model; model photoprints; n.d.; (3 photoprints).

[086.III.A.150] Elongated and Triangulated Octahedron, Model #4; model photoprints; n.d.; (1 photoprint).

[086.III.A.151] Tri-Hex Tension Roof a.k.a. Six-Sided Monkey Saddle; model photoprints, 1 photo with caption "elevation of a tension dome", 5 photos of load tests; n.d.; (24 photoprints).

[086.III.A.152] Warren Truss, Metal; model photoprints; n.d.; (1 photoprint).

[086.III.A.153] Trihex Truss; model photoprints; n.d.; (1 photoprint).

[086.III.A.154] Parabolic Warren Truss, Wooden; model photoprints; n.d.; (1 photoprint).

[086.III.A.155] Parabolic Trihex Truss, Wooden; model photoprints; n.d.; (1 photoprint).

[086.III.A.156] Parabolic Trihex Truss, Metal; model photoprints; n.d.; (1 photoprint).

[086.III.A.157] Triangulated Pyramidal Truss [Trihex]; model photoprints; n.d.; (6 photoprints).

[086.III.A.158] Howe Truss, Metal; model photoprints; n.d.; (1 photoprint).

[086.III.A.159] Octagon Truss, Metal; model photoprints; n.d.; (1 photoprint).

[086.III.A.160] Trihex Pyramid; model photoprints; n.d.; (3 photoprints).

[086.III.A.161] Trihex Bridge; model photoprints; n.d.; (3 photoprints).

[086.III.A.162] Trihex Dome; drawing and model photoprints; 3 photos of drawings; 2 photos of load tests, including 1 photo by George Pohl; n.d.; (8 photoprints).

[086.III.A.163] Double Parabolic Trihex Bridge, for Skyrail, a.k.a. Fishbridge; model photoprints, 1 photo by James Bryan, 1 photo with caption "Model—Mass Transit Bridge—1645 ft between supports" and dated 6/11/68 (21 photoprints).

[086.III.A.164] Study for Polyester-Reinforced Boat; model photoprints; n.d.; (3 photoprints).

[086.III.A.165] Omega Tower for Nineteen Wires; model photoprints; n.d.; (4 photoprints).

[086.III.A.166] Polyten Bridge, Queen Post System, Model #2; model photoprints, 1 photo by James Bryan; n.d.; (17 photoprints).

[086.III.A.167] Hexaflex Floor System, Model #1 a.k.a. King Post Hex; model photoprints; n.d.; (3 photoprints).

[086.III.A.168] Hexaflex Floor System, Model #2 a.k.a. Queen Post Hex; model photoprints, 1 photo with the students' names and dated 1968, two photos of load tests, including 1 photo with a "Queen Post Hex Loading Data" chart on the back, and 1 photo with a "King Post Hex Loading Diagram" on the back; (9 photoprints).

[086.III.A.169] Trigrid with Hexagonal Perimeter, [Hexaflex] Floor System; model photoprints, n.d. (3 photoprints).

[086.III.A.170] Starhex Grid with Hexagonal Perimeter, [Hexaflex Floor System]; model photoprints, 1 photo with "Trigrid Loading Diagram" on the back, n.d. (2 photoprints).

[086.III.A.171] Starhex Dome; model photoprints, 1 photo with dimensions on the back, three photos by James Bryan, three photos of load tests; n.d.; (12 photoprints).

[086.III.A.172] Polyten Truss; model photoprints; 2 photos of sketches; 3 photos of load tests, 1 photo by George Pohl; n.d.; (5 photoprints).

[086.III.A.173] [Polyten Bridge]; model photoprints; n.d.; (1 photoprint).

[086.III.A.174] Antitorsion Beam; model photoprints, 1 photo by James Bryan; n.d.; (5 photoprints).

[086.III.A.175] Torsion Study Model; model photoprints; n.d.; (3 photoprints).

[086.III.A.176] Diagonal Tetragrid, Parabolic, Delta System [Hangar Roof Model]; model photoprints, 1 photo by James Bryan, 1 photo with measuremens on the back; n.d.; (14 photoprints).

[086.III.A.177] Tetragrid Tube, Delta System, Model #1; model photoprints; n.d.; (3 photoprints).

[086.III.A.178] Polyten Bridge, Queen Post System, Model #1; model photoprints, 1 photo by James Bryan; n.d.; (16 photoprints).

[086.III.A.179] Polyten Bridge, Queen Post System, Model #3; model photoprints, two photos by James Bryan; n.d.; (15 photoprints).

[086.III.A.180] Polyten Bridge, Model #4; model photoprints, three photos with students; n.d.; (25 photoprints).

[086.III.A.181] Parabolic Tension Net Bridge, Skyrail Project; model photoprints; 8 photos of details; n.d.; (22 photoprints).

[086.III.A.182] Starhex Vault; model photoprints, 2 photos with caption "Starhex panel, 8' x 8' "; n.d.; (4 photoprints).

[086.III.A.183] Diagonal Tetragrid, Cylindrical, Delta System [Hangar Roof Model]; model photoprints, 1 photo by James Bryan, four photos with scale figure; n.d.; (10 photoprints).

[086.III.A.184] [Tensioned Sphero-Vector]; model photoprints; n.d.; (4 photoprints).

[086.III.A.185] [Model of Table With Four Suspended Panels]; model photoprints, 1 photo with caption "Modèle de table à 4 panneaux ouvrants [Model of a table with 4 opening panels]"; n.d.; (3 photoprints).

[086.III.A.186] Tetrahedron Glass Skylight Structure; model photoprints, 1 photo by Greg Heins; 1 photo with caption "Tetrahedron Glass Skylight Structure above Two Level Pedestrian Mall Area"; (4 photoprints).

[086.III.A.187] Octagrid Tube; model photoprints, 1 photo by James Bryan; n.d.; (1 photoprint).

[086.III.A.188] Suspension Bridge with Trihex Panels; model photoprints, 1 photo with caption "Voie intérieure" [Lower deck], 1 photo with caption "Pont Route" [Highway Bridge]; n.d.; (18 photoprints).

[086.III.A.189] Tetragrid Dome, Delta Sytem; model photoprints; n.d.; (14 photoprints).

[086.III.A.190] Polyten Bridge Unit, Queen Post Truss; model photoprints; n.d.; (3 photoprints).

[086.III.A.191] Footbridge with Trihex Panels and Polyten Cable Supports; model photoprints, 1 photo of a load test; n.d.; (4 photoprints).

[086.III.A.192] Hexagonal Octagrid Panel; model photoprints, 1 photo by James Bryan; n.d.; (14 photoprints).

[086.III.A.193] Octagrid Cupola; model photoprints; n.d.; (7 photoprints).

[086.III.A.194] Synclastic Suspended Floor System (S.S.S.), Model #1; model photoprints, 1 photo by James Bryan; n.d.; (9 photoprints).

[086.III.A.195] Synclastic Suspended Floor System (S.S.S.), Model #2; model photoprints; n.d.; (9 photoprints).

[086.III.A.196] Cantilevered Suspended Floor, Queen Post Truss; model photoprints, 1 photo of load test, 1 photo with caption "Maquette de planchers suspendus pendulaires, Vue de dessus" [Model of Cantilevered Suspended Floor, seen from above], 11 photos of drawings; n.d.; (27 photoprints).

[086.III.A.197] Suspended Floor System, Orthogonal Grid; model photoprints; n.d.; (3 photoprints).

[086.III.A.198] Suspended Floor System, Triangular Grid, Model #1; model photoprints; n.d.; (2 photoprints).

[086.III.A.199] Suspended Floor System, Triangular Grid, Model #2; model photoprints; n.d.; (3 photoprints).

[086.III.A.200] Octagrid Panel; model photoprints; n.d.; (4 photoprints).

[086.III.A.201] Octagrid Pyramid; model photoprints; n.d.; (13 photoprints).

[086.III.A.202] Synclastic Floor, Hexagonal Plan; model photoprints; n.d.; (4 photoprints).

[086.III.A.203] [Group Ludic Playground]; as-built photoprints; 5 photoprints by Group Ludic; n.d.; (5 photoprints).

[086.III.A.204] Lattice Bridge Study #1; model photoprints; n.d.; (10 photoprints).

[086.III.A.205] Lattice Bridge Study #2; model photoprints; n.d.; (7 photoprints).

[086.III.A.206] Thin Wall Hexagonal Tube, Delta System, Model #2; model photoprints; n.d.; (3 photoprints).

[086.III.A.207] Thin Wall Cylindrical Tube, Delta System, Model #4; model photoprints; n.d.; (5 photoprints).

[086.III.A.208] Orthogonal Tetragrid, Cylindrical, Delta System; model photoprints; n.d.; (9 photoprints).

[086.III.A.209] Tetra Joint; model photoprints; n.d.; (3 photoprints).

[086.III.A.210] [Plexiglas Tetragrid Model]; model photoprints; n.d.; (5 photoprints).

[086.III.A.211] Tetragrid Unit, Delta System; model photoprints; n.d.; (3 photoprints).

[086.III.A.212] Tetragrid Tube, Delta System, Model #2; model photoprints; n.d.; (5 photoprints).

[086.III.A.213] Tetragrid Fuselage, Delta System, Model #1; model photoprints; n.d.; (7 photoprints).

[086.III.A.214] Tetragrid Fuselage, Delta System, Model #2; model photoprints; n.d.; (3 photoprints).

[086.III.A.215] Tetragrid Ship Hull, Delta System; model photoprints; n.d.; (4 photoprints).

[086.III.A.216] [Model of a Tanker Ship, Delta System]; model photoprints, 1 photoprint with caption "Model of a Tanker Ship (Guncroncrete on chicken wire on both faces)"; n.d.; (5 photoprints).

[086.III.A.217] Aleph Bridge I, Tension Net Tube; model photoprints, 1 photo with dimensions; n.d.; (11 photoprints).

[086.III.A.218] Orthogonal Tetragrid, Parabolic, Delta System; model photoprints; n.d.; (8 photoprints).

[086.III.A.219] Aleph Bridge II, with Tension Rod; model photoprints; n.d.; (4 photoprints).

[086.III.A.220] Diagonal Tetragrid Panel, Delta System; model photoprints, 1 photo with caption "Panel 4 x 4 ft, weight 6 lbs"; n.d.; (6 photoprints).

[086.III.A.221] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #2; model photoprints; n.d.; (7 photoprints).

[086.III.A.222] [Sphere, Delta System]; model photoprints; 3 photoprints by Peckham; 3 photos dated 6/73; (3 photoprints).

[086.III.A.223] [Model of a Sphere]; model photoprints; n.d.; (1 photoprint).

[086.III.A.224] Prestressed Steel Beam, P.S.B. System; model photoprints, 1 photo of a load test; n.d.; (3 photoprints).

[086.III.A.225] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #1; model photoprints; n.d.; (1 photoprint).

[086.III.A.226] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #1; model photoprints; n.d.; (3 photoprints).

[086.III.A.227] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #2; model photoprints, two photos of model with stretched fabric; n.d.; (2 photoprints).

[086.III.A.228] Tetragrid, [Delta System], Circular Hyperboloid; model photoprints; n.d.; (3 photoprints).

[086.III.A.229] Tetragrid Tube, Model #3; model photoprints, two photos of load tests; n.d.; (3 photoprints).

[086.III.A.230] Diagonal Tetragrid Tube, Delta System; model photoprints; n.d.; (6 photoprints).

[086.III.A.231] King Post Floor System with Tetragrid Panels, Delta System; model photoprints; n.d.; (6 photoprints).

[086.III.A.232] Tetragrid Pylon Element, Delta System; model photoprints; n.d.; (8 photoprints).

[086.III.A.233] Tetragrid Sphere; model photoprints; n.d.; (3 photoprints).

[086.III.A.234] Tetragrid Study Model, Delta System; model photoprints; n.d.; (3 photoprints).

[086.III.A.235] [Model of Building Complex, Z.D.S. Floor System]; model photoprints; n.d.; (2 photoprints).

[086.III.A.236] Octahedron, Soap Film Structure; model photoprints; n.d.; (3 photoprints).

[086.III.A.237] Circumferentially Prestressed Tube; model photoprints; n.d.; (3 photoprints).

[086.III.A.238] Diamond Network System (D.N.S.) Bridge, Model #1; model photoprints; n.d.; (15 photoprints).

[086.III.A.239] Funicular Polygon of Revolution, Lemniscate A; model photoprints; n.d.; (4 photoprints).

[086.III.A.240] Diamond Network System (D.N.S.) Bridge, Model #2; model photoprints; n.d.; (6 photoprints).

[086.III.A.241] Diamond Network System (D.N.S.) Bridge, Model #3; model photoprints; n.d.; (11 photoprints).

[086.III.A.242] Parabolic Floor Network, Study #1, with 2 Struts; model photoprints; n.d.; (1 photoprint).

[086.III.A.243] Parabolic Floor Network, Study #2, with 5 Struts; model photoprints; n.d.; (1 photoprint).

[086.III.A.244] Parabolic Floor Network, Orthogonal; model photoprints; n.d.; (4 photoprints).

[086.III.A.245] Pretensioned Tube, T-Lock System; model photoprints; n.d.; (1 photoprint).

[086.III.A.246] Trigrid [Triangular Panel]; model photoprints; n.d.; (1 photoprint).

[086.III.A.247] Trigrid; model photoprints; n.d.; (1 photoprint).

[086.III.A.248] Octahedronal Tetrahedron; model photoprints; n.d.; (7 photoprints).

[086.III.A.249] Rhombohedral Unit; model photoprints; n.d.; (2 photoprints).

[086.III.A.250] Woven Starhex Panel; model photoprints; n.d.; (1 photoprint).

[086.III.A.251] Tied and Braced Arch; model photoprints; n.d.; (11 photoprints).

[086.III.A.252] Spatial King Post; model photoprints; n.d.; (3 photoprints).

[086.III.A.253] Spatial Queen Post; model photoprints; n.d.; (2 photoprints).

[086.III.A.254] Octagon Truss; model photoprints; n.d.; (1 photoprint).

[086.III.A.255] [King Post]; model photoprints, six photoprints of load tests; n.d.; (6 photoprints).

[086.III.A.256] [Unidentified Model Fragment]; model photoprints; n.d.; (3 photoprints).

[086.III.A.257] [Large Monkey Saddle]; model photoprints; n.d.; (1 photoprint).

[086.III.A.258] [S.F.S. #1]; model photoprints; n.d.; (3 photoprints).

[086.III.A.259] [S.F.S. #2]; model photoprints; n.d.; (3 photoprints).

[086.III.A.260] [S.F.S. #3]; model photoprints; n.d.; (3 photoprints).

[086.III.A.261] [S.F.S. #4]; model photoprints; n.d.; (3 photoprints).

[086.III.A.262] [S.F.S. #5]; model photoprints; n.d.; (5 photoprints).

[086.III.A.263] [S.F.S. #6]; model photoprints; n.d.; (3 photoprints).

[086.III.A.264] [S.F.S. #7]; model photoprints; n.d.; 3 photos with soap film; (6 photoprints).

[086.III.A.265] [S.F.S. #8]; model photoprints; n.d.; (3 photoprints).

[086.III.A.266] [S.F.S. #9]; model photoprints; n.d.; (3 photoprints).

[086.III.A.267] [S.F.S. #10]; model photoprints; n.d.; (3 photoprints).

[086.III.A.268] [S.F.S. #11]; model photoprints; n.d.; (3 photoprints).

Miscellaneous

[086.III.A.269] Miscellaneous photoprints; photos of unidentified built projects; 1 photo with caption "Théâtre E'ville Photo prise le 11.9.55" [Theater at E'ville (?) Photo taken on 9/11/55]; 1 photo by Lucien Hervé; n.d.; (12 photoprints).

[086.III.A.270] Miscellaneous photoprints; photos of drawings relating to the Aplex system and of several types of Aplex joints; 2 photos of drawings; 1 photo with caption "Etrier système Aplex (Breveté). Modèle pour échafaudage. L'étrier du poids de 1 ko. supporte un effort d'une tonne environ. Ce dispositif est applicable à des poutres triangulées permettant des portées de 10 à 12 mètres pour des charpentes démontables et des bâtiments provisoires pour Foire & expositions" [Aplex System U-bolts (patented). Scaffolding type. A U-bolt weighing 1 kg can hold up to about 1 metric ton. This device can be applied to triangulated beams, allowing for spans of 10 to 12 meters for demountable timber structures and temporary buildings for trade fairs & exhibitions]; 1 photo with caption "Assemblages : à gauche, soudé par emboitement; au milieu, Assemblage de cellule rhombe en tube—type aviation; à droite, assemblage boulonné pour réseau à mailles carrées" [Assemblies: left, welded by fit; middle: assembly of a rhombic cell in tubes, aviation type; right: bolted assembly for square-cell network]; n.d.; (30 photoprints).

[086.III.A.271] Miscellaneous photoprints; photos of soap-film experiments; 1 photo with caption "The Soap Film Formation in a Cube; Studies of the parabolic arcs caused by various flat shapes of soap film at right angles to each other"; 1 photo with caption "soap film within a cube"; 1 photo with caption "Film de savon; lumière polarisée. Hyperloïde" [Soap film; polarized light. Hyperboloid]; 4 photos dated 7/4/1960; (54 photoprints).

[086.III.A.272] Miscellaneous photographs of sketches; most photos relating to the Skyrail project; n.d.; (32 photoprints).

[086.III.A.273] Miscellaneous photographs of drawings; most photos related to the Skyrail project; photoprints of drawings; n.d.; (9 drawings).

[086.III.A.274] Miscellaneous photoprints of drawings; 2 photos on automorphism, 2 photos on soap film experiments; n.d.; (17 photoprints).

[086.III.A.275] Miscellaneous photoprints; student work published in *Architecture d'aujourd'hui*; 1953; (14 photoprints, some taped to comment sheets).

[086.III.A.276] Miscellaneous photoprints; installations using the Aplex system; ca. 1945; (4 photoprints).

[086.III.A.277] Miscellaneous photoprints; "Exposition de recherche en structure", exhibition of student structural models; exhibition photoprints; ca. 1959-60; (4 photoprints).

[086.III.A.278] Miscellaneous photoprints; Le Ricolais exhibition at the Palais de la Découverte, Paris; exhibition photoprints; 1965; 8 photos by G. Ferron; 9 photos of Le Ricolais; (21 photoprints).

[086.III.A.279] Miscellaneous photoprints; "Robert Le Ricolais, Structural Models," exhibition at the University of Pennsylvania, Meyerson Hall; ca. 1975; (3 photoprints).

[086.III.A.280] Miscellaneous photoprints; exhibitions of structural models; n.d.; (4 photoprints)

[086.III.A.281] Miscellaneous photoprints; views of Le Ricolais' structures laboratory; n.d.; (1 photoprint).

[086.III.A.282] Miscellaneous photoprints; model of a school project by M. Thomas and N. Martel with a roof using a Ricolais spaceframe; 1971; 2 photoprints and caption sheet.

[086.III.A.283] Miscellaneous photoprints; Polaroid prints; views of AIA medal poster; ca. 1976; (2 photoprints).

[086.III.A.284] Miscellaneous photoprints; photos of Robert Le Ricolais; 1 photo by Rita Robinson for *Architectural & Engineering News*; 1 photo by Henriette Grindat; 2 photos by George Pohl; 3 photos by James Bryan; 7 photos of Le Ricolais with structural models; n.d.; (29 photoprints).

[086.III.A.285] Miscellaneous photoprints; photos of Robert Le Ricolais with other people; 1 photo with Lou Kahn; 1 photo with caption "Fou" and dated 7/2/1960; 1 photo by William Douglas Gard[en?]; (5 photoprints).

[086.III.A.286] Miscellaneous photoprints; photos of Le Ricolais paintings; n.d.; (7 photoprints, including one badly damaged).

[086.III.A.287] Miscellaneous photoprints; images of radiolaria from Haeckel atlas; n.d.; (33 photoprints).

[086.III.A.288] Miscellaneous photoprints; photomicrograph of bone; n.d.; (3 photoprints).

[086.III.A.289] Miscellaneous photoprints; human skeleton; n.d.; (2 photoprints).

[086.III.A.290] Miscellaneous photoprints; tensile structure details; 1 photo dated 2/6/1960; (2 photoprints).

[086.III.A.291] Miscellaneous photoprints; photos of models by Frei Otto; 3 photos with caption "Phillipps – Gackadey[?]"; 2 photos with caption “Boyrer-Moore[?]”; n.d.; (7 photoprints).

[086.III.A.292] Miscellaneous photoprints; interior view of skating rink by S. Speer at Halle/Saale, Germany; dated 1968; 1 photo with descriptive caption in German; (1 photoprint).

[086.III.A.293] Miscellaneous photoprints; photos of sketches by Louis Kahn; n.d.; (5 photoprints).

[086.III.A.294] Miscellaneous photoprints; photos of drawings by Paul Maymont; 1 photo with caption "Meymont" [sic]; ca. 1962; (5 photoprints).

[086.III.A.295] Miscellaneous photoprints; 3 photos by Hasan Kurbanoglu; 2 photos with caption "Detail from paint"; 1 photo with caption "Atom UE Arkadasuari 970"; n.d.; (3 photoprints).

[086.III.A.296] Miscellaneous photoprints; photos of drawings and models by unidentified authors; n.d.; (5 photoprints).

[086.III.A.297] Miscellaneous photoprints; 1 photo of Tinius Olsen equipment; ca. 1964; (1 photoprint).

[086.III.A.298] Miscellaneous photoprints; 1 photo of a stool; 1 photo of a monkey-saddle type chair; 1 postcard of La Vachonnière; n.d.; (6 photoprints).

III.B. Large-Format Photoprints.

Call#	Descriptive Title
[086.III.B.1]	Funicular Polygon of Revolution, Pseudosphere; large-format photoprints; n.d.; (1 photoprint).
[086.III.B.2]	Lenticular Dome of Double Curvature Network; large-format photoprints; n.d.; (1 photoprint).
[086.III.B.3]	Le Ricolais Space Frame; large-format photoprints; n.d.; (1 photoprint).
[086.III.B.4]	[Large Monkey Saddle]; large-format photoprints; n.d.; (1 photoprint)
[086.III.B.5a-5b]	Tensioned Water Tower; large-format photoprints; n.d.; (2 photoprints).
[086.III.B.6a-6d]	Lenticular Tension Net Tube Bridge for Skyrail; large-format photoprints; n.d.; 2 photoprints of details; 1 photo of load test; (4 photoprints).
[086.III.B.7a-7b]	Parabolic Tension Net Bridge, Skyrail Project; large-format photoprints; n.d.; 1 photo of detail; (2 photoprints).
[086.III.B.8]	Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; large-format photoprint; n.d.; 1 photo of drawing; (1 photoprint).
[086.III.B.9a-9b]	Monkey Saddle drawings; large-format photoprints; n.d.; 1 photo of "Development of Monkey Saddle with Soap Film"; 1 photo of "Plan and Elevation of Monkey Saddle"; (2 photoprints).
[086.III.B.10]	[Tensioning frame]; large-format photoprint; n.d.; (1 photoprint).
[086.III.B.11]	Unidentified monkey-saddle [chair?]; large-format photoprint; n.d.; (1 photoprint).
[086.III.B.12]	[Octagrid antenna model]; large-format photoprint; n.d.; (1 photoprint).

III.C. Negatives and Contact Sheets

[086.III.C.1] Large negatives; Aplex joint system; ca. 1945; views of joint elements; (5 negatives).

[086.III.C.2] Large negatives; [curved triangulated beam prototype]; ca. 1945; construction views; (3 negatives).

[086.III.C.3] Large negatives; Aplex Hangar; 1945; construction views; (2 negatives).

[086.III.C.4] Large negatives; Hangar Prototype, Doubly-Curved Vault; 1946; construction views; (4 negatives).

[086.III.C.5] Large negatives; Hangar Prototype, Nantes; ca. 1946; construction views; (30 negatives).

[086.III.C.6] Large negatives; Yaoundé Parking Garage; 1946-47; construction views; (12 negatives).

[086.III.C.7] Large negatives; Hangar Prototype, Masevaux; ca. 1950; construction views; (3 negatives).

[086.III.C.8] Large negatives; M.R.U. Pavilion; ca. 1950; construction views; (11 negatives).

[086.III.C.9] Large negatives; Pretensioned Monkey Saddle, Minimal Surface Structure; ca. 1958; views of model; (2 negatives).

[086.III.C.10] Large negatives; Airplane Hangar, Project T-56; photograph of drawing; ca. 1958; (1 negative).

[086.III.C.11] Large negatives; Lenticular Dome of Double Curvature Network; ca. 1960; view of model; (1 negative).

[086.III.C.12] Large negatives; Funicular Polygon of Revolution for Skyrail; ca. 1961-62; views of model; (2 negatives).

[086.III.C.13] Large negatives; Tension Net Tube Coated with Epoxy and Fiberglass; ca. 1964; views of model; (2 negatives).

[086.III.C.14] Large negatives; Trihex Dome; ca. 1967-68; photographs of drawings; (6 negatives).

[086.III.C.15] Large negatives; Polyten Truss; ca. 1968; view of load test; (1 negative).

[086.III.C.16] Large negatives; Polyten Bridge, Queen Post System, Model #2; 1968; views of model; (1 negative).

[086.III.C.17] Large negatives; Parabolic Tension Net Bridge, Skyrail; ca. 1969; views of load tests; (4 negatives).

[086.III.C.18] Large negatives; Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; ca. 1970-1971; close-up view of model; (1 negative)

[086.III.C.19] Large negatives; Photographs of Robert Le Ricolais; ca. 1970; (7 negatives).

[086.III.C.20] Large negatives; photographs of a Le Ricolais airbrush painting; n.d.; (1 negative).

[086.III.C.21] 35 mm negatives; multiple views of Le Ricolais structural models kept in the collection; some views of models not in the collection; some views of Le Ricolais drawings; some views of miscellaneous materials; (359 negatives).

[086.III.C.22] 35 mm negatives; multiple views of Le Ricolais structural models kept in the collection; some views of models not in the collection; some views of Le Ricolais; some views of miscellaneous materials (1,264 negatives).

[086.III.C.23] Miscellaneous contact sheets without corresponding negatives; multiple views of Le Ricolais structural models kept in the collection; some views of load tests; some views of Le Ricolais sketches; some views of Le Ricolais models not in the collection; some views of models not by Le Ricolais; some views of miscellaneous materials.

III.D. Slides

[086.III.D.1] 35 mm slides; view of prefabricated Trihex joint element; 1 slide marked "TRI * SDC" and "Noeuds SDC" ["SDC nodes"]; n.d.; (1 slide).

[086.III.D.2] 35 mm slides; multiple views of Le Ricolais models in the collection; (410 slides).

[086.III.D.3] 35 mm slides; multiple views of Le Ricolais models in the collection; (397 slides).

Series IV. Notes, Sketches and Calculations.

Note: The following items are *unsorted* notes, sketches, and calculations; the contents of each folder was left undisturbed. As Le Ricolais often wrote on the verso (or, in some cases, the recto) of letters and other printed or manuscript material; the folders below may include correspondence, syllabi, memos, clippings, etc. When identifiable, such materials have been photocopied and the photocopy filed in the relevant series. Manuscripts which appeared complete have been pulled and filed in Series VIII; in each case, a record was made of the folder in which they were found. Contents information is indicative only. Because many of the notes, sketches, and calculations are not immediately identifiable, the folders below may contain materials concerning other projects not mentioned in the container list.

[086.IV.1] Unsorted notes, sketches, and calculations; spiral-bound notebook; includes materials on Trihex and Trigrid configurations, partition of urban space, buckling patterns, Trihex and tension net bridges; cover + 32 leaves.

[086.IV.2] Unsorted notes, sketches, and calculations; loose leaves pulled from notebook; includes materials on Perihex, Starhex, and Trigrid configurations, dome model for Philadelphia stadium, image method, Trihex bridges; 25 leaves.

[086.IV.3] Unsorted notes, sketches, and calculations; includes materials on Perihex, Starhex and Trihex configurations, octahedrons, image method, lenticular bridges, Trihex bridges, Trihex tension roof; 70 leaves.

[086.IV.4] Unsorted notes, sketches, and calculations; includes materials on transmission towers, buckling tests; 58 leaves.

[086.IV.5] Unsorted notes, sketches, and calculations; includes materials on double-curvature networks, Polyten bridges; 5 leaves.

[086.IV.6] Unsorted notes, sketches, and calculations; includes materials on grid configurations, Omega tower; 17 leaves.

[086.IV.7] Unsorted notes, sketches, and calculations; includes materials on buckling patterns, trihex configurations, image method, Warren truss vs. Trihex truss, high velocity transit systems, prestressed floor systems, Diamond Network System, square orthogonal networks, stella octahedra; 96 leaves.

[086.IV.8] Unsorted notes, sketches, and calculations; includes materials on Trihex and Starhex configurations, tensioned tube bridges, Trihex tension roof, Trihex dome, monkey saddles, Cosmorama, suspension bridges, soap film tests, transmission towers; 116 leaves.

[086.IV.9] Unsorted notes, sketches, and calculations; includes materials on tensioned net bridges, Diamond Network System, tension net tubes, image method, monkey saddles, Cosmorama; 97 leaves.

[086.IV.10] Unsorted notes, sketches, and calculations; includes materials on hexagonal floor networks, Trihex and Starhex configurations, queen post analysis, Polyten truss, automorphism; 33 leaves.

[086.IV.11] Unsorted notes, sketches, and calculations; includes materials on the image method, Polyten truss, Tetragrid, suspension bridges, tensioned net bridges, Trihex bridges, prestressed steel beams; 50 leaves.

[086.IV.12] Unsorted notes, sketches, and calculations; includes materials on suspended floors systems, Polyten beams, multi-story buildings with suspended floors, stella octahedra, orthogonal, trigrid, and octagrid networks, automorphic tubes; 32 leaves.

[086.IV.13] Unsorted notes, sketches, and calculations; includes materials on prestressed and post-stressed steel profiles, T-lock system, funicular polygons of revolution, tensioned net bridges, aplexic systems; 24 leaves.

[086.IV.14] Unsorted notes, sketches, and calculations; includes materials on space frames, hexagonal design, aleph bridges, roof structures, monkey saddles, transmission towers, bi-triangulated queen post truss, Polyten truss, Hexaflex system; 39 leaves.

[086.IV.15] Unsorted notes, sketches, and calculations; includes materials on Trihex bridges, suspended floor systems, corrugated tubes, automorphic tubes, Tetragrid tubes and vaults, pressurized containers, Octagrid, prestressed beams; 107 leaves.

[086.IV.16] Unsorted notes, sketches, and calculations; includes materials on suspended floors, Trigrid tubes, Trigrid dome; 35 leaves.

[086.IV.17] Unsorted notes, sketches, and calculations; includes materials on skeletal queen post bridges, suspended floors, Tetravault, Queen Post analysis; 14 leaves.

[086.IV.18] Unsorted notes, sketches, and calculations; includes materials on tensioned networks, automorphic tubes, octahedra, antenna towers; 50 leaves.

[086.IV.19] Unsorted notes, sketches, and calculations; includes materials on suspended floors, automorphic tubes, thin wall tubes; 35 leaves.

[086.IV.20] Unsorted notes, sketches, and calculations; includes materials on Under Sea Transit project, buildings with suspended floors, partition of urban space; 102 leaves.

[086.IV.21] Unsorted notes, sketches, and calculations; includes materials on partition of urban space, image method, octen antennas, octahedra; 22 leaves.

[086.IV.22] Unsorted notes, sketches, and calculations; includes materials on monkey saddles, grid systems; 12 leaves.

[086.IV.23] Unsorted notes, sketches, and calculations; includes materials on transmission towers, automorphic beams; 33 leaves.

[086.IV.24] Unsorted notes, sketches, and calculations; includes materials on hexagonal floor systems, grid configurations, tension net bridges; 60 leaves.

[086.IV.25] Unsorted notes, sketches, and calculations; includes materials on automorphic tubes, Trihex dome, vaults, Plasteel; 44 leaves.

[086.IV.26] Unsorted notes, sketches, and calculations; includes materials on minimal surfaces, monkey saddles; 4 leaves.

[086.IV.27] Unsorted notes, sketches, and calculations; includes materials on Trihex truss, Polyten truss, automorphism, tension net bridges, Aleph bridges, Tetragrid, pressurized tubes, Trigrid, Starhex, Octagrid configurations, antenna projects; 120 leaves.

[086.IV.28] Unsorted notes, sketches, and calculations; includes materials on high velocity transit system, partition of urban space; 15 leaves.

[086.IV.29] Unsorted notes, sketches, and calculations; includes materials on Trihex; 16 leaves.

[086.IV.30] Unsorted notes, sketches, and calculations; includes materials on automorphic tubes, grid systems; 18 leaves.

[086.IV.31] Unsorted notes, sketches, and calculations; includes materials on aplexic floors, Diamond Network System; 25 leaves.

[086.IV.32] Unsorted notes, sketches, and calculations; includes materials on queen post analysis; 13 leaves.

[086.IV.33] Unsorted notes, sketches, and calculations; includes materials on Cosmorama, Trigrid, hexagonal vs. orthogonal grid; 25 leaves.

[086.IV.34] Unsorted notes, sketches, and calculations; includes materials on Trihex applications, Cosmorama, Vacuum Radar Dish; 10 leaves.

[086.IV.35] Unsorted notes, sketches, and calculations; includes materials on Polyten truss, Trihex floor, Trihex bridges; 17 leaves.

[086.IV.36] Unsorted notes, sketches, and calculations; includes materials on transit systems; 3 leaves.

[086.IV.37] Unsorted notes, sketches, and calculations; includes materials on cantilevered beams; 6 leaves.

[086.IV.38] Unsorted notes, sketches, and calculations; includes materials on trigrid configurations; 3 leaves.

[086.IV.39] Unsorted notes, sketches, and calculations; includes materials on suspended floor systems, Diamond Network System, standardized suspended roof systems, umbrella roof, tetrahedrons, bounded and unbounded geometries, automorphism, radar dishes, king post, queen post, two- and three-hinged arches, tensioned towers, tension net bridges, corrugation; 122 leaves.

[086.IV.40] Unsorted notes, sketches, and calculations; includes materials on octen beams, stella octahedra, image method, automorphic tubes, tetragrid bridge, prestress, aleph bridges, Trihex bridge, tensioned towers, octen towers; 83 leaves.

[086.IV.41] Unsorted notes, sketches, and calculations; includes materials on indeterminate structures, automorphism, Trihex bridges, tetrahedra, hexagonal design, Trihex and Starhex configurations, suspension bridges, image method, strain energy for open configurations, redundant vs. determinate systems, hyperstatic systems, Euler and message theory, information and entropy; 38 leaves.

[086.IV.42] Unsorted notes, sketches, and calculations; includes materials on soap-film tests, tetrahedra, automorphic tubes, transmission towers; 22 leaves.

[086.IV.43] Unsorted notes, sketches, and calculations; includes materials on Aleph system, strain diagrams, Warren truss analysis, Polyten trusses, image method, umbrella roof, stress diagrams, automorphism, post-tensioned structures, partition of space, monkey saddles, continuous beams, tetragrid vaults; 95 leaves.

[086.IV.44] Unsorted notes, sketches, and calculations; includes materials on Under Sea Transit, Image method, radial vs. grid systems, triangular three-way floors, application of monkey saddles to hydraulic dams, Tetragrid vaults, Delta system, aleph bridge, optimum design, mass-transit systems, Tetragrid tubes; 118 leaves.

[086.IV.45] Unsorted notes, sketches, and calculations; includes materials on automorphism, soap-film approach to space configuration, orthogonal networks, automorphic configuration and geometric progression, pretensioned cables, anti-buckling patterns; 34 leaves.

[086.IV.46] Unsorted notes, sketches, and calculations; includes materials on graph theory, topology applied to triangulated structures, classification of configurations in tems of Euler's formula, partition of structural space, economy of marginal beams for hexagonal design, internal energy of bi-triangulated systems, Trihex and image method, Trihex hexagonal cells, secondary stresses in Trihex, graphical dome analysis; 35 leaves.

[086.IV.47] Unsorted notes, sketches, and calculations; includes materials on High Velocity Transit; 32 leaves.

[086.IV.48] Unsorted notes, sketches, and calculations; includes materials on image method, Octen antenna, transmission towers, Perihex and Starhex, hexagonal floor, logarithmic spiral, Fermat's problem; 53 leaves.

[086.IV.49] Unsorted notes, sketches, and calculations; includes materials on Polyten bridge, automorphic systems, pendular floor systems, Tetragrid, tension net tube bridges, partition of urban space, transmission towers; 109 leaves.

[086.IV.50] Unsorted notes, sketches, and calculations; includes materials on monkey saddles, micro-bubble system; 3 leaves.

[086.IV.51] Unsorted notes, sketches, and calculations; 21 leaves.

[086.IV.52] Unsorted notes, sketches, and calculations; includes materials on funicular polygons of revolution, automorphic ship hull, fiberglass bridges; 18 leaves.

[086.IV.53] Unsorted notes, sketches, and calculations; includes materials on heliport project; 11 leaves.

[086.IV.54] Unsorted notes, sketches, and calculations; includes materials on hexagonal design, Trihex bridges, Hexaflex floor system; 10 leaves.

[086.IV.55] Unsorted notes, sketches, and calculations; includes materials on Internal Pressure Systems (I.P.S.); 16 leaves.

[086.IV.56] Unsorted notes, sketches, and calculations; includes materials on antennas, Trihex bridges, suspended synclastic floor systems, orthogonal integrated floor system, Polyten truss; 32 leaves.

[086.IV.57] Unsorted notes, sketches, and calculations; includes materials on Diamond Network System, momentless structures; 13 leaves.

[086.IV.58] Unsorted notes, sketches, and calculations; includes materials on Trihex partition, Trihex dome, partition of structural space, Trihex dome, bi-triangulated networks; 39 leaves.

[086.IV.59] Unsorted notes, sketches, and calculations; includes materials on Octen truss, octahedra; 4 leaves.

[086.IV.60] Unsorted notes, sketches, and calculations; includes materials on Internal Pressure Bubble System, Internal Pressure Membranes, monkey saddles; 12 leaves.

[086.IV.61] Unsorted notes, sketches, and calculations; includes materials on funicular polygons of revolution, automorphism, double curvature tension system, topological approach; 20 leaves.

[086.IV.62] Unsorted notes, sketches, and calculations; includes materials on cycloids, brachystochrones, tension net tube bridges, aerial mass transit project for Philadelphia, suspended urban transit system; 45 leaves.

[086.IV.63] Unsorted notes, sketches, and calculations; includes materials on automorphic configurations, Skyrail; 21 leaves.

[086.IV.64] Unsorted notes, sketches, and calculations; includes materials on sphero-vectors, heliport project, planar triangular networks, Euler's law, fuselage design, tension vs. compression systems; 42 leaves.

[086.IV.65] Unsorted notes, sketches, and calculations; includes materials on transmission towers; 44 leaves.

[086.IV.66] Unsorted notes, sketches, and calculations; includes materials on double curvature networks, diamond network system, monkey saddles, radiolaria, pressurized membranes; 104 leaves.

[086.IV.67] Unsorted notes, sketches, and calculations; includes materials on Zero Deflection System (Z.D.S.); 15 leaves.

[086.IV.68] Unsorted notes, sketches, and calculations; 7 leaves.

[086.IV.69] Unsorted notes, sketches, and calculations; includes materials on Cylindrical Tube Net, bridges and trusses, Trihex partition, I.M.P.; 21 leaves.

[086.IV.70] Unsorted notes, sketches, and calculations; includes materials on pretensioned networks, double curvature networks, pressurized membranes, Comet project; 56 leaves.

[086.IV.71] Unsorted notes, sketches, and calculations; includes materials on load tests, High Velocity Transit; 16 leaves.

[086.IV.72] Unsorted notes, sketches, and calculations; includes materials on slent beams under bending moments, delta roof system, Octagrid, prestress (Freyssinet), redundant vs. determinate systems, Image method; 50 leaves.

[086.IV.73] Unsorted notes, sketches, and calculations; includes materials on Cosmorama, monkey saddles, Tetragrid, soap film test, triangular configurations, automorphic tube vs. thin tube; 33 leaves.

[086.IV.74] Unsorted notes, sketches, and calculations; includes materials on space frames, transmission towers, tensioned 3-D trusses, stella octahedra, deflection of Warren trusses; 40 leaves.

[086.IV.75] Unsorted notes, sketches, and calculations; includes materials on Mohr's theorem, membrane resistance, sinusoids, catenaries, conservation of energy in suspension systems, hexahedra, tower deflection, pressurized networks, fundamentals of strength of materials, multi-combinatorial 3-axial circulatory system, imaginary numbers and trigonometry; 55 leaves.

[086.IV.76] Unsorted notes, sketches, and calculations; includes materials on Starhex panel, Starhex vs. Trigrid vs. orthogonal configurations, conoids, monkey saddles, application of monkey saddles to hydraulic dams; 83 leaves.

[086.IV.77] Unsorted notes, sketches, and calculations; includes materials on Trigrid, Starhex, woven grid structures, prestress by bending, Starhex vs. orthogonal configurations, Trihex dome, Polyten truss; 63 leaves.

[086.IV.78] Unsorted notes, sketches, and calculations; notebook; includes materials on bowstring roof and floor systems, lenticular trusses, monkey saddles, pressurized tubular roof system, corrugation; 36 leaves.

[086.IV.79] Unsorted notes, sketches, and calculations; loose leaves from notebook; includes materials on pressurized systems, deflection in king posts; 4 leaves.

[086.IV.80] Unsorted notes, sketches, and calculations; includes materials on radar dishes; 3 leaves.

[086.IV.81] Unsorted notes, sketches, and calculations; includes materials on planar representation of carbon atoms, structures and boundary conditions; 2 leaves.

[086.IV.82] Unsorted notes, sketches, and calculations; includes materials on Image Method, combinatorial topology, Poisson's ratio, cybernetics, funicular polygons, topological relationship between structures and stresses, space frame analysis, spicular polyhedra; 18 leaves.

[086.IV.83] Unsorted notes, sketches, and calculations; includes materials on diagonal vs. orthogonal planar grids, simply supported frame, 2- and 3-pinned arches, space frames, Aplex system, paraboloids of revolution, hexagonal hangar; 58 leaves.

[086.IV.84] Unsorted notes, sketches, and calculations; includes materials on Euler's number for orthogonal networks, Image Method, theory of number arrangement, network stress diagram, hexagonal networks, extension of Euler's law to partially closed diagrams, relationships between plane and space partition, automorphic configurations, growth of an hexagonal arborescence, bimorphism, dual automorphism, double-curvature networks, redundancy of automorphic configurations, network connectivity, optimum shape for a column, resilient structures; 74 leaves.

[086.IV.85] Unsorted notes, sketches, and calculations; includes materials on Image Method, automorphism, hexagonal networks, double-curvature networks, octahedra, determinate and redundant systems, Cosmorama, Euler's law, partition of space; 140 leaves.

[086.IV.86] Unsorted notes, sketches, and calculations; includes materials on tension net tube bridge, Skyrail; 3 leaves.

[086.IV.87] Unsorted notes, sketches, and calculations; includes materials on conditions of stability in stress diagrams, space frame design, 14 leaves.

[086.IV.88] Unsorted notes, sketches, and calculations; includes materials on double-lemniscate pavilion, logarithmic spiral, water tower; 55 leaves.

[086.IV.89] Unsorted notes, sketches, and calculations; includes materials on tension radar dish, space frames, reticulated beams; 9 leaves.

[086.IV.90] Unsorted notes, sketches, and calculations; includes materials on similitude, Skyrail tests, corrugated tubes; 69 leaves.

[086.IV.91] Unsorted notes, sketches, and calculations; includes materials on Image Method, minimal surfaces, internal pressure systems, tension net tubes, Cosmorama, automorphic growth; 53 leaves.

[086.IV.92] Unsorted notes, sketches, and calculations; includes materials on grid analysis, monkey saddles, circular grids, hexagonal grids; 16 leaves.

[086.IV.93] Unsorted notes, sketches, and calculations; includes materials on network analysis, moment and deflection in circular slabs, internal pressure in tubular shells, Trihex grid analysis, stability in planar grid configurations; 60 leaves.

[086.IV.94] Unsorted notes, sketches, and calculations; includes materials on deflection of two-sheet tension structures, automorphic tubes, elastic curves of revolution, tension net tubes, polyten truss, trisected queen post, Starhex floor; 59 leaves.

[086.IV.95] Unsorted notes, sketches, and calculations; includes materials on hexagonal tensioned networks, hexagonal spatial partition, Starhex and Trihex configurations, Trihex partition of urban space; 105 leaves.

[086.IV.96] Unsorted notes, sketches, and calculations ["Philosophical Investigations" folder]; includes quotations and aphorisms from other authors, notes from readings, English-French word lists; also includes notes on approaches to form, controlled intuition, study of form, automorphism, architectural education, program for an Institute for advanced structures, prestress, Louis Kahn, ecology, Trihex and Starhex structural patterns, issues of scale, history of structures, iconic meaning of the image, models, science of forms, overpopulation; 85 leaves.

[086.IV.97] Unsorted notes, sketches, and calculations; includes quotations and aphorisms from other authors, notes from readings, English-French word lists; also includes notes on automorphic tubes, transmission towers tests, automorphic compression members, experiments on structures, models of tensile structures, High Velocity Transit system, partition of urban space; 18 leaves.

[086.IV.98] Unsorted notes, sketches, and calculations; includes quotations and aphorisms from other authors, notes from readings, unspecified catalogue contents lists, suppliers lists; also includes materials on topological approach for the computation of stresses, Cosmorama model, material specifications; 11 leaves.

[086.IV.99] Unsorted notes, sketches, and calculations; includes reading notes; also includes materials on automorphic tubes, topology, moving buildings, soap film experiments, Skyrail, exhibition of experimental structures, monkey saddles, aerial transit system for Philadelphia, T-lock system, program of research; 39 leaves.

[086.IV.100] Unsorted notes, sketches, and calculations; includes materials on gyroscopic machines; 6 leaves.

[086.IV.101] Unsorted notes, sketches, and calculations; 2 leaves.

[086.IV.102] Unsorted notes, sketches, and calculations; includes materials on three-dimensional systems; 1 leaf.

[086.IV.103] Unsorted notes, sketches, and calculations; includes materials on stress failures; 4 leaves.

[086.IV.104] Unsorted notes, sketches, and calculations; includes materials on Skyrail project; 4 leaves.

[086.IV.105] Unsorted notes, sketches, and calculations; includes materials on automorphic tubes, internal pressure systems; includes annotated copy of the Corning Glass Works brochure "Properties of Selected Commercial Glasses"; brochure and 47 additional leaves.

[086.IV.106] Unsorted notes, sketches, and calculations; contents of a folder titled "Octen"; includes materials on Octen towers, multiple-cell configurations, flexural tests, tensioned Octen systems, minimum surfaces, Trihex grid analysis; 73 leaves.

[086.IV.107] Unsorted notes, sketches, and calculations; includes materials on the image method; 25 leaves.

[086.IV.108] Unsorted notes, sketches, and calculations; includes materials on prestressed concrete, reinforced concrete, tied arches, reinforcement, towers; 54 leaves.

[086.IV.109] Unsorted notes, sketches, and calculations; includes materials on networks as building structures; 1 leaf.

[086.IV.110] Unsorted notes, sketches, and calculations; contents of a folder titled "Excerpts"; includes notes from readings, pylons; 16 leaves.

[086.IV.111] Unsorted notes, sketches, and calculations; includes materials on automorphic tubes; 6 leaves.

[086.IV.112] Unsorted notes, sketches, and calculations; includes materials on Vallette's analysis of pressurized tubes, radiolaria; 2 leaves.

[086.IV.113] Unsorted notes, sketches, and calculations; includes materials on Trihex bridges, Trihex fuselage, automorphic tubes, Delta roof system; 8 leaves (photocopies).

[086.IV.114] Unsorted notes, sketches, and calculations; includes materials on Trihex vs. Orthogonal and Trigrid configurations, Louis Kahn, automorphic configurations in the plane and in space, internal energy of bi-triangulated systems, grid analysis, strain diagram for trusses; 60 leaves (photocopies; some apparent duplicates).

[086.IV.115] Unsorted notes, sketches, and calculations; includes materials on automorphic queen post; 2 leaves.

[086.IV.116] Unsorted notes, sketches, and calculations; leaf which was enclosed in the April 1968 issue of Engineering Journal; includes materials on trigonometry; 1 leaf.

[086.IV.117] Unsorted notes, sketches, and calculations; includes materials on Trigrid computation for deflection at center, Starhex; 12 leaves.

[086.IV.118] Unsorted notes, sketches, and calculations; includes materials on compared deformation of a simple automorphic triangulation and an equilateral triangle; 1 leaf.

[086.IV.119] Unsorted notes, sketches, and calculations; includes materials on Trihex and Starhex; 2 leaves.

[086.IV.120] Unsorted notes, sketches, and calculations; includes materials on tensioned Octen systems; 4 leaves.

[086.IV.121] Unsorted notes, sketches, and calculations; includes materials on topology of redundance; redundancy in double-curvature networks; soap-film configurations & Euler relationships; soap-film angle; automorphic configurations; 16 leaves [including a "table of contents" in another person's handwriting].

[086.IV.122] Unsorted notes, sketches, and calculations; includes materials on topology of the Trihex; Trihex truss; Infra-structure for Intercity Rapid Transit; Octagrid network; Transportation networks; 20 leaves.

[086.IV.123] Unsorted notes, sketches, and calculations; includes materials [reading notes?] on Alain's *Système des beaux arts*; 3 leaves.

[086.IV.124] Unsorted notes, sketches, and calculations; includes materials on Trihex grid; 5 leaves.

[086.IV.125] Unsorted notes, sketches, and calculations; includes materials on suspended floors; 14 leaves.

[086.IV.126] Unsorted notes, sketches, and calculations; includes materials on compared analysis between orthogonal and hexagonal systems, tetrahedrons, Tetragrid and Tetrabeam under load; 13 leaves.

[086.IV.127] Unsorted notes, sketches, and calculations; includes materials on tension systems, Greek mythology, the Bible, notes from readings, quotations and maxims, newspaper clipping; 24 leaves.

[086.IV.128] Unsorted notes, sketches, and calculations; includes materials on octahedrons and tetrahedrons; 3 leaves.

[086.IV.129] Unsorted notes, sketches, and calculations; includes materials on flexural tests; 3 leaves.

[086.IV.130] Unsorted notes, sketches, and calculations; includes materials on hexagonal design; 4 leaves.

[086.IV.131] Unsorted notes, sketches, and calculations [materials which had been removed for the 1995 exhibit]; includes materials on aerial mass transit, Polyten truss, monkey saddles, funicular polygons of revolution, internal pressure systems, Trihex bridges, Omega transmission tower, tennis racquet analysis, transmission towers, Cosmorama; 51 leaves.

[086.IV.132] Unsorted notes, sketches, and calculations [materials which had been removed for the 1995 exhibit]; includes drawings of trees, figures, facial expression; 4 leaves.

[086.IV.133] Unsorted notes, sketches, and calculations [folder compiled at a prior date and filed with the patent materials]; includes materials on multi-story buildings; 4 leaves.

[086.IV.134] Unsorted notes, sketches, and calculations [folder compiled at a prior date and filed with the patent materials]; includes materials on multi-story buildings, internal pressure systems, acoustics, automorphism, garage project [?], bridges; 15 leaves.

[086.IV.135] Unsorted notes, sketches, and calculations; includes materials on Trihex bridge, automorphic tube bridge for Skyrail; 3 leaves.

[086.IV.136] Unsorted notes, sketches, and calculations; removed from "Maginot" correspondence file; 1 leaf.

[086.IV.137] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of letter to the American Iron and Steel Institute.; 1 leaf.

[086.IV.138] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of letter to Philippe Coyette; 1 leaf.

[086.IV.139] Unsorted notes, sketches, and calculations; Xerox copy; originals on verso of correspondence with Architecture d'Aujourd'hui; 7 leaves.

[086.IV.140] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter from Vito A. Girone; 1 leaf.

[086.IV.141] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter from Anthony Hill; 1 leaf.

[086.IV.142] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter to the James Lincoln Arc Welding Foundation; 1 leaf.

[086.IV.143] Unsorted notes, sketches, and calculations; Xerox copy; originals filed with correspondence with Joe Katula; 2 leaves.

[086.IV.144] Unsorted notes, sketches, and calculations; Xerox copy; originals filed with correspondence with Haresh Lalvani; 2 leaves.

[086.IV.145] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter from Z.S. Makowski; 2 leaves.

[086.IV.146] Unsorted notes, sketches, and calculations; Xerox copy; originals on a letter from Twentieth Century Fund; 2 leaves.

[086.IV.147] Unsorted notes, sketches, and calculations; Xerox copy; originals on a letter to P. Youtz; 2 leaves.

[086.IV.148] Unsorted notes, sketches, and calculations; Xerox copy; originals on a letter to Norman Rice; 1 leaf.

[086.IV.149] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter to T.A.R.S.; 1 leaf.

[086.IV.150] Unsorted notes, sketches, and calculations; Xerox copy; originals on correspondence with R. Vallette; 2 leaves.

[086.IV.151] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter to Josef Albers; 1 leaf.

[086.IV.152] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter to Baldwin Lima Hamilton; 1 leaf.

[086.IV.153] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter to John Baker; 1 leaf.

[086.IV.154] Unsorted notes, sketches, and calculations; Xerox copy; original on recto of a letter from Architectural design; 1 leaf.

[086.IV.155] Unsorted notes, sketches, and calculations; Xerox copy; original on correspondence with Richard Moyes; 1 leaf.

[086.IV.156] Unsorted notes, sketches, and calculations; Xerox copy; original on verso of a letter from Editions Anthony Krafft; 1 leaf.

[086.IV.157] Unsorted notes, sketches, and calculations; Xerox copy; original on correspondence with E. I. du Pont de Nemours Company, Film Department; 2 leaves.

[086.IV.158] Unsorted notes, sketches, and calculations; 1 leaf.

[086.IV.159] Unsorted notes, sketches, and calculations; Xerox copy; original on correspondence with R.P. Marie Maynard; 2 leaves.

[086.IV.160] Unsorted notes, sketches, and calculations; includes materials on the T-56 system, compression tubes, Polyten truss, monkey saddles, plane hangar, vaults, grid analysis, monkey saddles; 101 leaves.

[086.IV.161] Unsorted notes, sketches, and calculations; includes materials on the Le Ricolais Trihex dome; 1 leaf.

[086.IV.162] Unsorted notes, sketches, and calculations; includes materials on the Polyten bridge, image method, involution, automorphism, megastructures, triangulation, Trihex and Starhex, Aplex; 90 leaves.

[086.IV.163] Unsorted notes, sketches, and calculations; first of two folders with the contents of a three-ring binder marked "Illinois" [teaching materials?]; includes materials on hexagonal structures, prestressed concrete, pretension, high tensile wires, triangulated beams, Freyssinet's prestressing theory, Diagrid system, wind analysis; 87 leaves.

[086.IV.164] Unsorted notes, sketches, and calculations; second of two folders with the contents of a three-ring binder marked "Illinois" [teaching materials?]; includes materials on hexagonal design, highway crossings, hangar types, city highway systems and traffic flow, triangular networks, indeterminate structures, beam stresses; 87 leaves.

[086.IV.165] Unsorted notes, sketches, and calculations; includes materials on king posts, queen posts, and on "Hôtel des postes de Dreux-Extension" project, 15 leaves.

[086.IV.166] Unsorted notes, sketches, and calculations; folder titled "Tens[ion] Net Tube"; includes materials on Trihex tasselation, flexural texts on tension net tubes, aerial mass transit system, Roebling's Suspenarch, cyclo[rail tube]; 68 leaves.

[086.IV.167] Unsorted notes, sketches, and calculations; originally with the contents of folder 086.IV. 168; annotated copy of *Annales de l'institut technique du bâtiment et des travaux publics* (March-April 1949) [includes several articles by Roger Vallette], with additional comments on loose sheets; journal issue and 9 additional leaves.

[086.IV.168] Unsorted notes, sketches, and calculations; folder titled "Calculs-Surf[aces] Minima"; 60 leaves; includes materials on minimal surfaces, monkey saddles, soap film configurations, prestressed membranes, hexagonal patterns; 58 leaves.

[086.IV.169] Unsorted notes, sketches, and calculations; contents of a three-ring binder [teaching materials?]; stresses in beams, deflection in three-cell and four-cell networks, closed configurations, polyhedra, space-filling arrangements, cell networks and configurations, Pyrhex networks, Aplex networks, combinatorial topology; 116 leaves.

[086.IV.170] Unsorted notes, sketches, and calculations; contents of a folder titled "Hydro-Dam Model"; includes materials on dams, soap film configurations; helicoidal tubes, water towers; 28 leaves.

[086.IV.171] Unsorted notes, sketches, and calculations; includes materials on urban patterns, monkey saddles, automorphism, transmission towers; 108 leaves.

[086.IV.172] Unsorted notes, sketches, and calculations; contents of a folder titled "Lab-Students" and "Notices"; includes materials on the extension of the graphical method applied to the study of stresses in 3-dimensional systems, transmission towers; 3 leaves.

[086.IV.173] Unsorted notes, sketches, and calculations; 4 leaves.

[086.IV.174] Unsorted notes, sketches, and calculations; includes materials on dynamic axifugal forces in semi-flexible systems, aerial transit system; 9 leaves.

[086.IV.175] Unsorted notes, sketches, and calculations; includes materials on internal pressure systems, triangular grid networks; 19 leaves.

[086.IV.176] Unsorted notes, sketches, and calculations; contents of a folder titled "Theory of Surplus & Function"; 6 leaves.

[086.IV.177] Unsorted notes, sketches, and calculations; includes materials on flexible chains, hyperbolic functions; 6 leaves.

[086.IV.178] Unsorted notes, sketches, and calculations; contents of a folder titled "Skyrail"; 51 leaves.

[086.IV.179] Unsorted notes, sketches, and calculations; includes materials on automorphic tubes, forms and structures, automorphic configurations, experimental tests, delta system, sinusoidal functions; 22 leaves.

Series V. Correspondence.

Note: Arranged alphabetically by correspondent. Correspondence with government agencies, universities, and businesses is filed under the entity's name, with the names of individual correspondents within the entity in brackets. Personal correspondence on business letterhead is listed under the individual's name. Date ranges are indicative, but folders may contain undated and/or duplicate items. Correspondence on specific subjects may be found throughout the collection.

[086.V.1] Abernathy, Constance; 1961; 1 item, 1 leaf.

[086.V.2] ABT Associates [Albert G. H. Dietz]; 1968; 1 item, 1 leaf.

[086.V.3] Académie d'Architecture [Guillaume Gillet; Robert Auzelle]; 1970-1976; 3 items, 3 leaves.

[086.V.4] Actuel 65 [C. Cook]; 1965; 2 items, 4 leaves.

[086.V.5] Albers, Josef; 1955-1963; 7 items, 7 leaves, 4 photostats, 1 announcement.

[086.V.6] American Institute of Architects [William Marshall Jr.; Louis de Moll; John M. McGinty, Maurice Payne]; 1975-1977; 8 items, 11 leaves [includes correspondence from G. Holmes Perkins].

[086.V.7] American Institute of Architects, Philadelphia Chapter [Charles E. Broudy]; 1967-1968; 3 items, 3 leaves.

[086.V.8] American Institute of Steel [R. J. Beiner]; 1974; 1 item, 1 leaf.

[086.V.9] American Iron & Steel Institute; n.d.; 2 item, 2 leaves.

[086.V.10] Andrade, Preston; 1959-1962; 9 items, 15 leaves.

[086.V.11] Andrews; n.d.; 1 item, 1 leaf.

[086.V.12] Architectural Design [Monica Pidgeon]; 1965-1970; 5 items, 5 leaves.

[086.V.13] Architectural Forum [Vernon Read; Peter Blake]; 1952-1960; 6 items, 6 leaves.

[086.V.14] Architecture d'aujourd'hui [André Bloc; Alexandre Persitz; Danielle Valeix; Renée Diamant-Berger]; 1960-1967; 28 items, 33 leaves.

[086.V.15] Architecture, Formes, Fonctions [Anthony Krafft]; 1965-66; 5 items, 5 leaves.

[086.V.16] Architecture française; 1975; 1 item, 1 leaf.

[086.V.17] Architecture Plus [William M. Martin; Harold Adams; Donal R. Simpson]; 1962-1963; 3 items, 4 leaves.

[086.V.18] Arts [Mr. Parinaud]; 1964; 1 item, 1 leaf.

[086.V.19] Assenov, Assen; 1978; 2 items, 2 leaves.

[086.V.20] Atelier Patrix; 1964; 1 item, 1 leaf.

[086.V.21] Autoclave Engineers, Inc.; 1962; 1 item, 1 leaf.

[086.V.22] Bacon, Ed; 1974; 2 items, 3 leaves, 2 photoprints [includes correspondence from the Salem Corporation]. [see also: City of Philadelphia City Planning Commission; see also Series II, Drawings]

[086.V.23] Baker, John; 1966; 1 item, 1 leaf.

[086.V.24] Baldwin Lima Hamilton; 1960; 2 items, 2 leaves.

[086.V.25] Bannister, Turpin [University of Illinois]; 1950-1953; 5 items, 13 leaves [incl. correspondence to Wallace K. Harrison].

[086.V.26] Barrucand, Roger; 1963; 2 items, 2 leaves.

[086.V.27] Battersea College of Technology; n.d.; 1 item, 1 leaf.

[086.V.28] Bauen + Wohnen [Franz Füeg]; 1967; 4 items, 6 leaves.

[086.V.29] Belgodère, P.; 1959; 2 items, 2 leaves.

[086.V.30] Bercovici, T.; 1973, 1 item, 1 leaf [envelope only].

[086.V.31] Berge, Claude; 1960; 1 item, 1 leaf.

[086.V.32] Bertin & Cie; 1965; 1 item, 1 leaf.

[086.V.33] Bethlehem Steel Corporation [J. T. Gearhart; F. E. Fahy] 1966-1975; 9 items, 9 leaves.

[086.V.34] Botsai, Overstreet & Rosenberg; 1976; 1 item, 1 leaf.

[086.V.35] Bouboulidi-Thompson, Rita; 1962; 1 item, 9 leaves.

[086.V.36] Boudon, P.; n.d.; 1 item, 1 leaf.

[086.V.37] Budd Company [Edward G. Budd, Jr.]; 1965; 3 items, 4 leaves.

[086.V.38] Budd Corporation [Michael Watter]; 1960; 3 items, 3 leaves.

[086.V.39] Building Research Institute [John H. Costinett, Jr.; Harold Horowitz; Milton Coon; Jean Houtchens]; 1961-1962; 7 items, 9 leaves.

[086.V.40] C.A.M.P.U.S. [M.L. Thomas; L. Godin; Ch. Bouchaud]; 1966; 1 item, 1 leaf.

[086.V.41] Carmel, Mordehay; 1969; 1 item, 1 leaf.

[086.V.42] Carnegie-Mellon University, (formerly Carnegie Institute of Technology) [Joseph E. Spagnuolo; Paul Schweikher; Nessly Porter; William Huff; Delbert Highlands; Charles M. Eastman; Terry Gebhard]; 1959-1969; 10 items, 24 leaves.

[086.V.43] Centre belgo-luxembourgeois d'information de l'acier [G. N. Balbachevsky]; 1966; 1 item, 1 leaf.

[086.V.44] Centre scientifique et technique du bâtiment; 1963-1966; 2 items, 2 leaves.

[086.V.45] Chelsea Publishing Co.; n.d.; 1 item, 1 leaf.

[086.V.46] Choay, Françoise; 1962; 1 item, 1 leaf.

[086.V.47] Chermayeff, Serge; 1951; 1 item, 1 leaf.

[086.V.48] Chevalier, Michel; 1967; 1 item, 1 leaf.

[086.V.49] Chevallier; n.d.; 1 item, 1 leaf.

[086.V.50] City of Philadelphia, City Planning Commission [Edmund N. Bacon]; 1965-1968; 2 items, 2 leaves.

[086.V.51] Clemson University [Harlan McClure]; 1972; 1 item, 1 leaf.

[086.V.52] Cohen, Mr. and Mrs. Louis M.; 1962; 1 item, 2 leaves.

[086.V.53] Coignet, André; 1970; 1 item, 1 leaf.

[086.V.54] Columbia University [Richard Weinstein; Romaldo Giurgola]; 1966-1968; 2 items, 2 leaves.

[086.V.55] Contemporary Arts Center, Cincinnati [Wheeler, Richard H.]; 1965-66; 3 items, 6 leaves.

[086.V.56] Construtora Martins-Engel [H. Martins de Oliveira]; 1954; 1 item, 2 leaves.

[086.V.57] Cope, Linder, Walmsley; 1970; 1 item, 1 leaf.

[086.V.58] Copeland, Lammot du Pont; 1964; 2 item, 3 leaves. [see also E.I. du Pont de Nemours]

[086.V.59] Coquard; n.d.; 1 item, 1 leaf.

[086.V.60] Cornell University [Charles W. Pearman; Raymond DiPasquale]; 1964-1965; 5 items, 9 leaves.

[086.V.61] Cornet, Jean-Pierre; 1969; 1 item, 1 leaf.

[086.V.62] Corning Glass Works [Charles L. Schreiber; Robert Reese]; 1962-1970; 5 items, 6 leaves.

[086.V.63] Cornoldi, Adriano; 1978; 1 item, 3 leaves.

[086.V.64] Cowan, Henry J.; 1961; 17 items, 31 leaves.

[086.V.65] Coyette, Philippe; 1968; 3 items, 4 leaves.

[086.V.66] Cross, Hardy; 1951; 2 items, 2 leaves.

[086.V.67] Danzer & Aymard [approximate spelling]; n.d.; 1 item, 1 leaf.

[086.V.68] Dassault, Marcel; 1956; 1 item, 1 leaf.

[086.V.69] de Boisseson, P. [S.E.M.A.E.C.]; 1968; 2 items, 2 leaves.

[086.V.70] Deflandre, J. [Ecole pratique des hautes études]; 1968; 1 item, 1 leaf.

[086.V.71] de la Godelinais [approximate spelling], R.; 1980; 1 item, 2 leaves.

[086.V.72] Delaporte, Emmanuel; 1968; 1 item, 3 leaves.

[086.V.73] Dillon, E. C.; 1961; 1 item, 1 leaf.

[086.V.74] Dober, Paddock, Upton and Associates, Inc.; 1968; 2 items, 3 leaves.

[086.V.75] Dorazio, Piero; 1961; 1 item, 1 leaf.

[086.V.76] Dornier, Jean; n.d.; 1 item, 1 leaf.

[086.V.77] duCharme, Jean-Louis; n.d.; 1 item, 2 leaves.

[086.V.78] du Château, Stéphane; 1961-1974; 9 items, 25 leaves [incl. correspondence with Z. S. Makowski; see also I.R.A.S.S.].

[086.V.79] Dumont, M. and S.; n.d.; 1 item, 1 leaf.

[086.V.80] Dupeu, M.; 1952; 1 item, 5 leaves.

[086.V.81] E. I. du Pont de Nemours & Company, Engineering Department [C.H. Topping]; 1961; 2 items, 2 leaves.

[086.V.82] E. I. du Pont de Nemours & Company, Film Department [B. H. Kirk]; 1960-1963; 3 items, 4 leaves.

[086.V.83] E. I. du Pont de Nemours & Company, Plastics Department; 1974; 1 item, 2 leaves.

[086.V.84] Dupuy, Gisèle; 1967-1968; 3 items, 4 leaves.

[086.V.85] Editions Anthony Krafft; 1962-1971; 5 items, 5 leaves.

[086.V.86] Elalouf, David; 1972; 1 item, 1 leaf.

[086.V.87] Emmerich, D. G.; 1964-1965; 6 items, 47 leaves, 1 magazine clipping, 8 photoprints.

[086.V.88] ENERPAC [John E. Eiring]; 1973; 1 item, 3 leaves.

[086.V.89] Engineering News-Record [Allen Soast]; 1969; 1 item, 1 leaf.

[086.V.90] Englebert, J.; 1964; 3 items, 5 leaves.

[086.V.91] Eshbaugh, W. P.; 1962; 1 item, 1 leaf.

[086.V.92] Euthenix 68 [Fred Lebensold]; 1968; 2 items, 2 leaves.

[086.V.93] F.A.I.A. [Max O. Urbahn; Scott Ferebee, Jr.]; 1972; 1 item, 1 leaf.

[086.V.94] Faure, Emile; 1956-60; 8 items, 10 leaves.

[086.V.95] Faure, Louise; 1963-1969; 5 items, 5 leaves.

[086.V.96] Fayeton, Jean; 1968; 1 item, 1 leaf.

[086.V.97] Federal Highway Administration [N. O. Clary]; 1972; 1 item, 2 leaves.

[086.V.98] Fernand Hazan Editeur; 1964; 1 item, 2 leaves.

[086.V.99] Fitzgibbons, James; 1953-1970; 2 items, 3 leaves [incl. correspondence with Albert H. Payne]

[086.V.100] Forestier, Pierre, a.k.a. Pedro; 1958-1971; 10 items, 12 leaves.

[086.V.101] Franklin Institute; 1965; 1 item, 1 leaf.

[086.V.102] Frédet, Jacques and David Elalouf; 1972; 1 item, 1 leaf.

[086.V.103] Friedlich, Ruth and Ben Gallinger; 1959; 1 item, 1 leaf.

[086.V.104] Friedman, Jonathan; 1969; 1 item, 1 leaf.

[086.V.105] Fuller Research Foundation; 1953; 1 item, 1 leaf.

[086.V.106] General Motors Corp., Ford Company; n.d.; 1 item, 1 leaf.

[086.V.107] George M. Ewing Company; 1968; 3 items, 5 leaves.

[086.V.108] Gerber, Michel; 1967; 1 item, 1 leaf.

[086.V.109] Gero, John S.; n.d.; 1 item, 1 leaf.

[086.V.110] "Gi"; n.d; 4 items, 4 leaves.

[086.V.111] Gilbert, André; 1961; 2 items, 3 leaves.

[086.V.112] Girone, Vito A.; 1956; 1 item, 1 leaf.

[086.V.113] Giurgola, Aldo; n.d.; 3 items, 3 leaves.

[086.V.114] Glyka, Matila; n.d.; 1 item, 1 leaf.

[086.V.115] Gordon Low Plastics Ltd; 1966; 1 item, 1 leaf.

[086.V.116] Grace, Nancy; n.d.; 1 item, 1 leaf.

[086.V.117] Grand prix international d'urbanisme et d'architecture [J. Bétourne, Ionel Schein]; 1968-69; 7 items, 16 leaves [includes clippings and brochures].

[086.V.118] Group Ludic [Simon Koszel]; 1971; 2 items, 4 leaves.

[086.V.119] Guévrékian, Gabriel; 1959-1966; 6 items, 6 leaves.

[086.V.120] Guillaud, Hubert [on behalf of himself, Patrick Bardou, and Varoujan Arzoumanian]; 1975; 1 item, 1 leaf.

[086.V.121] Gutenberg; 1963; 1 item, 1 leaf [envelope only], 3 transparencies.

[086.V.122] Gutheim, Frederick; 1953; 2 items, 2 leaves.

[086.V.123] Guyon, Yves; 1962; 2 items, 10 leaves.

[086.V.124] Guyot, P.; 1964; 1 item, 1 leaf.

[086.V.125] Hamel, M. F.; n.d.; 1 item, 1 leaf.

[086.V.126] Harary (Professor); n.d.; 1 item, 1 leaf.

[086.V.127] Harrison & Abramovitz Architects; 3 items, 3 leaves.

[086.V.128] Hart, John B.; 1963; 2 items, 2 leaves.

[086.V.129] H & K Marketing [Donald Levin]; 1966; 1 item, 2 leaves.

[086.V.130] Harvard University, Counsellor for Foreign Students; 1953; 1 item, 1 leaf.

[086.V.131] Harvard University Graduate School of Design [C. H. J. Keppler; José Luis Sert; Frederick Bruck; Jerzy Soltan; Alexander Tzonis; Urs Gauchat]; 1953-1974; 17 items, 18 leaves.

[086.V.132] Haug, Roar; 1958; 1 item, 2 leaves.

[086.V.133] Hazard Advertising Company, Inc.; 1961; 1 item, 2 leaves.

[086.V.134] Hernandez, Ed; 1953; 1 item, 1 leaf.

[086.V.135] Hewson; n.d.; 1 item, 1 leaf.

[086.V.136] Hidalgo; n.d.; 1 item, 1 leaf.

[086.V.137] Hill, Anthony; 1970; 4 items, 6 leaves.

[086.V.138] Holland, Christine; n.d.; 1 item, 1 leaf.

[086.V.139] Hollingshead Corporation [W. H. Lukens]; 1959; 1 item, 1 leaf.

[086.V.140] Horizon [Mr. Buehr]; n.d.; 1 item, 1 leaf.

[086.V.141] Howard, Seymour; 1965; 1 item, 1 leaf.

[086.V.142] Hysol Corporation [Joseph W. Tierney]; 1 item, 1 leaf.

[086.V.143] Inspection des contributions directes [French Internal Revenue Service]; n.d.; 1 item, 1 leaf.

[086.V.144] Institut national de la propriété industrielle [French National Patent and Trademark Office]; 1964; 1 item, 2 leaves.

[086.V.145] International Association of Shell Structures [Akira Enami]; 1971; 7 items, 11 leaves.

[086.V.146] International Conference on Space Structures [R. M. Davies; W. J. Supple]; 1966-1975; 9 items, 25 leaves. [see also Makowski, Z. S.]

[086.V.147] International Congress on Prestressed Metal Structures; 1971; 1 item, 1 leaf.

[086.V.148] I.R.A.S.S. [Institut de recherche et d'application des structures spatiales; Stéphane du Château]; 1968-1977; 5 items, 17 leaves.

[086.V.149] Italian Trade Commissioner [Lucio Caputo]; 1969; 1 item, 6 leaves.

[086.V.150] Jackson; 1963; 1 item, 1 leaf.

[086.V.151] James Lincoln Arc Welding Foundation; 1940-1945; 2 items, 11 leaves; 3 photoprints.

[086.V.152] Jeune Chambre Economique de Liège [Léo Wéry]; 1964; 1 item, 1 leaf.

[086.V.153] Joly, P.; n.d.; 1 item, 3 leaves.

[086.V.154] John Simon Guggenheim Memorial Foundation; 1971; 1 item, 1 leaf.

[086.V.155] Jones, Myron, and Jones, Chris [Mrs. C. M. Jones]; 1951-1975; 38 items, 87 leaves; 2 contact photoprints [includes correspondence with Andrée Pierre, Pierre Forestier, and Cyril Stanley Smith]

[086.V.156] Kahn, Charles H.; 1978; 2 items, 3 leaves [correspondence with Peter McCleary about Le Ricolais].

[086.V.157] Kahn, Louis I.; 1953-1965; 3 items, 3 leaves.

[086.V.158] Katula, Joe; 1961; 2 items, 3 leaves.

[086.V.159] Kaufman, E.; 1968; 1 item, 1 leaf.

[086.V.160] Kepes, Gyorgy; 1953; 1 item, 1 leaf.

[086.V.161] Ketoff, Serge; n.d.; 1 item, 4 leaves.

[086.V.162] Kirby, Ronald E.; 1963; 2 items, 2 leaves.

[086.V.163] Kreier, George Jr.; 1961-1962; 8 items, 19 leaves [incl. documentation], 2 photoprints.

[086.V.164] Lairy, Alan K. [University of Illinois – Urbana]; n.d.; 1 item, 1 leaf.

[086.V.165] Lalonde, Jean-Louis; 1963; 4 items, 5 leaves.

[086.V.166] Lalvani, Haresh; 1967; 4 items, 6 leaves.

[086.V.167] Laprade, Albert; 1965-1966; 3 items, 3 leaves.

[086.V.168] Larrain, Sergio; 1974-1975; 7 items, 14 leaves [incl. correspondence from Paul T. Steege]

[086.V.169] Leblond, Claude; 1966; 2 items, 2 leaves.

[086.V.170] Leefe, James Morrison; 1962; 6 items, 7 leaves.

[086.V.171] Lehmann, Conrad Roland; 1963; 1 item, 1 leaf.

[086.V.172] Levinson; n.d.; 1 item, 1 leaf.

[086.V.173] Liu, Robert C.; 1961; 2 items, 2 leaves.

[086.V.174] Lockheed Missiles & Space Company; 1964; 1 item, 2 leaves.

[086.V.175] Lods, Marcel; 1967; 2 items, 2 leaves [includes correspondance to Pierre Vago].

[086.V.176] Loschetter, Léon; 1963; 2 items, 2 leaves.

[086.V.177] Loving, Franklin B.; 1959; 2 items, 2 leaves.

[086.V.178] Lundy, Lawrence; 1961; 1 item, 1 leaf.

[086.V.179] Madjuy [approximate spelling]; n.d.; 1 item, 1 leaf.

[086.V.180] Maginot; n.d.; 2 items, 2 leaves.

[086.V.181] Makowski, Z. S.; 1960-1974; 25 items, 44 leaves.

[086.V.182] Malcomson, Reginald F.; 1959-1976; 8 items, 9 leaves.

[086.V.183] Manufacturing Chemists' Association, Inc. [F. H. Carman]; 1964; 2 items, 2 leaves.

[086.V.184] Marion, Paule; 1963-1965; 2 items, 3 leaves.

[086.V.185] Markwardt, L. J.; 1950; 1 item, 3 leaves.

[086.V.186] Marshall, Ian (Mr. and Mrs.); 1978; 1 item, 1 leaf.

[086.V.187] Maynard, R. P. Marie; n.d.; 1 item, 1 leaf.

[086.V.188] McClain, Edward F.; 1960; 1 item, 1 leaf.

[086.V.189] McCleary, Peter; 1966-1977; 37 items, 82 leaves [incl. correspondence with Andrée Pierre]

[086.V.190] McGill University [John Bland]; 1964-1965; 3 items, 4 leaves.

[086.V.191] McGraw-Hill Book Company, Inc. [Donald Hepler]; 1963; 3 items, 3 leaves.

[086.V.192] McLeod, Mrs.; n.d.; 1 item, 1 leaf.

[086.V.193] Mermel, T. W. [U.S. Department of the Interior]; 1965-1970; 11 items, 13 leaves [includes correspondence from Reynolds Metal Company].

[086.V.194] Messinger, Alex; 1969-1970; 6 items, 10 leaves.

[086.V.195] Meyer, William T.; 1968; 1 item, 1 leaf.

[086.V.196] Meyerson, Martin; 1972; 1 item, 1 leaf.

[086.V.197] Michel, Guy; 1967; 1 item, 1 leaf.

[086.V.198] Micmacker, Claude; 1967; 1 item, 1 leaf.

[086.V.199] Ministère des Affaires Culturelles, Ecole nationale supérieure des Beaux-arts [N. Untersteller; J. P. Martin]; 1965-1970; 7 items, 16 leaves.

[086.V.200] Ministère des Affaires Culturelles, Unité pédagogique no.5 [F. Lucquin]; 1970; 2 items, 2 leaves.

[086.V.201] Ministère des Affaires Culturelles, Service Enseignement de l'Architecture et des Arts Plastiques [Roger Delarozière]; 1972; 1 item, 2 leaves

[086.V.202] Ministère des Affaires Culturelles, Institut de l'Environnement [Jean Quentric]; 1972; 1 item, 1 leaf.

[086.V.203] Mistachutdinov, Ilias; 1975; 3 items, 3 leaves, 1 photoprint.

[086.V.204] M.I.T. Press [Carroll G. Bowen; Katherine Robbins]; 1967; 3 items, 5 leaves.

[086.V.205] Museum of Modern Art [William Alex]; 1954; 1 item, 1 leaf.

[086.V.206] Mondev Corporation, Ltd. [Frank Pagotto]; 1974; 1 item, 4 leaves.

[086.V.207] Monsanto Chemical, Plastic Division; n.d.; 1 item, 1 leaf.

[086.V.208] Montel, Paul; n.d.; 1 item, 1 leaf.

[086.V.209] Moyes, Richard; 1966; 2 items, 2 leaves.

[086.V.210] Mumford, Lewis; n.d.; 3 items, 3 leaves.

[086.V.211] Musée des Beaux-arts, Nantes [Claude Souviron]; 1967-1968; 4 items [including 1 newspaper clipping], 4 leaves.

[086.V.212] Naslund, Kenneth C. [Skidmore, Owings & Merrill]; 1959; 2 items, 5 leaves.

[086.V.213] New York Port Authority [Irvine Gould]; 1969; 4 items, 6 leaves.

[086.V.214] New York Times; 1959; 1 item, 1 leaf.

[086.V.215] Nielsen, Sigrid; 1969; 1 item, 1 leaf [envelope only]

[086.V.216] Nilsson, John B.; 1969; 2 items, 2 leaves.

[086.V.217] North, Byron B.; 1968; 1 item, 1 leaf.

[086.V.218] North Carolina State College, School of Design [H. Kemphoefner]; 1962; 3 items, 6 leaves.

[086.V.219] North Carolina State College, Student Publications of the School of Design [Forrest W. Coile, Jr.]; 1953-1954; 5 items, 7 leaves.

[086.V.220] Oden, Haldun; 1972; 1 item, 1 leaf.

[086.V.221] Office Central Interprofessionnel de Logement [A. Vibert]; [incl. correspondence to Mr. Lamunière]; 1968; 3 items, 5 leaves.

[086.V.222] [Okie], Jesse; 1975; 1 item, 2 leaves.

[086.V.223] Oppenheimer, Robert; 1956; 1 item, 2 leaves.

[086.V.224] Osborne, Mrs.; n.d.; 1 item, 1 leaf.

[086.V.225] Otto, Frei; 1960-1968; 15 items, 16 leaves.

[086.V.226] Owens-Corning Fiberglass Corporation [Games Slayter]; 1962; 1 item, 1 leaf.

[086.V.227] Padminimurthy, N. S.; 1967; 1 item, 1 leaf.

[086.V.228] Palais de la Découverte, Paris [C. Campaux, M. Bayen]; 1966-1966; 3 items, 3 leaves.

[086.V.229] Palmer, Laurence; 1961; 1 item, 1 leaf.

[086.V.230] Perilstein, Edgar; 1970; 1 item, 1 leaf.

[086.V.231] Perkins, Holmes; 1953-1967; 17 items, 22 leaves.

[086.V.232] Petit, Eugène Claudius; 1964-1965; 2 items, 2 leaves.

[086.V.233] Philadelphia College of Art [George D. Culler]; 1972; 1 item, 1 leaf.

[086.V.234] Pingusson, G. H.; 1965-1972; 5 items, 5 leaves.

[086.V.235] Pohl, Jens G.; 1966; 1 item, 1 leaf.

[086.V.236] Pommeroy, Lynn; 1970; 1 item, 1 leaf.

[086.V.237] Popko, Edward; 1968-1969; 2 items, 2 leaves.

[086.V.238] Pratt Institute, School of Architecture [Louis Lionni; Thomas Branham]; 1968; 2 items, 3 leaves.

[086.V.239] Princeton University [R. W. McLaughlin]; n.d.; 1 item, 1 leaf.

[086.V.240] Progressive Architecture [Burton H. Holmes; James T. Burns; Forrest Wilson; Joyce Reback; Clinton Page]; 1960-1972; 30 items, 45 leaves.

[086.V.241] Province of Québec Association of Architects [Francis J. Nobbs; Gilles Marchand]; 1963-1964; 3 items, 3 leaves.

[086.V.242] Prus, Victor and Maria; 1964; 1 item, 1 leaf.

[086.V.243] Publimétal [Mr. Bonnefoi]; 1966; 1 item, 1 leaf.

[086.V.244] Rabinovich, Guillermo; 1962; 10 items, 14 leaves.

[086.V.245] Rademacher, Hans; 1962; 3 items, 3 leaves.

[086.V.246] Ragon, Michel; 1965; 1 item [includes 1 journal clipping], 3 leaves,.

[086.V.247] Réalités [Marc Gaillard; Gilles Anouil]; 1963-1969; 3 items, 4 leaves.

[086.V.248] Remondet, André; 1968; 1 item, 1 leaf.

[086.V.249] Rensselaer Polytechnic Institute [Keith McPheeters; Neil Macindoe]; 1968-1973; 2 items, 2 leaves.

[086.V.250] Revault d'Allonnes, Olivier; 1962; 1 item, 1 leaf.

[086.V.251] Reynolds Metal Co., a.k.a. Reynolds Aluminum Service Corporation of Virginia [Walter Ekblau; Karl Angermayer; J. H. Fields; Alfred H. Williams, D.L. Brown, T.W. Mermel]; 1960-1968; 12 items, 16 leaves [includes correspondence from Preston Andrade].

[086.V.252] Rice, Norman; 1966-1977; 8 items[incl. correspondence with Frederic R. Mann and with Carlos Enrique Vallhonrat], 8 leaves.

[086.V.253] Richards; n.d.; 1 item, 1 leaf.

[086.V.254] Richards, Brian; 1966; 1 item, 1 leaf.

[086.V.255] Riedel, W. R.; 1968-1971; 3 items, 3 leaves.

[086.V.256] Riesco Grez, Hernan; 1974-1975; 4 items, 7 leaves [including correspondence from Paul T. Steege].

[086.V.257] Robertson, Robert; n.d.; 1 item, 1 leaf.

[086.V.258] Robertson, W. D.; 1963-1965; 2 items, 2 leaves.

[086.V.259] Rostagnat, Paul; 1968-70; 2 items, 2 leaves.

[086.V.260] Rougeron, Camille; 1963; 1 item, 1 leaf.

[086.V.261] Rubinstein, Mrs.; n.d.; 1 item, 1 leaf.

[086.V.262] Ruddock, E. C.; 1971; 3 items, 3 leaves

[086.V.263] Ruijssenaars, Hans; 1973; 1 item, 2 leaves.

[086.V.264] Safdie, Moshe; 1963; 3 items, 4 leaves.

[086.V.265] Sanders, Walter [University of Michigan]; 1958-1960; 13 items, 22 leaves.

[086.V.266] Saoror [approximate spelling]; n.d.; 1 item, 1 leaf.

[086.V.267] Sarger, René; 1963; 2 items, 2 leaves.

[086.V.268] Sawyer, Henry W.; 1964; 2 items, 2 leaves.

[086.V.269] Schein, Ionel; 1968; 2 items, 24 leaves.

[086.V.270] Schöfl, Günther; 1959; 1 item, 1 leaf.

[086.V.271] Schub; n.d.; 1 item, 1 leaf.

[086.V.272] Sciences; n.d.; 2 items, 2 leaves.

[086.V.273] Scientific American [Dennis Flanagan; Norman D. Newell]; 1956-1972; 4 items, 8 leaves, including 1 offprint and 1 clipping.

[086.V.274] Shell Chemical Company [F. P. Dilworth]; 1964; 1 item, 1 leaf.

[086.V.275] Shen, Ning; n.d.; 1 item, 1 leaf.

[086.V.276] Smaggia, André; 1968; 2 items, 4 leaves.

[086.V.277] Smith, Cyril S. [Institute for the Study of Metal]; 1953-1961; 3 items, 3 leaves.

[086.V.278] Snyder, Dr. Carl E.; n.d.; 1 item, 1 leaf.

[086.V.279] Social Security Administration; 1962; 1 item, 1 leaf.

[086.V.280] Société des amis d'Auguste Perret; n.d.; 1 item, 2 leaves.

[086.V.281] Société des gens de lettres [Robert Dupuy]; 1974; 1 item, 2 leaves.

[086.V.282] Société suisse [a.k.a. vaudoise] des ingénieurs et des architectes [Ed. Paillex; G. Nicod; R. Willomet; ; 1963-1964; 6 items, 7 leaves.

[086.V.283] Society of the Plastics Industry, Inc. [Charles L. Condit]; 1964; 3 items, 3 leaves.

[086.V.284] Staber, Margit; 1967; 2 items, 2 leaves.

[086.V.285] Stanford Research Institute [E. G. Chilton]; 1967; 9 items, 9 leaves.

[086.V.286] State Building Committee, Council of Ministers, U.S.S.R. [I. A. Ganichev]; 1971; 1 item, 1 leaf.

[086.V.287] Stuart, Duncan; 1963; 4 items, 5 leaves.

[086.V.288] TABS [Mary M. Morris]; 1968; 2 items, 2 leaves.

[086.V.289] T.A.R.S. [M.C.J. Harrington]; n.d.; 1 item, 1 leaf.

[086.V.290] Taylor & Sons; 1961; 1 item, 3 leaves [incl. correspondence to Bell Telephone Company].

[086.V.291] Techniques et Architecture [Max Blumenthal]; 1969; 1 item, 1 leaf.

[086.V.292] Technische Hochschule Graz [Walter Hildebrand]; 1967; 2 items, 2 leaves.

[086.V.293] Technische Universität Berlin [von Beckerath; Polónyi; von Buttlar]; 7 items, 7 leaves.

[086.V.294] Terry, Fernando Belaunde; 1965; 1 item, 1 leaf.

[086.V.295] Terzian, Yervant; 1961-1962; 3 items, 3 leaves.

[086.V.296] Texas A & M College [William Martin]; 1962; 2 items, 3 leaves.

[086.V.297] Tichauer, Otto; n.d.; 1 item, 1 leaf.

[086.V.298] Time Magazine; 1964; 3 items, 3 leaves.

[086.V.299] Timsales, Ltd [Frank T. Henson]; 1969-1970; 7 items, 9 leaves including 1 clipping.

[086.V.300] Tinius Olsen Testing Machine Co.; 1964; 1 item, 1 leaf.

[086.V.301] Toby; n.d.; 2 items, 2 leaves.

[086.V.302] Tomaszewski, Lech; 1959-1974; 4 items, 4 leaves.

[086.V.303] Tomazinis, Anthony; 1966-1970; 3 items, 3 leaves.

[086.V.304] Truesdell, C.; 1963; 1 item, 1 leaf.

[086.V.305] T.R.W., Inc. [Douglas Stenhouse]; 1973; 1 item, 1 leaf.

[086.V.306] Twentieth-Century Fund [August Heckscher]; 1965; 2 items, 2 leaves.

[086.V.307] Tyrmand; n.d.; 1 item, 1 leaf.

[086.V.308] United States Department of Housing and Urban Development [H.W. Merrit]; 1967; 1 item, 3 leaves.

[086.V.309] United States Department of Justice, Immigration and Naturalization Service [Salturelli, A. J.]; 1958; 2 items, 2 leaves.

[086.V.310] United States Joint Construction Agency [H. J. Fitzpatrick]; 1953; 1 item, 2 leaves.

[086.V.311] United States of America, Paris Embassy; 1965; 3 items, 4 leaves.

[086.V.312] Université permanente des architectes Rhône-Alpes; 1966-1968; 8 items, 13 leaves.

[086.V.313] University of Arizona, Tucson [Sidney W. Little]; 1959; 2 items, 2 leaves.

[086.V.314] University of Detroit [Bruno Leon]; 1962; 1 item, 1 leaf.

[086.V.315] University of Florida, Gainesville [James T. Lendrum]; 1964-1965; 8 items, 8 leaves.

[086.V.316] University of Illinois, Chicago Circle [Robert Kostka; Klindt Houlberg]; 1967; 10 items, 10 leaves.

[086.V.317] University of Illinois, Urbana [Alan K. Laing]; 1959; 1 item, 1 leaf.

[086.V.318] University of Minnesota [R. Rapson]; 1959; 2 items, 2 leaves.

[086.V.319] University of Pennsylvania, Comptroller's Office; 1962; 1 item, 1 leaf.

[086.V.320] University of Pennsylvania, Director of Foreign Students [Esther H. Leeds; E. Digby Baltzell; John F. Melby]; 1954-1959; 5 items, 6 leaves.

[086.V.321] University of Pennsylvania, Graduate School of Fine Arts [G. Holmes Perkins; Grant Manson; Peter Shepheard; Myrna Quitel]; 1955-1977; 12 items, 17 leaves.

[086.V.322] University of Pennsylvania, Honary Degrees Committee; 1972; 1 item, 1 leaf.

[086.V.323] University of Pennsylvania Library; 1963; 1 item, 1 leaf.

[086.V.324] University of Pennsylvania Museum; n.d.; 1 item, 1 leaf.

[086.V.325] University of Pennsylvania, Office of the President; 1963-1968; 3 items, 3 leaves.

[086.V.326] University of Pennsylvania University Press [Rochelle M. Corson]; 1967-1968; 3 items, 3 leaves.

[086.V.327] University of Virginia [John V. Yanik; William Zuk]; 1969-1971; 3 items, 3 leaves.

[086.V.328] University of Wisconsin; 1971; 1 item, 2 leaves.

[086.V.329] Untersteller, Mrs.; n.d.; 1 item, 1 leaf. [see also, Ministère des Affaires Culturelles, Ecole nationale supérieure des Beaux-arts]

[086.V.330] Utudjian, Edouard; 1968; 1 item, 1 leaf.

[086.V.331] Vallette, R.; 1952-1974; 25 items, 29 leaves, 1 newspaper clipping, 1 magazine clipping, 6 photoprints [the photoprints and magazine clipping were placed loose at the back of this folder at an earlier date].

[086.V.332] Vallhonrat, Carles Enric [Carlos Enrique]; 1976; 3 items, 3 leaves.

[086.V.333] Vallhonrat, Leslie; n.d.; 1 item, 1 leaf.

[086.V.334] Venturi, Robert; n.d.; 1 item, 1 leaf.

[086.V.335] Virginia Polytechnic Institute [Gordon Echols]; 1969; 3 items, 4 leaves.

[086.V.336] Vranckx, Georges; 1969; 1 item, 2 leaves.

[086.V.337] Wachsmann, Konrad; 1950-1967; 8 items, 14 leaves.

[086.V.338] Weber, Joseph; 1962; 4 items, 8 leaves, 1 brochure, 6 photoprints.

[086.V.339] Weidlinger, Paul; 1970; 1 item, 1 leaf.

[086.V.340] Westinghouse Corporate Center [Peter Favot]; 1971; 1 item, 1 leaf.

[086.V.341] Westinghouse Electric Corporation [Redding, A. H.; Reed Agnew]; 1956; 4 items, 8 leaves [incl. a note by Emile Faure titled "Remarks on the letter from Westinghouse"].

[086.V.342] Weyerhaeuser Company [C. W. Masterman]; 1970; 1 item, 1 leaf.

[086.V.343] Wheaton, W.; n.d.; 1 item, 1 leaf.

[086.V.344] Wilbur Smith & Associates [Herbert S. Levinson]; 1956; 1 item, 2 leaves.

[086.V.345] Wilenko, L. K.; n.d.; 1 item, 1 leaf.

[086.V.346] Williams, Robert Edward; 1970; 1 item, 1 leaf.

[086.V.347] Yale University, Department of Architecture [Shirley Davenport; Mr. Brewer]; 1961-1962; 3 items, 5 leaves.

[086.V.348] Yale University, Perspecta [Warren J. Cox]; 1960; 1 item, 3 leaves.

[086.V.349] Yanoviak, Andrew Charles; 1976; 1 item, 1 leaf.

[086.V.350] Yersin, Al; 1960-1974; 4 items, 5 leaves, 1 stamp.

[086.V.351] Youtz, P. [University of Michigan, Ann Arbor]; n.d.; 1 item, 1 leaf.

[086.V.352] Yves; n.d.; 1 item, 2 leaves.

[086.V.353] Zodiac [Maria Bottero]; 1971; 4 items, 12 leaves.

[086.V.354] Letters of recommendation [Terence Noel Ainscow, Z. Simaika; Charles Burnette; T. Vreeland; Jean duCharme; W.A. Birrer, Mr. Thiébaut]; 1961-1963; 7 items, 7 leaves.

[086.V.355] Petition letter; signed by Le Ricolais, Makowski, du Château, and Serge Ketoff; 1962; 1 item, 1 leaf.

[086.V.356] Letters to unidentified correspondents; some items dated 1950-1965; 44 items, 45 leaves.

[086.V.357] Letters from unidentified correspondents; some items dated 1969-1974; 18 items, 20 leaves.

[086.V.358] Correspondence about the Robert Le Ricolais papers; 1977-1982; 2 items, 9 leaves.

Series VI. Patent and Business files (patent applications, notes, and correspondence).

Note: Some of the patent and business files were organized thematically, by patent application, by Peter McCleary. Because many of the items are not dated, it was not possible to organize the folders chronologically; therefore, the order in which the folders were found has been preserved. Each of the subseries VI.A contains early French patent files for patents obtained prior to Le Ricolais's coming to America. Series VI.B. through VI.L concerns a different patent application and may contain related correspondence, notes, sketches, and calculations. Series VI.M contains other patent and business files which had not been organized previously. Correspondence is organized chronologically and may include copies of patent applications and/or filed amendments to patent applications. Within folders, each subfolder contains papers which were originally clipped together. Each subfolder, which may include letters and enclosures, is counted as one item. Documents on paper prone to fading (early photocopies, thermofax paper) have been photocopied onto archival paper and the archival copies placed together with the item copied. Archival copies are clearly marked as such and were not counted. Large-scale drawings have been moved to Series II. This series contains # photoprints.

VI. A. Early French Patent Files

[086.VI.A 1] Early French patent file; "Procédé de construction de corps creux métalliques et produits en resultant"; French patent no. 782,112 dated February 21, 1934; 5 leaves.

[086.VI.A 2] Early French patent file; "Procédé de fabrication d'éléments métalliques pour constructions métalliques et constructions mécaniques"; French patent no. 777,583 dated August 24, 1934; 5 leaves.

[086.VI.A 3] Early French patent file; "Elément d'assemblage pour constructions métalliques"; French patent no. 797,177 dated January 22, 1935; 5 leaves.

[086.VI.A 4] Early French patent file; "Perfectionnements aux procédés de construction"; French patent no. 907,012 dated March 25, 1944; 1 leaf [Plate 1 missing]

[086.VI.A 5] Early French patent file; "Joints d'assemblage pour constructions réticulées"; French patent no. 912,240 dated February 16, 1945; 1 leaf.

[086.VI.A 6] Early French patent file; "Perfectionnements aux brides d'assemblage"; French patent no. 991, 788 dated May 18, 1949; 1 leaf.

[086.VI.A 7] Early French patent file; "Panneaux de parois en revêtements travaillant à la flexion"; French patent no. 1,092,370 dated October 6, 1953; 1 leaf.

VI. B. Heliport

[086.VI.B.1] Materials related to "Heliport"; French patent application filed by Emile Faure and Robert Le Ricolais for "Soufflerie d'atterrissage & d'envol pour aéronefs"; dated July 31, 1956; typescript and reproduction of drawing; 4 leaves.

[086.VI.B.2] Materials related to "Heliport"; Emile Faure, "Note on a Theory of Jet Air Flow"; dated August 1956; reproduction of manuscript; 9 leaves.

[086.VI.B.3] Materials related to "Heliport"; Robert Le Ricolais, "Transport & Communications. T.E.F.A.P. Terrestrial Energy for Aerial Propulsion"; dated August 1956; typescript; 5 leaves.

[086.VI.B.4] Materials related to "Heliport"; related notes, sketches, and calculations; manuscript; 14 leaves.

VI.C. Structural Systems [Systèmes de construction]

[086.VI.C.1] Materials related to the patent application for "Systèmes de Construction"; French patent no. 1,196,729; dated 6/7/1958; [2 copies]; 6 leaves.

[086.VI.C.2] Materials related to the patent application for “Structural Systems”; draft application for U.S. patent; typescript application, drawing, photocopy of typescript [some pages missing]; 7 leaves.

[086.VI.C.3] Materials related to the patent application for “Structural Systems”; reproduction of drawings; 9 leaves.

[086.VI.C.4] Materials related to the patent application for “Structural Systems”; related sketches; 1 leaf.

[086.VI.C.5] Materials related to the patent application for "Structural Systems"; mixed materials; 5 leaves.

[086.VI.C.6] Materials related to the patent application for "Structural Systems"; related correspondence; first of 3 folders; 23 items, 75 leaves.

[086.VI.C.7] Materials related to the patent application for "Structural Systems"; related correspondence; second of 3 folders; 32 items, 132 leaves.

[086.VI.C.8] Materials related to the patent application for "Structural Systems"; related correspondence; third of 3 folders; 23 items, 81 leaves.

VI. D. Hydraulic Dams and Other Tension Structures [Barrages hydrauliques et autres structures tendues]

[086.VI.D.1] Materials related to the patent application for "Barrages hydrauliques et autres structures tendues"; French patent no. 1,231,732; dated 4/13/1959; 1 leaf.

[086.VI.D.2] Materials related to the patent application for "Barrages hydrauliques et autres structures tendues"; French patent application; request form, typescript summary, photocopy of French typescript summary, typescript French patent application, reproduction of drawing, photocopy of French patent application and drawing, photocopy of French application, translation of French application; 14 leaves.

[086.VI.D.3] Materials related to the patent application for "Barrages hydrauliques et autres structures tendues"; manuscript drafts in French and in English; 3 leaves.

[086.VI.D.4] Materials related to the patent application for "Hydraulic Dams and Other Tension Structures"; typescript draft of U.S. application; 3 leaves.

[086.VI.D.5] Materials related to the patent application for "Hydraulic Dams and Other Tension Structures"; related correspondence; 5 items, 17 leaves.

VI. E. Adjustable Tension Structures [Structures à tension réglable]

[086.VI.E.1] Materials related to the patent application for "Structures à tension réglable"; application for French patent; request form, typescript summary; dated 6/10/1959; 3 leaves.

[086.VI.E.2] Materials related to the patent application for "Adjustable Tension Structures"; translation of French patent application; typescript, photocopy of typescript, reproduction of drawing; 5 leaves.

[086.VI.E.3] Materials related to the patent application for "Adjustable Tension Structures"; manuscript draft in English; 2 leaves.

[086.VI.E.4] Materials related to the patent application for "Adjustable Tension Structures"; application for U.S. patent; typescript with manuscript annotations; 4 leaves.

[086.VI.E.5] Materials related to the patent application for "Adjustable Tension Structures"; related correspondence; 4 items, 25 leaves.

[086.VI.E.6] Materials related to the patent application for "Adjustable Tension Structures"; patent drawings; 3 leaves.

VI. F. Internal Pressure Structures with Adjustable Deformations [Structures à pression interne et à deformations réglables]

[086.VI.F.1] Materials related to the patent application for "Structures à pression interne et à deformations réglables"; application for French patent; request form in French, typescript summary in French, typescript of French application, manuscript summary in English, photocopy of drawing, confirmation of French patent; some items dated 7/21/1959; 14 leaves.

[086.VI.F.2] Materials related to the patent application for "Structures à pression interne et à deformations réglables"; manuscript draft of patent application, in French, with sketches; n.d.; 6 leaves.

[086.VI.F.3] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; translation of the French patent application; typescript and photocopy of typescript; 6 leaves.

[086.VI.F.4] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; application for U.S. patent; typescript draft, reproduction of drawing, photocopy of typescript; 15 leaves.

[086.VI.F.5] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; related correspondence; 11 items, 40 leaves.

[086.VI.F.6] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; related sketches; 4 leaves.

[086.VI.F.7] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; filing receipts; 1960-62; 5 leaves.

[086.VI.F.8] Materials related to the patent application for "Internal Pressure Structures with Adjustable Deformations"; related clipping from unidentified periodical; 1 leaf.

VI. G. Radar Antennae and Other Tension Structures

[086.VI.G.1] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; patent application (multiple copies); filed on 5/26/1960; 4 items, 14 leaves.

[086.VI.G.2] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; manuscript draft; 1 leaf.

[086.VI.G.3] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; typescript specifications and claims, drawing; 4 leaves.

[086.VI.G.4] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; reproduction of patent drawings; 1 leaf.

[086.VI.G.5] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; related correspondence [includes newpaper clippings]; 10 items, 25 leaves.

[086.VI.G.6] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; related clippings; 2 leaves.

[086.VI.G.7] Materials related to the patent application for "Radar Antennae and Other Tension Structures"; related photoprints; 3 photoprints.

VI. H. Tension Systems in the Shape of Bodies of Revolution [Procédé de construction]

[086.VI.H.1] Materials related to the patent application for "Procédé de construction"; French patent application; request form, typescript summary, typescript specifications, reproduction of drawings; application filed on 4/6/1961; 9 leaves.

[086.VI.H.2] Materials related to the patent application for "Procédé de construction"; typescript specifications, typescript summary, correspondence, drawings; 7 leaves.

[086.VI.H.3] Materials related to the patent application for "Tension Systems in the Shape of Bodies of Revolution"; draft of U.S. patent application, photocopy of typescript with manuscript annotations; 10 leaves.

[086.VI.H.4] Materials related to the patent application for "Tension Systems in the Shape of Bodies of Revolution"; reproduction of patent drawings; 5 leaves.

[086.VI.H.5] Materials related to the patent application for "Tension Systems in the Shape of Bodies of Revolution"; related correspondence; 13 items, 57 leaves.

[086.VI.H.6] Materials related to the patent application for "Tension Systems in the Shape of Bodies of Revolution"; related manuscript note; 1 leaf.

[086.VI.H.7] Materials related to the patent application for "Tension Systems in the Shape of Bodies of Revolution"; patent drawings (original and reproduction); 6 leaves.

VI. I. Antibuckling Structural Systems

[086.VI.I.1] Materials related to the patent application for "Antibuckling Structural Systems"; manuscript draft of the U.S. patent application; 13 leaves.

[086.VI.I.2] Materials related to the patent application for "Antibuckling Structural Systems"; manuscript draft; 1 leaf.

[086.VI.I.3] Materials related to the patent application for "Antibuckling Structural Systems"; application for U.S. patent (multiple copies); filed on 5/19/1962; 5 items, 45 leaves.

[086.VI.I.4] Materials related to the patent application for "Antibuckling Structural Systems"; related correspondence; 4 items, 20 leaves.

[086.VI.I.5] Materials related to the patent application for "Antibuckling Structural Systems"; reproduction of patent drawings; 3 items, 10 leaves.

VI. J. Aerial Transit System [Système de transit aérien]

[086.VI.J.1] Materials related to the patent application for "Système de transit aérien"; French patent no. 1,390,360; dated 1/15/1964; 5 leaves.

[086.VI.J.2] Materials related to the patent application for "Système de transit aérien"; French typescript summary and specifications; 2 items, 10 leaves.

[086.VI.J.3] Materials related to the patent application for "Aerial Transit System"; request for French patent; 2 leaves.

[086.VI.J.4] Materials related to the patent application for "Aerial Transit System"; related sketches; 2 leaves.

VI. K. Transmission Towers

[086.VI.K.1] Materials related to "Transmission Towers"; United States Department of the Interior, Bureau of Reclamation, "Schedule, General Povisions, Specifications, and Drawings, Experimental Section of Glen Canyon-Shiprock 230-kilovolt Transmission Line"; 1963; bound volume.

[086.VI.K.2] Materials related to "Transmission Towers"; notes found in the bound volume of specifications; manuscript; 2 leaves.

[086.VI.K.3] Materials related to "Transmission Towers"; correspondence; 1962-1964; 25 items, 45 leaves.

[086.VI.K.4] Materials related to "Transmission Towers"; related sketches; ca. 1962-1964; 4 items, 62 leaves.

[086.VI.K.5] Materials related to "Transmission Towers"; contract between Tension Structures Inc. and the U.S. Department of the Interior, Bureau of Reclamation; dated July 19, 1963 ; 2 items, 27 leaves.

[086.VI.K.6] Materials related to "Transmission Towers"; reference drawing; manuscript annotations; 1961; 1 leaf.

[086.VI.K.7] Materials related to "Transmission Towers"; chart recording a deflection-strain test; 1 leaf.

[086.VI.K.8] Materials related to "Transmission Towers"; calculation sheets for study tests performed by the Colorado Fuel and Iron Corporation, John A. Roebling's Sons Division on a tension transmission tower model; 1964; 5 items, 95 leaves.

[086.VI.K.9] Materials related to "Transmission Towers"; Bureau of Reclamation Abstract of bids; 4 leaves [pencil sketch on verso of one of the leaves]

[086.VI.K.10] Materials related to "Transmission Towers"; related sketches and calculations; manuscript; 21 leaves.

[086.VI.K.11] Materials related to "Transmission Towers"; photocopies of related reference drawings; 3 leaves.

[086.VI.K.12] Materials related to "Transmission Towers"; related articles and clippings; includes: Arena, J.R., "Considerations in Transmission Tower Design" *Transmission and Distribution* (November 1963); "Equipment, Materials and Methods" *Civil Engineering* (February 1964); Quey, F. "Esthétique des pylônes de lignes électriques", [text of a conference?] (May 1964); Lovie, P.M. "The Design and Full Scale Testing of a Geodetic Transmission Tower" *International Conference on Space Structures 1966;* Humpidge, H. B. "Some aspects of the design of transmission towers by digital computer" *International Conference on Space Structures 1966*.

[086.VI.K.13] Materials related to "Transmission Towers"; paper by Robert Le Ricolais, "Automorphic Systems & Transmission Towers"; ca. 1966; typescript; 2 leaves.

[086.VI.K.14] Materials related to "Transmission Towers"; paper by Robert Le Ricolais; "Report on the Study of Transmission Towers"; typescript (2 copies); 4 leaves.

[086.VI.K. 15] Materials related to "Transmission Towers"; paper by Robert Le Ricolais; "Conditions of Economy in Automorphic Tubes (T12) in Pure Compression"; typescript; 6 leaves.

VI. L. Internal Pressure Bubble Materials For Stressed Skin or Thin-Walled Structures [Matériaux à cavités sphériques pressurisées et Mode d'utilisation]

[086.VI.L.1] Materials related to "Internal Pressure Bubble Materials For Stressed Skin or Thin-Walled Structures"; French manuscript specifications and summary, patent drawing; n.d.; 4 leaves.

[086.VI.L.2] Materials related to "Internal Pressure Bubble Materials For Stressed Skin or Thin-Walled Structures"; English manuscript specifications, sketches and calculations; n.d.; 4 leaves.

VI. M. Additional French Patent Files

[086.VI.M.1] Additional French patent file; draft patent application for "Perfectionnement pour l'assemblage de panneaux ondulés"; n.d.; typescript and drawing; 3 leaves.

[086.VI.M.2] Additional French patent file; materials related to the "Aplex" system; feasibility study by Dam Editions, advertisements for Aplex system; 5 items, 17 leaves.

[086.VI.M.3] Additional French patent file; [materials related to the "Isoflex tube"?]; typescript calculations [some pages missing], reproduction of drawing; 4 leaves.

[086.VI.M.4] Additional French patent file; correspondence with the French Patent Office; 1959-1965; 16 items, 24 leaves.

VI. N. Mixed Patent and Business Files

[086.VI.N.1] Mixed Patent and Business Files; Partnership agreement between Robert Le Ricolais and Abraham Beer; 5/26/1957; typescript; 1 leaf.

[086.VI.N.2] Mixed Patent and Business Files; Agreement between Robert Le Ricolais, Abraham Beer, and Oscar Cox; 4/17/1961; typescript; 1 leaf.

[086.VI.N.3] Mixed Patent and Business Files; "Report of Committee 2 on Metallic Materials" [includes a clipping and correspondence with Carl Kaplan, Air Force Office of Scientific Research]; dated 9/11/1961; 5 leaves.

[086.VI.N.4] Mixed Patent and Business Files; Correspondence and agreement between Robert Le Ricolais, Abraham Beer, and AMF; 1961; manuscript and typescript; 6 leaves.

[086.VI.N.5] Mixed Patent and Business Files; materials related to other inventors' patents; coupons issued by the United States Patent and Trademark Office for requesting copies of printed records; 1961; 16 leaves.

[086.VI.N.6] Mixed Patent and Business Files; Proxies for Abraham Beer from Robert Le Ricolais; 1961-1962; typescript; 3 leaves.

[086.VI.N.7] Mixed Patent and Business Files; materials related to a proposal to the U.S. Air Force; proposal and correspondence; 1961-1962; 3 items, 16 leaves.

[086.VI.N.8] Mixed Patent and Business Files; correspondence; manuscript notes by Abraham Beer; some items dated 1961-62; 6 leaves.

[086.VI.N.9] Mixed Patent and Business Files; Corporate Seal, Tension Structures; 1962; 2 leaves.

[086.VI.N.10] Mixed Patent and Business Files; Option and Licensing Agreement with A.M.F.; 1962; 9 leaves.

[086.VI.N.11] Mixed Patent and Business Files; Materials related to the "Lightweight Structures for NASA – AMF" project; correspondence; ca. 1962; 7 items, 22 leaves.

[086.VI.N.12] Mixed Patent and Business Files; materials related to "Aluminaut" project of Reynolds Metal Company; ca. 1962; 1 leaf and 1 photoprint.

[086.VI.N.13] Mixed Patent and Business Files; materials related to observation and transmission towers; correspondence and clippings; 1962-1963; pulled from folder of unsorted notes #086.IV.4; 8 items, 15 leaves.

[086.VI.N.14] Mixed Patent and Business Files; Correspondence related to a stock issue for Tension Structures, Inc.; May 1963; typescript; 2 leaves.

[086.VI.N.15] Mixed Patent and Business Files; patent-related newspaper clippings from Abraham Beer's files; ca. 1960-63.

[086.VI.N.16] Mixed Patent and Business Files; materials related to a U.S. Department of the Interior, Bureau of Reclamation project; reference drawing titled "Oregon Nevada Border-Hoover Tangent Suspension Structure, Design Requirements"; 1964; 1 leaf.

[086.VI.N.17] Mixed Patent and Business Files; correspondence; 1957-1959; typescript and manuscript; 29 items, 51 leaves.

[086.VI.N.18] Mixed Patent and Business Files; correspondence; 1960; typescript and manuscript; 31 items, 54 leaves.

[086.VI.N.19] Mixed Patent and Business Files; correspondence; 1961; typescript and manuscript; 49 items, 144 leaves.

[086.VI.N.20] Mixed Patent and Business Files; correspondence; 1962; typescript and manuscript; 44 items, 122 leaves.

[086.VI.N.21] Mixed Patent and Business Files; correspondence; 1963; typescript and manuscript; 32 items, 71 leaves.

[086.VI.N.22] Mixed Patent and Business Files; correspondence; 1964; typescript and manuscript; 15 items, 35 leaves.

[086.VI.N.23] Mixed Patent and Business Files; correspondence; 1966-1973; typescript and manuscript; 9 items, 47 leaves.

[086.VI.N.24] Mixed Patent and Business Files; correspondence; n.d.; typescript and manuscript; 19 items, 21 leaves.

[086.VI.N.25] Mixed Patent and Business Files; blank "Oath, Power of attorney and Petition" forms; 2 leaves.

[086.VI.N.26] Mixed Patent and Business Files; annotated copy of U.S. Patent Office leaflet, "Questions and Answers About Patents"; n.d.; 1 leaf.

[086.VI.N.27] Mixed Patent and Business Files; materials related to [Tetrahedron Glass Skylight Structure]; n.d.; 4 leaves.

Series VII. Research Proposals, Teaching Records, and Student Reports.

VII. A. Research Proposals

[086.VII.A.1] Application for a Summer Research Fellowship for "Extension of Graphical Methods to the Study of Stresses for 3-dimensional Systems"; dated 3/23/1965; typescript with manuscript annotations: 6 leaves.

[086.VII.A.2] "Application for a five-year grant to support study in Europe by students registered in the eighth semester, the curriculum of architecture, University of Illinois, Urbana"; ca. 1965; typescript: 15 leaves; 2 photoprints.

[086.VII.A.3] Research Proposal; "The Trihex Grid: As a New Partition of Urban Space and As a Circulation System"; by Robert Le Ricolais; dated 5/29/1969; photocopy of typescript; (5 leaves).

[086.VII.A.4] Research Proposal; "A New Structural System for High Velocity Transit"; by Robert Le Ricolais and Peter McCleary; dated 11/1969; photocopy of typescript: 10 leaves.

[086.VII.A.5] Research Proposal; "The Trihex Grid System as a New Partition of Urban Space"; by Robert Le Ricolais; ca. 1969; photocopy of typescript: 6 leaves.

[086.VII.A.6] Research Proposal; "Impact and Evaluation of Transportation Networks as a New Urban Space Partition"; by Robert Le Ricolais, Peter McCleary, and Alexander Messinger; ca. 1969; typescript and manuscript [2 copies, including 1 with manuscript annotations]: 18 leaves.

[086.VII.A.7] Memorandum by Robert Le Ricolais re. the research proposal, "Impact and Evaluation of Transportation Networks as a New Urban Space Partition"; typescript; dated 10/16/1970; typescript [2 copies]: 4 leaves.

[086.VII.A.8] Memo regarding Research Applied to National Needs Proposals; dated 3/21/1972; 1 leaf.

[086.VII.A.9] Research Proposal; "A Structural Approach to the Street Problem: A Proposed Solution to Major Activity Center Congestion and Circulation Problems"; by Robert Le Ricolais [?]; ca. 1973; photocopy of typescript: 3 leaves.

[086.VII.A.10] Research Program; by Robert Le Ricolais [?]; n.d.; typescript: 4 leaves.

[086.VII.A.11] Proposal for an institute devoted to structural research; n.d.; typescript and manuscript: 2 leaves.

VII. B. Teaching and Lecture Records

[086.VII.B.1] Studio syllabi, schedules, and related materials; by Robert Le Ricolais with Prof. Deam, Vreeland, Rice, Loschetter, Kahn, and McCleary; University of Pennsylvania and University of Michigan; 1956-1973 [some undated items]; typescript and manuscript: 53 leaves.

[086.VII.B.2] Class rosters; 1960-1969; typescript and manuscript: 6 leaves.

[086.VII.B.3] Course syllabus, schedule, and readings; "Values in the Making of the Environment"; by Russell Ackoff, Edmund Bacon, Buckminster Fuller, Britton Harris, Louis Kahn, Robert Le Ricolais, Ian McHarg, Martin Meyerson, William Rafsky, Peter Shepheard, David Wallace, Neil Welliver, and Lowdon Wingo; dated Spring 1974; typescript: 1 bound copy.

[086.VII.B.4] Lecture notes for Arch 634 course [some pages numbered]; n.d.; manuscript, 207 leaves.

[086.VII.B.5] Announcements and schedules for lectures; 1961-1969; 5 leaves.

[086.VII.B.6] Notes re. faculty meetings; 1965-1973; 3 leaves.

VII. C. Student Reports and Examinations

Arrangement: Arranged at the object level by date.
Photographic materials included: 90 photoprints, 6 contact photoprints, 8 photonegative strips.

[086.VII.C.1] Student Examination by Albert C. Bianchini; 1951; 3 leaves.

[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.

[086.VII.C.3] Student Report; "Experimental Analysis on One- and Two-Way Systems"; by Jim Nagy, Hristo Papyoti, Harutun Vaporciyan; dated Spring 1958; [University of Michigan]; photocopy of typescript and drawings: 11 leaves.

[086.VII.C.4] Student Report; "Report on Experiments with Soap Film Configurations"; by Roar Haug; dated Spring 1958; submitted for Architecture and Design 264; typescript: 2 leaves.

[086.VII.C.5] Student Report; "Architecture and Topology"; by James Nagy, Hristo Papayoti, and Harutun Vaporciyan; n.d. [ca. 1958]; submitted for Arch 264 [University of Michigan]; typescript and manuscript: 21 leaves.

[086.VII.C.6] Student papers and examinations, by Ivan Escobar (2 ms. leaves), Poonsri Makaranon (1 ms leaf); dated 1/31/1961; manuscript, 3 leaves.

[086.VII.C.7] Student examinations by T. N. Ainscow, Gönül Aslanoglu, Kemal G. Aran, Harry N. Barone, A. S. Diamond, J. Hix, Hooker, R. Kimbrough, Thomas G. Lawson, John Malanga, D. Theron, John A. Todd, Charles Tseckares; Fall 1961; manuscript: 42 leaves.

[086.VII.C.8] Student papers and examinations, by Ivan Escobar, Osep Sarafoglu, Donald E. Stevens, William K. Turner, Isaac Bonder, David Pyle; n.d. [ca. 1961], 8 leaves.

[086.VII.C.9] Student Report; "Results of a Series of Tests on Soap Film Configurations"; by Samir Z. Simaika; dated 4/23/1962; manuscript: 3 leaves.

[086.VII.C.10] Student Report; "A Study of the Application of Tension Structure to a Water Dam"; by W. Hottle, B. Huet, and W. Serneels; dated 12/20/1963; submitted for Arch. 831; typescript and drawings: 17 leaves; also includes 6 contact photoprints and 8 photonegative strips.

[086.VII.C.11] Student Paper; "Moyens de régler l'expansion urbain[e]"; by Ann-Louise Strong; dated 4/14/1964; manuscript: 2 leaves.

[086.VII.C.12] Student Report; "Report on Testing of Cyclorail Tube"; by Martin E. Rich; dated 5/8/1964; typescript: 4 leaves, typescript with manuscript annotations: 4 leaves.

[086.VII.C.13] Student Report; "Report on Automorphic Beams and Column"; by T. Mc Ginty and E. D'Andrea; dated 5/3/1967; submitted for [Arch 832] Experiments in Structure; also includes "Analysis of Research, 1967, McGinty and D'Andrea"; typescript and manuscript: 31 leaves; folder also includes a bound photocopy of the report.

[086.VII.C.14] Student Report; "Investigation into the Use of the Trihex Grid for Urban Street Systems"; by Hans Jürgen Eppinger; dated 5/8/1967; submitted for Arch. 832; typescript and fold-out drawings: 26 leaves; folder also includes a bound photocopy of the report.

[086.VII.C.15] Student Report; "Experiments on Tubular Bridge Structures: The Use of Steel Cable to Prestress Fiberglass Reinforced Polyester Tube"; by James H. Auster; dated 5/16/1967; submitted for Arch. 831; photocopy of typescript and manuscript report: 22 leaves.

[086.VII.C.16] Student Report; "The Tri-Hex Tension Roof: A Cable System Approximating a Stressed Membrane"; by Galen Minah and William Saslow; dated 5/22/1967; submitted for Arch. 832; bound report including 5 photoprints, and 5 additional copies of drawings.

[086.VII.C.17] Student Report; "The Tri-Hex Roof System (Trigrid)"; by Gudger, Perry, Vaughan, and Wachsberger; dated 12/19/1967; submitted for Arch. 831; typescript and drawings: 16 leaves.

[086.VII.C.18] Student Report; "Trihex Dome"; by Peter Dominick, William Miller, and Hugh Weisman; dated 12/19/1967; submitted for Arch. 831; typescript and photocopy: 12 leaves; 10 photoprints.

[086.VII.C.19] Student Report; "Report on the Automorphic Column"; by H. Denzinger, E. Engelskircher, and R. Karasek; dated Fall 1967; manuscript and photocopy: 25 leaves.

[086.VII.C.20] Student Report; "Report on Experimental Structure [Boat Frame]"; by Kyun Kim; n.d. [ca. 1967]; 3 bound copies of the report [including 2 copies with 4 photoprints and 1 copy with 6 photoprints]; 14 photoprints.

[086.VII.C.21] Student Report; "The Triangular Grid and The Tri-Hexagonal Grid"; by Pilar Fernandez and Dennis J. Sander; n.d. [ca. 1967]; typescript and charts: 68 leaves; photocopy of report: 70 leaves; 6 photoprints.

[086.VII.C.22] Student Report; "Comparative Studies: Queen Post Hex – King Post Hex, Tri Grid – Star Hex Grid"; by Ronald A. Altoon, Richard A. Logan, and Theodore Lundy, Jr.; dated Spring 1968; submitted for Arch. 832; photocopy of typescript with diagrams and illustrations: 26 leaves.

[086.VII.C.23] Student Report; "The Polyten Bridge"; by C. Brunner and W. Winkelvoss; dated 12/15/1968; submitted for [Arch. 831] Experiments in Structure; typescript with sketches and manuscript annotations: 9 leaves; 3 photoprints.

[086.VII.C.24] Student Report; "Tests on a 'Queen Post' type cantilevered suspended bridge, central monotubular compression member"; by Paul Petit; dated 3/26/1969; submitted for Arch. 832; typescript and manuscript: 8 leaves.

[086.VII.C.25] Student Report; "The Polyten Bridge"; by R. Altoon, C. Brunner, A. Cornoldi, R. Logan, and W. Winkelvoss; dated 5/4/1969; submitted for [Arch 832] Experiments in Structure; photocopy of report: 11 leaves.

[086.VII.C.26] Student Report; [Queen Post Analysis]; by Micha Wertheim and Hans Ruijssenaars; dated 10/8/1969; copy of manuscript, 2 leaves.

[086.VII.C.27] Student Report; "The Science of Design"; by Lynn Scholz; dated 12/8/1969; submitted for [Arch 700] Le Ricolais-McCleary studio; photocopy: 4 leaves.

[086.VII.C.28] Student Report; [no title]; by Vincent Maiello; dated December 1969; submitted for Arch 700 Le Ricolais-McCleary studio; mechanical copy: 9 leaves.

[086.VII.C.29] Student Report; "Development of a Recreational Strategy for the University"; by R.E. Brown; dated Fall 1969; submitted for [Arch 700] Le Ricolais-McCleary studio; mechanical copy: 6 leaves.

[086.VII.C.30] Student Report; [no title]; by Roy Kato; dated Fall 1969; submitted for [Arch 700] Le Ricolais-McCleary studio; mechanical copy: 3 leaves.

[086.VII.C.31] Student Report; [no title]; by Richard W. Rath Jr.; dated Fall 1969; submitted for [Arch 700] Le Ricolais-McCleary studio; mechanical copy: 26 leaves.

[086.VII.C.32] Student Report; [no title]; by Philip R. Johnson and Thomas N. Gilmore; [Fall 1969]; submitted for Arch 700 Le Ricolais-McCleary studio; mechanical copy: 7 leaves.

[086.VII.C.33] Student Report; "Star-Hex Test Results"; by Mark Thompson and Charles Neuhardt; n.d. [ca. 1969]; manuscript and typescript with charts: 4 leaves.

[086.VII.C.34] Student Report; "A Simple Interpretation of Le Ricolais's Structural Theory and Design"; by Ching-Yu Chang; dated May 1970; submitted to Professor Peter McCleary for Arch. 999; bound photocopy of report.

[086.VII.C.35] Student Report; "The Automorphic Tube"; by Hans Ruijssenaans; dated Spring 1970; submitted for [Arch. 832] Experiments in Structure; photocopy of manuscript [2 copies, including 1 with manuscript annotations]: 43 leaves.

[086.VII.C.36] Student Report; "Floor System Studies, Queen Post"; by Tamasak Rojanasoonthorn, Gary Smalls, and Thomas Kirk; dated December 1970; submitted for Arch. 831; typescript with drawings and charts: 9 leaves; 1 photoprint.

[086.VII.C.37] Student Report; "Trihex Double Layer Structure"; by Ching-Yu Chang; n.d. [ca. 1970]; manuscript and photocopy of typescript with sketches and charts: 24 leaves.

[086.VII.C.38] Student Report; "Automorphic Column"; by Eric Hollenberg; dated 12/20/1971; submitted for Arch. 831; manuscript: 2 leaves.

[086.VII.C.39] Student Report; [Optimum Configuration for a Mass Transit Bridge]; by Richard Hocking and Leland Kimball; n.d. [ca. 1971]; submitted for Arch. 832; typescript with sketches: 1 leaf.

[086.VII.C.40] Student Report; "Report on Experiments in Structure"; by Sam Katzen, David Tritt, and Lance Smith; dated Spring 1972; submitted for Arch. 832; photocopy of manuscript: 7 leaves.

[086.VII.C.41] Student Report; "Report of Results of Delta Vault Tests"; by David A. Sinclair; dated 11/28/1972; drawing and photocopy of typescript and manuscript report: 33 leaves.

[086.VII.C.42] Student Report; "Testing Towers"; by R. Fenney; dated 3/1973; manuscript, 1 leaf.

[086.VII.C.43] Student Report; "Five Experiments in Loading Beams, An Investigation in Pre- and Post-Tensioning"; by Samuel G. White and Dilip Biswas; dated 5/7/1973; typescript with manuscript annotations: 6 leaves.

[086.VII.C.44] Student Report; "Floor System / Wall Panel"; by David Sinclair, David Danton, Phil Eschoff, and Joe [no last name]; dated Spring 1973; drawings: 3 leaves.

[086.VII.C.45] Student Report; "Experiments on a Prestressed Steel Beam"; by Gonze, Bonnet, Playle, and Danton; n.d. [ca. 1974]; manuscript with sketches and charts: 11 leaves.

[086.VII.C.46] Student Report; "Minimum Surface Soap Film Configurations"; by Alain Courtaigne and Steven L. Millington; n.d. [ca. 1974]; photocopy of manuscript: 11 leaves.

[086.VII.C.47] Student Report; "Prestressed Tube"; by Mike McLeod; n.d. [ca. 1974]; submitted for [Arch. 831 or 832] Experiments in Structure; manuscript: 3 leaves.

[086.VII.C.48] Student Report; "D.N.S. 2 Test Data; Deflection at Center Span"; dated 5/1975; photocopy of manuscript: 2 leaves.

[086.VII.C.49] Student Report; "Beam Test Report"; by Mohamed Dorra, Stephen Du Pont, and Andreï Zlotnicki; dated December 1975; submitted for Arch. 831; photocopy of manuscript: 15 leaves, drawing: 1 leaf.

[086.VII.C.50] Student Report; "Studies on a Prestressed Tube"; by Tanit Chareonpong and Pramote Tangtiang; dated Fall 1975; submitted for Arch. 831; manuscript: 13 leaves; 5 photoprints.

[086.VII.C.51] Student Report; "Documentation and Computer Analysis of Robert Le Ricolais' Parabolic Network"; by Charles Bloszies; dated 9/29/1976; submitted for Arch. 832; bound photocopy of the report.

[086.VII.C.52] Student Report; "Système Tencomp, An Idea of Robert Le Ricolais"; by Chuck Bloszies; dated 6/1/1977; submitted for Arch. 999; bound photocopy of the report.

[086.VII.C.53] Student Report; "Final Project"; by Chuck Bloszies; n.d. [ca. 1977]; submitted for CUE 630; photocopy of typescript and manuscript: 11 leaves.

[086.VII.C.54] Student Report; "Light Duct"; by Kul Bhushan Jain; n.d.; submitted for Arch. 831; typescript with sketches: 9 leaves.

[086.VII.C.55] Student Report; "A Comparative Study on Four Space Frames"; by M. Mahmassani, K. Simonsen, P. Fisk, G. Yu, R. Bauschard, and J. Blateau; n.d.; typescript and manuscript with sketches: 8 leaves; 8 photoprints.

[086.VII.C.56] Student Report; "Une autre investigation dans la combinaison structure rigide/cables"; by Stanley Field, Malek Mahmassani, Karsten Simonsen; n.d.; manuscript, 1 leaf.

[086.VII.C.57] Student Report; [Analysis of a Typical Decking Problem Using the Tetragrid Space-Frame System]; [cover page missing]; n.d.; typescript with manuscript annotations and drawings: 30 leaves.

[086.VII.C.58] Record of student; C.E. Vallhonrat; n.d.; manuscript: 1 leaf.

Series VIII. Unpublished Writings, Lectures and Interviews

Note: For the most part, the materials in this series are organized chronologically. However, many of the writings are undated. In some cases, it was possible to approximate a date by comparison with a published or unpublished paper with the same title or subject matter. For many papers, however, it was too difficult to establish a date on the strength of the topic alone, as some subjects occupied Le Ricolais throughout his career. Dated papers are listed first, followed by undated papers, listed in alphabetical order of titles (ignoring the initial article "le", "un", etc.). Untitled, undated papers are listed at the very end.

VIII.A. Unpublished Papers by Robert Le Ricolais, in French

[086.VIII.A.1] Unpublished paper by Robert Le Ricolais, in French [UF II-39]; "Perfectionnement à l'assemblage de revêtements ondulés en bois contreplaqués ou toutes autres matières analogues"; dated 1/25/1938; typescript with manuscript annotations: 3 leaves.

[086.VIII.A.2] Unpublished paper by Robert Le Ricolais, in French; "Les matériaux de remplacement: L'utilisation du bois pour les charpentes de grandes et moyennes portées"; dated 1942; mechanical copy of typescript: 22 leaves.

[086.VIII.A.3] Unpublished papers by Robert Le Ricolais, in French; "Préparation d'article pour *Techniques et architecture,*" dated 9/2/1945; manuscript: 1 leaf.

[086.VIII.A.4] Unpublished papers by Robert Le Ricolais, in French; "Considérations sur les déformations des systèmes réticulés à 3 dimensions"; ca. 1945; manuscript: 1 leaf.

[086.VIII.A.5] Unpublished papers by Robert Le Ricolais, in French; "Caractères généraux des enveloppes à 3 Dimensions"; ca. 1945; manuscript: 2 leaves.

[086.VIII.A.6] Unpublished papers by Robert Le Ricolais, in French; "Déformations des systèmes réticulés à 3 dimensions," "Caractères généraux des enveloppes à 3 D.," "Propriétés mécaniques des réseaux à 3 D," "Radiolaires à 2 nappes"; ca. 1945; mechanical copy of manuscript: 1 leaf.

[086.VIII.A.7] Unpublished paper by Robert Le Ricolais, in French; "De la géométrisation des constructions"; ca. 1947; manuscript: 4 leaves.

[086.VIII.A.8] Unpublished paper by Robert Le Ricolais, in French [UF I-13]; "De la géométrisation des constructions"; ca. 1947; typescript with manuscript annotations: 6 leaves [2 copies].

[086.VIII.A.9] Unpublished paper by Robert Le Ricolais, in French [UF II-32]; "Note de calcul concernant un bâtiment d'exposition"; dated 2/2/1950; mechanical copy of manuscript: 1 leaf.

[086.VIII.A.10] Unpublished paper by Robert Le Ricolais, in French [UF I-8]; "Pavillon du MRU. 1951: Note de calcul"; dated 1951; mechanical copy of manuscript: 6 leaves

[086.VIII.A.11] Unpublished paper by Robert Le Ricolais, in French [UF I-7]; "Poutres métalliques enrobées pour planchers de grandes portées"; dated 1952; mechanical copy of manuscript [2 copies, including 1 with manuscript annotations]: 21 leaves.

[086.VIII.A.12] Unpublished paper by Robert Le Ricolais, in French; "Réflexions sur le hangar de Mr. Wachsmann et les structures à 3 dimensions"; July 1954; manuscript: 13 leaves

[086.VIII.A.13] Unpublished paper by Robert Le Ricolais, in French[UF III-65]; "Réflexions sur le hangar de Mr. Wachsmann et les structures à 3 dimensions"; dated July 1954; typescript with manuscript annotations: 6 leaves.

[086.VIII.A.14] Unpublished paper by Robert Le Ricolais, in French [UF II-38]; "Où va l'architecture?"; dated August 1957; typescript with manuscript annotations: 6 leaves.

[086.VIII.A.15] Unpublished paper by Robert Le Ricolais, in French [UF II-49]; "Projet T-56"; dated 8/26/1958; typescript with manuscript annotations: 3 leaves.

[086.VIII.A.16] Unpublished paper by Robert Le Ricolais, in French [UF III-69]; "Rôle des films de savon dans l'étude des structures et des formes"; paper given at a conference at Harvard in February 1959; typescript with manuscript annotations: 10 leaves.

[086.VIII.A.17] Unpublished paper by Robert Le Ricolais, in French [UF III-71]; "Structures et formes"; ca. 1959; typescript with manuscript annotations: 8 leaves; photocopy of typescript [2 copies]: 16 leaves.

[086.VIII.A.18] Unpublished paper by Robert Le Ricolais, in French [UF II-50]; "Propos au sujet d'une architecture spatiale"; dated August 1960; typescript with manuscript annotations [2 copies]: 6 leaves.

[086.VIII.A.19] Unpublished paper by Robert Le Ricolais, in French [UF III-56]; "Recherches de structures"; dated October 1961; typescript with manuscript annotations: 6 leaves.

[086.VIII.A.20] Unpublished paper by Robert Le Ricolais, in French [UF III-57]; "Université de Pennsylvanie : Recherches de structures"; dated June 1962; typescript [4 copies with slightly different text, including 1 with manuscript annotations]: 28 leaves.

[086.VIII.A.21] Unpublished paper by Robert Le Ricolais, in French [UF III-84]; "Vers l'âge des structures tendues"; dated June 1962; typescript with manuscript annotations: 7 leaves, photocopy of typescript: 7 leaves.

[086.VIII.A.22] Unpublished paper by Robert Le Ricolais, in French; "Recherches de structures aux Etats-Unis"; dated June 1962; mechanical copy of typescript: 4 leaves.

[086.VIII.A.23] Unpublished paper by Robert Le Ricolais, in French; "Aperçu sur une nouvelle classe de structures tendues (Recherches faites à l'Université de Pennsylvanie)";

dated August 1962; [with summary in English]; typescript [2 copies]: 6 leaves; photocopy of typescript [2 copies]: 6 leaves.

[086.VIII.A.24] Unpublished paper by Robert Le Ricolais, in French [UF III-59]; "Recherches de Structures, effectuées à l'Université de Pennsylvanie"; dated 5/3/1963; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.25] Unpublished paper by Robert Le Ricolais, in French [UF III-63]; "Réflexions concernant l'architecture et son enseignement"; [text read in the presence of André Malraux]; dated December 1963; typescript with manuscript annotations [2 copies]: 12 leaves.

[086.VIII.A.26] Unpublished paper by Robert Le Ricolais, in French; "Projet Mass-Transit"; [originally filed with contents of folder #086.IV.99]; ca. 1963; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.27] Unpublished paper by Robert Le Ricolais, in French [UF I-20]; "Evolution des formes de ponts à grandes portées"; dated March 1964; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.28] Unpublished paper by Robert Le Ricolais, in French [UF I-12]; "Considérations sur les problèmes de circulation. Proposition pour un système de transport, 'Sky-Rail'"; dated October 1964; manuscript and photocopy of typescript: 9 leaves.

[086.VIII.A.29] Unpublished paper by Robert Le Ricolais, in French [UF I-1]; "A la recherche d'une mécanique des formes"; dated June 1965; typescript with manuscript annotations: 19 leaves.

[086.VIII.A.30] Unpublished paper by Robert Le Ricolais, in French [UF I-14]; "Espace et mouvement" [text for exhibition catalogue, Palais de la Découverte, 1965]; dated June 1965; manuscript and typescript with annotations: 11 leaves.

[086.VIII.A.31] Unpublished paper by Robert Le Ricolais, in French [UF II-37]; "Où en sommes-nous ? Où allons-nous ?"; dated June 1965; typescript with manuscript annotations [no page 7]: 9 leaves.

[086.VIII.A.32] Unpublished paper by Robert Le Ricolais, in French [UF III-64]; "Réflexions sur la formation de l'architecte"; dated July 1965; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.33] Unpublished paper by Robert Le Ricolais, in French [UF II-51]; "Propos en l'air"; dated May 1967; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.34] Unpublished paper by Robert Le Ricolais, in French [UF III-60]; "Recherches et réflexions sur quelques structures"; May 1967; manuscript: 3 leaves.

[086.VIII.A.35] Unpublished paper by Robert Le Ricolais, in French; "Recherches et réflexions sur quelques structures"; dated May 1967; typescript with manuscript annotations: 5 leaves.

[086.VIII.A.36] Unpublished paper by Robert Le Ricolais, in French; "Réflexions sur les graphismes de Josef Albers"; dated June 1967; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.37] Unpublished paper by Robert Le Ricolais, in French; "Architecture, structures et civilisation"; ca. 1967; typescript with manuscript annotations [2 copies]: 16 leaves; photocopy of typescript [slightly different text]: 10 leaves.

[086.VIII.A.38] Unpublished paper by Robert Le Ricolais, in French [UF I-21]; "Exposé de récents travaux: 1967-1968"; dated 4/24/1968; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.39] Unpublished paper by Robert Le Ricolais, in French [UF II-27]; "La recherche expérimentale dans les écoles d'architecture aux Etats-Unis"; dated June 1968; typescript with manuscript annotations: 10 leaves.

[086.VIII.A.40] Unpublished paper by Robert Le Ricolais, in French [UF III-73]; "Structures expérimentales à l'Université de Pennsylvanie"; dated 1968-1969; manuscript: 2 leaves.

[086.VIII.A.41] Unpublished paper by Robert Le Ricolais, in French [UF III-62]; "Recherches expérimentales à l'Université de Pennsylvanie"; dated 4/19/1969; photocopy of typescript: 2 leaves.

[086.VIII.A.42] Unpublished paper by Robert Le Ricolais, in French [UF III-82]; "Université de Pennsylvanie : Recherches structurales, 1970-1971"; dated 3/18/1971; photocopy of typescript: 8 leaves.

[086.VIII.A.43] Unpublished paper by Robert Le Ricolais, in French [UF II-44]; "Ponts 'Multiplex'"; dated 6/9/1972; photocopy of manuscript drawings and of typescript: 4 leaves.

[086.VIII.A.44] Unpublished paper by Robert Le Ricolais, in French [UF III-61]; "Recherches structurales, 1972-1973, Université de Pennsylvanie"; dated 1972-1973; typescript with manuscript annotations: 2 leaves.

[086.VIII.A.45] Unpublished paper by Robert Le Ricolais, in French [UF II-42]; "Planchers de grande portée à déformation nulle (Z.D.S.)"; dated 1/25/1973; photocopy of typescript: 4 leaves.

[086.VIII.A.46] Unpublished paper by Robert Le Ricolais, in French [UF II-41]; "Plancher de grandes portées 'Polyten' à déformation nulle (Z.D.S.)"; ca. 1973; typescript and manuscript: 5 leaves.

[086.VIII.A.47] Unpublished paper by Robert Le Ricolais, in French [UF II-30]; "Liberté du plan pour espaces couverts"; dated 12/26/1974; mechanical copy of typescript: 2 leaves.

[086.VIII.A.48] Unpublished paper by Robert Le Ricolais, in French [UF II-25]; "L'âge des structures"; dated 1974; photocopy of manuscript: 7 leaves.

[086.VIII.A.49] Unpublished paper by Robert Le Ricolais, in French; untitled ["Ars longa, vita brevis"]; dated January 1975; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.50] Unpublished paper by Robert Le Ricolais, in French, with English translation; "Pré et Post-contrainte des profilés en acier" [originally filed with contents of folder #086.IV.13]; dated 5/1975; typescript and manuscript: 5 leaves.

[086.VIII.A.51] Unpublished paper by Robert Le Ricolais, in French [UF I-2]; "Alréoles des abeilles"; n.d.; manuscript: 4 leaves.

[086.VIII.A.52] Unpublished paper by Robert Le Ricolais, in French; "Améliorations apportées aux constructions métalliques par l'emploi des systèmes à 3 dimensions"; [originally filed with contents of folder # 086.IV.102]; n.d.; manuscript: 3 leaves.

[086.VIII.A.53] Unpublished paper by Robert Le Ricolais, in French; "Analyse photographique des films de savon"; n.d.; typescript: 1 leaf.

[086.VIII.A.54] Unpublished paper by Robert Le Ricolais, in French [UF I-3]; "Analyse statistique des problèmes de circulation (Problème du tracé des communications)"; n.d.; manuscript: 6 leaves.

[086.VIII.A.55] Unpublished paper by Robert Le Ricolais, in French [UF I-4]; "Aperçu sur de nouveaux systèmes constructifs"; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.56] Unpublished papers by Robert Le Ricolais, in French [UF I-5]; "Aperçu sur l'historique des structures à trois dimensions," [grouped at some earlier date with] "Amélioration apportées aux constructions métalliques par l'emploi de systèmes à trois dimensions," "Résumé d'une étude sur les structures tri-dimensionnelles," "Formes et structures," "Aperçu relatif à des recherches actuelles concernant les phénomènes de rupture," "Quelques considérations sur la géométrie des radiolaires," "Analyse photographique des films de savon," "Travaux de recherche de structures effectués à l'Université de Pennsylvanie"; n.d.; typescript and manuscript: 43 leaves.

[086.VIII.A.57] Unpublished paper by Robert Le Ricolais, in French; "Aperçu sur quelques récentes investigations"; n.d.; manuscript: 5 leaves.

[086.VIII.A.58] Unpublished paper by Robert Le Ricolais, in French; "Aperçu sur quelques récentes investigations"; n.d.; typescript with manuscript annotations [2 copies, including 1 incomplete]: 9 leaves.

[086.VIII.A.59] Unpublished paper by Robert Le Ricolais, in French [UF I-6]; "Aperçu sur un programme d'enseignement d'architecture"; n.d.; typescript: 1 leaf.

[086.VIII.A.60] Unpublished paper by Robert Le Ricolais, in French; "Application de la formule de Descartes à une étude qualitative de l'espace. Analyse de schémas connectifs simples dans le plan. Exemples de recherches combinatoires. Application de la méthode des

connexions aux problèmes de valences. Polyèdres réciproques."; n.d.; mechanical copy of manuscript [2 copies, including 1 with manuscript annotations]: 53 leaves.

[086.VIII.A.61] Unpublished paper by Robert Le Ricolais, in French [UF I-9]; "Application de la précontrainte à des pièces fléchies : système 'T-Lock'"; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.62] Unpublished paper by Robert Le Ricolais, in French [UF I-10]; "A propos de Louis Kahn."; n.d.; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.63] Unpublished paper by Robert Le Ricolais, in French; with Mrs. E. Faure; "Arrangements combinatoires par la méthode des surplus et son application à des graphes planaires."; n.d.; typescript [2 copies]: 2 leaves.

[086.VIII.A.64] Unpublished paper by Robert Le Ricolais, in French; "Calcul d'un réseau plan hexagonal uniformément chargé"; [originally filed with contents of folder #086.IV10]; n.d.; manuscript: 3 leaves.

[086.VIII.A.65] Unpublished paper by Robert Le Ricolais, in French; "Calcul d'un réseau triangulaire sur plan hexagonal"; [originally filed with contents of folder #086.IV.15]; n.d.; manuscript: 5 leaves.

[086.VIII.A.66] Unpublished paper by Robert Le Ricolais, in French; "Calcul estimatif des moments maxima dans des panneaux 3 D. uniformément chargés travaillant en béquille"; [originally filed with contents of folder #086.IV.83]; n.d.; manuscript: 6 leaves.

[086.VIII.A.67] Unpublished paper by Robert Le Ricolais, in French; "Charpentes en systèmes triangulés"; [originally filed with contents of folder #086.IV.83]; n.d.; typescript and manuscript: 7 leaves.

[086.VIII.A.68] Unpublished paper by Robert Le Ricolais, in French; "Constructions démontables en bois"; n.d.; typescript: 1 leaf.

[086.VIII.A.69] Unpublished paper by Robert Le Ricolais, in French; "Contribution à l'étude des réseaux à 3 dimensions travaillant en flexion plane" and "Réseaux diagonaux à mailles carrées appuyés sur le pourtour"; n.d.; mechanical copy of manuscript: 18 leaves.

[086.VIII.A.70] Unpublished paper by Robert Le Ricolais, in French; "Croissance automorphique"; [originally filed with contents of folder #086.IV.91]; n.d.; manuscript: 5 leaves.

[086.VIII.A.71] Unpublished paper by Robert Le Ricolais, in French; "Description des systèmes Z.D.S."; [originally filed with contents of folder #086.IV.67]; n.d.; manuscript: 2 leaves.

[086.VIII.A.72] Unpublished paper by Robert Le Ricolais, in French [UF I-15]; "Esquisse d'une cinématique des structures (I)"; n.d.; typescript with manuscript annotations: 5 leaves.

[086.VIII.A.73] Unpublished paper by Robert Le Ricolais, in French [UF I-16]; “Essai d’analyse topologique des circulation[s]”; n.d.; manuscript: 8 leaves.

[086.VIII.A.74] Unpublished paper by Robert Le Ricolais, in French [UF I-17]; “Etude de structures comparées en 2 & 3 dimensions” [grouped at some earlier date with] "Calcul des tensions et déformations en flexion plane d'un réseau hexagonal à 3 dimensions appuyé sur le pourtour"; n.d.; mechanical copy of manuscript, with annotations: 11 leaves.

[086.VIII.A.75] Unpublished paper by Robert Le Ricolais, in French [UF I-18]; “Etude du ‘SKY RAIL’ System”; n.d.; typescript with manuscript annotations: 18 leaves.

[086.VIII.A.76] Unpublished paper by Robert Le Ricolais, in French [UF I-19]; “Etude sur des réseaux paraboliques”; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.77] Unpublished paper by Robert Le Ricolais, in French; "Formes & structures"; n.d.; manuscript: 5 leaves.

[086.VIII.A.78] Unpublished paper by Robert Le Ricolais, in French [UF I-22]; “Formes et structures”; n.d.; typescript [2 copies]: 8 leaves; photocopy of typescript: 4 leaves.

[086.VIII.A.79] Unpublished paper by Robert Le Ricolais, in French; “Formes et Structures”; n.d.; typescript: 19 leaves.

[086.VIII.A.80] Unpublished paper by Robert Le Ricolais, in French [UF I-23]; “Formes, matières & forces”; n.d.; manuscript: 4 leaves.

[086.VIII.A.81] Unpublished paper by Robert Le Ricolais, in French; "Graphes (dans le plan)"; [originally filed with contents of folder #086.IV.40]; n.d.; manuscript: 3 leaves.

[086.VIII.A.82] Unpublished paper by Robert Le Ricolais, in French; "Image de réseaux plans"; [originally filed with contents of folder #086.IV.91]; n.d.; manuscript: 1 leaf.

[086.VIII.A.83] Unpublished paper by Robert Le Ricolais, in French[UF I-24]; “Infrastructures pour transports ferrés accélérés”; n.d.; typescript: 4 leaves, photocopy of typescript [2 copies]: 8 leaves.

[086.VIII.A.84] Unpublished paper by Robert Le Ricolais, in French; "Infrastructure pour transports suburbains et interurbains accélérés"; [originally filed with contents of folder #086.IV.96]; n.d.; manuscript: 2 leaves.

[086.VIII.A.85] Unpublished paper by Robert Le Ricolais, in French; "Institut de Recherches et d'Applications des Structures Spatiales"; [originally filed with contents of folder #086.IV.87]; n.d.; manuscript: 1 leaf.

[086.VIII.A.86] Unpublished paper by Robert Le Ricolais, in French; "Introduction à la méthode de l'image"; [originally filed with contents of folder #086.IV.72]; n.d.; manuscript: 5 leaves.

[086.VIII.A.87] Unpublished paper by Robert Le Ricolais, in French; "Mécanique des structures"; [originally filed with contents of folder #086.IV.95]; n.d.; manuscript: 1 leaf.

[086.VIII.A.88] Unpublished paper by Robert Le Ricolais, in French; "Méthode de l'image"; [originally filed with contents of folder #086.IV.91]; n.d.; manuscript: 2 leaves.

[086.VIII.A.89] Unpublished paper by Robert Le Ricolais, in French; "Modèle de pont route tubulaire en réseaux prétendus"; [originally filed with contents of folder #086.IV.85]; n.d.; manuscript: 1 leaf.

[086.VIII.A.90] Unpublished paper by Robert Le Ricolais, in French [UF II-26]; "La nature des choses"; n.d.; manuscript: 25 leaves.

[086.VIII.A.91] Unpublished paper by Robert Le Ricolais, in French [UF II-31]; "Nombres et formes"; n.d.; manuscript: 2 leaves.

[086.VIII.A.92] Unpublished paper by Robert Le Ricolais, in French [UF II-33]; "Note sur les réseaux hexagonaux"; n.d.; manuscript: 2 leaves.

[086.VIII.A.93] Unpublished paper by Robert Le Ricolais, in French [UF II-34]; "Note sur un système ouvert de poutre à compression interne"; [originally filed with contents of folder #086.IV.55]; n.d.; typescript with manuscript annotations [2 copies]: 4 leaves.

[086.VIII.A.94] Unpublished paper by Robert Le Ricolais, in French; "Nouveau dispositif de poutres préfabriquées à grande portée" [grouped at some earlier date with] "Note sur le calcul des poutres à tirants"; n.d.; typescript and mechanical copy of manuscript: 7 leaves.

[086.VIII.A.95] Unpublished paper by Robert Le Ricolais, in French [UF II-36]; "Nouveau procédé de prétension pour plancher à grande portée"; n.d.; typescript with manuscript annotations: 2 leaves.

[086.VIII.A.96] Unpublished paper by Robert Le Ricolais, in French; "Observation des formes naturelles"; n.d.; manuscript, 1 leaf.

[086.VIII.A.97] Unpublished paper by Robert Le Ricolais, in French [UF II-40]; "Perspectives sur de nouveaux systèmes de charpentes tri-dimensionnels"; n.d.; photocopy of manuscript: 10 leaves.

[086.VIII.A.98] Unpublished paper by Robert Le Ricolais, in French; "Planchers de grande portée à déformations nulles"; [originally filed with contents of folder #086.IV.67]; n.d.; manuscript: 1 leaf.

[086.VIII.A.99] Unpublished paper by Robert Le Ricolais, in French [UF II-43]; "Planchers synclastiques"; n.d.; photocopy of manuscript: 11 leaves.

[086.VIII.A.100] Unpublished paper by Robert Le Ricolais, in French [UF II-45]; "Poutre de plancher en acier précontraint"; n.d.; photocopy of typescript and of manuscript: 3 leaves.

[086.VIII.A.101] Unpublished paper by Robert Le Ricolais, in French [UF II-46]; “Poutres en acier précontraintes”; [originally filed with contents of folder #086.IV.11]; n.d.; manuscript: 4 leaves; photocopy of manuscript, with annotations: 4 leaves.

[086.VIII.A.102] Unpublished paper by Robert Le Ricolais, in French [UF II-47]; “Problème des circulations”; n.d.; manuscript: 5 leaves.

[086.VIII.A.103] Unpublished paper by Robert Le Ricolais, in French; “Procédé de construction"; [originally filed with contents of folder #086.IV.85]; n.d.; manuscript: 1 leaf.

[086.VIII.A.104] Unpublished paper by Robert Le Ricolais, in French [UF II-48]; “Procédé pour onduler les contreplaqués ou tous matériaux analogues”; n.d.; mechanical copy of typescript, with annotations: 4 leaves.

[086.VIII.A.105] Unpublished paper by Robert Le Ricolais, in French; "Projet de transit aérien pour Philadelphie; [originally filed with contents of folder #086.IV.99]; n.d.; typescript: 1 leaf.

[086.VIII.A.106] Unpublished paper by Robert Le Ricolais, in French [1 page in English] [UF II-52]; “Propos sur les ponts suspendus”; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.107] Unpublished paper by Robert Le Ricolais, in French [UF II-53]; “Propriétés des caténaires”; n.d.; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.108] Unpublished paper by Robert Le Ricolais, in French [UF II-54]; “Propriétés mécaniques des réseaux à 3 D”; n.d.; mechanical copy of manuscript: 5 leaves.

[086.VIII.A.109] Unpublished paper by Robert Le Ricolais, in French [UF II-55]; “Propriétés mécaniques des réseaux à 3 dimensions”; n.d.; manuscript: 1 leaf.

[086.VIII.A.110] Unpublished paper by Robert Le Ricolais, in French; “Pylône de transmission de ligne à haute tension"; [originally filed with contents of folder #086.IV.65]; n.d.; manuscript: 1 leaf.

[086.VIII.A.111] Unpublished paper by Robert Le Ricolais, in French [UF II-28]; “La recherche opérationnelle en architecture”; n.d.; typescript with manuscript annotations: 3 leaves, photocopy of typescript: 3 leaves.

[086.VIII.A.112] Unpublished paper by Robert Le Ricolais, in French [UF III-58]; “Recherches de Structures aux E.-U.”; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.A.113] Unpublished paper by Robert Le Ricolais, in French; “Recherches pour une planification des espaces urbains"; [originally filed with contents of folder #086.IV.49]; n.d.; manuscript: 1 leaf.

[086.VIII.A.114] Unpublished paper by Robert Le Ricolais, in French [UF III-67]; “Réflexion sur un modèle appelé ‘Aleph’”; n.d.; typescript: 3 leaves.

[086.VIII.A.115] Unpublished paper by Robert Le Ricolais, in French [UF III-68]; “Réflexion sur un monde qui se fait”; n.d.; typescript [2 copies, including 1 with annotations]: 4 leaves.

[086.VIII.A.116] Unpublished paper by Robert Le Ricolais, in French; “Relation entre l'hyperstaticité de la structure et celle de l'image"; [originally filed with contents of folder #086.IV.91]; n.d.; manuscript: 2 leaves.

[086.VIII.A.117] Unpublished paper by Robert Le Ricolais, in French; “Réseaux à 3 dimensions"; n.d.; manuscript: 3 leaves.

[086.VIII.A.118] Unpublished paper by Robert Le Ricolais, in French; “Résumé d'une etude sur les structures tridimensionelles par R. Le Ricolais"; n.d.; manuscript: 1 leaf.

[086.VIII.A.119] Unpublished paper by Robert Le Ricolais, in French; “Schémas Hangar Hexagonal"; [originally filed with contents of folder #086.IV.83]; n.d.; manuscript: 6 leaves.

[086.VIII.A.120] Unpublished paper by Robert Le Ricolais, in French [UF III-70]; “Skyrail, Remarques au sujet de prototypes réduits”; n.d.; typescript: 2 leaves.

[086.VIII.A.121] Unpublished paper by Robert Le Ricolais, in French [UF III-72]; “Structures expérimentales, Institut de recherches architecturales de l’Université de Pennsylvanie”; n.d.; typescript with manuscript annotations: 2 leaves.

[086.VIII.A.122] Unpublished paper by Robert Le Ricolais, in French [UF III-74]; “Structures expérimentales, Institut de recherches architecturales de l’Université de Pennsylvanie”; n.d.; manuscript: 4 leaves.

[086.VIII.A.123] Unpublished paper by Robert Le Ricolais, in French [UF III-75]; “Surfaces sphérique[s] à double courbure”; n.d.; manuscript: 4 leaves.

[086.VIII.A.124] Unpublished paper by Robert Le Ricolais, in French [UF III-76]; “Sur Le Corbusier”; n.d.; typescript with manuscript annotations [2 copies]: 2 leaves.

[086.VIII.A.125] Unpublished paper by Robert Le Ricolais, in French [UF III-77]; “Sur une partition semi-régulière appliquée aux tracés urbains”; [originally filed with contents of folder #086.IV.97];n.d.; typescript with manuscript annotations [2 copies]: 2 leaves.

[086.VIII.A.126] Unpublished paper by Robert Le Ricolais, in French; “Symbolique de la ville de demain”; n.d.; photocopy of typescript with manuscript annotations: 7 leaves.

[086.VIII.A.127] Unpublished paper by Robert Le Ricolais, in French; “Système ALEPH pour ponts de grande portée"; [originally filed with contents of folder #086.IV.43]; n.d.; manuscript: 1 leaf.

[086.VIII.A.128] Unpublished paper by Robert Le Ricolais, in French [UF III-79]; “Système ouvert de poutre à compression interne”; n.d.; manuscript: 2 leaves.

[086.VIII.A.129] Unpublished paper by Robert Le Ricolais, in French; "Les systèmes 'Multicore' (Brevet APLEX) pour structures d'immeubles à étages multiples"; n.d.; typescript [2 copies]: 4 leaves.

[086.VIII.A.130] Unpublished paper by Robert Le Ricolais, in French [UF II-29]; "Les systèmes triangulés à trois dimensions"; n.d.; typescript with manuscript annotations: 6 leaves.

[086.VIII.A.131] Unpublished paper by Robert Le Ricolais, in French [UF III-80]; "Texte pour *L'Architecture d'aujourd'hui*"; n.d.; typescript with manuscript annotations: 1 leaf.

[086.VIII.A.132] Unpublished paper by Robert Le Ricolais, in French [UF III-83]; "Urbanisme et circulation"; n.d.; typescript with manuscript annotations [2 copies]: 2 leaves.

Untitled papers and fragments

[086.VIII.A.133] Unpublished paper by Robert Le Ricolais, in French; untitled ["Les choses mentent..."]; n.d.; typescript with manuscript annotations [2 copies]: 6 leaves.

[086.VIII.A.134] Unpublished paper by Robert Le Ricolais, in French; untitled ["Passés les derniers reflets des bayonnettes..."]; n.d.; typescript with manuscript annotations [2 copies]: 2 leaves.

VIII.B. Unpublished Papers by Robert Le Ricolais, in English

[086.VIII.B.1] Unpublished paper by Robert Le Ricolais, in English [UE II-45]; "Contribution to Space Structures"; dated December 1952; mechanical copy of typescript: 7 leaves.

[086.VIII.B.2] Unpublished paper by Robert Le Ricolais, in English [UE I-7]; "A Few Words About Space Structures"; dated December 1952; typescript with manuscript annotations: 3 leaves.

[086.VIII.B.3] Unpublished paper by Robert Le Ricolais, in English [UE V-110]; "Arrangement of Partitions" [grouped at some earlier date with] "Cell Partition," "Classification of 2-Dim. Networks," "Minimal Displacement and Partition," "Remark on a Way to Increase Qualitative Space in Orthogonal Partition," "Example of Topological Approach for a Partition Problem," "Hexagonal Networks," "Spherical Partition"; ca. 1953; manuscript: 20 leaves.

[086.VIII.B.4] Unpublished paper by Robert Le Ricolais, in English [UE VII-154]; "Structural Approach in Hexagonal Design"; dated February 1953; mechanical copy of typescript and manuscript [5 copies, including some with annotations]: 50 leaves.

[086.VIII.B.5] Unpublished paper by Robert Le Ricolais, in English [UE IV-92]; "Multicore Building Frame System"; dated 3/19/1953; photocopy of typescript [3 copies]: 9 leaves.

[086.VIII.B.6] Unpublished paper by Robert Le Ricolais, in English [UE III-68]; "Hexacore 'Free Flow' Industrial & Public Buildings"; dated 3/31/1953; photocopy of typescript [2 copies, including 1 with annotations]: 6 leaves.

[086.VIII.B.7] Unpublished paper by Robert Le Ricolais, in English [UE I-17]; "A New 3-Dimensional System of Double Parabolic Curvature"; dated 7/28/1954; typescript with manuscript annotations: 2 leaves.

[086.VIII.B.8] Unpublished paper by Robert Le Ricolais, in English [UE IV-108]; "Outline of the Kinetics of Structures"; excerpt from a lecture given at Harvard University; dated 1954; mechanical copy of typescript [2 copies, including 1 with manuscript annotations]: 10 leaves.

[086.VIII.B.9] Unpublished papers by Robert Le Ricolais, in English; "Queen Post Analysis" [grouped at some earlier date with] "Polyten Truss"; dated April 1955, Spring 1967, and 9/22/1968; manuscript: 10 leaves.

[086.VIII.B.10] Unpublished paper by Robert Le Ricolais, in English [UE VII-149]; "Space Partition and Architecture"; dated July 1955; typescript with manuscript annotations [2 copies]: 10 leaves.

[086.VIII.B.11] Unpublished paper by Robert Le Ricolais, in English [UE IV-87]; "Literature, Mathematics, and Life"; dated 1955; manuscript: 12 leaves.

[086.VIII.B.12] Unpublished paper by Robert Le Ricolais, in English; "Topology and Architecture"; ca. 1955; manuscript: 8 leaves.

[086.VIII.B.13] Unpublished paper by Robert Le Ricolais, in English [UE VII-150]; "Space Partition and Architecture"; dated 2/3/1956; mechanical copy of typescript: 10 leaves.

[086.VIII.B.14] Unpublished paper by Robert Le Ricolais, in English; "Transport and Communications"; August 1956; manuscript: 4 leaves.

[086.VIII.B.15] Unpublished paper by Robert Le Ricolais, in English [UE IX-193]; "Transport and Communications (T.E.F.A.P) Terrestrial Energy for Aerial Propulsion"; dated August 1956; typescript [3 copies with manuscript annotations]: 15 leaves.

[086.VIII.B.16] Unpublished paper by Robert Le Ricolais, in English [UE VII-142]; "Simplified Theory of Structural Grids Systems"; November 1956; manuscript: 20 leaves.

[086.VIII.B.17] Unpublished paper by Robert Le Ricolais, in English [UE VII-141]; "Simplified Theory of Structural Grids Systems"; dated November 1956; typescript with manuscript annotations: 24 leaves; photocopy of typescript: 24 leaves.

[086.VIII.B.18] Unpublished paper by Robert Le Ricolais, in English [UE II-36]; "Communication, Circulations, & Architecture"; Lecture given at Yale School of Architecture; dated December 1956; typescript with manuscript annotations: 6 leaves.

[086.VIII.B.19] Unpublished paper by Robert Le Ricolais, in English [UE VI-134 and UE VIII-180]; "Report on Researches Concerning 'The Michigan Floor System (M.F.S. patent)"; dated April 1957; typescript [2 copies, with manuscript annotations]: 26 leaves.

[086.VIII.B.20] Unpublished paper by Robert Le Ricolais, in English [UE VI-128]; "Remarks on Mr. Chelazzi's Structures"; dated November 1957; typescript with manuscript annotations: 2 leaves.

[086.VIII.B.21] Unpublished paper by Robert Le Ricolais, in English [UE IX-188]; "Toward Creative Design"; ca. 1958; photocopy of typescript [2 copies]: 4 leaves.

[086.VIII.B.22] Unpublished paper by Robert Le Ricolais, in English [UE IX-186]; "Topology, the Cornerstone of Structures"; dated January 1958; typescript with manuscript annotations: 8 leaves; photocopy of typescript: 8 leaves.

[086.VIII.B.23] Unpublished paper by Robert Le Ricolais, in English [UE II-34]; "Comments on the 'Inland Building'"; dated April 1958; typescript [3 copies, with manuscript annotations]: 9 leaves.

[086.VIII.B.24] Unpublished paper by Robert Le Ricolais, in English; "Design Problem on Space Grids"; [originally filed with the contents of folder #086.IV.49]; dated 4/13/1958; manuscript: 1 leaf.

[086.VIII.B.25] Unpublished paper by Robert Le Ricolais, in English [UE VII-147]; "Soap Film Experiments as an Introduction to Structural Forms & Topology"; syllabus for University of Michigan College of Architecture Course no. 264; dated May 1958; typescript with manuscript annotations: 11 leaves; photocopy of typescript: 11 leaves.

[086.VIII.B.26] Unpublished paper by Robert Le Ricolais, in English; "Project T-56"; August 1958; manuscript: 2 leaves.

[086.VIII.B.27] Unpublished paper by Robert Le Ricolais, in English; "Project T-56" [English version of UF II-49]; dated 8/26/1958; typescript with manuscript annotations[2 copies]: 6 leaves.

[086.VIII.B.28] Unpublished paper by Robert Le Ricolais, in English [UE VI-133]; "Report on Fall Semester Activity (1958)"; dated 12/13/1958; typescript [2 copies]: 2 leaves.

[086.VIII.B.29] Unpublished paper by Robert Le Ricolais, in English [UE I-25]; "Architecture as a Problem of Communication"; ca. 1959; typescript with manuscript annotations: 5 leaves; photocopy of typescript, with manuscript annotations: 5 leaves.

[086.VIII.B.30] Unpublished paper by Robert Le Ricolais, in English [UE III-80]; "Introduction to a Graphical Method for Space Systems"; ca. 1959; photocopy of typescript: 3 leaves.

[086.VIII.B.31] Unpublished paper by Robert Le Ricolais, in English [UE VIII-181]; "Theory of Combinatorial Arrangements"; ca. 1959; typescript and manuscript: 5 leaves; photocopy with annotations: 5 leaves.

[086.VIII.B.32] Unpublished paper by Robert Le Ricolais, in English [UE VII-148]; "Soap-Film Experiments as an Introduction to Structural Forms an Topology"; text of a lecture; dated February 1959; typescript with manuscript annotations: 9 leaves.

[086.VIII.B.33] Unpublished paper by Robert Le Ricolais, in English [UE VII-138]; "Science, Architecture, & Education"; dated May 1959; manuscript: 5 leaves.

[086.VIII.B.34] Unpublished paper by Robert Le Ricolais, in English [UE VII-139]; "Science, Architecture, & Education"; dated May 1959; typescript [2 copies, including 1 with annotations]: 16 leaves; photocopy of typescript [2 copies, with slightly different text]: 13 leaves.

[086.VIII.B.35] Unpublished paper by Robert Le Ricolais, in English; "Note Concerning Mr. L. R.'s Structural Researches"; dated July 1959; typescript [3 copies, including 2 with annotations]: 3 leaves.

[086.VIII.B.36] Unpublished paper by Robert Le Ricolais, in English [UE III-79]; "Internal Pressure Systems, I.P.S. patents pending"; dated August 1959; typescript with annotations [2 copies, including 1 earlier version with 1 manuscript page]: 17 leaves.

[086.VIII.B.37] Unpublished paper by Robert Le Ricolais, in English [UE VI-130]; "Report on/and Applications: Internal Pressure Systems, (Patents Pending)"; dated August 1959; manuscript: 6 leaves.

[086.VIII.B.38] Unpublished paper by Robert Le Ricolais, in English [UE IV-88]; "M[inimal] S[urface] S[tress] Network Analysis"; dated December 1959; manuscript: 6 leaves [originally filed with contents of folder #086.IV.26]; photocopy of manuscript: 20 leaves.

[086.VIII.B.39] Unpublished paper by Robert Le Ricolais, in English; "Monkey Saddle Stress Analysis"; dated December 1959; typescript and manuscript: 4 leaves.

[086.VIII.B.40] Unpublished paper by Robert Le Ricolais, in English [UE IV-90]; "Monkey Saddle Network Analysis": dated December 1959; typescript and manuscript: 4 leaves.

[086.VIII.B.41] Unpublished paper by Robert Le Ricolais, in English [UE II-60]; "External and Internal Redundancy"; ca. 1959; manuscript: 2 leaves.

[086.VIII.B.42] Unpublished paper by Robert Le Ricolais, in English; "The Coming Age of Tension Structures"; ca. 1959-1960; manuscript: 10 leaves.

[086.VIII.B.43] Unpublished paper by Robert Le Ricolais, in English [UE VIII-179]; "The Coming Age of Tension Structures"; ca. 1959-1960; typescript with manuscript annotations: [5 copies; slightly different text]: 25 leaves.

[086.VIII.B.44] Unpublished paper by Robert Le Ricolais, in English [UE II-66]; “Grid Analysis”; ca. 1960; mechanical copy of manuscript [2 copies, including one originally filed with contents of folder #086.IV.92]: 30 leaves.

[086.VIII.B.45] Unpublished paper by Robert Le Ricolais, in English [UE IV-99]; “Note on the Buckling of a Tube with Internal Pressure”; January 1960; typescript with manuscript annotations [3 copies]: 9 leaves.

[086.VIII.B.46] Unpublished paper by Robert Le Ricolais, in English [UE VI-129]; “Report Concerning the Institute of Architectural Researches”; dated January 1960; typescript with manuscript annotations: 6 leaves.

[086.VIII.B.47] Unpublished paper by Robert Le Ricolais, in English [UE II-33]; “Calculations of the Reactions at the Boundary of a Hexagonal Planar Grid System, a Unit Load Being Applied at Each Intersection”; dated April 1960; photocopy of typescript: 11 leaves.

[086.VIII.B.48] Unpublished paper by Robert Le Ricolais, in English [UE I-26]; “A Report on the Work in Structures Research”; dated May 1960; photocopy of typescript: 38 leaves.

[086.VIII.B.49] Unpublished paper by Robert Le Ricolais, in English [UE VIII-163]; “Survey of Structural Researches, 1959-1960”; ca. May 1960; typescript with manuscript annotations: 9 leaves.

[086.VIII.B.50] Unpublished paper by Robert Le Ricolais, in English; "Exhibit on Experimental Structures"; [originally filed with the contents of folder #086.IV.99]; ca.May 1960; manuscript: 2 leaves.

[086.VIII.B.51] Unpublished paper by Robert Le Ricolais, in English; “Exhibit on Experimental Structures”; with Suzanne Goes, Douglas Gordon, Hans Harms, Nengnoi Kasemsri, Key Kolb, Wing Lau, Prateep Malakula, Milan Mandic, Steve Nall, Buck Perrin, Mark Ueland, Carlos Enrique Vallhonrat, Richard Weinstein, Howard Wong; dated May 1960; typescript with manuscript annotations: 1 leaf.

[086.VIII.B.52] Unpublished paper by Robert Le Ricolais, in English [UE II-46]; “Contribution to the Study of Pretensioned Networks & Internal Pressure Systems”; dated August 1960; typescript with manuscript annotations: 17 leaves.

[086.VIII.B.53] Unpublished paper by Robert Le Ricolais, in English [UE VII-153]; “Stressed Skin Prestressing & Its Application to Bodies of Revolution”; dated November 1960; typescript: 4 leaves.

[086.VIII.B.54] Unpublished paper by Robert Le Ricolais, in English; "Application of the Image Method for the Stress Analysis of a Space Frame Structure"[originally filed with the contents of folder #086.IV.9]; dated 12/28/1960; manuscript: 10 leaves.

[086.VIII.B.55] Unpublished paper by Robert Le Ricolais, in English [UE I-4]; “A Few Words About Research”; dated December 1960; typescript with manuscript annotations: 1 leaf.

[086.VIII.B.56] Unpublished paper by Robert Le Ricolais, in English; "Grid Analysis by the Method of Concentrated Loads"; [originally filed with the contents of folder #086.IV.160]; ca. 1960; manuscript: 6 leaves.

[086.VIII.B.57] Unpublished paper by Robert Le Ricolais, in English [UE V-109]; "Pages from Manuscripts: 1960-1961"; dated 1960-1961; manuscript and mechanical copy of manuscript: 89 leaves.

[086.VIII.B.58] Unpublished paper by Robert Le Ricolais, in English; "A New Generation of Structures"; ca. 1961; manuscript: 3 leaves.

[086.VIII.B.59] Unpublished paper by Robert Le Ricolais, in English [UE I-14]; "A New Generation of Structures"; dated 4/25/1961; typescript with manuscript annotations [2 copies]: 6 leaves; mechanical copy of typescript [slightly different text]: 4 leaves.

[086.VIII.B.60] Unpublished paper by Robert Le Ricolais, in English; "Anticipations on Structures"; dated February 1961; manuscript: 11 leaves.

[086.VIII.B.61] Unpublished paper by Robert Le Ricolais, in English [UE I-20]; "Anticipations on Structures"; dated February 1961; typescript with manuscript annotations: 8 leaves, photocopy of typescript: 8 leaves.

[086.VIII.B.62] Unpublished paper by Robert Le Ricolais, in English; "Report on the Properties of String Polygonal Surfaces"; [originally filed with the contents of folder #086.IV.31]; dated 4/23/1961; manuscript: 3 leaves.

[086.VIII.B.63] Unpublished paper by Robert Le Ricolais, in English [UE VIII-175]; "Tension Structures and Related Research"; paper presented at a Conference on New Research Reports at the Building Research Institute, National Academy of Science, Washington, D.C.; dated May 17, 1961; typescript and photocopy of typescript, with annotations: 25 leaves.

[086.VIII.B.64] Unpublished paper by Robert Le Ricolais, in English [UE I-2]; "A Few Considerations on Mr. G. H. Setchell['s] Thesis on Braced Hyperbolic Parboloids"; dated 7/28/1961; typescript [3 copies, including 1 with a manuscript appendix]: 15 leaves.

[086.VIII.B.65] Unpublished paper by Robert Le Ricolais, in English [UE VII-158]; "Structural Research Program 1960-1961: Graduate Students' Class"; ca. 1961; typescript with manuscript annotations: 7 leaves.

[086.VIII.B.66] Unpublished paper by Robert Le Ricolais, in English; untitled [Cosmorama model description]; [originally filed with the contents of folder #086.IV.98]; ca. 1961; typescript with manuscript annotations: 1 leaf.

[086.VIII.B.67] Unpublished paper by Robert Le Ricolais, in English; "Network Connectivity"; [originally filed with the contents of folder #086.IV.84]; dated 3/10/1962; manuscript: 4 leaves.

[086.VIII.B.68] Unpublished paper by Robert Le Ricolais, in English [UE IV-100]; "Notes Concerning Tests on an Automorphic Tube at Penn. University"; ca. 1962; typescript with manuscript annotations [2 copies, including 1 with annotations]: 8 leaves.

[086.VIII.B.69] Unpublished paper by Robert Le Ricolais, in English [UE VIII-177]; "Tests on Automorphic Tubes"; dated May 1962; typescript and photocopy with manuscript annotations [3 copies of different lengths]: 75 leaves.

[086.VIII.B.70] Unpublished paper by Robert Le Ricolais, in English [UE II-40]; "Conditions of Economy in Automorphic Tubes (T12) in Pure Compression"; dated May 1962; typescript and photocopy of charts [3 copies, including 1 with annotations]: 12 leaves.

[086.VIII.B.71] Unpublished paper by Robert Le Ricolais, in English; "Economic Conditions for Automorphic Tube"; dated 5/6/1962 and 5/10/1962; manuscript: 17 leaves.

[086.VIII.B.72] Unpublished paper by Robert Le Ricolais, in English; "Automorphic Tubes" and "H.V.T. System"; [originally filed with the contents of folder #086.IV.97]; ca. 1962; manuscript: 3 leaves.

[086.VIII.B.73] Unpublished paper by Robert Le Ricolais, in English [UE II-48]; "Contribution to the Study of 3-Dimensional Structures"; ca. 1963; typescript with manuscript annotations: 10 leaves.

[086.VIII.B.74] Unpublished paper by Robert Le Ricolais, in English [UE V-124]; "Program: Raleigh (22-23-24 April 1963)"; dated 1963; manuscript: 7 leaves.

[086.VIII.B.75] Unpublished paper by Robert Le Ricolais, in English; "Architecture Seen as an Occupational Therapy"; dated 9/1963; mechanical copy of typescript: 6 leaves.

[086.VIII.B.76] Unpublished paper by Robert Le Ricolais, in English [UE II-61]; "Flexural Test on Automorphic Beam (T6)"; dated 11/30/1963; photocopy of typescript[2 copies]: 10 leaves.

[086.VIII.B.77] Unpublished paper by Robert Le Ricolais, in English; "Flexural Test on Automorphic Beam (T6); [originally filed with contents of folder #086.IV.23]; ca. 11/1963; manuscript: 6 leaves.

[086.VIII.B.78] Unpublished paper by Robert Le Ricolais, in English [UE V-116]; "Preliminary Flexural Test on Tension Net Tube"; ca. 1963-1964; typescript with manuscript annotations [4 copies]: 16 leaves.

[086.VIII.B.79] Unpublished paper by Robert Le Ricolais, in English [UE V-113]; "Perspective and Outline of an Aerial Mass Transit System"; address presented to the Quebec

Architectural Association, Montreal, on January 18, 1964; typescript [3 copies, some with annotations]: 27 leaves; photocopy of typescript, with manuscript annotations: 10 leaves.

[086.VIII.B.80] Unpublished paper by Robert Le Ricolais, in English [UE VI-135]; "Report on Transmission Towers"; dated February 1964; photocopy of typescript [2 copies]: 10 leaves.

[086.VIII.B.81] Unpublished paper by Robert Le Ricolais, in English [UE VIII-161]; "Survey of Researches Made at the Institute for Architectural Research, University of Pennsylvania, 1963-1964"; dated 4/2/1964; typescript [3 copies, including 1 with manuscript annotations]: 6 leaves.

[086.VIII.B.82] Unpublished paper by Robert Le Ricolais, in English [UE VI-126]; "Reinforced and Prestressed Plastic Laminate, or 'Plasteel'"; dated September 1964; typescript with manuscript annotations: 6 leaves, photocopy of typescript: 6 leaves.

[086.VIII.B.83] Unpublished paper by Robert Le Ricolais, in English [UE VI-131]; "Report on a New Material: 'Plasteel'"; dated September 1964; typescript [2 copies]: 15 leaves.

[086.VIII.B.84] Unpublished paper by Robert Le Ricolais, in English [UE VII-145]; "Skyrail—Report on Tests and Analysis"; dated December 1964; typescript: 18 leaves, photocopy of typescript: 18 leaves.

[086.VIII.B.85] Unpublished paper by Robert Le Ricolais, in English [UE VII-143]; "Skyrail—Note on Dynamic Axifugal Forces in Semi-Flexible Systems"; ca. 1965; typescript with manuscript annotations: 2 leaves, photocopy of typescript, with annotations: 2 leaves.

[086.VIII.B.86] Unpublished paper by Robert Le Ricolais, in English [UE II-59]; "Exposé on Structural Researches"; ca. 1965; photocopy of typescript [2 copies, including 1with manuscript annotations]: 25 leaves.

[086.VIII.B.87] Unpublished paper by Robert Le Ricolais, in English [UE IV-94]; "New Forms for Structural Steel"; dated January 1966; typescript with manuscript annotations [2 copies]: 10 leaves.

[086.VIII.B.88] Unpublished paper by Robert Le Ricolais, in English; "On Semi-Regular Partitions of Urban Space"; [originally filed with contents of folder #086.IV.21]; March 1966; manuscript: 1 leaf.

[086.VIII.B.89] Unpublished paper by Robert Le Ricolais, in English [UE IV-104]; "On Semi-Regular Partitions of Urban Space"; dated March 1966; manuscript, typescript, and photocopy: 5 leaves.

[086.VIII.B.90] Unpublished paper by Robert Le Ricolais, in English [UE VII-140]; "Search for a Mechanic of Forms"; dated 3/27/1966; typescript with manuscript annotations: 6 leaves.

[086.VIII.B.91] Unpublished paper by Robert Le Ricolais, in English [UE V-125]; “Proposal for a New Partition of Urban Space”; dated 12/13/1966; typescript with manuscript annotations: 13 leaves.

[086.VIII.B.92] Unpublished paper by Robert Le Ricolais, in English [UE III-81]; “Introduction to the Notion of Form”; ca. 1967; typescript with manuscript annotations: 15 leaves; mechanical copy of typescript, with manuscript annotations: 8 leaves.

[086.VIII.B.93] Unpublished paper by Robert Le Ricolais, in English [UE IX-199]; “Trihex Dome” [grouped at some earlier date with] "Graphical Application of the Image Method to Redundant Systems Forming Patterns of Equipartition," and "Fundamental of the Image Method for Space Configurations"; dated 3/24/1967; manuscript: 4 leaves.

[086.VIII.B.94] Unpublished paper by Robert Le Ricolais, in English [UE III-77]; “Implementation for Architectural Research Program”; dated April 1967; typescript with manuscript annotations: 2 leaves.

[086.VIII.B.95] Unpublished paper by Robert Le Ricolais, in English [UE VIII-184]; “The Trihex Grid System as a New Partition of Urban Space”; with Peter McCleary, main author; dated July 1967; typescript with manuscript annotations: 12 leaves .

[086.VIII.B.96] Unpublished paper by Robert Le Ricolais, in English; “A Megavolt Transmission Tower--Type Omega”; dated August 1967; typescript [2 copies]: 8 leaves.

[086.VIII.B.97] Unpublished paper by Robert Le Ricolais, in English [UE I-19]; “Anticipations”; dated October 1967; typescript with manuscript annotations: 2 leaves.

[086.VIII.B.98] Unpublished paper by Robert Le Ricolais, in English [UE VI-132]; “Report on Automorphic Configurations in the Plane and in Space”; dated 10/13/1967; photocopy of manuscript: 19 leaves.

[086.VIII.B.99] Unpublished paper by Robert Le Ricolais, in English [UE III-70]; “Hexagonal Design for the Future [I]”; dated 12/10/1967; typescript with manuscript annotations: 3 leaves.

[086.VIII.B.100] Unpublished paper by Robert Le Ricolais, in English [UE VIII-169]; “Technical Note on ‘Octen’ Towers”; dated 12/10/1967; manuscript and typescript with manuscript annotations: 4 leaves.

[086.VIII.B.101] Unpublished paper by Robert Le Ricolais, in English; "Two Proposals for Cities of Tomorrow"; ca. 1967; manuscript: 2 leaves.

[086.VIII.B.102] Unpublished paper by Robert Le Ricolais, in English; "Two Proposals for Cities of Tomorrow"; ca. 1967; photocopy of typescript: 2 leaves.

[086.VIII.B.103] Unpublished paper by Robert Le Ricolais, in English [UE V-111]; “Partition of Numbers and Planar Partition of Space”; dated January 1968; typescript with manuscript annotations: 9 leaves; photocopy of typescript: 9 leaves.

[086.VIII.B.104] Unpublished paper by Robert Le Ricolais, in English [UE IX-196]; "Trihex and Starhex Pattern for Triangulated Structures"; dated 3/5/1968; typescript and manuscript: 5 leaves; photocopy: 6 leaves.

[086.VIII.B.105] Unpublished paper by Robert Le Ricolais, in English [UE II-42]; "Considerations on Urban Circulation Problems, Proposal for a Mass Transit System, 'Skyrail'"; April 1968; typescript [2 copies]: 12 leaves.

[086.VIII.B.106] Unpublished paper by Robert Le Ricolais, in English [UE II-53]; "Economy of Trisected Q.P. Over Regular Space Frame of Identical Depth" and "Economy of Marginal Beams for Hexagonal Design"; dated 5/12/1968; manuscript: 2 leaves [originally filed with contents of folder #086.IV.14]; photocopy of manuscript, with annotations: 3 leaves.

[086.VIII.B.107] Unpublished paper by Robert Le Ricolais, in English [UE III-83]; "Investigations on Automorphic Compression Members"; with Peter McCleary, principal author; dated October 1968; photocopy of typescript: 2 bound copies.

[086.VIII.B.108] Unpublished paper by Robert Le Ricolais, in English [UE III-84]; "Investigation on the Flexural Stiffness of Networks"; dated 12/20/1968; photocopy of typescript: 2 bound copies.

[086.VIII.B.109] Unpublished paper by Robert Le Ricolais, in English [UE VI-127]; "Relationships Between Situation & Image Diagram for a Polygonal and Circular Closed Configuration," [grouped at some earlier date with] "Expression of Strain Energy for Open Configurations," and "Strain Diagram for Trusses"; dated 3/26/1968 and 1/9/1969; manuscript: 4 leaves.

[086.VIII.B.110] Unpublished paper by Robert Le Ricolais, in English [UE IV-106]; "Optimum Configurations"; with Peter McCleary; dated 1/20/1969; photocopy of manuscript: 5 leaves.

[086.VIII.B.111] Unpublished paper by Robert Le Ricolais, in English [UE IX-189]; "Transcripts from Interviews: Tape #1"; interview of Robert Le Ricolais by *VIA* editors; dated 2/27/1969; typescript with annotations: 29 leaves; photocopy with manuscript annotations: 29 leaves.

[086.VIII.B.112] Unpublished paper by Robert Le Ricolais, in English [UE IX-190]; "Transcripts from Interviews: Tape #2"; interview of Robert Le Ricolais by *VIA* editors; dated 3/6/1969; typescript with annotations: 33 leaves, photocopy of typescript: 34 leaves.

[086.VIII.B.113] Unpublished paper by Robert Le Ricolais, in English [UE I-5]; "A Few Words About Research"; dated March 1969; photocopy of typescript [2 copies, including 1 with annotations]: 8 leaves.

[086.VIII.B.114] Unpublished paper by Robert Le Ricolais, in English [UE IX-191]; "Transcripts from Interviews: Tape #3"; interview of Robert Le Ricolais by *VIA* editors; dated

5/12/1969; typescript with annotations: 18 leaves; photocopy of typescript, with annotations: 18 leaves.

[086.VIII.B.115] Unpublished paper by Robert Le Ricolais, in English [UE I-16]; "A New Structural System for High Velocity Transit"; dated November 1969; with Peter McCleary; photocopy of typescript [2 copies]: 20 leaves.

[086.VIII.B.116] Unpublished paper by Robert Le Ricolais, in English [UE VII-159]; "Structural System for High Velocity Transit"; ca. November 1969; typescript with manuscript annotations: 7 leaves, photocopy of typescript: 7 leaves.

[086.VIII.B.117] Unpublished paper by Robert Le Ricolais, in English [UE VII-157]; "Structural Researches, 1968-1969"; ca. 1969; typescript: 3 leaves.

[086.VIII.B.118] Unpublished paper by Robert Le Ricolais, in English; "Partition of Urban Space and its Relationship with the Theory of Message"; ca. 1969; [original filed in folder #086.IV.1]; photocopy of manuscript: 5 leaves.

[086.VIII.B.119] Unpublished paper by Robert Le Ricolais, in English [UE V-112]; "Partition of Urban Space and the Theory of Message"; ca. 1969; typescript with manuscript annotations [2 copies]: 8 leaves.

[086.VIII.B.120] Unpublished paper by Robert Le Ricolais, in English; "Sky-Rail: Model of a Parabolic Pretensioned Bridge"; [originally filed with the contents of folder #086.IV.99]; ca. 1969; typescript: 1 leaf.

[086.VIII.B.121] Unpublished paper by Robert Le Ricolais, in English; [Transcript of an interview with Mr. Saver]; dated 2/2/1970; photocopy of typescript with annotations: 36 leaves.

[086.VIII.B.122] Unpublished paper by Robert Le Ricolais, in English [UE II-38]; "Compared Analysis Between Orthogonal and Hexagonal Systems (Distribution of Peripheral Girders)"; dated April 1970; manuscript: 3 leaves; photocopy of manuscript: 9 leaves.

[086.VIII.B.123] Unpublished paper by Robert Le Ricolais, in English; "Transportation Networks as a New Urban Space Partition"; dated 5/31/1970; with Alexander Messinger; 2 bound copies.

[086.VIII.B.124] Unpublished paper by Robert Le Ricolais, in English [UE II-43]; "Continuous Flow Transportation Network as a New Urban Pattern"; with Alexander Messinger; 1970; photocopy of typescript and of typeset text: 49 leaves.

[086.VIII.B.125] Unpublished paper by Robert Le Ricolais, in English [UE III-72]; "Hexagonal Octagrid Network"; dated 6/13/1970; manuscript: 5 leaves.

[086.VIII.B.126] Unpublished paper by Robert Le Ricolais, in English [UE VIII-164]; "Survey of Structural Researches, 1969-1970"; dated July 1970; manuscript: 19 leaves, photocopy of manuscript, with annotations: 19 leaves.

[086.VIII.B.127] Unpublished paper by Robert Le Ricolais, in English [UE IX-192]; "Transcripts from Studio Class, 23 September 1970"; Tape #4; dated 9/23/1970; typescript with annotations: 4 leaves, photocopy of typescript: 4 leaves.

[086.VIII.B.128] Unpublished paper by Robert Le Ricolais, in English [UE I-15]; "A New Space Frame, 'OCTAGRID'" [grouped at some earlier date with] "Compared Stiffness of the Octahedron versus Tetrahedron"; dated 12/31/1970; manuscript: 17 leaves, photocopy with annotations and attached manuscript pages [2 copies]: 33 leaves.

[086.VIII.B.129] Unpublished paper by Robert Le Ricolais, in English; "Compared Analysis of Structural Weights of Orthogonal and Hexagonal Floors"; ca. 1970; manuscript: 4 leaves.

[086.VIII.B.130] Unpublished paper by Robert Le Ricolais, in English [UE VIII-168]; "Suspended Synclastic Systems (S.S.S.)"; dated 1/17/1971; manuscript: 11 leaves, photocopy of manuscript: 11 leaves.

[086.VIII.B.131] Unpublished paper by Robert Le Ricolais, in English; "Space Frames"; [originally filed with the contents of folder #086.IV.12]; dated 4/5/1971; manuscript: 3 leaves.

[086.VIII.B.132] Unpublished paper by Robert Le Ricolais, in English [UE VIII-176]; "Tension Structures & Space Frames"; paper submitted to a conference of the International Association for Shell Structures, Tokyo, Fall 1971; photocopy of typescript [2 copies]: 6 leaves.

[086.VIII.B.133] Unpublished paper by Robert Le Ricolais, in English [UE VII-155]; "Structural Approach on the Street Problem"; ca. December 1971; typescript: 3 leaves.

[086.VIII.B.134] Unpublished paper by Robert Le Ricolais, in English [UE II-44]; "Contribution to Bridge Design"; dated 10/14/1971; photocopy of typescript [2 copies]: 10 leaves.

[086.VIII.B.135] Unpublished paper by Robert Le Ricolais, in English [UE I-8]; "A Gadget, a New Material? A New System?"; ca. 1973; typescript with manuscript annotations: 7 leaves.

[086.VIII.B.136] Unpublished paper by Robert Le Ricolais, in English; "Zero Deflection System for Floor of Large Area" [grouped at some earlier date with] "Comparative Evaluation of Prestressing & Z.D.S Technique"; ca. 1973; manuscript: 8 leaves.

[086.VIII.B.137] Unpublished paper by Robert Le Ricolais, in English [UE IX-207]; "Zero Deflection System for Floor of Large Area"; ca. 1973; typescript with manuscript annotations: 7 leaves.

[086.VIII.B.138] Unpublished paper by Robert Le Ricolais, in English [UE IV-105]; "On Structural Researches & Related Subjects"; dated 4/1/1973; typescript: 4 pages [some pages missing]; photocopy of typescript [complete]: 9 leaves.

[086.VIII.B.139] Unpublished paper by Robert Le Ricolais, in English [UE V-118]; "Prestressed Steel Beam (P.S.B.)"; dated 8/14/1973; manuscript: 6 leaves; photocopy of manuscript: 6 leaves.

[086.VIII.B.140] Unpublished paper by Robert Le Ricolais, in English [UE II-64]; "General Notions on Prestressed Steel and Its Applications"; dated September 1973; manuscript: 5 leaves; photocopy of manuscript with annotations: 5 leaves.

[086.VIII.B.141] Unpublished paper by Robert Le Ricolais, in English [UE IV-96]; "New Suspension Bridges (pat. applied)"; dated 1/10/1974; manuscript: 6 leaves.

[086.VIII.B.142] Unpublished paper by Robert Le Ricolais, in English [UE II-39]; "Complexity and Simplicity in Structures"; dated 2/14/1974; manuscript and typescript with manuscript annotations: 11 leaves.

[086.VIII.B.143] Unpublished paper by Robert Le Ricolais, in English [UE V-117]; "Prestressed Bridge: Helicoidal Tension System"; dated 3/15/1974; manuscript: 2 leaves; photocopy of manuscript with manuscript annotations: 2 leaves.

[086.VIII.B.144] Unpublished paper by Robert Le Ricolais, in English [UE I-22]; "Aplexic Systems (patents applied)"; dated 4/21/1974; manuscript: 5 leaves; photocopy of manuscript, with annotations: 11 leaves.

[086.VIII.B.145] Unpublished paper by Robert Le Ricolais, in English [UE VIII-173]; "Tension Stressed Tubes (T.S.T.)"; dated 4/21/1974; manuscript: 5 leaves; photocopy of manuscript: 5 leaves.

[086.VIII.B.146] Unpublished paper by Robert Le Ricolais, in English [UE II-52]; "D[iamond] N[etwork] S[ystems], Patent Applied"; dated 10/10/1974; manuscript: 4 leaves.

[086.VIII.B.147] Unpublished paper by Robert Le Ricolais, in English [UE IX-204]; "Use of Cable Networks Applied to Metallic Structures Constrained by Bending"; translation of a report submitted to the French Academy of Sciences; dated October 1974; typescript and photocopy of drawing: 3 leaves.

[086.VIII.B.148] Unpublished paper by Robert Le Ricolais, in English [UE I-3]; "A Few Reflections About Space Structures"; dated 11/18/1974; typescript with manuscript annotations: 4 leaves.

[086.VIII.B.149] Unpublished paper by Robert Le Ricolais, in English [UE V-119]; "Prestressed Steel Tubular Bridge, Analytic Approach"; dated March 1975; photocopy of manuscript, with annotations: 8 leaves.

[086.VIII.B.150] Unpublished paper by Robert Le Ricolais, in English [UE I-21]; "Aplexic Systems"; dated 4/15/1975; photocopy of typescript, with manuscript annotations [2 copies]: 12 leaves

[086.VIII.B.151] Unpublished paper by Robert Le Ricolais, in English [UE II-32]; "Built Environment and Any Subject of Interest for the Design Profession"; dated

10/27/1975; typescript with manuscript annotations: 4 leaves, photocopy of typescript, with manuscript annotations: 4 leaves.

[086.VIII.B.152] Unpublished paper by Robert Le Ricolais, in English; "Abstract From a Study on 3-Dimensional Structures" and "Improvements to Metallic Structures by the Use of Three-Dimensional Systems"; n.d.; typescript with manuscript annotations: 17 leaves.

[086.VIII.B.153] Unpublished paper by Robert Le Ricolais, in English [UE I-1]; "About Tension Structures and Related Subjects"; n.d.; manuscript: 2 leaves.

[086.VIII.B.154] Unpublished paper by Robert Le Ricolais, in English [UE I-6]; "A Few Words About Researches"; n.d.; typescript with manuscript annotations: 9 leaves, photocopy with manuscript annotations: 9 leaves.

[086.VIII.B.155] Unpublished paper by Robert Le Ricolais, in English [UE I-9]; "A Method of Analysis of Structural Models"; n.d.; mechanical copy of manuscript: 17 leaves.

[086.VIII.B.156] Unpublished paper by Robert Le Ricolais, in English; "An Advanced Prestressing Theory: 'T-Lock' System"; n.d.; manuscript: 5 leaves; photocopy with annotations: 5 leaves.

[086.VIII.B.157] Unpublished paper by Robert Le Ricolais, in English [UE I-10]; "Analogy Between Trusses and Plain Beams"; n.d.; manuscript: 1 leaf.

[086.VIII.B.158] Unpublished paper by Robert Le Ricolais, in English [UE I-11]; "Analysis of Tensioned Space Systems"; n.d.; photocopy of typescript [2 copies]: 6 leaves.

[086.VIII.B.159] Unpublished paper by Robert Le Ricolais, in English [UE I-12]; "Analysts versus Intuitionists"; n.d.; manuscript: 1 leaf.

[086.VIII.B.160] Unpublished paper by Robert Le Ricolais, in English [UE I-13]; "Anatomy of Megastructures"; n.d.; manuscript: 3 leaves.

[086.VIII.B.161] Unpublished paper by Robert Le Ricolais, in English [UE I-18]; "A New Truss, 'Trihex'"; n.d.; manuscript and photocopy of typescript: 27 leaves.

[086.VIII.B.162] Unpublished paper by Robert Le Ricolais, in English [UE I-23]; "Aplex Wood Prototype"; n.d.; photocopy of manuscript: 7 leaves.

[086.VIII.B.163] Unpublished paper by Robert Le Ricolais, in English; "Application of Simple Topological Relationships to Architecture"; [grouped at some earlier date with other untitled papers, some in French]; n.d.; manuscript: 20 leaves.

[086.VIII.B.164] Unpublished paper by Robert Le Ricolais, in English; "Application of the 'T-lock' System for a Prestressed Steel Beam"; [originally filed with the contents of folder #086.IV.13]; n.d.; photocopy of manuscript: 4 leaves.

[086.VIII.B.165] Unpublished paper by Robert Le Ricolais, in English; "Approach to Transmission Tower Computation"; [originally filed with the contents of folder #086.IV.65]; n.d.; manuscript: 4 leaves.

[086.VIII.B.166] Unpublished paper by Robert Le Ricolais, in English [UE I-27]; "A Simple Method of Calculation for Planar Network & Application to 'Trihex Grids'"; n.d.; typescript with manuscript annotations [3 copies of differing lengths]: 16 leaves.

[086.VIII.B.167] Unpublished paper by Robert Le Ricolais, in English [UE I-28]; "As I See It: Inventors and Industry"; n.d.; manuscript: 2 leaves.

[086.VIII.B.168] Unpublished paper by Robert Le Ricolais, in English; "A String-Net Analog for the Solution of the Equations of Laplace and Poisson"; [originally filed with the contents of folder #086.IV.83]; manuscript: 8 leaves.

[086.VIII.B.169] Unpublished paper by Robert Le Ricolais, in English; "Automorphic Redundancy"; [originally filed with the contents of folder #086.IV.84]; n.d.; manuscript: 2 leaves.

[086.VIII.B.170] Unpublished paper by Robert Le Ricolais, in English [UE I-29]; "Automorphic Systems and Transmission Towers"; n.d.; photocopy of typescript [2 copies, including 1 with annotations]: 4 leaves.

[086.VIII.B.171] Unpublished paper by Robert Le Ricolais, in English [UE I-30]; "Automorphism"; n.d.; typescript with manuscript annotations: 2 leaves.

[086.VIII.B.172] Unpublished paper by Robert Le Ricolais, in English [UE I-31]; "Automorphism and Structures"; n.d.; photocopy of typescript: 4 leaves.

[086.VIII.B.173] Unpublished paper by Robert Le Ricolais, in English [UE II-35]; "Communication & Architecture (Philosophy of Structures)"; n.d.; manuscript: 10 leaves.

[086.VIII.B.174] Unpublished paper by Robert Le Ricolais, in English [UE II-37]; "Comparative Stiffnesses of Prestressed and Nonprestressed Steel Profiles"; n.d.; manuscript: 1 leaf.

[086.VIII.B.175] Unpublished paper by Robert Le Ricolais, in English; "Considerations on Future Forms"; [originally filed with contents of folder #086.IV.85]; n.d.; manuscript: 1 leaf.

[086.VIII.B.176] Unpublished paper by Robert Le Ricolais, in English [UE II-41]; "Consideration on Safety Factor Used in Compression Systems"; n.d.; photocopy of typescript [2 copies, including 1with manuscript annotations]: 2 leaves.

[086.VIII.B.177] Unpublished paper by Robert Le Ricolais, in English [UE II-47]; "Contribution to the Study of Structures"; n.d.; typescript with manuscript annotations: 9 leaves.

[086.VIII.B.178] Unpublished paper by Robert Le Ricolais, in English; "Contribution to the Study of 3-D Structures"; n.d.; manuscript: 15 leaves.

[086.VIII.B.179] Unpublished paper by Robert Le Ricolais, in English [UE II-49]; “Description of Aplex Steel Panel Prototype”; n.d.; mechanical copy of manuscript: 1 leaf.

[086.VIII.B.180] Unpublished paper by Robert Le Ricolais, in English [UE II-50]; “Development of the Arch in Two Dimensions”; n.d.; manuscript: 8 leaves.

[086.VIII.B.181] Unpublished paper by Robert Le Ricolais, in English; "Device of Automatic Control of Deflections for Two-Sheet Tension Structures"; [originally filed with contents of folder #086.IV.94]; n.d.; manuscript: 1 leaf.

[086.VIII.B.182] Unpublished paper by Robert Le Ricolais, in English; "Diagram of Stresses in Plane Triangular Networks"; [originally filed with contents of folder #086.IV.64]; n.d.; manuscript: 2 leaves.

[086.VIII.B.183] Unpublished paper by Robert Le Ricolais, in English [UE II-51]; “Diamond Network Systems”; with Jesse S. Okie and Charles Sawyer; n.d. [ca. Spring 1975]; manuscript and typescript: 9 leaves; photocopy of typeset version: 4 leaves.

[086.VIII.B.184] Unpublished paper by Robert Le Ricolais, in English; “Elements of Analytic Geometry, Analytical Definition of Surfaces”; n.d.; manuscript: 8 leaves.

[086.VIII.B.185] Unpublished paper by Robert Le Ricolais, in English; "Euler's Number for Orthogonal [Networks]"; [originally filed with contents of folder #086.IV.84]; manuscript: 15 leaves.

[086.VIII.B.186] Unpublished paper by Robert Le Ricolais, in English [UE II-54]; “Excerpt From a Work in Preparation”; n.d.; typescript with manuscript annotations: 1 leaf.

[086.VIII.B.187] Unpublished paper by Robert Le Ricolais, in English [UE II-55]; “Experimental Research on Bridges for Rapid Transit”; n.d.; photocopy of typescript: 4 leaves.

[086.VIII.B.188] Unpublished paper by Robert Le Ricolais, in English [UE II-56]; “Experimental Structures, U. of P., Large Span Suspended Floors”; n.d.; manuscript: 7 leaves, photocopy of manuscript: 7 leaves.

[086.VIII.B.189] Unpublished paper by Robert Le Ricolais, in English [UE II-57]; “Experiments in Structures”; n.d.; typescript [2 copies]: 2 leaves.

[086.VIII.B.190] Unpublished paper by Robert Le Ricolais, in English [UE II-58]; “Experiment with Tetrahedronal Frame”; n.d.; manuscript and typescript: 3 leaves.

[086.VIII.B.191] Unpublished paper by Robert Le Ricolais, in English; "From What Structures Are to What They Should Be"; [originally filed with contents of folder #086.IV.75]; n.d.; manuscript: 2 leaves.

[086.VIII.B.192] Unpublished paper by Robert Le Ricolais, in English [UE II-62]; “General Approach of Our Research Methodology”; n.d.; typescript: 2 leaves.

[086.VIII.B.193] Unpublished paper by Robert Le Ricolais, in English [UE II-63]; "General information on 'E-Grid' Systems"; n.d.; typescript: 4 leaves.

[086.VIII.B.194] Unpublished paper by Robert Le Ricolais, in English [UE II-65]; "Graphical Applications of the Theory of Surplus"; n.d.; typescript with manuscript annotations [2 copies]: 13 leaves.

[086.VIII.B.195] Unpublished paper by Robert Le Ricolais, in English; "Graphical Method for Network Analysis" [grouped with "Extension of Graphical Methods Applied to the Study of Stresses in Three-Dimensional Systems"; [originally filed with contents of folder #086.IV.93]; n.d.; manuscript and photocopy of typescript: 13 leaves.

[086.VIII.B.196] Unpublished paper by Robert Le Ricolais, in English [UE II-67]; "Growth of Simple Hexagonal Configuration: Trihex & Starhex"; n.d.; typescript and manuscript [originally filed with contents of folder #086.IV.48]: 3 leaves.

[086.VIII.B.197] Unpublished paper by Robert Le Ricolais, in English [UE III-69]; "Hexaflex Floor Computations"; n.d.; typescript and drawings: 9 leaves.

[086.VIII.B.198] Unpublished paper by Robert Le Ricolais, in English [UE III-71]; "Hexagonal Design for the Future [II]"; n.d.; typescript [2 copies]: 6 leaves.

[086.VIII.B.199] Unpublished paper by Robert Le Ricolais, in English; "High Velocity Transit: General Description of the System"; [originally filed with contents of folder #086.IV.47]; n.d.; manuscript: 1 leaf.

[086.VIII.B.200] Unpublished paper by Robert Le Ricolais, in English [UE III-73]; "Home for Sunday"; n.d.; typescript with manuscript annotations [2 copies]: 6 leaves.

[086.VIII.B.201] Unpublished paper by Robert Le Ricolais, in English; "Image Diagram of a Triangular Network"; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 3 leaves.

[086.VIII.B.202] Unpublished paper by Robert Le Ricolais, in English [UE III-74]; "Image Method [I]"; n.d.; manuscript: 11 leaves, mechanical copy of drawing: 1 leaf.

[086.VIII.B.203] Unpublished paper by Robert Le Ricolais, in English [UE III-75]; "Image Method [II]"; n.d.; photocopy of manuscript: 3 leaves.

[086.VIII.B.204] Unpublished paper by Robert Le Ricolais, in English; "The Image Method and Space Partition"; [originally filed with contents of folder #086.IV.44]; n.d.; manuscript: 3 leaves.

[086.VIII.B.205] Unpublished paper by Robert Le Ricolais, in English; "The Image Method for the Graphical Analysis of Stresses in 3-dimensional Systems"; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 3 leaves.

[086.VIII.B.206] Unpublished paper by Robert Le Ricolais, in English; "Image of Planar Networks"; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 8 leaves.

[086.VIII.B.207] Unpublished paper by Robert Le Ricolais, in English [UE III-76]; "Impact and Evaluation of Transportation Networks as a New Urban Space Partition"; n.d.; with Peter McCleary and Alexander Messinger; photocopy of typescript [2 copies]: 16 leaves.

[086.VIII.B.208] Unpublished paper by Robert Le Ricolais, in English; "Introduction to Experimental Structures"; [originally filed with contents of folder #086.IV.70]; n.d.; manuscript: 3 leaves.

[086.VIII.B.209] Unpublished paper by Robert Le Ricolais, in English; "Introduction to the Image Method"; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 2 leaves.

[086.VIII.B.210] Unpublished paper by Robert Le Ricolais, in English [UE III-82]; "Introduction to the Problem of Space Partition"; n.d.; typescript: 24 leaves.

[086.VIII.B.211] Unpublished paper by Robert Le Ricolais, in English; "Introductory Note on Research Objective"; n.d.; manuscript: 5 leaves.

[086.VIII.B.212] Unpublished paper by Robert Le Ricolais, in English [UE IV-85]; "Large Span Structures"; n.d.; manuscript: 3 leaves.

[086.VIII.B.213] Unpublished paper by Robert Le Ricolais, in English [UE IV-86]; "Levels of Circulation in Rapid Transit Systems"; n.d.; typescript [2 copies]: 4 leaves.

[086.VIII.B.214] Unpublished paper by Robert Le Ricolais, in English [UE IV-89]; "Momentless Structures"; n.d.; manuscript and typescript with annotations: 4 leaves.

[086.VIII.B.215] Unpublished paper by Robert Le Ricolais, in English [UE IV-91]; "M. S. Tension System"; n.d.; typescript with manuscript annotations: 6 leaves.

[086.VIII.B.216] Unpublished paper by Robert Le Ricolais, in English; "Network Stress Diagram"; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 5 leaves.

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[086.VIII.B.218] Unpublished paper by Robert Le Ricolais, in English [UE IV-95]; "New Partition of Space: Trihex & Starhex"; n.d.; typescript with manuscript annotations: 9 leaves, photocopy of typescript: 9 leaves.

[086.VIII.B.219] Unpublished paper by Robert Le Ricolais, in English; "New Structural Design for Trusses and Space Frames"; n.d.; manuscript: 8 leaves.

[086.VIII.B.220] Unpublished paper by Robert Le Ricolais, in English [UE IV-97]; "Note on Catenary Curves"; n.d.; typescript with manuscript annotations [2 copies]: 2 leaves.

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[086.VIII.B.233] Unpublished paper by Robert Le Ricolais, in English; "Prestressing of Certain Thin Membrane Networks"; [originally filed with contents of folder #086.IV.50]; n.d.; manuscript: 16 leaves.

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[086.VIII.B.238] Unpublished paper by Robert Le Ricolais, in English; "Qualitative Analysis of a D.C.N."; [originally filed with contents of folder #086.IV.84]; n.d.; manuscript: 3 leaves.

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[086.VIII.B.243] Unpublished paper by Robert Le Ricolais, in English; [Review of *Jean Prouvé*, edited by Benedikt Huber and Jean-Claude Steinegger]; n.d.; photocopy of typescript: 4 leaves.

[086.VIII.B.244] Unpublished paper by Robert Le Ricolais, in English [UE VII-144]; "Skyrail—Report on Mass Transit System"; n.d.; mechanical copy of typescript: 7 leaves, photocopy of typescript: 7 leaves.

[086.VIII.B.245] Unpublished paper by Robert Le Ricolais, in English [UE VII-146]; "Skyrail—Resume [summary]"; n.d.; typescript with manuscript annotations [4 copies]: 12 leaves.

[086.VIII.B.246] Unpublished paper by Robert Le Ricolais, in English; "Space Frames"; n.d.; manuscript: 3 leaves.

[086.VIII.B.247] Unpublished paper by Robert Le Ricolais, in English [UE VII-151]; "Stability of Redundant Space Structures"; n.d.; photocopy of typescript [2 copies, including 1 with annotations]: 4 leaves.

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[086.VIII.B.249] Unpublished paper by Robert Le Ricolais, in English [UE VII-156]; “Structural Ideas for the Next Decade”; n.d.; typescript with manuscript annotations: 7 leaves; photocopy with annotations: 7 leaves.

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[086.VIII.B.257] Unpublished paper by Robert Le Ricolais, in English [UE VIII-167]; “Suspended Floors of Great Span”; n.d.; photocopy of typescript: 5 leaves.

[086.VIII.B.258] Unpublished paper by Robert Le Ricolais, in English [UE VIII-170]; “Technical Note on Space Grid Systems”; n.d.; typescript with manuscript annotations: 9 leaves, photocopy of typescript: 9 leaves.

[086.VIII.B.259] Unpublished paper by Robert Le Ricolais, in English [UE VIII-171]; “Tensioned Tubular Network Analysis” [grouped at some earlier date with] "Analysis of Tensioned Space Systems" and "Stability of Redundant Space Structures"; n.d.; photocopy of typescript: 8 leaves.

[086.VIII.B.260] Unpublished paper by Robert Le Ricolais, in English [UE VIII-172]; “Tension Module for a Planified Structuration of Urban Space”; n.d.; typescript: 2 leaves.

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[086.VIII.B.263] Unpublished paper by Robert Le Ricolais, in English; "Tentative Procedure for Multi-Cellular Space Frames"; [originally filed with contents of folder #086.IV.94]; n.d.; manuscript: 1 leaf.

[086.VIII.B.264] Unpublished paper by Robert Le Ricolais, in English; "Tentative Program for an Institute of Advanced Studies"; [originally filed with contents of folder #086.IV.96]; n.d.; manuscript: 4 leaves.

[086.VIII.B.265] Unpublished paper by Robert Le Ricolais, in English; "Tentative Program on Structural Researches"; [originally filed with contents of folder #086.IV.99]; n.d.; manuscript: 4 leaves.

[086.VIII.B.266] Unpublished paper by Robert Le Ricolais, in English; "Tests & Preliminary Analysis on Sky-Rail Model"; [originally filed with contents of folder #086.IV.86]; n.d.; manuscript: 13 leaves.

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[086.VIII.B.268] Unpublished paper by Robert Le Ricolais, in English; "Tetragrid"; [originally filed with contents of folder #086.IV.11]; n.d.; manuscript: 1 leaf.

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[086.VIII.B.270] Unpublished paper by Robert Le Ricolais, in English [UE VIII-185]; "3-Dimensional Reticular Systems"; n.d.; typescript [2 copies, including 1 with manuscript annotations]: 6 leaves.

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[086.VIII.B.272] Unpublished paper by Robert Le Ricolais, in English [UE IX-187]; "Toward an Architecture of Free Movement"; n.d.; manuscript: 7 leaves.

[086.VIII.B.273] Unpublished paper by Robert Le Ricolais, in English [UE IX-194]; "Trend towards a Dynamic Architecture"; n.d.; manuscript: 14 leaves.

[086.VIII.B.274] Unpublished paper by Robert Le Ricolais, in English [UE IX-195]; "Trihex"; n.d.; photocopy of typescript: 3 leaves.

[086.VIII.B.275] Unpublished paper by Robert Le Ricolais, in English [UE IX-199]; "Trihex Dome"; n.d.; [one copy of typescript originally filed with contents of folder #086.IV.58]; typescript with manuscript annotations [2 copies, including 1 with drawings]: 13 leaves.

[086.VIII.B.276] Unpublished paper by Robert Le Ricolais, in English [UE IX-198]; "Trihex Dome"; n.d. [October 13, no year]; manuscript: 3 leaves.

[086.VIII.B.277] Unpublished paper by Robert Le Ricolais, in English [UE IX-200]; "Tubular Diamond Network, (D.N.S.)"; n.d.; photocopy of typescript: 1 leaf.

[086.VIII.B.278] Unpublished paper by Robert Le Ricolais, in English; "Under Sea Transit"; [originally filed with contents of folder #086.IV.20]; n.d.; manuscript: 5 leaves.

[086.VIII.B.279] Unpublished paper by Robert Le Ricolais, in English [UE IX-201]; "Under Sea Transit"; n.d.; manuscript: 6 leaves.

[086.VIII.B.280] Unpublished paper by Robert Le Ricolais, in English [UE IX-201]; "Under Sea Transit"; n.d; typescript and drawings: 9 leaves; photocopy with annotations [2 copies]: 14 leaves.

[086.VIII.B.281] Unpublished paper by Robert Le Ricolais, in English [UE IX-203]; "Unit Cells for Tensioned Steel Structures"; n.d.; typescript with manuscript annotations: 4 leaves.

[086.VIII.B.282] Unpublished paper by Robert Le Ricolais, in English [UE IX-205]; "Will There Be a Tomorrow? Will There Be Cities?" n.d.; typescript with manuscript annotations: 3 leaves; photocopy with annotations: 4 leaves.

[086.VIII.B.283] Unpublished paper by Robert Le Ricolais, in English; "Z.D.S."; [originally filed with contents of folder #086.IV.67]; n.d.; manuscript: 5 leaves.

[086.VIII.B.284] Unpublished paper by Robert Le Ricolais, in English [UE IX-206]; "Z.D.S."; n.d.; typescript with manuscript annotations: 4 leaves.

[untitled, fragmentary, and miscellaneous papers]

[086.VIII.B.285] Unpublished paper by Robert Le Ricolais, in English; untitled ["Danger in changing the present courses. Necessity of a firm, consistent background."]; [originally filed with contents of folder #086.IV.96]; dated 11/29/1955; manuscript: 3 leaves.

[086.VIII.B.286] Unpublished paper by Robert Le Ricolais, in English; untitled ["Beneath the land surface..."]; n.d.; manuscript: 3 leaves.

[086.VIII.B.287] Unpublished paper by Robert Le Ricolais, in English; untitled ["It is conventionally accepted that static graphic procedure is only applicable to determinate systems."]; n.d.; typescript [2 copies]: 6 leaves.

[086.VIII.B.288] Unpublished paper by Robert Le Ricolais, in English; untitled ["It is interesting to note that the basic structural concepts of today are often more than half a century old."]; [originally filed with contents of folder #086.IV.91]; n.d.; manuscript: 5 leaves.

[086.VIII.B.289] Unpublished paper by Robert Le Ricolais, in English; untitled ["It shall be the purpose of this paper to present thoughts on the form of soap bubbles as related to pressure and boundary conditions]; n.d.; three bound copies [research report?]; include 9 photoprints.

[086.VIII.B.290] Unpublished paper by Robert Le Ricolais, in English; untitled ["Up to a certain point any comment would appear superfluous…"]; [originally filed with contents of folder #086.IV.85]; n.d.; manuscript: 4 leaves.

Series IX. Published Writings and Interview

IX. A. Published Papers by Robert Le Ricolais, in French

[086.IX.A.1] Published paper by Robert Le Ricolais, in French [PF I-23]; "Les tôles composées et leurs applications aux constructions métalliques légères." *Bulletin de la société des ingénieurs civils de France* (May-June 1935); article: 1 copy, photocopy of article: 5 copies.

[086.IX.A.2] Published paper by Robert Le Ricolais, in French [PF I-13]; "Essai sur des systèmes réticulés à trois dimensions [I]" *Annales des ponts et chaussées* (July-August 1941): 63-70; offprint: 1 copy, photocopy of article: 2 copies.

[086.IX.A.3] Published paper by Robert Le Ricolais, in French; "Essai sur des systèmes réticulés à trois dimensions [II]" *Annales des ponts et chaussées* (September-October 1941): 152-165; photocopy of article: 3 copies.

[086.IX.A.4] Published paper by Robert Le Ricolais, in French [PF I-8]; "Charpente Aplex." *L'Architecture d'aujourd'hui* no. 4 (January 1946): 40-41; photocopy of article: 2 copies.

[086.IX.A.5] Published paper by Robert Le Ricolais, in French [PF I-22]; "Les systèmes réticulés en trois dimensions." In *Urbanisme en Sarre*, 88-89. Sarrebruck: Malstatt-Burbacher Handelsdruckerei, 1947; photocopy of article: 1 copy.

[086.IX.A.6] Published paper by Robert Le Ricolais, in French [PF I-9]; "Charpente tridimensionnelle pour hangars." *Techniques et architecture rurales* no. 1 [supplement to *Techniques et architecture* 7 no. 8 (1947)]: 14-15; magazine clipping: 1 copy (photograph only), photocopy of article: 5 copies.

[086.IX.A.7] Published paper by Robert Le Ricolais, in French [PF I-6]; "Calcul des tensions et des déformations en flexion plane d'un réseau hexagonal à trois dimensions, appuyé sur le pourtour." *Le génie civil* 131 no. 10 (May 1949): 185-187; journal clipping: 1 copy, photocopy of article: 1 copy.

[086.IX.A.8] Published paper by Robert Le Ricolais, in French [PF II-48]; "Une école d'architecture aux Etats-Unis." *L'Architecture d'aujourd'hui* 24 no. 50-51 (December 1953): 124-126; offprint: 3 copies, photocopy of article: 4 copies.

[086.IX.A.9] Published paper by Robert Le Ricolais, in French [PF I-21]; "Les réseaux à trois dimensions: à propos du projet de hangar d'aviation de Konrad Wachsmann," *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): 10-13; photocopy of article: 5 copies.

[086.IX.A.10] Published paper by Robert Le Ricolais, in French [PF II-42]; "Stade couvert pour 8.000 spectateurs à Philadelphie." *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): 12; photocopy of article: 2 copies.

[086.IX.A.11] Published paper by Robert Le Ricolais, in French [PF I-25]; "Nouveaux réseaux triangulés à double courbure." *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): xxi; photocopy of article: photocopy of article: 3 copies.

[086.IX.A.12] Published paper by Robert Le Ricolais, in French [PF II-45]; "Systèmes Hexacore pour bâtiments publics et industriels." *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): xxi; photocopy of article: 3 copies.

[086.IX.A.13] Published paper by Robert Le Ricolais, in French [PF II-27]; "Esquisse d'une cinématique des structures." *L'Architecture d'aujourd'hui* no. 60 (May-June 1955): 34-37; magazine clipping: 1 complete and 1 incomplete copy, photocopy of article: 1 copy.

[086.IX.A.14] Published paper by Robert Le Ricolais, in French [PF II-43]; "Structures et formes." *L'Architecture d'aujourd'hui* 30 no. 84 (June-July 1959): 64-68; offprint: 7 copies, magazine clipping: 5 copies, photocopy of article: 3 copies.

[086.IX.A.15] Published paper by Robert Le Ricolais, in French [PF II-29]; "Propos au sujet d'une architecture spatiale." *L'Architecture d'aujourd'hui* 31 no. 91-92 (September-October-November 1960): 192-193; offprint: 10 copies, photocopy of article: 1 copy.

[086.IX.A.16] Published paper by Robert Le Ricolais, in French [PF II-26]; "Nouvelles combinaisons structurales." *L'Architecture d'aujourd'hui* 32 no. 99 (December 1961-January 1962): 8-9; magazine clipping: 3 copies including 1 incomplete copy (p. 9 missing), photocopy of article: 3 copies, mechanical copy of article: 3 copies.

[086.IX.A.17] Published paper by Robert Le Ricolais, in French [PF II-30]; "Propos sur Louis Kahn." *L'Architecture d'aujourd'hui* 33 no. 105 (December 1962-January 1963): 1; photocopy of article: 4 copies.

[086.IX.A.18] Published paper by Robert Le Ricolais, in French [PF II-31]; "Recherches de structures." *Architecture, formes et fonctions* Année 9 (1962-1963): 69-73; photocopy of article: 3 copies (including one incomplete), magazine clipping: 2 incomplete copies, mechanical copy of article: 1 copy.

[086.IX.A.19] Published paper by Robert Le Ricolais, in French [PF I-2]; "Aperçu sur une nouvelle classe de structures tendues." In *Hanging Roofs*, Proceedings of the IASS Colloquium, Paris 9-11 July 1962. Amsterdam: North-Holland Publishing Company, 1963; offprint: 20 copies, photocopy of article: 2 copies.

[086.IX.A.20] Published paper by Robert Le Ricolais, in French [PF II-40]; "Robert Le Ricolais: 30 ans de recherches sur les structures." Introduction by Léon Prébandier. *L'Architecture d'aujourd'hui* 34 no. 108 (June-July 1963): 85-101; magazine clipping (including English summary): 1 copy, offprint: 8 copies, photocopy of article: 6 copies (including 1 copy with summary in English).

[086.IX.A.21] Published paper by Robert Le Ricolais, in French [PF II-33]; "Réflexions générales à propos d'un système de transport particulier." *L'Architecture d'aujourd'hui* 34 no. 110 (October-November 1963): 1; offprint: 20 copies, photocopy of article: 5 copies.

[086.IX.A.22] Published paper by Robert Le Ricolais, in French [PF I-11]; "Circulation aérienne par monorail suspendu 'Skyrail System.'" *L'Architecture d'aujourd'hui* 34 no. 113-114 (April-May 1964): 198-200; offprint: 1 copy, photocopy of article: 7 copies.

[086.IX.A.23] Published paper by Robert Le Ricolais, in French [PF I-20]; "Le Skyrail." *Architecture, formes et Fonctions* no. 11 (1964-65): 85-87; mechanical copy of article: 1 copy, photocopy of article: 3 copies.

[086.IX.A.24] Published paper by Robert Le Ricolais, in French [PF I-18]; *Le Ricolais: Espace, Mouvement, Structure. Palais de la Découverte, juillet 1965*. Exhibition catalogue. Preface by Paul Montel, foreword by Louis Kahn, introduction by G.H. Pingusson. Paris: Université de Paris, 1965; catalogue: 1 copy, offprint: 1 copy.

[086.IX.A.25] Published paper by Robert Le Ricolais, in French [PF II-34]; "Réflexions sur la formation de l'architecte." *SADG* (September 1965): 232-235; photocopy of article: 2 copies.

[086.IX.A.26] Published paper by Robert Le Ricolais, in French [PF I-1]; *A la recherche d'une mécanique des formes*. Pamphlet (text of a lecture) published in connection with the July 1965 exhibition at the Palais de la Découverte. Paris: Université de Paris, 1965; pamphlet: 1 copy, photocopy of pamphlet: 2 copies.

[086.IX.A.27] Published paper by Robert Le Ricolais, in French [PF I-12]; "Espace et structure: à la recherche d'une mécanique des formes." *Sciences, revue française des sciences et des techniques* 40 (November-December 1965): 20-35; offprint: 8 copies, photocopy of article: 2 copies.

[086.IX.A.28] Published paper by Robert Le Ricolais, in French [PF I-3]; "Approche intuitive et approche raisonnée de la forme; Université de Philadelphie, recherches structurales sous la direction de Robert Le Ricolais." *L'Architecture d'aujourd'hui* 36 no. 128 (October 1966): 81-83; photocopy of article: 4 complete copies, 3 additional copies of p. 81, 1 additional copy of p. 82.

[086.IX.A.29] Published paper by Robert Le Ricolais, in French [PF II-35]; "Réflexions sur un monde qui se fait." *Architecture, formes et fonctions* no. 13 (1967): 40; photocopy of article: 2 copies, photocopy of English translation: 1 copy.

[086.IX.A.30] Published article by Robert Le Ricolais, in French [PF II-36]; "Rétrospective R. Le Ricolais, juillet-septembre 1968, musée des Beaux-arts, Nantes." *L'Architecture d'aujourd'hui* no. 138 (June-July 1968): ix-x; offprint: 11 copies.

[086.IX.A.31] Published paper by Robert Le Ricolais, in French [PF I-5]; "Architecture, Structures et Civilisation." *Essais* 3 (1968): 37-43; photocopy of article: 2 copies.

[086.IX.A.32] Published paper by Robert Le Ricolais, in French; *Le Ricolais: Espace Mouvement et Structures. Musée des Beaux-Arts de Nantes, juillet-septembre 1968*. Exhibition catalogue. Preface by Paul Montel, foreword by Louis Kahn, introduction by G.H. Pingusson. Nantes: Musée des Beaux-arts de Nantes, 1968; photocopy of catalogue: 1 incomplete copy.

[086.IX.A.33] Published paper by Robert Le Ricolais, in French [PF I-15]; "Introduction à la notion de forme." *Architecture: formes et fonctions* no. 14 (1968): 138-141; photocopy of article: 1 copy, photocopy of English translation: 1 copy.

[086.IX.A.34] Published paper by Robert Le Ricolais, in French; "Structures tendues et structures comprimées." *Architecture: formes et fonctions* no. 14 (1968): 142-144; photocopy of article: 6 copies.

[086.IX.A.35] Published paper by Robert Le Ricolais, in French [PF I-17]; "La recherche architecturale dans les écoles d'architecture aux Etats-Unis." *L'Architecture d'aujourd'hui* 39 no. 139 (September 1968): vii, lxxiv; photocopy of article: 2 copies.

[086.IX.A.36] Published paper by Robert Le Ricolais, in French [PF I-16]; "La nature des choses." *L'Architecture d'aujourd'hui* 40 no. 141 (December 1968-January 1969): 58-61; offprint: 3 copies, photocopy of article: 4 copies.

[086.IX.A.37] Published paper by Robert Le Ricolais, in French [PF I-4]; "A propos de Louis Kahn." *L'Architecture d'aujourd'hui* 40 no. 142 (February-March 1969): 4; photocopy of article: 12 copies.

[086.IX.A.38] Published paper by Robert Le Ricolais, in French [PF II-49]; "U.S.A. : Recherches expérimentales à l'université de Pennsylvanie." *Techniques et architecture* Année 30 (June 1969): 56-58; photocopy of article: 6 copies.

[086.IX.A.39] Published paper by Robert Le Ricolais, in French [PF II-46]; "Trafic sous-marin (Under Sea Transit, 'U.S.T.')." *Techniques et architecture* (February 1970): 91; photocopy of article: 7 copies.

[086.IX.A.40] Published paper by Robert Le Ricolais, in French [PF II-44]; "Structures expérimentales, Université de Pennsylvanie." *L'Architecture d'aujourd'hui* 44 no. 160 (February-March 1972): 23-25; offprint: 7 complete copies and 1 incomplete copy; publisher's proof: 1 copy; photocopy of article: 8 copies.

[086.IX.A.41] Published paper by Robert Le Ricolais, in French [PF II-28]; "Planchers de grande portée à déformation nulle (Z.D.S.)." *L'Architecture d'aujourd'hui* no. 168 (July 1973): viii; photocopy of article: 5 copies, magazine clipping: 3 copies.

[086.IX.A.42] Published paper by Robert Le Ricolais, in French [PF II-41]; "Science, architecture et éducation." *L'Architecture d'aujourd'hui* no. 168 (July-August 1973): xxii-xxiii; magazine clipping: 1 copy, offprint: 6 copies, photocopy of article: 4 copies.

[086.IX.A.43] Published paper by Robert Le Ricolais, in French [PF II-32]; "1972-1973: Recherches structurales, université de Pennsylvanie." *Techniques et architecture* no. 294 (October 1973): 48-49; magazine clipping: 1 copy, photocopy of article: 8 copies.

[086.IX.A.44] Published paper by Robert Le Ricolais, in French [PF I-24]; "Louis I. Kahn." *L'Architecture d'aujourd'hui* no. 173 (May-June 1974): v; photocopy of article: 6 copies.

[086.IX.A.45] Published paper by Robert Le Ricolais, in French [PF II-50]; "Vers l'âge des structures tendues." *Revue d'esthétique* [n.d.]: 334-339; photocopy of article: 3 copies, offprint: 3 copies.

[086.IX.A.46] Published paper by Robert Le Ricolais, in French; "Vers l'âge des structures tendues." n.p. [Swiss periodical?] [n.d.]: 146-149, xxi; photocopy of article: 5 copies.

[086.IX.A.47] Published paper by Robert Le Ricolais, in French [PF II-47]; "Une certaine idée de la recherche." Interview with M. Bleier, F. Salat, and J.-P. Turquin, [unspecified publication] [n.d.]: 4-9; photocopy of article: 2 complete copies, and one additional copy with p. 6 missing.

[086.IX.A.48] Published paper by Robert Le Ricolais, in French [UF III-78]; "Symbolique de la ville"; n.p., n.d. [April 1971?]: 30-32; photocopy of article: 4 copies.

[086.IX.A.49] Published paper by Robert Le Ricolais, in French; "Structures comparées en deux et trois dimensions"; n.p. [reprint from *Techniques et architecture* by Institut Le Ricolais, Institut de recherche et d'application des structures spatiales], n.d. (7 pp.); photocopy of article: 3 copies.

IX.B. Published Papers by Robert Le Ricolais, in English

[086.IX.B.1] Published paper by Robert Le Ricolais, in English [PE I-2]; "Contributions to Space Structures." *Student Publications of the School of Design, North Carolina State College, Raleigh, N.C.* v. 3 no. 3 (Spring 1953): 1-5; photocopy of article: 1 copy.

[086.IX.B.2] Published paper by Robert Le Ricolais, in English [PE I-11]; "Structural Approach in Hexagonal Planning." *Student Publications of the School of Design, North Carolina State College, Raleigh, N.C.* v. 3 no. 3 (Spring 1953): 10-15; photocopy of article: 2 copies.

[086.IX.B.3] Published paper by Robert Le Ricolais, in English [PE I-18]; "Topology and Architecture." *Student Publications of the School of Design, North Carolina State College, Raleigh, N.C.* v. 5 no. 2 (Spring 1955): 10-16; photocopy of article: 1 copy.

[086.IX.B.4] Published paper by Robert Le Ricolais, in English [PE I-13]; "Structures, Forms and Motion." *Pennsylvania Triangle* v. 42, no. 6 (May 1956): 17-20; magazine clipping: 4 copies, photocopy of article: 1 copy.

[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

[086.IX.B.6] Published paper by Robert Le Ricolais, in English [PE I-12]; "Structures et Formes." *Pennsylvania Triangle* (December 1959): 32-34, 51-54; photocopy of article: 1 copy.

[086.IX.B.7] Published paper by Robert Le Ricolais, in English [PE I-14]; "Survey of Structural Researches, 1959-1960." *Architectural Design* v. 30 no. 10 (October 1960): 415-416; photocopy of article: 12 copies.

[086.IX.B.8] Published paper by Robert Le Ricolais, in English [PE I-10]; "Structural Anticipations." *Progressive Architecture* no. 42 (September 1961): 210-214; clippings: 2 copies.

[086.IX.B.9] Published paper by Robert Le Ricolais, in English; "The Coming Age of Tension Structures." *Architecture Plus* [Publication of the Agricultural and Mechanical College of Texas] (1961-62); photocopy of article: 1 copy.

[086.IX.B.10] Published paper by Robert Le Ricolais, in English; "Perspective and Outline of an Aerial Mass Transit System." *Column* no. 12 (1964): 23-26; photocopy of article: 1 copy.

[086.IX.B.11] Published paper by Robert Le Ricolais, in English [PE I-1]; "A Simple Method of Computation for Planar Networks." In *Space Structures*, edited by R.M. Davies, [page #]. Oxford: Blackwell Scientific Publications, 1967; offprint: 5 copies, magazine clipping: 1 copy, photocopy of article: 2 copies.

[086.IX.B.12] Published paper by Robert Le Ricolais, in English [PE I-8]; "Octahedronal Cells for Tensioned Steel Structures." In *Space Structures*, edited by R.M. Davies. Oxford: Blackwell Scientific Publications, 1967; offprint: 4 copies, photocopy of article: 2 copies.

[086.IX.B.13] Published paper by Robert Le Ricolais, in English [PE I-5]; "Introduction to the Notion of Form." In *Data: Directions in Art, Theory, and Aesthetics*, edited by Anthony Hill, 48-57. London: Faber and Faber, 1968; photocopy of article: 3 copies.

[086.IX.B.14] Published paper by Robert Le Ricolais, in English [PE I-16]; "The Trihex: New Pattern for Urban Space." *Progressive Architecture* v. 49 no. 2 (February 1968): 118-119; clipping: 1 copy; photocopy of article: 5 copies.

[086.IX.B.15] Published paper by Robert Le Ricolais, in English [PE I-20]; "Under Sea Transit: Connection Between Sicily and the Italian Mainland." *Architectural Design* v. 40 (May 1970): 228-229; photocopy of article: 2 complete copies and 1 additional, incomplete copy.

[086.IX.B.16] Published paper by Robert Le Ricolais, in English [PE I-15]; "Tension Structures and Space Frames." Proceedings of the IASS Pacific Symposium, Tokyo and Kyoto (October 17-23, 1971): 1-13; photocopy of article: 6 copies.

[086.IX.B.17] Published paper by Robert Le Ricolais, in English; "Jean Prouvé." Review of *Jean Prouvé*, edited by Benedikt Huber and Jean-Claude Steinegger. *Progressive Architecture* 4 no.72 [ca. 1971-1972]: 128-140; magazine clipping: 2 copies, photocopy of article: 2 copies.

[086.IX.B.18] Published paper by Robert Le Ricolais, in English [PE I-6]; "Matières." Photographs by Henriette Grindat. *VIA* [publication of the Graduate School of Fine Arts, University of Pennsylvania] v. 2 (1973): 111-123; photocopy of article: 2 copies.

[086.IX.B.19] Published paper by Robert Le Ricolais, in English [PE I-7]; "New Vista for New Cities." With Alexander Messinger. *Architectural Design* v. 43, no. 3 (1973): 144-148; photocopy of article: 1 complete copy, and 1 copy with p. 148 missing.

[086.IX.B.20] Published paper by Robert Le Ricolais, in English [PE I-17]; "Things Themselves are Lying, and so Are Their Images." Interviews with University of Pennsylvania graduate students. *VIA* v. 2 (November 1973): 81-109, 196-200; magazine clipping: 1 copy; photocopy of article: 3 copies.

[086.IX.B.21] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 5 copies.

[086.IX.B.22] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 7 copies.

IX.C. Whole Issues of Periodicals containing Articles by Le Ricolais

[086.IX.C.1] *Techniques et architecture rurales* no. 1 [supplement to *Techniques et architecture* 7 no. 8 (1947)].

[086.IX.C.2] *Student Publications of the School of Design, North Carolina State College, Raleigh, N.C.* v. 3 no. 3 (Spring 1953); 2 copies.

[086.IX.C.3] Offprint from *L'Architecture d'aujourd'hui* no. 55 (July-August 1954); 3 copies.

[086.IX.C.4] *Pennsylvania Triangle* v. 42, no. 6 (May 1956).

[086.IX.C.5] *L'Architecture d'aujourd'hui* 30 no. 84 (June-July 1959).

[086.IX.C.6] Building Research Institute. *New Building Research Spring 1961*. [Proceedings of a conference] Washington, D.C.: National Academy of Sciences-National Research Council, 1962.

[086.IX.C.7] *Column* no. 12 (1964).

[086.IX.C.8] *Sciences, revue française des sciences et des techniques* 40 (November-December 1965); 3 copies.

[086.IX.C.9] *Cahier du syndicat des architectes de la Seine* no.56 (July-August 1966) [issue on Le Corbusier].

[086.IX.C.10] *L'Architecture d'aujourd'hui* 40 no. 141 (December 1968-January 1969) [issue on structures]

[086.IX.C.11] Institut Le Ricolais, *Robert Le Ricolais*; n.d. [booklet including reprints of articles by Le Ricolais]

Series X. Manuscript and Published Materials about Le Ricolais

X.A. Articles

[086.X.A.1] Article about Le Ricolais, in French; "Pavillon du Ministère de la Reconstruction et de l'Urbanisme." *7e exposition de l'habitation, Catalogue* Exhibition at the Grand Palais, Paris, February 23-March 19, 1950; catalogue clipping: 1 copy.

[086.X.A.2] Article about Robert Le Ricolais, in English [PE I-3]; [unknown author] "A New Technique for Demountable Timber Structures, Designer: R. Le Ricolais." *Wood* (January 1951): 26-28; photocopy of article: 5 complete copies and 1 extra copy of p.28.

[086.X.A.3] Article about Le Ricolais, in French [PF I-10]; [no author] "Charpentiers, qu'en dites-vous ?" *Chantiers coopératifs* Cinquième année no. 3 (1952): 10; offprint: 2 copies.

[086.X.A.4] Article about Le Ricolais, in French; Du Château, Stéphane. "Structures spatiales dans l'évolution de la construction tubulaire." *Le Monde industriel* no. 570 (June 1960): 15-19; offprint: 1 copy, photocopy of article: 1 copy.

[086.X.A.5] Article about Robert Le Ricolais, in English; Vreeland, Tim. "Robert Le Ricolais." *Architectural Design* no.10 (October 1960): 412-414; magazine clipping: 1 copy, photocopy of article: 4 copies.

[086.X.A.6] Article about Robert Le Ricolais, in English; Rowan, Ian. "Bicycle Wheels." *Progressive Architecture* (February 1961): 144-146; photocopy of article: 1 copy.

[086.X.A.7] Article about Robert Le Ricolais, in English; Makowski, Z. S., "Double-Layer Grid Structures." *Architectural Association Journal*76 no. 850 (March 1961): 218-238; photocopy of article: 2 copies.

[086.X.A.8] Article about Le Ricolais, in French; Laprade, Albert, "Le poids de l'intelligence." *SADG* 114 (February 1963): 503-507; photocopy of article: 2 copies.

[086.X.A.9] Article about Le Ricolais, in French; Prébandier, Léon. "L'oeuvre de Le Ricolais." *Architecture, forme et fonctions* no. 9 [before June 1963]; offprint: 2 copies, photocopy of article: 2 copies, mechanical copy of article: 1 copy, typescript (English summary): 1 leaf.

[086.X.A.10] Allocution by André Malraux about Le Ricolais, in French; 12/20/1962; typed transcript: 1 leaf.

[086.X.A.11] Article about Le Ricolais, in French; Emmerich, D.G. "Prototype de métro aérien suspendu en France." *L'Architecture d'aujourd'hui* 34 no. 110 (October-November 1963); offprint: 8 copies, photocopy of article: 3 copies.

[086.X.A.12] Article about Le Ricolais, in French; René Sarger. "Le Ricolais, Espace, mouvement et structures: Paris, Palais de la Découverte, juillet 1965." *L'Architecture d'aujourd'hui* [1965]: xv; photocopy of article: 7 copies.

[086.X.A.13] Article about Le Ricolais, in French; "Robert Le Ricolais: Recherche fondamentale et architecture." *Urbanisme, revue française* 35 no.92 (1966): 66-68; photocopy of article: 6 copies.

[086.X.A.14] Article about Robert Le Ricolais, in English [PE I-19]; [unknown author] "Trihex." *TABS* v. 2 no. 5 (May 1968): 3; offprint: 4 copies, photocopy of article: 4 copies.

[086.X.A.15] Article about Le Ricolais, in French [PF I-19]; Anouil, Gilles. "Le Ricolais, explorateur de l'architecture." *Réalités* no. 282 (July 1969): 30-33; magazine clipping: 1 copy, photocopy of article: 2 copies.

[086.X.A.16] Article about Robert Le Ricolais, in English; [no author] "Names." *Architectural & Engineering News* (November 1969): 64-65; magazine clipping: 1 copy.

[086.X.A.17] Article about Le Ricolais, in French [PF I-7]; [no author] "Cannes: grand prix international d'urbanisme et d'architecture." *Neuf* 19 (1969): 9-18, 33-40; magazine clipping: 1 copy, photocopy of article: 1 copy.

[086.X.A.18] Article about Robert Le Ricolais, in English; McCleary, Peter. "Some Principles of Structure Exemplified in the Work of R. Le Ricolais." *Zodiac* no. 22 (1973): 57-69; photocopy of article: 1 copy.

[086.X.A.19] Published paper about Robert Le Ricolais, in Italian; Nepoti, Paolo. "Premessa a Le Ricolais." *Zodiac* no. 22 (1973): viii-x; offprint: 3 copies. [for translation, see the whole issue of the magazine].

[086.X.A.20] Article about Le Ricolais, in French; [no author] "Le Ricolais Robert" *Collection d'art abstrait du Musée des Beaux-arts de Nantes* [entry in catalogue of an exhibition at the Musée des Beaux-arts de Quimper, July-September 1976]; photocopy of entry: 1 copy.

[086.X.A.21] Article about Le Ricolais, in French [PF II-37]; Pingusson, Georges-Henri, et al. "Robert Le Ricolais, 1894-1977." *Techniques et architecture* no. 315 (June-July 1977): 1-2; photocopy of article: 2 copies.

[086.X.A.22] Article about Le Ricolais, in French [PF II-38]; Faure, Louise. "Robert Le Ricolais, 1894-1977." *Revue du Palais de la découverte* vol. 6 no. 52 (November 1977): 4; photocopy of obituary: 1 copy.

[086.X.A.23] Article about Le Ricolais, in French [PF II-39]; Huet, Bernard. "Robert Le Ricolais ou la nature des choses." *L'Architecture d'aujourd'hui* no. 192 (September 1977): v; photocopy of obituary: 3 copies.

[086.X.A.24] Article about Robert Le Ricolais, in English; Collins, George R., McCleary, Peter. "Le Ricolais, Robert." *Visionary Drawings of Architecture and Planning: 20th Century through the 1960s.* Cambridge: MIT Press, 1979; photocopy of catalogue entry: 5 copies.

[086.X.A.25] Article about Le Ricolais, in English; de Valence, Regis. "Summary of Robert Le Ricolais's main ideas on urban planning and space partition"; dated May 1980; 4 leaves.

[086.X.A.26] Article about Le Ricolais, in French; Ragon, Michel. "Une révolution dans l'espace." *Connaissance des arts* no. 348 (February 1981): 66-73; photocopy of article: 1 copy.

[086.X.A.27] Article about Le Ricolais, in French [text also in English]; Emmerich, D.G. "Le Ricolais, Wachsmann et Fuller incorporated." *Le Carré bleu* 1/87 [january 1987?]: 10-20; photocopy of article: 1 copy.

[086.X.A.28] Article about Le Ricolais, in French [PF I-14]; "Habitations économiques en bois, P. Forestier, architecte, R. Le Ricolais, ingénieur." *Actualités* 14e série no. 1-2 [n.d.]: 54; photocopy of article: 1 copy.

[086.X.A.29] Article about Le Ricolais, in French; "En forêt de Fontainebleau, sur pilotis." [n.p.], [n.d.]: 48-51; offprint: 6 complete copies and 1 incomplete copy [p.51 missing].

[086.X.A.30] Article about Le Ricolais, in English; Makowski, Z. S. "Analysis of a Space Grid (Le Ricolais' type)"; n.d.; mechanical copy of manuscript: 2 leaves.

X.B. News Clippings

[086.X.B.1] Newspaper clippings about Robert Le Ricolais.

X.C. Exhibition Catalogue and Whole Issues of Periodicals Containing Materials about Robert Le Ricolais

arranged chronologically at the item level.

[086.X.C.1] *Vounbedrijf en Openbare Werken* no.21 (October 20, 1949).

[086.X.C.2] *Informations Scientifiques Françaises*
no.1 (January-March 1963)
no.3 (July-September 1963)

[086.X.C.3] *Structures: mathématiques, architecture contemporaine.* Catalog of an exhibition at the Palais de la Découverte, Paris, October 18 – December 15, 1963. Paris: Université de Paris, 1963.

[086.X.C.4] *Le Bloc* no.52 (Fall 1969) [pages relating to Le Ricolais missing]

[086.X.C.5] *Penn in Ink* (Spring 1990) [includes "G. Robert Le Ricolais" by Peter McCleary]

[086.X.C.6] *Robert Le Ricolais. Visiones y Paradojas. Visions and Paradox*. Exhibition Catalogue. Madrid: Fundación Cultural COAM, 1987.

X. D. Miscellaneous Biographical Materials about Le Ricolais

[086.X.D.1] Biographical materials; curriculum vitae, list of published works for 1963; typescript and manuscript; ca. 1964; 3 leaves.

[086.X.D.2] Biographical account of Le Ricolais by Pierre Forestier; dated 4/30/1962; 5 leaves.

[086.X.D.3] Biographical account of Le Ricolais for *VIA*; dated 8/4/1971; 2 leaves.

[086.X.D.4] Biographical account of Le Ricolais by Peter McCleary; dated 8/5/1971; 3 leaves.

[086.X.D.5] Biographical account of Le Ricolais by Pierre Forestier; dated 12/9/1977; 5 leaves.

[086.X.D.6] Biographical account of Le Ricolais by Peter McCleary, ca. 1977; 3 leaves.

[086.X.D.7] Biographical account of Le Ricolais by D. G. Emmerich; ca. 1977; 7 leaves.

[086.X.D.8] Miscellaneous Biographical Materials about Le Ricolais; transcription of newspaper and journal articles; biographical accounts of Le Ricolais by unidentified authors; 30 leaves..

[086.X.D.9] Miscellaneous Biographical Materials about Le Ricolais; biography of Le Ricolais and course syllabus by Peter McCleary; dated 1987; 10 leaves.

[086.X.D.10] Miscellaneous Biographical Materials about Le Ricolais; biographical accounts in a folder marked “exhibitions”; n.d.; 4 leaves.

X. E. Bibliographies of Le Ricolais' writings

[086.X.E.1] Bibliographies of Le Ricolais' writings; manuscript list in Robert Le Ricolais' hand; n.d.; manuscript: 1 leaf.

[086.X.E.2] Bibliographies of Le Ricolais' writings; general bibliographies; some items dated 1978, some dated 1983.

[086.X.E.3] Bibliographies of Le Ricolais' writings; miscellaneous bibliographical materials; one list dated 2/11/1969, one list dated 6/25/1978; one list titled "Tension Structures Inc., Background material on Tension Structures", n.d.

[086.X.E.4] Bibliographies of Le Ricolais' writings; lists of published articles; two lists dated March 1986, one list dated 1983, one list dated Fall 1979.

[086.X.E.5] Bibliographies of Le Ricolais' writings; bibliography, ca. 1974.

[086.X.E.6] Bibliographies of Le Ricolais' writings; compiled by Peter McCleary, n.d.

[086.X.E.7] Bibliographies of Le Ricolais' writings; lists of unpublished papers; n.d.

[086.X.E.8] Bibliographies of Le Ricolais' writings; chronologies of published and unpublished writings, n.d.

[086.X.E.9] Bibliographies of Le Ricolais' writings; published bibliographies; one list published in *VIA* and dated 8/4/1971 [includes a biographical note on Robert Le Ricolais].

[086.X.E.10] Bibliographies of Le Ricolais' writings; lists of articles on urban planning and mass transit; n.d.

[086.X.E.11] Bibliographies of Le Ricolais' writings; lists of articles published in *L'Architecture d'aujourd'hui*; n.d.

Series XI. Published and manuscript materials kept by Le Ricolais (by other authors)

XI. A. Articles

Arranged chronologically at the item level.

[086.XI.A.1] Articles, 1900-1930
Bell, Alexander Graham. "The Tetrahedral Principle in Kite Structure." *National Geographic Magazine* 14 no.6 (June 1903): 219-247.
Légens, Léon. "Théorie générale du treillis, appliquée à quelques systèmes particuliers." *La technique des travaux* Sixième année no. 3 (March 1930) : 183-191.

[086.XI.A.2] Articles and patents, 1931-1950
Beggs, George E., Elmer K. Timby and Blair Birdsall. "Suspension Bridge Stresses Determined by Model." *Engineering News Record* (June 9, 1932). [manuscript annotations]
United States Patents granted to Roland B. Respess: no. 2,068,870. "Dirigible," January 26, 1937; no. 2,146,851. "Airship," February 14, 1939.

[086.XI.A.3] Articles, 1951-1960
Leipziger-Pearce, Hugo. "Modern Architecture Needs a Frame of Reference." *Journal of Architecture, Engineering & Industry* vol. 10 no. 4 (Spring 1951): 13-18.
Samuely, Felix James and Percy James Alfred Ward. "The Skylon" in *Proceedings of the Institution of Civil Engineers*. London: William Clowes & Sons, 1952: 444-461 [2 copies].
Polya, G. "More isoperimetric inequalities proved and conjectured." *Commentarii Mathematici Helvetici* vol.29 fasc.2 (1955).
Faure, Emile. "Note on a Simplified Theory of Jet Air Flow." (August 1956) [draft of a paper? mechanical copy of manuscript, 2 copies].
"Inland Steel Builds a New Home." *Engineering News Record* (January 10, 1957): 43-48.
Smith, Cyril Stanley. "Decorative Etching and the Science of Metals." *Endeavour* vol. 16 no.64 (October 1957): 199-208.
Watter, Michael. "Welded Stainless Steel Hollow Core." *Missile and Rockets* (March 1958): 104-110. [manuscript annotations]
Makowski, Z.S. "Aluminum Space Structures." Reprinted from the proceedings of the symposium "Aluminium in Building"at the Royal Institute of British Architects, London (July 9 and 10 , 1959).
DeBusk, H. L. and W. R. McCarthy. "Mass Production for Reinforced Plastics: Filament-Winding Grows up." *Product Engineering* (July 20, 1959).
Banton, F. A. "Tower Testing in Italy." *Ebasco News* (September 1959).
"Plastic Dome on Aluminum Ribs." [unknown publication] (December 1959). [inscribed by J. T. A. Lee].
McClain Jr., Edward F. "The 600-Foot Radio Telescope." *Scientific American* vol.202 no.1 (January 1960): 45-51.
Makowski, Z.S. "Plastics as Components in Dome and Roof Structures." The Plastics Institute *Transactions* vol.28 no.73 (February 1960): 26-29.
Rubenstein, Michael. [no title; draft of a paper?] (May 8, 1960).
Weinstein, Richard S. [no title; draft of a paper?] (May 12, 1960).

Makowski, Z. S. "Modern Grid Structures." *Architectural Science Review* (July 1960): 52-65.
Otto, Frei and Peter Stromeyer. "Zelte." *Deutsche Bauzeitung* no.7 (July 1960): 351-366. [inscribed by Frei Otto]; list of publications of Frei Otto's Entwicklungsstätte für Leichtbau [Institute for the development of light construction].
Miller, S. A. "How Process Variables Affect Filament Wound Plastics." *Materials in Design Engineering* (August 1960).
Bernal, J. D. "The Structure of Liquids." *Scientific American* vol.203 no.2 (August 1960): 124-134.
Latham, G. R. and T. C. Hoyt. "Transmission Designed for Hurricane Winds." *Electrical World* (August 22, 1960).

[086.XI.A.4] Articles, 1961-1965
Monod-Herzen, Edouard. "Le problème de la Sala delle Asse (lambris) (à Milan) de Léonard de Vinci." Text of lecture given at the Académie des Beaux-arts, January 25 1961. [Inscribed by the author]
Makowski, Z.S. "Developments in Aluminum Sheet Space Structures." *Light Metals* (April 1961).
LaFond, Charles D. "The Controversial Dean System Space Drive." *Missiles and Rockets* (May 1, 1961): 24-34.
"Honeycomb Structure Output Speeded." *Missiles and Rockets* (May 1, 1961): 42-47.
Cowan, Henry J. "Some Applications of the Use of Direct Model Analysis in the Design of Architectural Structures." *The Journal of the Institution of Engineers, Australia.* (July-August 1961): 259-268.
Marsh, James H. "Thin Shell Structures Using Lift Shape Erection Process." Draft of a paper delivered at the BRI May 1961 conference.
Denisse, J.-F. and J. Roret. "Construction du plus grand radiotélescope du monde à Nançay (Cher) pour l'observatoire de Paris." *Annales de l'Institut technique du bâtiment et des travaux publics* no.169 (January 1962):66-112. [manuscript annotations]
"Techniques: France, Three Dimensions." *Interbuild* (June 1962) [about Stéphane du Château].
Makowski, Z. S. "Braced Domes, Their History, Modern Trends and Recent Developments." *Architectural Review* 5 no.2 (July 1962).
Truesdell, C. "Reactions of the History of Mechanics upon Modern Research." Proceedings of the Fourth U.S. National Congress for Applied Mechanics (1962).
Boulding, Kenneth E. "After Civilization, What?" *Bulletin of the Atomic Scientists* (October 1962): 2-6.
Ragon, Michel. "Georges Patrix et l'esthétique industrielle." *Cimaise, Art et architecture actuels* 9 no.2 (November-December 1962): 96-111.
Hunebelle, Danielle. "Que se passe-t-il à Hanoï ?" *Réalités* (January 1963).
Cook, L. H. J. and B. Cooper. "A Study of the Use of Aluminum Guyed Towers for Extra-High-Voltage Transmission Systems." in *IEEE Transactions on Power Apparatus & Systems* (April 1963): 217-223 [manuscript annotations].
Roberts, E. A. "Environmental Factors in Transmission-Line Design." *Civil Engineering* (June 1963). [manuscript annotations]
Lindseth, E. V. "Seven Tower Types Go on Trial in 230-Kv Line." *Electrical World* (July 1, 1963): 76-79; 2 copies [Glen Canyon-Shiprock Line].
Sadie, Moshe. "Proposal for a Continuous Motion Transportation System." [paper delivered at a conference?] (September 11, 1963).

Robertson, W. D. "Needed: Architects of Matter." *Materials Research & Standards* (October 1963):832-837.
Tomaszewski, Lech. "Nonorientable Surfaces." *Situationist Times* 4 (October 1963): 3-8.
Arena, J. R. "Considerations in Transmission Tower Design." *Transmission & Distribution* (November 1963).
"EHV Transmission Patterns Vary." *Electrical World* (February 24, 1964).
Crate, James. "Design Tips for Minimizing Sinks and Warpage in Molded Parts." *Plastics Design & Processing* (March 1964): 15-19.
Pell, Claiborne. "Comment by Sen. Claiborne Pell on White House Statement Recommending Continued Research on Transportation Problems in the Northeast Megalopolitan Corridor," and "Proposed Democratic Platform Plank by Senator Claiborne Pell (D-R.I) Regarding Modernization of Railroad Passenger Service." Press releases (August 11 and 13, 1964).
Waling, J. L., Earl E. Ziegler, and Harry G. Kemmer. "Hy-Par Shell Construction by Offset Wire Method." *Proceedings of the World Conference on Shell Structures* (1964).
"Contractor Starts on 420-ft-dia Arena." *Engineering News-Record* (February 18, 1965).
Nashert, Walter. "Elliptical Dish Sets Record for Cable-Supported Roofs." *Engineering News-Record* (March 18, 1965).
Makowski, Z. S. "Applicazioni strutturali delle materie plastiche." *Materie plastiche ed elastomeri* no.6 (June 1965).
Albers, Josef. "Op Art and/or Perceptual Effects." *Yale Scientific Magazine* (November 1965) [reprint inscribed by the author].
"Maybe There's a Spot Open in Our History for Another Homer or Another Cheops." *International Science and Technology* (November 1965): 17-28.
Leefe, James. "How Models Aid Design Innovations." *Progressive Architecture* (December 1965): 155-156.

[086.XI.A.5] Articles, 1966-1970
Hawkins, A.F., et al. "On Certain Polyhedra." Reprinted from *Mathematical Gazette* 50 no. 372 (May 1966)
"Results of Teaching" *Ulm* 17-18 (June 1966).
Denbrock, Frank. "Transmission Design Scope Increases Rapidly for EHV Lines." *Power Engineering* (November 1966): 55-58.
"Designing Strength Into Materials." *Business Week* (December 17, 1966).
"The Mirrors Are Coming." [NASA's Project Able] *Time* (January 13, 1967).
"A Designer Talks About Transmission Towers." Interview with Henry Dreyfuss, Dreyfuss & Associates. *Electrical World* (February 20, 1967): 67-69.
Carson, R.L., et al. "Electroforming Thin Shells for Experimental Studies"; *Materials Research and Standards* vol. 7 no. 5 (May 1967): 183-188.
Beckmann, Hannes. "What are Grays?" [draft of a paper?], December 1967.
Hillman, James. "On Psychological Creativity." [unknown publication, ca. 1967]: 26-41.
Krafft, Anthony, et al. "Proposte per Firenze." Supplement to *Architecture, Formes et Fonctions* no.14 (1967-1968).
"Power Towers Could Be Scenic." *Engineering News Record* (February 8, 1968):29 [manuscript annotations].
Ferry, Wilbur H. "Must We Rewrite the Constitution to Control Technology?" *S.R.* (March 2, 1968) [manuscript annotations].
"The Age of Effluence." *Time* (May 10, 1968).

"To Cherish Rather Than Destroy." *Time* (August 2, 1968): 39-43. [manuscript annotations]
"Transit Cars Dash With People or Goods." *Engineering News Record* (June 13, 1968):33.
Courbon, J. "Vibration des poutres." *Annales de l'Institut technique du bâtiment et des travaux publics* no.262 (October 1969): 1541-1621.
Brotchie, John F. "A Criterion for Optimal Design of Plates." *ACI Journal* (November 1969): 898-906.
"Taut Cables Anchor Seagoing Airport." *Architectural & Engineering News* (December 1969): 20-22.
Piano, Renzo. "Nasce con le materie plastiche: un modo nuovo di progettare l'architettura." Reprint from *Materie Plastiche ed Elastomeri* 1 (1969).
Rossi, A. Loris and Donatella Mazzoleni. "Recherche pour une ville-structure." Grand Prix International d'urbanisme, 1970.
Sanfilippo, Annika and W. R. Riedel. "Post-Eocene 'closed' theoperid radiolarians." *Micropaleontology* 16 no.4 (October 1970): 446-462.
Riedel, W. R. and Annika Sanfilippo. "Radiolaria, Leg. 4, Deep Sea Drilling Project." in *Initial Reports of the Deep Sea Drilling Project* vol. 4, edited by R. G. Bader et al. Washington: U.S. Government Printing Office, 1970. [reprint inscribed by W. Riedel]
Balaban, A.T., et al. "Cubic Identity Graphs and Planar Graphs Derived from Trees." *The Journal of the Australian Mathematical Society* vol. 11 part 2 (1970): 207-215.

[086.XI.A.6] Articles, 1971-1977
Reprints from *Initial Reports of the Deep Sea Drilling Project* vol. VII, edited by E.L. Winterer et al. Washington: U.S. Government Printing Office, 1971: Helms, Phyllis B. and W.R. Riedel. "Skeletal Debris of Fishes."; Riedel, W. R. and Annika Sanfilippo. "Cenozoic Radiolaria from the Western Tropical Pacific, Leg. 7." [inscribed by W. Riedel]
Gero, J. S. and M. H. Khan. "Comparison of Physical and Theoretical Models of a Continuous Curved Spine Girder Bridge." *Department of Architectural Science, University of Sydney Model Report* no.6 (1972).
Smith, P. R. "Windows and Sunlight Penetration." *Department of Architectural Science, University of Sydney Physical Environment Report* no.5 (1973).
Forward, B. S. "A Selective Bibliography of Computer-Aided Design and Analysis of Building Environment and Service Systems." *Department of Architectural Science, University of Sydney Computer Report* no.20 (1973).
du Château, Stéphane. "The Industrialisation of Modular Space Structures." Paper delivered at the Symposium on Industrialized Spatial and Shell Structures, Kielce, Poland (June 18-23, 1973).
"Architecture, Engineering Combine in National Gallery Space Frame." *Building Design and Construction* (October 1974).

[086.XI.A.7] Articles, n.d.
"Clinique spécialisée à Sao Paulo." [Rino Levi et al, architects] *Architecture d'aujourd'hui* n.d
Derampe, P. "Le Calcul des Couvertures Ondulées." *Le Moniteur des Travaux Publics* n.d.
du Château, Stéphane. "Space Structures in Architecture: Researches and Applications." [paper delivered at a conference?] n.d.
Emery, Marc, and Nicole Grezel. "Une logique de l'agglomération." *Architecture d'aujourd'hui* no.132: 11-13

Emmerich, D.G. "Structural Economy" [unidentified publication, n.d.].
Fary, Istvan. "On Straight-Line Representation of Planar Graphs." [unidentified publication, n.d.]: 229-233.
Friedman, Y. "Pour un urbanisme mobile." [unidentified publication, n.d.]: 124-128.
Friedman, Y. "Une proposition: la théorie des systèmes compréhensibles." [draft of a paper?] n.d.
Gardner, Martin. "Mathematical Games. The 'Superellipse': A Curve That Lies Between the Ellipse and the Rectangle." [unidentified publication] n.d. [manuscript annotation '1965']
Hadamard, Jacques. "Le rôle de l'inconscient dans la recherche scientifique." [unidentified publication] n.d.
Harris, James C. O. "Steel." [unidentified publication] n.d.
Johnstone, P. T. "Snowflake Tetrahedra." [unidentified publication] n.d.
Little, William A. "Model Testing" [draft of a paper?] n.d.
Maymont, Paul, and Michel de Potestad. "Une cellule nouvelle pour une ville nouvelle." [reprint from an unknown publication.] n.d.
Mitchell, Jr. Neal B. "A Proposal." [draft of a paper?] n.d.
"Pyradek Roof Construction" [Promotional Brochure for a system designed by Z.S. Makowski] n.d.

XI. B. News Clippings kept by Le Ricolais

[086.XI.B.1] Miscellaneous news clippings kept by Robert Le Ricolais, 1962-1963 [This folder was compiled at a prior date and filed with the patent materials].

[086.XI.B.2] Miscellaneous news clippings kept by Robert Le Ricolais, 1962-1971.

XI. C. Whole issues of periodicals kept by Robert Le Ricolais

Arranged alphabetically by publication name.

[086.XI.C.1] **, The Publication from the School of Architecture at McGill* no.2 (December 1964).

[086.XI.C.2] *ABC-Beiträge zum Bauen* 1924-1928. Reprint by Afdeling Bouwkunde-Technische Hogeschool Delft, 1969. [9 issues in a specially-designed folder]
Serie 1 nos.1-2 (1924)
Serie 1 nos. 3/4-6 (1925)
Serie 2 nos. 1-3 (1926)
Serie 2 nos. 4 (1927-1928)

[086.XI.C.3] *Acier-Stahl-Steel*
no. 12 (December 1964) [article on repetitive patterns]
no. 9 (September 1970) [article on Rotterdam's steel bridges]

[086.XI.C.4] *Annales de l'Institut technique du bâtiment et des travaux publics*:
no.77 (June 1949) [article by Eugène Freyssinet on prestressed concrete]
no.199 (July-August 1951) [article by R. Vallette on prestress]

[086.XI.C.5] *Architectural Science Review* [issues sent compliments of editor Prof. Henry J. Cowan]
vol. 4 no. 1 (March 1 961)
vol. 9 no. 3 (September 1966) [article on a prototype multi-use shelter structure]

[086.XI.C.6] *Architecture d'aujourd'hui* no. 35 (February 1962) [article on Louis Kahn's Alfred Newton (Richards) Labs at Penn]

[086.XI.C.7] *Bauwelt* no.10 (3/6/1961) [series of articles on three-dimensional structures]

[086.XI.C.8] *Construction et humanisme* [published daily during a week-long Cannes conference]
no.2 (3/11/1969)
no.5 (3/14/1969) [article on Louis Kahn]
no.6 (3/15/1969) [interview with Herbert, Pingusson and Schwartz]

[086.XI.C.9] *Engineering Journal, American Institute of Steel Construction*
vol. 5 no.2 (April 1968)
vol. 6 no.4 (October 1969)
vol. 8 no.1 (January 1971)
vol. 8 no.3 (July 1971)
vol. 8 no.4 (October 1971)

[086.XI.C.10] *Entwicklungsstätte für den Leichtbau*, report no.8 [publication by Frei Otto; issue on three-dimensional pretensioned structures; inscribed by Frei Otto]

[086.XI.C.11] *Essais*
no.1 (1966) "Du suicide"
no.2 (1967) "Du couple"

[086.XI.C.12] *Hexagone Initiatives* no.62 (December 1969) [issue sent to Le Ricolais by Paul Rostagnat, see correspondence.]

[086.XI.C.13] *Interbuild* vol.9 no.9 (September 1962) [article on space structures]

[086.XI.C.14] *Iowa State University Bulletin* 59 no. 42 (March 1961) [issue on stress distribution in hypar shells under concentrated loads]

[086.XI.C.15] *La vie urbaine* no.3 (July-September 1958) [articles on historical preservation in Paris and urban planning in Ottawa]

[086.XI.C.16] *Modern Steel Construction* vol. x no.2 (1970) [article on minimum maintenance weathering steel bridges; with manuscript annotations]

[086.XI.C.17] *Pax, Chronique de l'abbaye de Landévennec* no.65 (January 1966) [2 copies]

[086.XI.C.18] *Recherche & Architecture* no.16 (1973).

[086.XI.C.19] *Saturday Review* (August 29, 1964) [incl. "The Prospect for Humanity" by Bucky Fuller]

[086.XI.C.20] *Steel Developments Digest* [American Iron and Steel Institute publication]
8 no.2 (December 1971)
11 no.3 (Spring 1975); 2 copies.

[086.XI.C.21] *Technika I Nauka* [Polish publication. Each of the following issues contains an article authored or co-authored by Z. S. Makowski].
no. 5-7 (1959-1960) "Modern Grid Frameworks of a Regular Hexagonal Layout" [with 1 photoprint of a Makowski space frame enclosed.]
no. 9-10 (1960) "Double-Layer Grid Structures" [inscribed by Makowski]
no.13 (1961) "Analytical and Experimental Stress Distribution in Double-Layer Grid Frameworks." [issue compliments of Makowski]

[086.XI.C.22] *United Nations General Assembly* [bulletin] no. A/4231 (September 29, 1959).

[086.XI.C.23] [Russian publication] 1975.

XI. D. Technical Brochures and Information Booklets kept by Le Ricolais

[086.XI.D.1] Brochures; Società Anonima Elettrificazione S. p. A.; 1956-1961 (7 brochures) [transmission towers].

[086.XI.D.2] Reports; SEPACT and PSIC:
Southeastern Pennsylvania Transportation Compact:
"Report no.1" (April 1963)
"Progress Report no.3" (September 1963)
"Progress Report no.6" (March 1964)
"Comparative Costs for a modern Commuter Railroad System" (March 1964)
Passenger Service Improvement Corporation of Philadelphia:
"PSIC Rail Operations" (October 1963)

[086.XI.D.3] Technical brochures, glass and plastic products; Hollingshead Corporation (1 brochure and 1 letter 1959, 1 data sheet, n.d.); Corning Glass Works (5 brochures, 1959-1962); DuPont Tedlar products (2 brochures and 2 info. sheets, 1962-1963); Brunswick Defense Products Division (2 brochures, 1960), Ply-o-glass Company of America (2 brochures and 7 info. sheets ca. 1963); Shell Chemical Company (1 bulletin and 1 brochure, March 1964); Plastic Center Inc. (wholesale catalog, 1965); FMC Corporation (1 data sheet, n.d.)

[086.XI.D.4] Technical brochures and data sheets, misc. products; Echafaudages Tubulaires Mills [scaffolding] (1 brochure, November 1952); Baldwin Lima Hamilton (2 data sheets, 1960); Standard Pipe & Supply Co., Inc. (1 sizing chart, ca. 1962, quotation and brochure, 1963); Reynolds Metal Company (quotation, May 1963); American Chain & Cable Company, Hazard Wire Rope Division (1 brochure, 2 price lists, 1962-1963); Henry Dreyfuss & Associates, Electric Transmission Structures (1 brochure, 1968); Champlin Company, Structural Plywood Components (1 brochure, 1968); Fischer Skylights Inc. (1 brochure, 1974); Brunswick Defense Products Division (1 brochure, n.d.); Tinius Olsen Testing Machine Company (2 brochures, n.d.); Hysol Corporation (3 data sheets, n.d.), Manufacture Métallurgique de la Jonchère (1 brochure, n.d.); Fentiman & Sons Ltd (1 brochure, n.d.).

[086.XI.D.5] Technical brochures; Metal Building Manufacturers' Association, "Recommended Design Practices Manual" (2 booklets, 1963 and 1967) and "A Primer of Wind Loads..." (1 booklet, n.d.); O[ffice] C[entral] I[nterprofessionnel du] L[ogement] (1 fold-out chart, July 1968).

XI.E. Research Proposals by Other Authors

[086.XI.E.1] Research Proposal; "A Symposium on the Architecture of the City: A Proposal to the Ford Foundation"; by Dean G. Holmes Perkins, et al.; dated 8/12/1959; typescript; (19 leaves).

[086.XI.E.2] Research Proposal; "Future Transportation System Alternatives in the Urban Core"; by Anthony R. Tomazinis; dated 11/1966; photocopy of typescript [some pages missing]; (25 leaves).

XI. F. Miscellaneous materials kept by Le Ricolais

[086.XI.F.1] Miscellaneous collected information kept by Le Ricolais.

[086.XI.F.2] Published poem kept by Robert Le Ricolais; Léon Prébandier, "Un jardin." Drawings by Albert Yersin, typography by Henri Chabloz; n.d.; 1 item, 7 leaves in a specially-designed folder.

[086.XI.F.3] List of Books in Le Ricolais's Office Library at the University of Pennsylvania; list prepared by Nadia M. Alhasani; dated 3/21/1988; 4 leaves.

Series XII. Personal Materials

[086.XII.1] Personal materials; personal journal, in French and English; "Notes de voyage aux Etats-Unis"; typescript: 1 leaf, manuscript: 34 leaves.

[086.XII.2] Personal materials; poem, in French; n.d.; manuscript: 1 leaf.

[086.XII.3] Personal materials; published poems, in French; *A toute vapeur, poëmes* in *Cahiers de l'école de Rochefort*, n.d.; offprint: 4 copies; photocopy of booklet: 2 copies.

[086.XII.4] Personal materials; financial information, 1954-1984 [sic]; includes income tax returns, witholding tax statements, earning statements, notices of tax refund, United States Treasury forms, correspondence to and from the United States Treasury Department, correspondence to and from employers about taxes and witholdings, correspondence from the French Office des Changes [Foreign Exchange Office], correspondence between the law office of Drinker Biddle & Reath and the U.S. Treasury Department, correspondence from the Commonwealth of Pennsylvania Department of Revenue, manuscript tax liability calculations, cancelled checks, bank statements; 176 leaves.

[086.XII.5] Personal materials; doctor's prescription; 1955; 1 leaf.

[086.XII.6] Personal materials; appointment book, 2nd trimester of 1960.

[086.XII.7] Personal materials; [folder labelled "Personal Documents"]; 1963-1978; includes appointment book; exhibition opening invitation; bank statement; annual faculty assignment report, Social Security Administration statement; 6 leaves.

[086.XII.8] Personal materials; unpublished papers, "Réflexions sur une expérience pédagogique américaine" and "Une expérience pédagogique en Amérique"; n.d.; manuscript: 14 leaves.

[086.XII.9] Personal materials; "Ostéologie" plate from unidentified source; 1 leaf.

[086.XII.10] Personal materials; financial information and personnel action forms; 1975-1977; 9 leaves.

Series XIII. Abraham Beer Papers

XIII. A. Abraham Beer Correspondence

[086.XIII.A.1] Abrahams, Anthony [includes correspondence with Marks & Clerk and the British Patent Office]; 1954; 1 item, 5 leaves.

[086.XIII.A.2] Cooke, Mrs.; 1959; 1 item, 1 leaf.

[086.XIII.A.3] Cox, Mr.; 1959; 1 item, 1 leaf.

[086.XIII.A.4] Douglas, Mrs.; 1959; 1 item, 1 leaf.

[086.XIII.A.5] Latimer, John F.; 1961; 1 item, 1 leaf.

[086.XIII.A.6] Miller, Ray; 1961; 1 item, 1 leaf.

[086.XIII.A.7] New York Times; 1961; 1 item, 1 leaf.

[086.XIII.A.8] Olivier [A. Beer's son]; n.d.; 1 item, 2 leaves.

[086.XIII.A.9] Penn State University; 1960; 2 items, 2 leaves.

[086.XIII.A.10] Purves, Mrs.; 1959; 1 item, 1 leaf.

[086.XIII.A.11] Rockefeller, Mrs.; 1959; 1 item, 1 leaf.

[086.XIII.A.12] Tufts University; 1960; 1 item, 1 leaf.

[086.XIII.A.13] Viking, Henry; 1961; 1 item, 1 leaf.

[086.XIII.A.14] Watkins, Mrs. C. Law; 2 items, 2 leaves.

[086.XIII.A.15] Weissmann, Mrs. Ernest; 1961; 1 item, 2 leaves.

XIII. B. Miscellaneous

[086.XIII.B.1] Miscellaneous personal materials; summaries of Le Ricolais articles; n.d.; 2 leaves.

[086.XIII.B.2] Miscellaneous personal materials; manuscript curriculum vitae; n.d.; 3 leaves.

[086.XIII.B.3] Miscellaneous personal materials; mixed manuscript notes; n.d.; 23 leaves.

[086.XIII.B.4] Miscellaneous personal materials; mixed receipts; some items dated 1961; 10 leaves.

[086.XIII.B.5] Miscellaneous personal materials; schedule of lectures of the Institute of Contemporary Arts, Washington D.C. [including one lecture by Beer]; April 1959; 4 leaves.

[086.XIII.B.6] Miscellaneous personal materials; mixed clippings and reading notes; some items dated 1961-1963; 6 leaves.

[086.XIII.B.7] Miscellaneous personal materials; mixed newpaper and magazine clippings; ca. 1960-1963.

Series XIV. M/P List

[086.XIV.1] M/P List

Appendix A: Project Index

Dated Projects

Notes:

Some of the objects included in this list were previously included in *Le Ricolais Photograph Collection: Index to Slides and Photographs.* Architectural Archives of the University of Pennsylvania, 8/4/1984. This is cited as M/P #[model number] under notes for each object.

Most of the objects are models for study of structural configurations, and therefore have no scale. However, some of the objects are scale models. For those, the notes include the mention of the scale, if known, or the indication "unknown scale."

"Composite Corrugated Sheet Structure"

no location
dates: ca. 1935
note/s: M/P #1; full scale
holdings:
[086.I.1] Composite Corrugated Sheet Structure; structural model; ca. 1935; sheet metal; ½ x 36 x 4 ½ inches.
[086.III.A.1] Composite Corrugated Sheet Structure; model photoprints; n.d.; (3 photoprints).

Prototype Isoflex Tubes

no location
dates: 1937
note/s: date and name from published interview
holdings:
[086.II.2] [Isoflex Tube]; architectural prints; 1 print dated 2/16/1937 and stamped "O.P.L. 4/30/1937; (1 print).
[086.III.A.2] Prototype Isoflex Tubes; model photoprints; 1 photo of load test; n.d.; (3 photoprints).
[086.IX.B.20] Published paper by Robert Le Ricolais, in English [PE I-17]; "Things Themselves are Lying, and so Are Their Images." Interviews with University of Pennsylvania graduate students. *VIA* v. 2 (November 1973): 81-109, 196-200; magazine clipping: 1 copy; photocopy of article: 3 copies.

[Space Frame]

no location
dates: 1937
note/s: date from photograph caption
holdings:
[086.III.A.3] [Space Frame]; model photoprint; 1 photo with caption "maquette exécutée à IPO Nantes" [model made at the IPO, Nantes] and dated 1937; (1 photoprint).

Three-dimensional reticulated beams ["Poutres réticulées en trois dimensions"]
no location
dates: ca. 1941
note/s: date and name from published article
holdings:
[086.III.A.4] Three-dimensional reticulated beams; model photoprints; n.d.; (1 photoprint).
[086.IX.A.3] Published paper by Robert Le Ricolais, in French; "Essai sur des systèmes réticulés à trois dimensions [II]" *Annales des ponts et chaussées* (September-October 1941): 152-165; photocopy of article: 3 copies.

Model of a Vault
no location
dates: 1944
note/s: date and name from photograph caption
holdings:
[086.III.A.5] Model of a Vault; model photoprints; 1 photo with caption "Maquette de voûte" [Model of a Vault]; 1 photo dated 1944; (1 photoprint).

[Hangar Prototype, LFB]
no location
dates 1944
note/s: date from photograph caption
holdings:
[086.III.A.6] [Hangar Prototype, LFB]; model photoprints; 1 photo with caption "Essai à LFB" [Trial at LFB] and dated 1944; (3 photoprints).

Model of an Airplane Wing
no location
dates: ca. 1945
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.7] Model of an Airplane Wing; model photoprints; 1 photo with caption "Maquette d'aile d'avion à grand allongement et à haute résistance en torsion" [Model of an airplane wing with great elongation and with high resistance to torsion]; n.d.; (1 photoprint).

Shell Structure, Three-Dimensional Network
no location
dates: ca. 1945
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.8] Shell Structure, Three-Dimensional Network; model photoprints; 1 photo with caption "Ossature de coque intégralement travaillant en réseaux à 3 dimensions" [Structure of a shell working entirely in three-dimensional networks.]; n.d.; (1 photoprint).

Hangar Model, Orthogonal Net Structure
no location
dates: ca. 1945
note/s: name (translation from the French) from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.9] Hangar Model, Orthogonal Net Structure; model photoprints; n.d.; (1 photoprint).

Hangar Model, "Shed" Type
no location
dates: ca. 1945
note/s: name (translation from the French) from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.10] Hangar Model, "Shed" Type; model photoprints; 1 photo by Henrot; n.d.; (3 photoprints).

Hangar Model, Flat Arch Profile
no location
dates: ca. 1945
note/s: name (translation from the French) from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.11] Hangar Model, Flat Arch Profile; model photoprints; 1 photo with caption "Maquette de hangar en arc surbaissé" [Hangar Model, Flat Arch Profile]; 1 photo by Henrot; n.d.; (5 photoprints).

Highway Shelter Model
no location
dates: ca. 1945
note/s: name (translation from the French) from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.12] Highway Shelter Model; model photoprints; 1 photo with caption "Maquette d'abri routier. Porte à faux de 3,50 m. Poids au m^2 : 15 ko." [Highway Shelter Model. Cantilever: 3.5 m. Weight per m^2: 15 kg.]; n.d.; (1 photoprint).

Hangar Model, Doubly-Curved Structure
no location
dates: ca. 1945
note/s: name (translation from the French) from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.13] Hangar Model, Doubly-Curved Structure; model photoprints; 3 photos by Henrot; 1 photo with caption "Maquette de hangar à double courbure" [Hangar Model, Doubly-Curved Structure]; n.d.; (3 photoprints).

Model of a Hangar with a Symmetrical Roof
no location
dates: ca. 1945
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.14] Model of a Hangar with a Symmetrical Roof; model photoprints, 1 photo with caption "Maquette de Hangar à 2 versants symétriques" [Model of a Hangar with a symmetrical roof slope]; n.d.; (4 photoprints).

[Hangar Model]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.15] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[Hangar Model]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.16] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[Hangar Model]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.17] [Hangar Model]; model photoprints; n.d.; (1 photoprint).

[Hangar Model]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.18] [Hangar Model]; model photoprints; n.d.; (1 photoprint).

[Roof Structure Model]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.19] [Roof Structure Model]; model photoprints; n.d.; (3 photoprints).

[Curved Triangulated Beam Prototype]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.20] [Curved Triangulated Beam Prototype]; model photoprints; n.d.; (3 photoprints).

Aplex Hangar
location unknown
dates: 1945
note/s: date from photograph caption ; name from publication
holdings:
[086.III.A.21] Aplex Hangar; as-built photoprints; 1 photo dated 1945; (5 photoprints).
[086.III.C.3] Large negatives; Aplex Hangar; 1945; construction views; (2 negatives).
[086.IX.A.4] Published paper by Robert Le Ricolais, in French [PF I-8]; "Charpente Aplex." *L'Architecture d'aujourd'hui* no. 4 (January 1946): 40-41; photocopy of article: 2 copies.

[Studies of Polyhedra]
no location
dates: ca. 1945
note/s: descriptive name based on photograph; date approximated by comparison with similar projects
holdings:
[086.III.A.22] [Studies of Polyhedra]; model photoprints, 1 photo with caption "A gauche: Tetrakaidekaèdre de Lord Kelvin. A droite, cubo octaèdre" [Left, Lord Kelvin's tetrakaidekahedron. Right, cubo-octahedron.]; n.d.; (2 photoprints).

Model of a Pedestrian Bridge
no location
dates: ca. 1945
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.23] Model of a Pedestrian Bridge; model photoprints; 1 photo with caption "Maquette de pont passerelle en 3 dimensions. Poutres de [illegible word] – réseaux à mailles triangulaires. Platelage en réseaux à mailles carrées" [Model of a pedestrian bridge in 3 dimensions. Beams of [illegible word] – network with triangular units. [unknown word]: network with square units.]; n.d.; (1 photoprint).

[Hangar Project]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.24] [Hangar Project]; construction and as-built photoprints; n.d.; (9 photoprints).

[Hangar Project]
no location
dates: ca. 1945
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.25] [Hangar Project]; construction and as-built photoprints; n.d.; (6 photoprints).

Hangar Prototype, Doubly-Curved Vault
location unknown
dates: 1946
note/s: name and date from photograph caption
holdings:
[086.III.A.26] Hangar Prototype, Doubly-Curved Vault; as-built photoprints; 1 photo with caption "1er prototype exécuté en 1946. Voûte à double courbure. Poids de la charpente 12 ko/m2" [First prototype, erected in 1946. Double-curvature vault. Weight of the roof: 12 kg/m^2] and dated 1946; (26 photoprints).
[086.III.C.4] Large negatives; Hangar Prototype, Doubly-Curved Vault; 1946; construction views; (4 negatives).

[Hangar Prototype, Nantes]
Nantes, France
dates: ca. 1946
note/s: date from published article
holdings:
[086.III.A.27] [Hangar Prototype, Nantes]; construction and as-built photoprints; 1 photo with caption "Noeud d'assemblage. Pièce en forme de V pesant 0,700 ko. Boulons de 16 mm [Assembly joint. V-shaped part, 0.7 kg. Bolts of diameter 16 mm]," 1 photo with caption "No. 2. Le voile terminé on place les goussets d'angles. Les poteaux préparés d'avance sont mis à leurs places respectives [Once the network is fully assembled, the corner gusset plates are placed in position. The preassembled posts are place in their final respective locations]," 1 photo with caption "Hangar de Nantes [Nantes hangar]," 1 photo with caption "No. 3. Le voile est placé sur cale avant le levage [The network is placed on a temporary support before being lifted into position],"; n.d.; (25 photoprints).
[086.III.C.5] Large negatives; Hangar Prototype, Nantes; ca. 1946; construction views; (30 negatives).
[086.IX.A.6] Published paper by Robert Le Ricolais, in French [PF I-9]; "Charpente tridimensionnelle pour hangars." *Techniques et architecture rurales* no. 1 [supplement to *Techniques et architecture* 7 no. 8 (1947)]: 14-15; magazine clipping: 1 copy (photograph only), photocopy of article: 5 copies.

[Hangar Vault Model]
no location
dates: ca. 1947
note/s: date from published article
holdings:
[086.III.A.28] [Hangar Vault Model]; model photoprints; n.d.; (1 photoprint).
[086.IX.A.5] Published paper by Robert Le Ricolais, in French [PF I-22]; "Les systèmes réticulés en trois dimensions." In *Urbanisme en Sarre*, 88-89. Sarrebruck: Malstatt-Burbacher Handelsdruckerei, 1947; photocopy of article: 1 copy.

Yaounde Parking Garage
Yaounde (Cameroon)
dates: 1947-1948
note/s:
holdings:
[086.II.2] Yaounde Parking Garage; architectural drawings; 1 drawing with manuscript annotation "Construit" ["built"]; n.d.; (1 drawing).
[086.III.A.29] Yaounde Parking Garage; as-built photoprints; 1 photo with caption "View of aisles," 1 photo with caption "Montage du hangar à Yaoundé-Cameroun [Construction of the hangar in Yaounde, Cameroon]," 1 photo with caption "Chantiers. Hangar à Yaoundé. Montage au sol [Construction sites. Hangar in Yaounde. Assembly on the ground]," 1 photo with caption "Chantiers – Elevation [Construction sites – Elevation]," 1 photo with caption "Interior view of the Parking Garage of Youndé Congo [sic]" and dated 1947-1948; (34 photoprints)
[086.III.C.6] Large negatives; Yaoundé Parking Garage; 1946-47; construction views; (12 negatives).
[086.X.A.3] Article about Le Ricolais, in French [PF I-10]; [no author] "Charpentiers, qu'en dites-vous ?" *Chantiers coopératifs* Cinquième année no. 3 (1952): 10; offprint: 2 copies.

Parabolic Diagonal Network
no location
dates: 1947
note/s: name from student report; date from photograph caption; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman
holdings:
[086.III.A.30] Parabolic Diagonal Network; model photoprints, 1 photo with caption "Maquette de dôme [Dome model]" and dated 1947 (2 photoprints).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Roof Structure, Paraboloid of Revolution
no location
dates: 1948
note/s: name (translation from the French) and date from photograph caption
holdings:
[086.III.A.31] Roof Structure, Paraboloid of Revolution; model photoprints; 1 photo with caption "Maquette de charpente. Paraboloïde de révolution" [Roof Structure, Paraboloid of Revolution] and dated 1948; (1 photoprint).

Rhombohedral Dome
no location
dates: 1948
note/s: name from student report; date from photograph caption
holdings:
[086.III.A.32] Rhombohedral Dome; model photoprints, 1 photo with caption "Maquette de dôme [Dome Model]" and dated 1948 [sic], 1 photo with caption "Maquette de dôme tridimensionnel [Three-dimensional dome model]" and dated 1948. (2 photoprints).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Diagonal Grid With Adjustable Deflections
no location
dates: 1948
note/s: name from student report; date from photograph caption
holdings:
[086.III.A.33] Diagonal Grid With Adjustable Deflections; model photoprints; 1 photo dated 1948 (1 photoprint).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

'Umbrella' Roof, Three-Unit Cluster
no location
dates: 1949
note/s: name from student report; date from photograph caption
holdings:
[086.III.A.34] 'Umbrella Roof'; model photoprints, 1 photo with caption "Maquette de cellules d'habitation hexagonales [Model of hexagonal residential units]" and dated 1949 (1 photoprint).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

[Temporary Exhibition Pavilion, Aplex system]
Paris (demolished)
dates: 1949
note/s: name approximated from photograph caption; date from photograph caption and published article
holdings:
[086.III.A.35] [Temporary Exhibition Pavilion, Aplex system]; as-built photoprints, 1 photo with caption "Cours la Reine. Exposition des Provinces et de l'Union française, 1949. Pavillion 100 m^2" [Exhibition of the French Union and Provinces, 1949. Exhibition pavilion, 100 m^2]; n.d.; (6 photoprints).
[086.IX.A.7] Published paper by Robert Le Ricolais, in French [PF I-6]; "Calcul des tensions et des déformations en flexion plane d'un réseau hexagonal à trois dimensions, appuyé sur le pourtour." *Le génie civil* 131 no. 10 (May 1949): 185-187; journal clipping: 1 copy, photocopy of article: 1 copy.

[Hangar Prototype, Masevaux]
Masevaux, France
dates: ca. 1950
note/s: name approximated from photograph caption; date from published article
holdings:
[086.II.2] Hangar Prototype, Masevaux; architectural drawings; 1 drawing with manuscript annotation "construit 46 ?" ["built in 1946?"]; (1 drawing).
[086.III.A.36] [Hangar Prototype, Masevaux]; as-built photoprints, 1 photo with caption "Récent hangar réalisé à Masevaux, Ht Rhin, Filatures Nap. Koechlin" [Hangar recently erected in Masevaux, Haut-Rhin, Nap. Koechlin Textile Mills]; n.d.; (9 photoprints).
[086.III.C.7] Large negatives; Hangar Prototype, Masevaux; ca. 1950; construction views; (3 negatives).
[086.IX.B.1] Published paper by Robert Le Ricolais, in English [PE I-2]; "Contributions to Space Structures." *Student Publications of the School of Design, North Carolina State College, Raleigh, N.C.* v. 3 no. 3 (Spring 1953): 1-5; photocopy of article: 1 copy.

Low-Cost Wooden Housing Units
location unknown
dates: ca. 1950
note/s: Architect: Pierre Forestier; name (translation from the French) from article; date approximated by comparison with related projects
holdings:
[086.III.A.37] Low-Cost Wooden Housing Units; as-built photoprints; n.d.; (1 photoprint).
[086.X.A.28] Article about Le Ricolais, in French [PF I-14]; "Habitations économiques en bois, P. Forestier, architecte, R. Le Ricolais, ingénieur." *Actualités* 14e série no. 1-2 [n.d.]: 54; photocopy of article: 1 copy.

Lightweight Hexagonal Structure
no location
dates: ca. 1950
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.38] Lightweight Hexagonal Structure; model photoprints; 1 photo with manuscript caption "Maquette de structure hexagonale légère" [Model of a Lightweight Hexagonal Structure], 1 photo with roof covering; 2 photos by Henrot; n.d.; (9 photoprints).

[Model, Lightweight Hexagonal Structure]
no location
dates: ca. 1950
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.39] [Model, Lightweight Hexagonal Structure]; model photoprints; 5 photos with skin stretched over the structure; n.d.; (6 photoprints).

M.R.U. Pavilion
Paris
dates: 1950
note/s: name and date from photograph caption
holdings:
[086.II.2] M.R.U. Pavilion; architectural drawings; 1 drawing dated 1951; (1 drawing).
[086.III.A.40] M.R.U. Pavilion; construction and as-built photoprints; 1 photo with caption "Pavillion MRU" [MRU Pavilion] and dated 1950; 1 photo by Henrot dated 1950; (2 photoprints).
[086.III.C.8] Large negatives; M.R.U. Pavilion; ca. 1950; construction views; (11 negatives).
[086.X.A.1] Article about Le Ricolais, in French; "Pavillon du Ministère de la Reconstruction et de l'Urbanisme." *7e exposition de l'habitation, Catalogue* Exhibition at the Grand Palais, Paris, February 23-March 19, 1950; catalogue clipping: 1 copy.
[086.X.A.2] Article about Robert Le Ricolais, in English [PE I-3]; [unknown author] "A New Technique for Demountable Timber Structures, Designer: R. Le Ricolais." *Wood* (January 1951): 26-28; photocopy of article: 5 complete copies and 1 extra copy of p.28.

[Hangar Model]
no location
dates: ca. 1950
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.41] [Hangar Model]; model photoprints; n.d.; (2 photoprints).

[Hangar Model]
no location
dates: ca. 1950
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.42] [Hangar Model]; model photoprints, 2 photos with caption "Bhongse", 2 photos with caption "Sindhusake"; ca. 1950; (4 photoprints).

[Roof Structure]
no location
dates: ca. 1950
note/s: date approximated by comparison with similar projects
holdings:
[086.III.A.43] [Roof Structure]; model photoprints; n.d.; (2 photoprints).

"Parabolograph"
no location
dates: ca. 1954
note/s: name and date from published article
holdings:
[086.III.A.44] Parabolograph; model photoprints; n.d.; (2 photoprints).
[086.IX.A.11] Published paper by Robert Le Ricolais, in French [PF I-25]; "Nouveaux réseaux triangulés à double courbure." *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): xxi; photocopy of article: photocopy of article: 3 copies.

[Vault Model]
no location
dates: ca. 1954
note/s: date from published article
holdings:
[086.III.A.45] [Vault Model]; model photoprints; n.d.; (6 photoprints).
[086.IX.A.11] Published paper by Robert Le Ricolais, in French [PF I-25]; "Nouveaux réseaux triangulés à double courbure." *L'Architecture d'aujourd'hui* 25 no. 55 (July-August 1954): xxi; photocopy of article: photocopy of article: 3 copies.

[Square-Cell Network Model]
no location
dates: ca. 1955
note/s: name approximated from photograph caption; date from published article
holdings:
[086.III.A.46] [Square-Cell Network Model]; model photoprints; 3 photos by Henrot; 1 photo with caption "Réseau à mailles carrées (Diagonales)" [Network with square cells (Diagonales)]; n.d.; (3 photoprints).
[086.IX.A.13] Published paper by Robert Le Ricolais, in French [PF II-27]; "Esquisse d'une cinématique des structures." *L'Architecture d'aujourd'hui* no. 60 (May-June 1955): 34-37; magazine clipping: 1 complete and 1 incomplete copy, photocopy of article: 1 copy.

[Hexagonal Cell Structure]
no location
dates: ca. 1955
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.47] [Hexagonal Cell Structure]; model photoprints; n.d.; (1 photoprint).

Space Frame of Hyperbolic Paraboloid Form
no location
dates: ca. 1955
note/s: name from photograph caption; date approximated by comparison with similar projects
holdings:
[086.III.A.48] Space Frame of Hyperbolic Paraboloid Form; model photoprints; 4 photos by Rasche; n.d.; (4 photoprints).

[Minimal Surface Models]
no location
dates: ca. 1955
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.49] [Minimal Surface Models]; model photoprints; n.d.; (6 photoprints).

[Bridge Model]
no location
dates: ca. 1955
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.50] [Bridge Model]; model photoprints; n.d.; (2 photoprints).

Sports Arena
no location
dates: 1956
note/s: name and date from photograph caption
holdings:
[086.III.A.51] Sports Arena; model photoprints; 1 photoprint with caption "A600 Fall 56 Le Ricolais Sports Arena Ketzitgis"; dated 1956; (1 photoprint).

[Stadium Roof Structure]
no location
dates: 1956
note/s: descriptive name; date from photograph
holdings:
[086.III.A.52] [Stadium Roof Structure]; model photoprints; 1 photo dated 1956; (2 photoprints).

Saint-Wandrille Church
Belleville-en-Caux (Seine maritime)
dates: 1957
note/s: name and date from photograph caption
holdings:
[086.II.1] Assorted architectural drawings and prints for Saint-Wandrille Church, Belleville-en-Caux; architectural prints; 1 print dated 7/1/1954, 1 print dated 9/6/1955; (2 prints).
[086.III.A.53] Saint-Wandrille Church; construction and as-built photoprints; 1 photo by Ellebé; 6 postcard photoprints, 6 photos by E. Mignon; 1 photo dated 1957; (9 photoprints).

Parabolic Dome, Triangular Grid
no location
dates: 1957
note/s: name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman
holdings:
[086.III.A.54] Parabolic Dome, Triangular Grid; model photoprints; n.d.; (1 photoprint).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

[Parabolic Dome, Triangular Grid]
no location
dates: ca. 1957
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.55] [Parabolic Dome, Triangular Grid]; model photoprints; n.d.; (1 photoprint).

Parabolic Dome, Six-Pointed Star Grid
no location
dates: 1957
note/s: name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman
holdings:
[086.III.A.56] Parabolic Dome, Six-Pointed Star Grid; model photoprints; n.d.; (1 photoprint).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Parabolic Reflector
no location
dates: 1957
note/s: name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman
holdings:
[086.III.A.57] Parabolic Reflector; model photoprints; 3 photos dated May 1957; (3 photoprints).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Parabolic Grid With Composite Beam Unit

no location

dates: 1957

note/s: sectional model; name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman

holdings:

[086.III.A.58] Parabolic Grid With Composite Beam Unit; model photoprints; n.d.; (1 photoprint).

[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.

[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Orthogonal Network With Flat Surfaces

no location

dates: 1957

note/s: name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman

holdings:

[086.III.A.59] Orthogonal Network With Flat Surfaces; model photoprints; n.d.; (2 photoprints).

[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.

[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

Diagonal Network With Flat Surfaces
no location
dates: 1957
note/s: name and date from student report; fabricated by Margit Beutel, Gerald Harburn, Robert Houvner, Hristo Papayoti, Jacobo Reines, Chester Steffey, Sargis Sargis, and Norman Ziegelman
holdings:
[086.III.A.60] Diagonal Network With Flat Surfaces; model photoprints; n.d.; (2 photoprints).
[086.VII.C.2] Student Report; "An Investigation on Structures: Grids and Space Frames"; by Margit Beutel, Hristo Papayoti, Jacobo Reines and Sargis Sargis; dated Spring 1957; submitted for Architecture 205, University of Michigan; bound photocopy of typescript and drawings; includes 33 photoprints.
[086.IX.B.5] Published paper by Robert Le Ricolais, in English [PE I-4]; "Grids and Space Frames: An Investigation on Structures." *Dimensions* [publication of the College of Architecture and Design, University of Michigan] v.3 no.2 (Fall 1959): entire issue; photocopy of article: 2 copies, mechanical copy of article: 1 copy.

"Stella Octahedron"
no location
dates: Spring 1958
note/s: M/P #9; date from published article
holdings:
[086.I.2] Stella Octahedron; structural model; Spring 1958; steel and sheet metal; 19 ½ x 24 ½ x 28 ½ inches.
[086.III.A.61] Stella Octahedron; model photoprints; n.d.; (7 photoprints).
[086.IX.A.14] Published paper by Robert Le Ricolais, in French [PF II-43]; "Structures et formes." *L'Architecture d'aujourd'hui* 30 no. 84 (June-July 1959): 64-68; offprint: 7 copies, magazine clipping: 5 copies, photocopy of article: 3 copies.

[Monkey Saddle, Hexagonal Frame]
no location
dates: Fall 1958
note/s: date and information from published article; model was fabricated by Loving and Singer
holdings:
[086.III.A.62] [Monkey Saddle, Hexagonal Frame]; model photoprints; n.d.; (2 photoprints).
[086.IX.A.14] Published paper by Robert Le Ricolais, in French [PF II-43]; "Structures et formes." *L'Architecture d'aujourd'hui* 30 no. 84 (June-July 1959): 64-68; offprint: 7 copies, magazine clipping: 5 copies, photocopy of article: 3 copies.

"Pretensioned Monkey Saddle, Minimal Surface Structure"
no location
dates: Fall 1958
note/s: M/P #2; fabricated by Loving and Singer
holdings:
[086.I.3] Pretensioned Monkey Saddle, Minimal Surface Structure; structural model; Fall 1958; steel pipe and cables; 8 ½ x 23 ¼ x 22 ¾ inches.
[086.III.A.63] Pretensioned Monkey Saddle, Minimal Surface Structure; model photoprints, 1 photo dated 5/11/1959; (10 photoprints).
[086.III.C.9] Large negatives; Pretensioned Monkey Saddle, Minimal Surface Structure; ca. 1958; views of model; (2 negatives).

"Suspension Bridge with Wire Network for Skyrail"
no location
dates: ca. 1958 [was dated 1962-1963 on the M/P list]
note/s: M/P #38; fabricated by Vallhonrat, C.E.; scale 1:100
holdings:
[086.I.4] Suspension Bridge with Wire Network for Skyrail; structural model; 1958; wood and string; 8 ¾ x 7 ½ x 45 inches.
[086.III.A.64] Suspension Bridge with Wire Network for Skyrail; model photoprints, 1 photo with caption "Modèle ancien (1958) de pont suspendu par nappes croisées" [Old model (1958) of a suspension bridge with crossed tensioned surfaces]; 1 photo dated 1958; (4 photoprints).

[Airplane Hangar, Project T-56]
no location
dates: ca. 1958
note/s: date from photograph caption and published article
holdings:
[086.III.A.65] [Airplane Hangar, Project T-56]; model photoprints, two photos by Henrot, two photos dated 9/8/1958 (7 photoprints).
[086.III.C.10] Large negatives; Airplane Hangar, Project T-56; photograph of drawing; ca. 1958; (1 negative).
[086.IX.A.14] Published paper by Robert Le Ricolais, in French [PF II-43]; "Structures et formes." *L'Architecture d'aujourd'hui* 30 no. 84 (June-July 1959): 64-68; offprint: 7 copies, magazine clipping: 5 copies, photocopy of article: 3 copies.

"Monkey Saddle, Model #1"
no location
dates: 1959
note/s: M/P #4
holdings:
[086.I.5] Monkey Saddle, Model #1; structural model; 1959; steel tube, aircraft cable; 3 ½ x 14 x 15 ¾ inches.
[086.III.A.66] Monkey Saddle, Model #1; model and drawing photoprints; 1 photo of drawing; 2 photos of model; n.d.; (3 photoprints).

"Monkey Saddle, Model #2"
no location
dates: 1959
note/s: M/P #5
holdings:
[086.I.6] Monkey Saddle, Model #2; structural model; 1959; steel tube 5/8 inch diameter, cable; 12 ¼ x 45 ¼ x 52 ¼ inches [including base].
[086.III.A.67] Monkey Saddle, Model #2; model photoprints; n.d.; (3 photoprints).

"Aplex Space Frame"
no location
dates: 1959; unknown scale
note/s: M/P #19
holdings:
[086.I.7] Aplex Space Frame; structural model; 1959; steel bars ¼ x 1/8 inch cross section, rods 1/8 inch diameter; 30 ¼ x 30 ¼ x 2 ½ inches.
[086.III.A.68] Aplex Space Frame; model photoprints; n.d.; (6 photoprints).

Floor Panel
no location
dates: ca. 1959
note/s: name from photograph caption ; date approximated by comparison with similar projects; seems related to the Aplex Space Frame
holdings:
[086.III.A.69] Floor Panel; model photoprints; 1 photo with manuscript mention "Floor Panel"; n.d.; (3 photoprints).

"Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive" [Hangar Roof]
no location
dates: Fall 1959
note/s: M/P #14; fabricated by Suzanne Goes; model no longer in the collection
holdings:
[086.III.A.70] "Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive" [Hangar Roof]; model photoprints; n.d.; (3 photoprints).

[Monkey Saddle With Parabolic Arched Edge Beams]
no location
dates: ca. 1959
note/s: date and name from published article
holdings:
[086.III.A.71] Monkey Saddle With Parabolic Arched Edge Beam; model photoprints; n.d.; (1 photoprint).
[086.IX.B.7] Published paper by Robert Le Ricolais, in English [PE I-14]; "Survey of Structural Researches, 1959-1960." *Architectural Design* v. 30 no. 10 (October 1960): 415-416; photocopy of article: 12 copies.

[Monkey Saddle, With Skin]
no location
dates: ca. 1959
note/s: date cf. other monkey saddles
holdings:
[086.III.A.72] [Monkey Saddle, With Skin]; model photoprints; n.d.; (1 photoprint).

"Octahedron"
no location
dates: 1959-1960
note/s: M/P #6
holdings:
[086.I.8] Octahedron; structural model; 1959-1960; steel rods ¼ inch diameter; 5 5/8 x 6 ¼ x 7 inches.
[086.III.A.73] Octahedron; model photoprints; n.d.; (1 photoprint).

"Octahedron, Minimum Surface Structure"
no location
dates: 1959-1960
note/s: M/P #8
holdings:
[086.I.9] Octahedron, Minimum Surface Structure [wires inside]; structural model; 1959-1960; steel rods ¼ inch diameter and cable; 15 ½ x 11 x11 inches.
[086.III.A.74] Octahedron, Minimum Surface Structure; model photoprints; n.d.; (4 photoprints).

"Octahedron, Minimum Surface Structure"
no location
dates: 1959-1960
note/s:
holdings:
[086.I.10] Octahedron, Minimum Surface Structure [wires outside]; structural model; 1959-1960; steel rods ¼ inch diameter and cable; 15 ½ x 11 x11 inches.
[086.III.A.75] Octahedron, Minimum Surface Structure; model photoprints; n.d.; (9 photoprints).

"Double-Curvature Network #1 (D.C.N.), Concave, Reactive"
no location
dates: 1959-1960
note/s: M/P #13; fabricated by Hans Harms and Key Kolb
holdings:
[086.I.11] Double-Curvature Network #1 (D.C.N.), Concave, Reactive; structural model; 1959-1960; bicycle tire, steel cables; 2 ½ x (diameter) 26 inches.
[086.III.A.76] Double-Curvature Network #1 (D.C.N.), Concave, Reactive; model photoprints; 1 photo with caption "Convex Reaction Tension Grid" and dated 7/4/1960; (4 photoprints).

"Orthogonal Grid System"
no location
dates: ca. 1960
note/s: M/P #15
holdings:
[086.I.12] Orthogonal Grid System; structural model; ca. 1960; steel rods 1/8 inch diameter; 1 ¾ x 20 x 20 inches.
[086.III.A.77] Orthogonal Grid System; model photoprints; n.d.; (1 photoprint).

"Vault, Orthogonal Grid"
no location
dates: ca. 1960
note/s: date approximated by comparison with related projects
holdings:
[086.I.13] Vault, Orthogonal Grid; structural model; ca. 1960; steel rod 1/8 inch diameter; 7 ½ x 22 ¼ x 27 ¼ inches.
[086.III.A.78] Vault, Orthogonal Grid; model photoprints; n.d.; (11 photoprints).

"Orthogonal Space Frame, Regular Truss System"
no location
dates: 1960; unknown scale
note/s: M/P #21
holdings:
[086.I.14] Orthogonal Space Frame, Regular Truss System; structural model; before 1960; steel rods ¼ inch and 1/8 inch diameter; 4 ½ x 31 ½ x 31 ½ inches.
[086.III.A.79] Orthogonal Space Frame, Regular Truss System; model photoprints; n.d.; (3 photoprints).

"Diagonal Grid System"
no location
dates: before 1960
note/s: M/P #16
holdings:
[086.I.15] Diagonal Grid System; structural model; before 1960; steel rods 1/8 inch diameter; 1 ¾ x 20 x 20 inches.
[086.III.A.80] Diagonal Grid System; model photoprints; n.d.; (1 photoprint).

"Micro-Bubble System (M.B.S.) Model"
no location
dates: 1960
note/s: M/P #23; scale: much enlarged
holdings:
[086.I.16] Micro-Bubble System (M.B.S.) Model; structural model; 1960; ping-pong balls, laminates; 1 ¾ x 21 x 21 inches.
[086.III.A.81] Micro-Bubble System (M.B.S.) Model; model photoprints; n.d.; (3 photoprints).

"Funicular Polygon of Revolution, Pseudosphere"
no location
dates: 1960
note/s: M/P #27; "after Lobatchevskian space"
holdings:
[086.I.17] Funicular Polygon of Revolution, Pseudosphere; structural model; 1960; steel tube 1 inch diameter, rings, aircraft cable; 27 x (diameter) 19 inches.
[086.III.A.82] Funicular Polygon of Revolution, Pseudosphere; model photoprints, two photos by James Bryan; n.d.; (6 photoprints).
[086.III.B.1] Funicular Polygon of Revolution, Pseudosphere; large-format photoprints; n.d.; (1 photoprint).

"Double Curvature Network, Convex Non-Reactive"
no location
dates: ca. 1960
note/s: fabricated by B. Perrin; date and information from published article
holdings:
[086.I.18] Double-Curvature Network, Convex Non-Reactive; structural model; ca.1960; steel rods, cables; 5 ¼ high x 22 3/8 inch diameter.
[086.III.A.83] Double Curvature Network, Convex Non-Reactive; model and drawing photoprints, 1 photo of drawing; 12 photos of model; two photos by James Bryan; n.d.; (13 photoprints).
[086.IX.A.15] Published paper by Robert Le Ricolais, in French [PF II-29]; "Propos au sujet d'une architecture spatiale." *L'Architecture d'aujourd'hui* 31 no. 91-92 (September-October-November 1960): 192-193; offprint: 10 copies, photocopy of article: 1 copy.

"Lenticular Dome of Double-Curvature Network (D.C.N.), a.k.a. Two-Curvature Network (T.C.N.)"

no location
dates: ca. 1960
note/s: M/P #10; date approximated by comparison with similar projects
holdings:
[086.I.19] Lenticular Dome of Double-Curvature Network (D.C.N.), a.k.a. Two-Curvature Network (T.C.N.); structural model; ca. 1960; steel tube, 1 inch diameter and cable; 7 ¼ x (diameter) 60 inches.
[086.III.A.84] Lenticular Dome of Double Curvature Network (D.C.N.); model photoprints, 1 photo with caption "Structure à double courbure convexe en paraboloide de revolution" [Structure with double, convex curvature, paraboloid of revolution]; n.d.; (6 photoprints).
[086.III.B.2] Lenticular Dome of Double Curvature Network; large-format photoprints; n.d.; (1 photoprint).
[086.III.C.11] Large negatives; Lenticular Dome of Double Curvature Network; ca. 1960; view of model; (1 negative).

"Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive"

no location
dates: ca. 1960
note/s: M/P #11; date approximated by comparison with similar projects
holdings:
[086.I.20] Double-Curvature Network #2 (D.C.N.), Concave, Non-Reactive; structural model; ca. 1960; steel; 8 x (diameter) 24 1/8 inches.
[086.III.A.85] Double-Curvature Network #2 (D.C.N.); model photoprints; n.d.; (4 photoprints).

"Double-Curvature Trigrid with Tension Ring"

no location
dates: ca. 1960
note/s: M/P #12; date approximated by comparison with similar projects
holdings:
[086.I.21] Double-Curvature Trigrid with Tension Ring; structural model; ca. 1960; steel and cable; 4 x (diameter) 36 inches.
[086.III.A.86] Double-Curvature Trigrid with Tension Ring; model photoprints; n.d.; (3 photoprints).

Octagon Tension Grid

no location
dates: ca. 1960
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.87] Octagon Tension Grid; model photoprints; n.d.; (2 photoprints).

Tensegrity Dome
no location
dates: ca. 1960
note/s: date approximated by comparison with related projects
holdings:
[086.I.22] Tensegrity Dome; structural model; ca. 1960; steel tube 5/16 inch diameter, rods ¼ inch diameter, cable; 10 x (diameter) 33 inches.
[086.III.A.88] Tensegrity Dome; model photoprints; n.d.; (7 photoprints).

Set-up for Study of Trihex, Starhex, and Trigrid
no location
dates: ca. 1960
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.III.A.89] Set-up for Study of Trihex, Starhex, and Trigrid; model photoprints; 1 photo with manuscript mention "Set-up for Study of Trihex, Starhex, and Trigrid"; 3 photos of frame only; 8 photos of the Trigrid set-up; 7 photos of the Trihex set-up; n.d.; (18 photoprints).

[Large Monkey Saddle]
no location
dates: ca. 1960
note/s: date from published article
holdings:
[086.III.A.90] [Large Monkey Saddle]; model photoprints, 2 photos taken during construction, 4 photos of load tests; n.d.; (8 photoprints).
[086.III.B.4] [Large Monkey Saddle]; large-format photoprints; n.d.; (1 photoprint)
[086.IX.A.15] Published paper by Robert Le Ricolais, in French [PF II-29]; "Propos au sujet d'une architecture spatiale." *L'Architecture d'aujourd'hui* 31 no. 91-92 (September-October-November 1960): 192-193; offprint: 10 copies, photocopy of article: 1 copy.

[Multi-Story Hotel Complex]
no location
dates: ca. 1960
note/s: fabricated by Richard Weinstein; date and information from published article
holdings:
[086.III.A.91] [Multi-Story Hotel Complex]; model photoprints; n.d.; (2 photoprints).
[086.IX.A.15] Published paper by Robert Le Ricolais, in French [PF II-29]; "Propos au sujet d'une architecture spatiale." *L'Architecture d'aujourd'hui* 31 no. 91-92 (September-October-November 1960): 192-193; offprint: 10 copies, photocopy of article: 1 copy.

"Le Ricolais Space Frame"
no location
dates: ca. 1960; unknown scale
note/s: M/P #20
holdings:
[086.I.23] Le Ricolais Space Frame; structural model; ca. 1960; steel rods ¼ inch diameter, wires; 3 x 19 ¼ x 19 ¼ inches.
[086.III.A.92] Le Ricolais Space Frame; model photoprints; n.d.; (3 photoprints).
[086.III.B.3] Le Ricolais Space Frame; large-format photoprints; n.d.; (1 photoprint).

[Antenna, Reactive System]
no location
dates: ca. 1961
note/s: date from published article
holdings:
[086.III.A.93] [Antenna, Reactive System]; model photoprints, 2 photos by George Pohl; n.d.; (4 photoprints).
[086.IX.A.16] Published paper by Robert Le Ricolais, in French [PF II-26]; "Nouvelles combinaisons structurales." *L'Architecture d'aujourd'hui* 32 no. 99 (December 1961-January 1962): 8-9; magazine clipping: 3 copies including 1 incomplete copy (p. 9 missing), photocopy of article: 3 copies, mechanical copy of article: 3 copies.

"Cosmorama"
no location
dates: ca. 1961
note/s: date from published article
holdings:
[086.III.A.94] Cosmorama; model photoprints, 1 photo by George Pohl, 1 photo with caption "Maquette au 1/100 Cosmorama. 40.000 spectateurs dans une sphère creuse de 100 m de diameter" [Model of Cosmorama, scale 1:100. 40,000 spectators in a hollow sphere of 100 m diameter]; n.d.; (14 photoprints).
[086.IX.A.16] Published paper by Robert Le Ricolais, in French [PF II-26]; "Nouvelles combinaisons structurales." *L'Architecture d'aujourd'hui* 32 no. 99 (December 1961-January 1962): 8-9; magazine clipping: 3 copies including 1 incomplete copy (p. 9 missing), photocopy of article: 3 copies, mechanical copy of article: 3 copies.

"Funicular Polygon of Revolution, Lemniscate B"
no location
dates: 1960-1962 [PMC remembers this as ca. 1967, built by Alvar Malo?]
note/s: M/P #26
holdings:
[086.I.24] Funicular Polygon of Revolution, Lemniscate B; structural model; 1960-1962; steel tube ¾ inch diameter and discs, aircraft cable; 38 x (diameter) 7 inches.
[086.III.A.95] Funicular Polygon of Revolution, Lemniscate B; model photoprints, 1 photo by James Bryan; n.d.; (9 photoprints).

"Funicular Polygon of Revolution (Queen Post)"
no location
dates: 1960-1962
note/s: M/P #24
holdings:
[086.I.25] Funicular Polygon of Revolution (Queen Post); structural model; 1960-1962; steel tube and discs, aircraft cable; 22 x (diameter) 3 inches.
[086.III.A.96] Funicular Polygon of Revolution (Queen Post); model photoprints; n.d.; (1 photoprint).

[Tensioned Sphero-Vector]
no location
dates: ca. 1961
note/s: date from published article
holdings:
[086.III.A.97] [Tensioned Sphero-Vector]; model photoprints; n.d.; (7 photoprints).
[086.IX.A.16] Published paper by Robert Le Ricolais, in French [PF II-26]; "Nouvelles combinaisons structurales." *L'Architecture d'aujourd'hui* 32 no. 99 (December 1961-January 1962): 8-9; magazine clipping: 3 copies including 1 incomplete copy (p. 9 missing), photocopy of article: 3 copies, mechanical copy of article: 3 copies.

[Double-Curvature Network, Paraboloid of Revolution]
no location
dates: ca. 1961
note/s: date from published article
holdings:
[086.III.A.98] [Double-Curvature Network, Paraboloid of Revolution; model photoprints; n.d.; (3 photoprints).
[086.IX.A.16] Published paper by Robert Le Ricolais, in French [PF II-26]; "Nouvelles combinaisons structurales." *L'Architecture d'aujourd'hui* 32 no. 99 (December 1961-January 1962): 8-9; magazine clipping: 3 copies including 1 incomplete copy (p. 9 missing), photocopy of article: 3 copies, mechanical copy of article: 3 copies.

"Automorphic Tube, T-6 Model #1"
no location
dates: 1961
note/s: M/P #29; model no longer in the collection
holdings:
[086.III.A.99] Automorphic Tube, T-6, Model #1; model photoprints; n.d.; (6 photoprints).

"Automorphic Tube, T-6, Model #2"
no location
dates: 1961
note/s: M/P #30
holdings:
[086.I.26] Automorphic Tube, T-6, Model #2; structural model; 1961; steel tubes ¼ inch diameter, rods 1/8 inch diameter; 9 ½ x (diameter) 4 ¾ inches.
[086.III.A.100] Automorphic Tube, T-6, Model #2; model photoprints; n.d.; (2 photoprints).

"Automorphic Tube, T-6, Model #3"
no location
dates: ca. 1961
note/s: M/P #31; date approximated by comparison with related projects
holdings:
[086.I.27] Automorphic Tube, T-6, Model #3; structural model; ca. 1961; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 x (diameter) 8 ½ inches.
[086.III.A.101] Automorphic Tube, T-6, Model #3; model photoprints; n.d.; (8 photoprints).

"Tension Net Construction"
no location
dates: 1961-1962
note/s: M/P #39
holdings:
[086.I.28] Tension Net Construction; structural model; 1961-1962; bronze welding-rod, thread, clothing snaps; 9 x 5 x 1 ½ inches.
[086.III.A.102] Tension Net Construction; model photoprints; n.d.; (4 photoprints).

[Tension Net Model]
no location
dates: ca. 1961-62
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.103] [Tension Net Model]; model photoprints; n.d.; (1 photoprint).

"Funicular Polygon of Revolution, for Skyrail"
no location
dates: 1961-1962
note/s: M/P #28; scale 1:1000
holdings:
[086.I.29] Funicular Polygon of Revolution, for Skyrail; structural model; 1961-1962; steel tubes/rods, aircraft cables; 132 x (diameter) 25 inches.
[086.III.A.104] Funicular Polygon of Revolution, for Skyrail; model and drawing photoprints; 2 photos of drawings; 1 photo by James Bryan; 1 photo with caption "Tube automorphique comprimé par réseaux tendus" [Automorphic tube put in compression by tension nets]; three load test photos, including 1 photo with caption "Tube automorphique, essai en compression" [Automorphic tube, compression test], dated 1960, and 1 photo with caption "Essai en flexion d'un tube automorphique" [Automorphic tube in flexion, load test]; n.d.; (11 photoprints).
[086.III.C.12] Large negatives; Funicular Polygon of Revolution for Skyrail; ca. 1961-62; views of model; (2 negatives).

"Automorphic Tube, T-12, Model #4, Showing Harmonic Buckling"
no location
dates: 1961-1962
note/s: M/P #35
holdings:
[086.I.30] Automorphic Tube, T-12, Model #4, Showing Harmonic Buckling; structural model; 1961-1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 11 3/4 x (diameter) 8 ½ inches.
[086.III.A.105] Automorphic Tube, T-12, Model #4, Showing Harmonic Buckling; model photoprints, 3 photos by James Bryan; n.d.; (15 photoprints).

T-12 Automorphic Tube
no location
dates: 1961-1962
note/s: date and name from published article
holdings:
[086.III.A.106] T-12 Automorphic Tube; model photoprints; n.d.; (3 photoprints).
[086.IX.B.20] Published paper by Robert Le Ricolais, in English [PE I-17]; "Things Themselves are Lying, and so Are Their Images." Interviews with University of Pennsylvania graduate students. *VIA* v. 2 (November 1973): 81-109, 196-200; magazine clipping: 1 copy; photocopy of article: 3 copies.

"Automorphic Tube, T-12, Model #1"
no location
dates: May 1962
note/s: M/P #32
holdings:
[086.I.31] Automorphic Tube, T-12, Model #1; structural model; May 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 15 3/8 x (diameter) 8 5/8 inches.
[086.III.A.107] Automorphic Tube, T-12, Model #1; model photoprints; n.d.; (3 photoprints).

"Automorphic Tube, T-12, Model #5"
no location
dates: May 1962
note/s: M/P #36; model no longer in the collection
holdings:
[086.III.A.108] Automorphic Tube, T-12, Model #5; model photoprints; n.d.; (2 photoprints).

"Automorphic Tube, T-12, Model #2, after Buckling"
no location
dates: 1962
note/s: M/P #33
holdings:
[086.I.32] Automorphic Tube, T-12, Model #2, after Buckling; structural model; 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 ¾ x 10 ¾ x 7 ¾ inches.
[086.III.A.109] Automorphic Tube, T-12, Model #2, after Buckling ; model photoprints; n.d.; (3 photoprints).

"Automorphic Tube, T-12, Model #3, after Buckling"
no location
dates: 1962
note/s: M/P #34
holdings:
[086.I.33] Automorphic Tube, T-12, Model #3, after Buckling; structural model; 1962; steel tubes ½ inch diameter, rods 1/8 inch diameter; 13 1/8 x (diameter) 8 ¾ inches.
[086.III.A.110] Automorphic Tube, T-12, Model #3, after Buckling; model photoprints; n.d.; (2 photoprints).

[Automorphic Tube, T-12, Unidentified Model, after Buckling]
no location
dates: ca. 1962
note/s:
holdings:
[086.III.A.111] [Automorphic Tube, T-12, Unidentified Model, after Buckling]; model photoprints, two photos with caption "Elément d'un tube automorphique après essai de compression [Automorphic Tube Element After Buckling]", 1 photo with caption "Tube automorphique après compression [Automorphic Tube After Buckling]"; n.d.; (7 photoprints).

"Automorphic Compression Member"
no location
dates: ca. 1962
note/s: M/P #37; date approximated by comparison with related projects
holdings:
[086.I.34] Automorphic Compression Member; structural model; ca. 1962; steel; 17 ¾ x (diameter) 8 ½ inches.
[086.III.A.112] Automorphic Compression Member; model photoprints; n.d.; (2 photoprints).

[Funicular Polygon of Revolution, Momentless Structure]
no location
dates: ca. 1962
note/s: date and name from published article
holdings:
[086.III.A.113] [Funicular Polygon of Revolution, Momentless Structure]; model photoprints; n.d.; (2 photoprints).
[086.IX.A.19] Published paper by Robert Le Ricolais, in French [PF I-2]; "Aperçu sur une nouvelle classe de structures tendues." In *Hanging Roofs*, Proceedings of the IASS Colloquium, Paris 9-11 July 1962. Amsterdam: North-Holland Publishing Company, 1963; offprint: 20 copies, photocopy of article: 2 copies.

[Funicular Polygon of Revolution, Spheroid]
no location
dates: ca. 1962
note/s: date and name from published article
holdings:
[086.III.A.114] [Funicular Polygon of Revolution, Spheroid]; model photoprints; n.d.; (2 photoprints).
[086.IX.A.19] Published paper by Robert Le Ricolais, in French [PF I-2]; "Aperçu sur une nouvelle classe de structures tendues." In *Hanging Roofs*, Proceedings of the IASS Colloquium, Paris 9-11 July 1962. Amsterdam: North-Holland Publishing Company, 1963; offprint: 20 copies, photocopy of article: 2 copies.

[T-6 Automorphic Tube]
no location
dates: 1962-1963
note/s: date and name from published article
holdings:
[086.III.A.115] T-6 Automorphic Tube; model photoprints; n.d.; (7 photoprints).
[086.IX.B.20] Published paper by Robert Le Ricolais, in English [PE I-17]; "Things Themselves are Lying, and so Are Their Images." Interviews with University of Pennsylvania graduate students. *VIA* v. 2 (November 1973): 81-109, 196-200; magazine clipping: 1 copy; photocopy of article: 3 copies.

[Pretensioned Transmission Tower]
no location
dates: ca. 1963
note/s: name and date approximated from resemblance with similar projects
holdings:
[086.III.A.116] [Pretensioned Transmission Tower]; model photoprints; n.d.; (2 photoprints).

[Pretensioned Transmission Tower]
no location
dates: ca. 1963
note/s: name and date approximated from resemblance with similar projects
holdings:
[086.III.A.117] [Pretensioned Transmission Tower]; model photoprints; n.d.; (1 photoprint).

[Pretensioned Transmission Tower]
no location
dates: ca. 1963
note/s: name and date approximated from resemblance with similar projects
holdings:
[086.III.A.118] [Pretensioned Transmission Tower]; model photoprints; n.d; (1 photoprint).

"Pretensioned Transmission Tower, Model #1"
no location
dates: 1963
note/s: M/P #40; unknown scale
holdings:
[086.I.35] Pretensioned Transmission Tower, Model #1; structural model; 1963; steel tube ½ inch diameter, plastic discs, plastic wires; 19 x (diameter) 9 inches.
[086.III.A.119] Pretensioned Transmission Model #1; model photoprints, n.d.; (2 photoprints).

"Pretensioned Transmission Tower, Model #2"
no location
dates: ca. 1963
note/s: M/P #41; unknown scale
holdings:
[086.I.36] Pretensioned Transmission Tower, Model #2; structural model; ca. 1963; steel tube, rings, wires; 39 x 18 ½ x 21 ½ inches [including base]
[086.III.A.120] Pretensioned Transmission Tower, Model #2; model photoprints, n.d.; (3 photoprints).

"Pretensioned Transmission Tower, Model #3"
no location
dates: 1963
note/s: M/P #43; unknown scale
holdings:
[086.I.37] Pretensioned Transmission Tower, Model #3; structural model; 1963; steel tube ¾ inch diameter, rods ¼ inch diameter, cables; 61 ½ x 17 ¼ x 20 inches [including base]
[086.III.A.121] Pretensioned Transmission Tower, Model #3; model photoprints, n.d.; (8 photoprints).

[Transmission Tower]
no location
dates: ca. 1963
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.122] [Transmission Tower]; model photoprints, 2 photos of load tests; n.d.; (2 photoprints).

[Transmission Tower]
no location
dates: ca. 1963
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.123] [Transmission Tower]; model photoprints, 1 photo of detail; n.d.; (1 photoprint).

"Tensioned Water Tower"
no location
dates: 1963
note/s: M/P #42; unknown scale
holdings:
[086.I.38] Tensioned Water Tower; structural model; 1963; steel rods, 1/8 and 3/16 inch diameter, rings, cables, wood base; 33 ½ x 18 ½ x 16 inches [including base]; plaster "reservoir", 4 ½ x (diameter) 9 ½ inches.
[086.III.A.124] Tensioned Water Tower; model photoprints, n.d.; (5 photoprints).
[086.III.B.5a-5b]Tensioned Water Tower; large-format photoprints; n.d.; (2 photoprints).

Tension Transmission Tower
no location
dates: 1964
note/s: Tension Structures Inc. project with the Colorado Fuel and Iron Co., Roebling division.
[086.III.A.125] Tension Transmission Tower; model photoprints; 8 photos dated 4/17/1964; (8 photoprints).

"Plasteel Panel #1"
no location
dates: 1964
note/s: M/P #44; full scale; model no longer in the collection
holdings:
[086.III.A.126] Plasteel Panel #1; model photoprints; n.d.; (1 photoprint).

"Plasteel Panel #2"
no location
dates: 1964
note/s: M/P #45; full scale; model no longer in the collection
holdings:
[086.III.A.127] Plasteel Panel #2; model photoprints; n.d.; (1 photoprint).

"Tension Net Tube Coated with Epoxy and Fiberglass"
no location
dates: 1964
note/s: M/P #46; unknown scale
holdings:
[086.I.39] Tension Net Tube Coated with Epoxy and Fiberglass; structural model; 1964; steel tube, aircraft cable, fiberglass, epoxy; 47 ¼ x (diameter) 7 inches.
[086.III.A.128] Tension Net Tube Coated with Epoxy and Fiberglass; model photoprints; n.d.; (3 photoprints).
[086.III.C.13] Large negatives; Tension Net Tube Coated with Epoxy and Fiberglass; ca. 1964; views of model; (2 negatives).

[Tension Net Tube Coated with Epoxy and Fiberglass]
no location
dates: ca. 1964
note/s: name and date approximated by comparison with similar models
holdings:
[086.III.A.129] [Tension Net Tube Coated with Epoxy and Fiberglass]; model photoprints; n.d.; (1 photoprint).

[Plasteel Boat]
no location
dates: ca. 1964
note/s: name from photograph caption ; date approximated by comparison with related projects
holdings:
[086.III.A.130] Plasteel Boat; model photoprints; n.d.; (2 photoprints).

"Boat Frame"
no location
dates: ca. 1964
note/s: M/P #74; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.40] Boat Frame; structural model; ca. 1964; steel rods 1/8 inch diameter and wire; 3 ¼ x 30 ½ x 16 inches.
[086.III.A.131] Boat Frame; model photoprints; n.d.; (1 photoprint).

[Catenary System With Web Under Tension (Skyrail)]
no location
dates: ca. 1964
note/s: scale 1:100; name from photograph caption ; date from published article
holdings:
[086.III.A.132] Catenary System With Web Under Tension; model photoprints, 9 photos of load tests, 8 photos with load test data; n.d.; (13 photoprints).
[086.IX.A.22] Published paper by Robert Le Ricolais, in French [PF I-11]; "Circulation aérienne par monorail suspendu 'Skyrail System.'" *L'Architecture d'aujourd'hui* 34 no. 113-114 (April-May 1964): 198-200; offprint: 1 copy, photocopy of article: 7 copies.

[Catenary System with Web under Tension]
no location
dates: ca. 1964
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.133] [Catenary System with Web under Tension]; model photoprints; n.d.; (1 photoprint).

Lenticular Tension Net Tube Bridge for Skyrail

no location
dates: ca. 1964
note/s: scale 1:100; name and date from published article
holdings:
[086.I.41] Lenticular Tension Net Tube Bridge for Skyrail; structural model; ca. 1964; steel plate, cable, rings, hardware; 16 x 8 x 188 inches.
[086.III.A.134] [Lenticular Tension Net Tube Bridge for Skyrail]; model photoprints, 1 photo with mention "Bielles d'articulation du modèle de pont" ["Hinged supports of the bridge model"], 1 photo with mention "Pont prétendu – partie médiane" ["Pretensioned bridge – middle part"], two photos of load tests, 1 photo with load test data; n.d.; (9 photoprints).
[086.III.B.6a-6d]Lenticular Tension Net Tube Bridge for Skyrail; large-format photoprints; n.d.; 2 photoprints of details; 1 photo of load test; (4 photoprints).
[086.IX.B.21] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 5 copies.
[086.IX.B.22] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 7 copies.

"Tension Net Structure"
no location
dates: before 1965
note/s: M/P #47
holdings:
[086.I.42] Tension Net Structure; structural model; before 1965; steel rods ¼ inch diameter, rings 5 inches diameter; 5 ¼ x (diameter) 21 5/8 inches.
[086.III.A.135] Tension Net Structure; model photoprints, one with caption "Modèle de surface torique en nappes tendues, par Mme M. Menendez" [Model of a toroidal surface with tensioned networks, by Mrs. M. Menendez]; n.d.; (3 photoprints).

"Octen Antenna, Compression Frame"
no location
dates: 1965-1966
note/s: M/P #48
holdings:
[086.I.43] Octen Antenna, Compression Frame; structural model; 1965-1966; steel rods 1/8 inch diameter; 71 x 4 ½ x 5 inches.
[086.III.A.136] Octen Antenna, Compression Frame; model photoprints; n.d; (4 photoprints).

"Octen Antenna, a.k.a. Octagrid Antenna, Model #1"
no location
dates: 1965-1966
note/s: M/P #49; unknown scale; model no longer in the collection
holdings:
[086.III.A.137] Octen Antenna, a.k.a. Octagrid Antenna, Model #1; model photoprints; n.d.; (18 photoprints).

"Octen Antenna, a.k.a. Octagrid Antenna, Model #2"
no location
dates: ca. 1965-1966
note/s: M/P #50; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.44] Octen Antenna, a.k.a. Octagrid Antenna, Model #2; structural model; ca. 1965-1966; steel rods 1/8 inch diameter, aircraft cables; 100 x 5 ½ x 5 ½ inches
[086.III.A.138] Octen Antenna, a.k.a. Octagrid Antenna, Model #2; model photoprints; n.d.; (3 photoprints).

"Octagon Truss Transmission Tower"
no location
dates: before 1966
note/s: M/P #55; unknown scale
holdings:
[086.I.45] Octagon Truss Transmission Tower; structural model; before 1966; steel rods ¼ and 1/8 inch diameter; 42 x 11 5/8 x 5 1/8 inches.
[086.III.A.139] Octagon Truss Transmission Tower; model photoprints; n.d.; (5 photoprints).

Octen Antenna, 54' tall
no location
dates: ca. 1966
note/s: name from photograph caption ; date approximated by comparison with related projects
holdings:
[086.I.46] Octen Antenna, 54' tall; support; structural model; ca. 1966; steel; 30 x 21 x 24 inches.
[086.III.A.140] Octen Antenna, 54' tall; model photoprints, 1 photo with caption "Octen Truss composed of superimposed ocathedra forming the compression members. The pretensioned cables are set at the 6 apices of the octahedra," 1 photo with caption "Poutre Octen [Octen Beam]"; n.d.; (13 photoprints).

[Triangulated Octahedron by Edge Trisection]
no location
dates: ca. 1966
note/s: name from photograph caption ; date from published article
holdings:
[086.III.A.141] Triangulated Octahedron by Edge Trisection; model photoprints; n.d.; (2 photoprints).
[086.IX.B.12] Published paper by Robert Le Ricolais, in English [PE I-8]; "Octahedronal Cells for Tensioned Steel Structures." In *Space Structures*, edited by R.M. Davies. Oxford: Blackwell Scientific Publications, 1967; offprint: 4 copies, photocopy of article: 2 copies.

[Trihextension Grid]
no location
dates: ca. 1966
note/s: name and date from published article
holdings:
[086.III.A.142] Trihextension Grid; model photoprints, 1 photo with caption "Pretension of a Trihex Grid," 1 photo with caption "Pretensioning Frame for 'Trihex' network, or a semi-regular tesselation of hexagons and equilateral triangles. The laminates, fiberglass & resin are bonded to the steel network," 1 photo with caption "Pretensionned plastic frame for hexagonal 'Plasteel' panels"; n.d.; (7 photoprints).
[086.IX.B.11] Published paper by Robert Le Ricolais, in English [PE I-1]; "A Simple Method of Computation for Planar Networks." In *Space Structures*, edited by R.M. Davies, [page #]. Oxford: Blackwell Scientific Publications, 1967; offprint: 5 copies, magazine clipping: 1 copy, photocopy of article: 2 copies.

[Pretensioning Frame for a Laminate Shell]
no location
dates: ca. 1966
note/s: name from photograph caption , date from published article
holdings:
[086.III.A.143] Pretensioning Frame for a Laminate Shell; model photoprints, 2 photos with caption "Pretensioning Frame for a Laminate Shell. The pretension is achieved by a jackscrew acting on the diagonal cables. The adjustment of peripheral screws yield an uniform pretension in the orthogonal network"; n.d.; (3 photoprints).
[086.IX.B.11] Published paper by Robert Le Ricolais, in English [PE I-1]; "A Simple Method of Computation for Planar Networks." In *Space Structures*, edited by R.M. Davies, [page #]. Oxford: Blackwell Scientific Publications, 1967; offprint: 5 copies, magazine clipping: 1 copy, photocopy of article: 2 copies.

[Laminate Shell]
no location
dates: ca. 1966
note/s: name and date approximated by comparison with similar models
holdings:
[086.III.A.144] [Laminate Shell]; model photoprints; n.d.; (2 photoprints).

"Trihex Truss Tube"
no location
dates: before 1967
note/s: M/P #64
holdings:
[086.I.47] Trihex Truss Tube; structural model; before 1967; steel rods 1/8 inch diameter; 28 ¾ x (diameter) 9 ¾ inches.
[086.III.A.145] Trihex Truss Tube; model photoprints; n.d.; (6 photoprints).

"Trihex [Suspension] Bridge"
no location
dates: before 1967
note/s: M/P #70; unknown scale
holdings:
[086.I.48] Trihex [Suspension] Bridge; structural model; before 1967; steel and cables; 10 x 120 x 5 ½ inches [including base].
[086.III.A.146] Trihex [Suspension] Bridge; model photoprints, one with caption "H.V.T. side view"; n.d.; (31 photoprints).

"Triangulated Octahedron, Model #1"
no location
dates: 1967 [was dated 1966 on the M/P list]
note/s: M/P #51; fabricated by Edward D'Andrea and Timothy Mc Ginty
holdings:
[086.I.49] Triangulated Octahedron, Model #1; structural model; 1967; steel rods 1/8 inch diameter; 5 ¼ x 5 ¾ x 6 inches.
[086.III.A.147] Triangulated Octahedron, Model #1; model photoprints; n.d.; (2 photoprints).
[086.VII.C.13] Student Report; "Report on Automorphic Beams and Column"; by T. Mc Ginty and E. D'Andrea; dated 5/3/1967; submitted for [Arch 832] Experiments in Structure; also includes "Analysis of Research, 1967, McGinty and D'Andrea"; typescript and manuscript: 31 leaves; folder also includes a bound photocopy of the report.

"Triangulated Octahedron, Model #2"
no location
dates: 1967 [was dated 1966 on the M/P list]
note/s: M/P #52; fabricated by Edward D'Andrea and Timothy Mc Ginty
holdings:
[086.I.50] Triangulated Octahedron, Model #2; structural model; 1967; steel rods 1/8 inch diameter; 8 ½ x 5 x 5 inches.
[086.III.A.148] Triangulated Octahedron, Model #2 ; model photoprints; n.d.; (2 photoprints).
[086.VII.C.13] Student Report; "Report on Automorphic Beams and Column"; by T. Mc Ginty and E. D'Andrea; dated 5/3/1967; submitted for [Arch 832] Experiments in Structure; also includes "Analysis of Research, 1967, McGinty and D'Andrea"; typescript and manuscript: 31 leaves; folder also includes a bound photocopy of the report.

"Elongated and Triangulated Octahedron, Three-Cell Unit "
no location
dates: 1967 [was dated 1966 on the M/P list]
note/s: M/P #53; fabricated by Edward D'Andrea and Timothy Mc Ginty.
holdings:
[086.I.51] Elongated and Triangulated Octahedron, Three-Cell Unit, Model; structural model; 1967; steel rods 1/8 inch diameter; 25 x 5 x 5 inches.
[086.III.A.149] Elongated and Triangulated Octahedron, Three-Cell Unit, Model; model photoprints; n.d.; (3 photoprints).
[086.VII.C.13] Student Report; "Report on Automorphic Beams and Column"; by T. Mc Ginty and E. D'Andrea; dated 5/3/1967; submitted for [Arch 832] Experiments in Structure; also includes "Analysis of Research, 1967, McGinty and D'Andrea"; typescript and manuscript: 31 leaves; folder also includes a bound photocopy of the report.

"Elongated and Triangulated Octahedron, Model #4 [Three-Cell Unit after Buckling]"
no location
dates: 1967 [was dated 1966 on the M/P list]
note/s: M/P #54; fabricated by Edward D'Andrea and Timothy Mc Ginty
holdings:
[086.I.52] Elongated and Triangulated Octahedron, Model #4 [Three-Cell Unit after Buckling]; structural model; 1967; steel rods 1/8 inch diameter; 25 x 5 x 4 inches.
[086.III.A.150] Elongated and Triangulated Octahedron, Model #4; model photoprints; n.d.; (1 photoprint).
[086.VII.C.13] Student Report; "Report on Automorphic Beams and Column"; by T. Mc Ginty and E. D'Andrea; dated 5/3/1967; submitted for [Arch 832] Experiments in Structure; also includes "Analysis of Research, 1967, McGinty and D'Andrea"; typescript and manuscript: 31 leaves; folder also includes a bound photocopy of the report.

"Tri-Hex Tension Roof a.k.a Six-Sided Monkey Saddle"
no location
dates: May 1967 [date from Student Report; was dated Fall 1958 on the M/P list]
note/s: M/P #3; fabricated by Galen Minah and William Saslow [was attributed to Loving and Singer on the M/P list]
holdings:
[086.I.53] Tri-Hex Tension Roof a.k.a Six-Sided Monkey Saddle; structural model; May 1967; steel and cable; 14 ¼ x 43 7/8 x 50 inches [including base]
[086.III.A.151] Tri-Hex Tension Roof a.k.a. Six-Sided Monkey Saddle; model photoprints, 1 photo with caption "elevation of a tension dome", 5 photos of load tests; n.d.; (24 photoprints).
[086.VII.C.16] Student Report; "The Tri-Hex Tension Roof: A Cable System Approximating a Stressed Membrane"; by Galen Minah and William Saslow; dated 5/22/1967; submitted for Arch. 832; bound report including 5 photoprints, and 5 additional copies of drawings.

"Warren Truss, Metal"
no location
dates: 1967
note/s: M/P #58
holdings:
[086.I.54] Warren Truss, Metal; structural model; 1967; steel rods ¼ inch diameter; 7 x 39 ½ inches.
[086.III.A.152] Warren Truss, Metal; model photoprints; n.d.; (1 photoprint).

"Trihex Truss"
no location
dates: 1967
note/s: M/P #60
holdings:
[086.I.55] Trihex Truss; structural model; 1967; steel rods ¼ inch diameter; 7 x 39 ½ inches.
[086.III.A.153] Trihex Truss; model photoprints; n.d.; (1 photoprint).

"Parabolic Warren Truss, Wooden"
no location
dates: Fall 1967
note/s: M/P #61
holdings:
[086.I.56] Parabolic Warren Truss, Wooden; structural model; Fall 1967; wood; 7 ¼ x 39 ½ inches.
[086.III.A.154] Parabolic Warren Truss, Wooden; model photoprints; n.d.; (1 photoprint).

"Parabolic Trihex Truss, Wooden"
no location
dates: Fall 1967
note/s: M/P #62
holdings:
[086.I.57] Parabolic Trihex Truss, Wooden; structural model; Fall 1967; wood; 7 ¼ x 39 ½ inches.
[086.III.A.155] Parabolic Trihex Truss, Wooden; model photoprints; n.d.; (1 photoprint).

"Parabolic Trihex Truss, Metal"
no location
dates: ca. 1967
note/s: M/P #63; date approximated by comparison with related projects
holdings:
[086.I.58] Parabolic Trihex Truss, Metal; structural model; ca. 1967; steel rods 1/8 inch diameter; 5 ¼ x 23 ¾ inches.
[086.III.A.156] Parabolic Trihex Truss, Metal; model photoprints; n.d.; (1 photoprint).

"Triangulated Pyramidal Truss [Trihex]"

no location
dates: ca. 1967
note/s: M/P #65; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.59] Triangulated Pyramidal Truss [Trihex]; structural model; ca. 1967; steel rods 1/8 inch diameter; 4 ¼ x 6 x 35 3/8 inches.
[086.III.A.157] Triangulated Pyramidal Truss [Trihex]; model photoprints; n.d.; (6 photoprints).

"Howe Truss, Metal"
no location
dates: ca. 1967
note/s: M/P #57; date approximated by comparison with related projects
holdings:
[086.I.60] Howe Truss, Metal; structural model; ca. 1967; steel rods 1/8 inch diameter; 3 1/8 x 18 inches [2 identical models].
[086.III.A.158] Howe Truss, Metal; model photoprints; n.d.; (1 photoprint).

"Octagon Truss, Metal"
no location
dates: ca. 1967
note/s: M/P #59; date approximated by comparison with related projects
holdings:
[086.I.61] Octagon Truss, Metal; structural model; ca. 1967; steel rods ¼ inch diameter; 7 x 39 5/8 inches.
[086.III.A.159] Octagon Truss, Metal; model photoprints; n.d.; (1 photoprint).

"Trihex Pyramid"
no location
dates: ca. 1967
note/s: M/P #67; date approximated by comparison with related projects
holdings:
[086.I.62] Trihex Pyramid; structural model; ca. 1967; steel rod 1/8 inch diameter; 10 ¼ x 21 5/8 x 21 5/8 inches.
[086.III.A.160] Trihex Pyramid; model photoprints; n.d.; (3 photoprints).

"Trihex Bridge"
no location
dates: 1967-1968
note/s: M/P #66; scale 1:100
holdings:
[086.I.63] Trihex Bridge; structural model; 1967-1968; steel rods of 3/32 and 1/8 inch diameter; 47 ¼ x 4 7/8 x 5 ½ inches.
[086.III.A.161] Trihex Bridge; model photoprints; n.d.; (3 photoprints).

"Trihex Dome"
no location
dates: 1967-1968
note/s: M/P #68; scale 1:200
holdings:
[086.I.64] Trihex Dome; structural model; 1967-1968; steel rods of 3/32 and 1/8 inch diameter; 12 x (diameter) 42 inches.
[086.III.A.162] Trihex Dome; drawing and model photoprints; 3 photos of drawings; 2 photos of load tests, including 1 photo by George Pohl; n.d.; (8 photoprints).
[086.III.C.14] Large negatives; Trihex Dome; ca. 1967-68; photographs of drawings; (6 negatives).

"Double Parabolic Trihex Bridge for Skyrail, a.k.a. Fish-bridge"
no location
dates: 1967-1968
note/s: M/P #69; scale 1:200
holdings:
[086.I.65] Double Parabolic Trihex Bridge for Skyrail, a.k.a. Fish-bridge; structural model; 1967-1968; steel rod and aircraft cable; 13 ½ x 80 x 4 ¼ inches.
[086.III.A.163] Double Parabolic Trihex Bridge, for Skyrail, a.k.a. Fishbridge; model photoprints, 1 photo by James Bryan, 1 photo with caption "Model—Mass Transit Bridge—1645 ft between supports" and dated 6/11/68 (21 photoprints).

"Study for Polyester-Reinforced Boat"
no location
dates: 1967-1968
note/s: M/P #75; unknown scale
holdings:
[086.I.66] Study for Polyester-Reinforced Boat; structural model; 1967-1968; steel rods 3/16 and 3/32 inch diameter, cables; 6 x 9 ¾ x 30 ½ inches.
[086.III.A.164] Study for Polyester-Reinforced Boat; model photoprints; n.d.; (3 photoprints).

"Omega Tower for Nineteen Wires"
no location
dates: 1967-1968
note/s: M/P #56; scale 1:85
holdings:
[086.I.67] Omega Tower for Nineteen Wires; structural model; 1967-1968; steel rods, aircraft cables; 1 ¾ x (diameter) 17 inches.
[086.III.A.165] Omega Tower for Nineteen Wires; model photoprints; n.d.; (4 photoprints).

"Polyten Bridge, Queen Post System, Model #2"
no location
dates: Fall 1968
note/s: M/P #78; fabricated by C. Brunner and W. Winkelvoss; scale 1:100
holdings:
[086.I.68] Polyten Bridge, Queen Post System, Model #2; structural model; Fall 1968; steel rods 1/8 and ¼ inch diameter, aircraft cable 1/32 and 1/64 inch diameter; 4 ½ x 37 x 13 ½ inches.
[086.III.A.166] Polyten Bridge, Queen Post System, Model #2; model photoprints, 1 photo by James Bryan; n.d.; (17 photoprints).
[086.III.C.16] Large negatives; Polyten Bridge, Queen Post System, Model #2; 1968; views of model; (1 negative).
[086.VII.C.23] Student Report; "The Polyten Bridge"; by C. Brunner and W. Winkelvoss; dated 12/15/1968; submitted for [Arch. 831] Experiments in Structure; typescript with sketches and manuscript annotations: 9 leaves; 3 photoprints.

"Hexaflex Floor System, Model #1 a.k.a. King Post Hex"
no location
dates: Spring 1968
note/s: M/P #83; fabricated by Ronald Altoon, Richard Logan, and Theodore Lundy Jr.
holdings:
[086.I.69] Hexaflex Floor System, Model #1 a.k.a. King Post Hex; structural model; Spring 1968; steel bars ¼ x 3/16 inches, cables; 5 x 42 ½ x 37 inches.
[086.III.A.167] Hexaflex Floor System, Model #1 a.k.a. King Post Hex; model photoprints; n.d.; (3 photoprints).
[086.VII.C.22] Student Report; "Comparative Studies: Queen Post Hex – King Post Hex, Tri Grid – Star Hex Grid"; by Ronald A. Altoon, Richard A. Logan, and Theodore Lundy, Jr.; dated Spring 1968; submitted for Arch. 832; photocopy of typescript with diagrams and illustrations: 26 leaves.

"Hexaflex Floor System, Model #2 a.k.a. Queen Post Hex"
no location
dates: Spring 1968
note/s: M/P #84; fabricated by Ronald Altoon, Richard Logan, and Theodore Lundy Jr.; unknown scale
holdings:
[086.I.70] Hexaflex Floor System, Model #2 a.k.a. Queen Post Hex; structural model; Spring 1968; steel bars, ¼ x 3/16 inch cross section, cables; 5 x 37 x 42 ½ inches.
[086.III.A.168] Hexaflex Floor System, Model #2 a.k.a. Queen Post Hex; model photoprints, 1 photo with the students' names and dated 1968, two photos of load tests, including 1 photo with a "Queen Post Hex Loading Data" chart on the back, and 1 photo with a "King Post Hex Loading Diagram" on the back; (9 photoprints).
[086.VII.C.22] Student Report; "Comparative Studies: Queen Post Hex – King Post Hex, Tri Grid – Star Hex Grid"; by Ronald A. Altoon, Richard A. Logan, and Theodore Lundy, Jr.; dated Spring 1968; submitted for Arch. 832; photocopy of typescript with diagrams and illustrations: 26 leaves.

"Trigrid with Hexagonal Perimeter, [Hexaflex] Floor System"
no location
dates: Spring 1968
note/s: M/P #86; fabricated by Ronald Altoon, Richard Logan, and Theodore Lundy Jr.; unknown scale
holdings:
[086.I.71] Trigrid with Hexagonal Perimeter, [Hexaflex] Floor System; structural model; Spring 1968; wood; 36 ½ x 42 x 3/4 inches.
[086.III.A.169] Trigrid with Hexagonal Perimeter, [Hexaflex] Floor System; model photoprints, n.d. (3 photoprints).
[086.VII.C.22] Student Report; "Comparative Studies: Queen Post Hex – King Post Hex, Tri Grid – Star Hex Grid"; by Ronald A. Altoon, Richard A. Logan, and Theodore Lundy, Jr.; dated Spring 1968; submitted for Arch. 832; photocopy of typescript with diagrams and illustrations: 26 leaves.

"Starhex Grid with Hexagonal Perimeter, [Hexaflex Floor System]"
no location
dates: Spring 1968
note/s: M/P #87; fabricated by Ronald Altoon, Richard Logan, and Theodore Lundy Jr.; unknown scale
holdings:
[086.I.72] Starhex Grid with Hexagonal Perimeter, [Hexaflex Floor System]; structural model; Spring 1968; wood; 36 ½ x 42 x 3/4 inches.
[086.III.A.170] Starhex Grid with Hexagonal Perimeter, [Hexaflex Floor System]; model photoprints, 1 photo with "Trigrid Loading Diagram" on the back, n.d. (2 photoprints).
[086.VII.C.22] Student Report; "Comparative Studies: Queen Post Hex – King Post Hex, Tri Grid – Star Hex Grid"; by Ronald A. Altoon, Richard A. Logan, and Theodore Lundy, Jr.; dated Spring 1968; submitted for Arch. 832; photocopy of typescript with diagrams and illustrations: 26 leaves.

"Starhex Dome"
no location
dates: 1968
note/s: M/P #118
holdings:
[086.I.73] Starhex Dome; structural model; 1968; steel rods 1/8 inch diameter; 12 x 48 x 48 inches [including base].
[086.III.A.171] Starhex Dome; model photoprints, 1 photo with dimensions on the back, three photos by James Bryan, three photos of load tests; n.d.; (12 photoprints).

Polyten Truss
no location
dates: ca. 1968
note/s: date from published article
holdings:
[086.III.A.172] Polyten Truss; model photoprints; 2 photos of sketches; 3 photos of load tests, 1 photo by George Pohl; n.d.; (5 photoprints).
[086.III.C.15] Large negatives; Polyten Truss; ca. 1968; view of load test; (1 negative).
[086.IX.A.38] Published paper by Robert Le Ricolais, in French [PF II-49]; "U.S.A. : Recherches expérimentales à l'université de Pennsylvanie." *Techniques et architecture* Année 30 (June 1969): 56-58; photocopy of article: 6 copies.

[Polyten Bridge]
no location
dates: ca. 1968
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.173] [Polyten Bridge]; model photoprints; n.d.; (1 photoprint).

"Antitorsion Beam"
no location
dates: 1968-1969
note/s: M/P #73
holdings:
[086.I.74] Antitorsion Beam; structural model; 1968-1969; steel rods 1/8 and ¼ inch diameter; 84 x 4 ¾ x 4 ¾ inches.
[086.III.A.174] Antitorsion Beam; model photoprints, 1 photo by James Bryan; n.d.; (5 photoprints).

"Torsion Study Model"
no location
dates: ca. 1969
note/s: M/P #72; date approximated by comparison with related projects
holdings:
[086.I.75] Torsion Study Model; structural model; ca. 1969; steel rods ¼ inch and 1/8 inch diameter; 53 ½ x 4 ¼ x 4 inches.
[086.III.A.175] Torsion Study Model; model photoprints; n.d.; (3 photoprints).

"Diagonal Tetragrid, Parabolic, Delta System [Hangar Roof Model]"
no location
dates: 1968-1969
note/s: M/P #99; scale 1:100; fabricated by Struve, Biehle, Strauss, and Dominguez
holdings:
[086.I.76] Diagonal Tetragrid, Parabolic, Delta System [Hangar Roof Model]; structural model; 1968-1969; steel rods 1/8 and ¼ inch diameter; 9 ¾ x 27 ¾ x 27 1/8 inches.
[086.III.A.176] Diagonal Tetragrid, Parabolic, Delta System [Hangar Roof Model]; model photoprints, 1 photo by James Bryan, 1 photo with measuremens on the back; n.d.; (14 photoprints).
[086.IX.A.38] Published paper by Robert Le Ricolais, in French [PF II-49]; "U.S.A. : Recherches expérimentales à l'université de Pennsylvanie." *Techniques et architecture* Année 30 (June 1969): 56-58; photocopy of article: 6 copies.

"Tetragrid Tube, Delta System, Model #1"
no location
dates: 1968-1969
note/s: M/P #103; model no longer in the collection
holdings:
[086.III.A.177] Tetragrid Tube, Delta System, Model #1; model photoprints; n.d.; (3 photoprints).

"Polyten Bridge, Queen Post System, Model #1"
no location
dates: 1968-1969
note/s: M/P #77; unknown scale
holdings:
[086.I.77] Polyten Bridge, Queen Post System, Model #1; structural model; 1968-1969; steel rods 3/16 and ¼ inch diameter, steel tube ½ inch diameter, aircraft cable 1/16 inch diameter; 72 x 7 ¾ x 7 inches.
[086.III.A.178] Polyten Bridge, Queen Post System, Model #1; model photoprints, 1 photo by James Bryan; n.d.; (16 photoprints).

"Polyten Bridge, Queen Post System, Model #3"
no location
dates: 1968-1969
note/s: /P #79; unknown scale; model no longer in the collection
holdings:
[086.III.A.179] Polyten Bridge, Queen Post System, Model #3; model photoprints, two photos by James Bryan; n.d.; (15 photoprints).

"Polyten Bridge, Model #4"
no location
dates: Spring 1969
note/s: M/P #80; fabricated by E. Altoon, C. Brunner, A. Cornoldi, R. Logan, and W. Winkelvoss; scale 1:100
holdings:
[086.I.78] Polyten Bridge, Model #4; structural model; Spring 1969; steel tubes ½ inch diameter, rods 1/8 inch diameter, cables 1/8 inch diameter; 10 x 11 ½ x 120 inches.
[086.III.A.180] Polyten Bridge, Model #4; model photoprints, three photos with students; n.d.; (25 photoprints).
[086.VII.C.25] Student Report; "The Polyten Bridge"; by R. Altoon, C. Brunner, A. Cornoldi, R. Logan, and W. Winkelvoss; dated 5/4/1969; submitted for [Arch 832] Experiments in Structure; photocopy of report: 11 leaves.

Parabolic Tension Net Bridge, Skyrail Project
no location
dates: 1969
note/s:
holdings:
[086.III.A.181] Parabolic Tension Net Bridge, Skyrail Project; model photoprints; 8 photos of details; n.d.; (22 photoprints).
[086.III.B.7a-7b]Parabolic Tension Net Bridge, Skyrail Project; large-format photoprints; n.d.; 1 photo of detail; (2 photoprints).
[086.III.C.17] Large negatives; Parabolic Tension Net Bridge, Skyrail; ca. 1969; views of load tests; (4 negatives).

[Starhex Vault]
no location
dates: ca. 1969
note/s: fabricated by Mark Thompson and Charles Neuhardt; info. and date from student report and published article
holdings:
[086.III.A.182] Starhex Vault; model photoprints, 2 photos with caption "Starhex panel, 8' x 8' "; n.d.; (4 photoprints).
[086.VII.C.33] Student Report; "Star-Hex Test Results"; by Mark Thompson and Charles Neuhardt; n.d. [ca. 1969]; manuscript and typescript with charts: 4 leaves.
[086.IX.A.38] Published paper by Robert Le Ricolais, in French [PF II-49]; "U.S.A. : Recherches expérimentales à l'université de Pennsylvanie." *Techniques et architecture* Année 30 (June 1969): 56-58; photocopy of article: 6 copies.

"Diagonal Tetragrid, Cylindrical, Delta System [Hangar Roof Model]"
no location
dates: 1969-1970
note/s: M/P #98; scale 1:100
holdings:
[086.I.79] Diagonal Tetragrid, Cylindrical, Delta System [Hangar Roof Model]; structural model; 1969-1970; steel rods 1/8 inch and ¼ inch diameter; 8 x 28 3/8 x 29 ¼ inches.
[086.III.A.183] Diagonal Tetragrid, Cylindrical, Delta System [Hangar Roof Model]; model photoprints, 1 photo by James Bryan, four photos with scale figure; n.d.; (10 photoprints).

[Tensioned Sphero-Vector]
no location
dates: ca. 1970
note/s: name approximated by comparison with similar projects; date approximated by comparison with other models shown on photograph
holdings:
[086.III.A.184] [Tensioned Sphero-Vector]; model photoprints; n.d.; (4 photoprints).

[Model of Table With Four Suspended Panels]
no location
dates: ca. 1970
note/s: copy of a nineteenth-century piece; fabricated by Richard Hocking and Leland Kimball; information from published article
holdings:
[086.III.A.185] [Model of Table With Four Suspended Panels]; model photoprints, 1 photo with caption "Modèle de table à 4 panneaux ouvrants [Model of a table with 4 opening panels]"; n.d.; (3 photoprints).
[086.IX.A.40] Published paper by Robert Le Ricolais, in French [PF II-44]; "Structures expérimentales, Université de Pennsylvanie." *L'Architecture d'aujourd'hui* 44 no. 160 (February-March 1972): 23-25; offprint: 7 complete copies and 1 incomplete copy; publisher's proof: 1 copy; photocopy of article: 8 copies.

Tetrahedron Glass Skylight Structure
no location
dates: ca. 1970
note/s: name from photograph caption ; date approximated by comparison with similar projects
holdings:
[086.II.2] Tetrahedron Glass Skylight Structure; architectural prints; n.d.; (1 blueline print).

[086.III.A.186] Tetrahedron Glass Skylight Structure; model photoprints, 1 photo by Greg Heins; 1 photo with caption "Tetrahedron Glass Skylight Structure above Two Level Pedestrian Mall Area"; (4 photoprints).
[086.VI.N.27] Mixed Patent and Business Files; materials related to Tetrahedron Glass Skylight Structure; n.d.; 4 leaves.

Octagrid Tube
no location
dates: ca. 1970
note/s: name and date from publication
holdings:
[086.III.A.187] Octagrid Tube; model photoprints, 1 photo by James Bryan; n.d.; (1 photoprint).
[086.IX.B.21] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 5 copies.
[086.IX.B.22] Published paper by Robert Le Ricolais, in English [PE I-9]; "Robert Le Ricolais: Structural Research, 1970-71." *Zodiac* no. 22 (1973): 1-56; offprint: 7 copies.

"Suspension Bridge with Trihex Panels"
no location
dates: 1970-1971
note/s: M/P #71; fabricated by Lebaube, Georges, and Rousse, Pierre
holdings:
[086.I.80] Suspension Bridge with Trihex Panels; structural model; 1970-1971; steel bars; 20 ½ x 131 x 14 ¼ inches
[086.III.A.188] Suspension Bridge with Trihex Panels; model photoprints, 1 photo with caption "Voie intérieure" [Lower deck], 1 photo with caption "Pont Route" [Highway Bridge]; n.d.; (18 photoprints).

"Tetragrid Dome, Delta System"
no location
dates: 1970-1971
note/s: M/P #113; unknown scale; built by McCombs and Gavin
holdings:
[086.I.81] Tetragrid Dome, Delta System; structural model; 1970-1971; steel rods 1/8 and ¼ inch diameter; 7 ½ x (diameter) 40 1/8 inches.
[086.III.A.189] Tetragrid Dome, Delta Sytem; model photoprints; n.d.; (14 photoprints).

"Polyten Bridge Unit, Queen Post Truss"
no location
dates: 1970-1971
note/s: M/P #76; unknown scale; model no longer in the collection
holdings:
[086.III.A.190] Polyten Bridge Unit, Queen Post Truss; model photoprints; n.d.; (3 photoprints).

"Footbridge with Trihex Panels and Polyten Cable Supports"
no location
dates: 1970-1971
note/s: M/P #81; fabricated by Lebaube, George, and Rousse, Pierre; unknown scale
holdings:
[086.I.82] Footbridge with Trihex Panels and Polyten Cable Supports; structural model; 1970-1971; steel bars 1/8 x ¼ inches, cables; 8 ¾ x 4 3/8 x 77 ¾ inches.
[086.III.A.191] Footbridge with Trihex Panels and Polyten Cable Supports; model photoprints, 1 photo of a load test; n.d.; (4 photoprints).

"Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure"
no location
dates: 1970-1971
note/s: M/P #119; [fabricated by Ching-Yu Chang]
holdings:
[086.I.83] Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; structural model; 1970-1971; steel rods 3/16 inch diameter; 4 x 41 x 45 inches.
[086.III.A.192] Hexagonal Octagrid Panel; model photoprints, 1 photo by James Bryan; n.d.; (14 photoprints).
[086.III.B.8] Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; large-format photoprint; n.d.; 1 photo of drawing; (1 photoprint).
[086.III.C.18] Large negatives; Hexagonal Octagrid Panel a.k.a. Trihex Double Layer Structure; ca. 1970-1971; close-up view of model; (1 negative)
[086.VII.C.37] Student Report; "Trihex Double Layer Structure"; by Ching-Yu Chang; n.d. [ca. 1970]; manuscript and photocopy of typescript with sketches and charts: 24 leaves.

"Octagrid Cupola"
no location
dates: 1970-1971
note/s: M/P #122
holdings:
[086.I.84] Octagrid Cupola; structural model; 1970-1971; steel rods 1/8 inch diameter; 13 ¼ x (diameter) 28 ¼ inches.
[086.III.A.193] Octagrid Cupola; model photoprints; n.d.; (7 photoprints).

"Synclastic Suspended Floor System (S.S.S.), Model #1"
no location
dates: 1970-1971
note/s: M/P #123; scale 1:50
holdings:
[086.I.85] Synclastic Suspended Floor System (S.S.S.), Model #1; structural model; 1970-1971; steel rods ½ inch diameter, bars ¼ x ¼ inch cross section, aircraft cable 1/32 inch diameter; 12 ½ x 18 ½ x 18 ½ inches.
[086.III.A.194] Synclastic Suspended Floor System (S.S.S.), Model #1; model photoprints, 1 photo by James Bryan; n.d.; (9 photoprints).

"Synclastic Suspended Floor System (S.S.S.), Model #2"
no location
dates: 1970-1971
note/s: M/P #124
holdings:
[086.I.86] Synclastic Suspended Floor System (S.S.S.), Model #2; structural model; 1970-1971; steel tubes 1 inch diameter, bars ¼ x ¼ inch cross section; 49 ½ x 23 ½ x 23 ½ inches.
[086.III.A.195] Synclastic Suspended Floor System (S.S.S.), Model #2; model photoprints; n.d.; (9 photoprints).

"Cantilevered Suspended Floor, Queen Post Truss"
no location
dates: 1970-1971
note/s: M/P #125; fabricated under the direction of Jacques Frédet
holdings:
[086.I.87] Cantilevered Suspended Floor, Queen Post Truss; structural model; 1970-1971; steel tubes 1 x 1 inch cross section, bars ½ x ¼ inch cross section, rods ¼ inch diameter; 26 x 47 ½ x 47 ½ inches.
[086.III.A.196] Cantilevered Suspended Floor, Queen Post Truss; model photoprints, 1 photo of load test, 1 photo with caption "Maquette de planchers suspendus pendulaires, Vue de dessus" [Model of Cantilevered Suspended Floor, seen from above], 11 photos of drawings; n.d.; (27 photoprints).

"Suspended Floor System, Orthogonal Grid"
no location
dates: ca. 1970-1971
note/s: M/P #88; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.88] Suspended Floor System, Orthogonal Grid; structural model; ca. 1970-1971; steel bars ¼ x ¼ and 1/8 x ¼ inch cross section, rods 3/16 inch, tubes 3/8 inch diameter, cables; 17 ¼ x 24 ½ x 24 ½ inches.
[086.III.A.197] Suspended Floor System, Orthogonal Grid; model photoprints; n.d.; (3 photoprints).

"Suspended Floor System, Triangular Grid, Model #1"
no location
dates: ca. 1970-1971
note/s: M/P #89; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.89] Suspended Floor System, Triangular Grid, Model #1; structural model; ca. 1970-1971; steel tubes 3/8 inch diameter, rods 1/8 inch diameter, cables; 14 ½ x 19 ½ x 20 inches.
[086.III.A.198] Suspended Floor System, Triangular Grid, Model #1; model photoprints; n.d.; (2 photoprints).

"Suspended Floor System, Triangular Grid, Model #2"
no location
dates: ca. 1970-1971
note/s: M/P #90; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.90] Suspended Floor System, Triangular Grid, Model #2; structural model; ca. 1970-1971; steel tubes ½ inch diameter, rods 1/8 inch diameter, cables; 18 ¾ x 38 ½ x 38 ½ inches.
[086.III.A.199] Suspended Floor System, Triangular Grid, Model #2; model photoprints; n.d.; (3 photoprints).

"Octagrid Panel"
no location
dates: ca. 1970-1971
note/s: M/P #120; date approximated by comparison with related projects
holdings:
[086.I.91] Octagrid Panel; structural model; ca. 1970-1971; steel rods ¼ inch diameter; 5 ½ x 51 ½ x 56 ½ inches.
[086.III.A.200] Octagrid Panel; model photoprints; n.d.; (4 photoprints).

"Octagrid Pyramid"
no location
dates: ca. 1970-1971
note/s: M/P #121; date approximated by comparison with related projects
holdings:
[086.I.92] Octagrid Pyramid, structural model; ca. 1970-1971; steel rods 3/32 inch diameter; 16 ¾ x 23 x 23 inches.
[086.III.A.201] Octagrid Pyramid; model photoprints; n.d.; (13 photoprints).

"Synclastic Floor, Hexagonal Plan"
no location
dates: before 1971
note/s: M/P #85, unknown scale
holdings:
[086.I.93] Synclastic Floor, Hexagonal Plan; structural model; before 1971; steel bars ¼ x ¼ inch cross section, cables; 2 3/8 x 35 ¼ x 30 ½ inches.
[086.III.A.202] Synclastic Floor, Hexagonal Plan; model photoprints; n.d.; (4 photoprints).

[Group Ludic Playground]
Paris
dates: ca. 1971
note/s: name and date approximated from correspondence with Group Ludic
holdings:
[086.III.A.203] [Group Ludic Playground]; as-built photoprints; 5 photoprints by Group Ludic; n.d.; (5 photoprints).

"Lattice Bridge Study #1"
no location
dates: ca. 1971
note/s: M/P #129; fabricated by Richard Hocking and Leland Kimball; unknown scale
holdings:
[086.I.94] Lattice Bridge Study #1; structural model; ca. 1971; steel bars ¼ x ¼ inch and ¼ x 1/8 inch cross section; 4 ½ x 3 ½ x 31 ½ inches.
[086.III.A.204] Lattice Bridge Study #1; model photoprints; n.d.; (10 photoprints).
[086.VII.C.39] Student Report; [Optimum Configuration for a Mass Transit Bridge]; by Richard Hocking and Leland Kimball; n.d. [ca. 1971]; submitted for Arch. 832; typescript with sketches: 1 leaf.

"Lattice Bridge Study #2"
no location
dates: Spring 1972
note/s: M/P #130; fabricated by Sam Katzen, Lance Smith, David Tritt
holdings:
[086.I.95] Lattice Bridge Study #2; structural model; Spring 1972; steel bars ¼ x ¼ inch and ¼ x ½ inch cross section; 4 ½ x 3 ½ x 31 ½ inches
[086.III.A.205] Lattice Bridge Study #2; model photoprints; n.d.; (7 photoprints).
[086.VII.C.40] Student Report; "Report on Experiments in Structure"; by Sam Katzen, David Tritt, and Lance Smith; dated Spring 1972; submitted for Arch. 832; photocopy of manuscript: 7 leaves.

"Thin Wall Hexagonal Tube, Delta System, Model #2"
no location
dates: Spring 1972
note/s: M/P #107; fabricated by Sam Katzen, Lance Smith, and David Tritt
holdings:
[086.I.96] Thin Wall Hexagonal Tube, Delta System, Model #2; structural model; Spring 1972; steel rods 1/8 inch diameter; 12 x (diameter) 4 3/8 inches.
[086.III.A.206] Thin Wall Hexagonal Tube, Delta System, Model #2; model photoprints; n.d.; (3 photoprints).
[086.VII.C.40] Student Report; "Report on Experiments in Structure"; by Sam Katzen, David Tritt, and Lance Smith; dated Spring 1972; submitted for Arch. 832; photocopy of manuscript: 7 leaves.

"Thin Wall Cylindrical Tube, Delta System, Model #4"
no location
dates: Spring 1972
note/s: M/P #108; fabricated by Sam Katzen, Lance Smith, and David Tritt
holdings:
[086.I.97] Thin Wall Cylindrical Tube, Delta System, Model #4; structural model; spring 1972; steel rods 1/8 inch diameter; 10 7/8 x (diameter) 5 1/8 inches.
[086.III.A.207] Thin Wall Cylindrical Tube, Delta System, Model #4; model photoprints; n.d.; (5 photoprints).
[086.VII.C.40] Student Report; "Report on Experiments in Structure"; by Sam Katzen, David Tritt, and Lance Smith; dated Spring 1972; submitted for Arch. 832; photocopy of manuscript: 7 leaves.

"Orthogonal Tetragrid, Cylindrical, Delta System"
no location
dates: Fall 1972
note/s: M/P #96; fabricated by David Sinclair
holdings:
[086.I.98] Orthogonal Tetragrid, Cylindrical, Delta System; structural model; Fall 1972; steel rods 1/8 inch diameter; 8 3/8 x 21 ½ x 27 inches.
[086.III.A.208] Orthogonal Tetragrid, Cylindrical, Delta System; model photoprints; n.d.; (9 photoprints).
[086.VII.C.41] Student Report; "Report of Results of Delta Vault Tests"; by David A. Sinclair; dated 11/28/1972; photocopy of typescript and manuscript report: 32 leaves.

"Tetra Joint"
no location
dates: ca. 1972
note/s: M/P #91; date approximated by comparison with related projects
holdings:
[086.I.99] Tetra Joint; structural model; ca. 1972; steel tubes 1 x 1 inch cross section, rods ¼ inch diameter; 15 x 15 x 7 1/8 inches.
[086.III.A.209] Tetra Joint; model photoprints; n.d.; (3 photoprints).

[Plexiglas Tetragrid Model]
no location
dates: ca. 1972
note/s: date approximated by comparison with related projects
holdings:
[086.I.100] [Plexiglas Tetragrid Model]; structural model; ca. 1972; Plexiglas sheets 3/8 inch thick, steel tube 1/8 inch diameter; 2 3/8 x 24 x 24 inches.
[086.III.A.210] [Plexiglas Tetragrid Model]; model photoprints; n.d.; (5 photoprints).

"Tetragrid Unit, Delta System"
no location
dates: ca. 1972
note/s: M/P #92; date approximated by comparison with related projects; model no longer in the collection
holdings:
[086.III.A.211] Tetragrid Unit, Delta System; model photoprints; n.d.; (3 photoprints).

"Tetragrid Tube, Delta System, Model #2"
no location
dates: 1972-1973
note/s: M/P #104
holdings:
[086.I.101] Tetragrid Tube, Delta System, Model #2; structural model; 1972-1973; steel rods ¼ inch and 1/8 inch diameter; 12 ¼ x (diameter) 9 ½ inches.
[086.III.A.212] Tetragrid Tube, Delta System, Model #2; model photoprints; n.d.; (5 photoprints).

"Tetragrid Fuselage, Delta System, Model #1"
no location
dates: 1972-1973; unknown scale
note/s: M/P #110
holdings:
[086.I.102] Tetragrid Fuselage, Delta System, Model #1; structural model; 1972-1973; steel rods 1/8 inch diameter, rings 1 ½ inch diameter; 36 ¾ x (diameter) 12 ½ inches
[086.II.3] Tetragrid Fuselage Model #1, architectural drawings; (1 drawing).
[086.III.A.213] Tetragrid Fuselage, Delta System, Model #1; model photoprints; n.d.; (7 photoprints).

"Tetragrid Fuselage, Delta System, Model #2"
no location
dates: 1972-1973
note/s: M/P #111
holdings:
[086.I.103] Tetragrid Fuselage, Delta System, Model #2; structural model; 1972-1973; steel rods 1/8 inch diameter, rings 1 inch diameter; 39 ½ x (diameter) 7 ¾ inches
[086.III.A.214] Tetragrid Fuselage, Delta System, Model #2; model photoprints; n.d.; (3 photoprints).

"Tetragrid Ship Hull, Delta System"
no location
dates: 1972-1973
note/s: M/P #112
holdings:
[086.I.104] Tetragrid Ship Hull, Delta System; structural model; 1972-1973; steel rods 1/8 inch diameter; 6 ¾ x 6 x 41 ¾ inches.
[086.III.A.215] Tetragrid Ship Hull, Delta System; model photoprints; n.d.; (4 photoprints).

[Model of a Tanker Ship, Delta System]
no location
dates: ca. 1972-1973
note/s: name from photograph caption ; date approximated by comparison with related projects
holdings:
[086.III.A.216] Model of a Tanker Ship, Delta System]; model photoprints, 1 photoprint with caption "Model of a Tanker Ship (Guncroncrete on chicken wire on both faces)"; n.d.; (5 photoprints).

"Aleph Bridge I, Tension Net Tube"
no location
dates: 1972-1973
note/s: M/P #137; unknown scale
holdings:
[086.I.105] Aleph Bridge I, Tension Net Tube; structural model; 1972-1973; steel tube and cable; 10 ¾ x 74 x 9 ½ inches.
[086.III.A.217] Aleph Bridge I, Tension Net Tube; model photoprints, 1 photo with dimensions; n.d.; (11 photoprints).

"Orthogonal Tetragrid, Parabolic, Delta System"
no location
dates: before 1973
note/s: M/P #97
holdings:
[086.I.106] Orthogonal Tetragrid, Parabolic, Delta System; structural model; before 1973; steel rods 1/8 inch diameter; 16 ½ x 43 ½ x 31 ¼ inches.
[086.III.A.218] Orthogonal Tetragrid, Parabolic, Delta System; model photoprints; n.d.; (8 photoprints).

"Aleph Bridge II, with Tension Rod"
no location
dates: 1973
note/s: M/P #138; unknown scale
holdings:
[086.I.107] Aleph Bridge II, with Tension Rod; structural model; 1973; steel tube; 10 x 80 ¾ x 10 inches.
[086.III.A.219] Aleph Bridge II, with Tension Rod; model photoprints; n.d.; (4 photoprints).

"Diagonal Tetragrid Panel, Delta System"
no location
dates: Spring 1973
note/s: M/P #95; fabricated by David Danton, Phil Eschoff, David Sinclair, and Joe [no last name]
holdings:
[086.I.108] Diagonal Tetragrid Panel, Delta System; Spring structural model; 1973; steel rods ¼ inch and 1/8 inch diameter, channels 2 inches; 2 x 47 ¾ x 47 7/8 inches.
[086.III.A.220] Diagonal Tetragrid Panel, Delta System; model photoprints, 1 photo with caption "Panel 4 x 4 ft, weight 6 lbs"; n.d.; (6 photoprints).
[086.VII.C.44] Student Report; "Floor System / Wall Panel"; by David Sinclair, David Danton, Phil Eschoff, and Joe [no last name]; dated Spring 1973; drawings: 3 leaves.

"Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #2"
no location
dates: Spring 1973
note/s: M/P #94, fabricated by David Danton, Phil Eschoff, David Sinclair, and Joe [no last name]
holdings:
[086.I.109] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #2; structural model; Spring 1973; steel rods ¼ inch and 1/16 inch diameter; 1 ½ x 17 ¾ x 18 inches.
[086.III.A.221] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #2; model photoprints; n.d.; (7 photoprints).
[086.VII.C.44] Student Report; "Floor System / Wall Panel"; by David Sinclair, David Danton, Phil Eschoff, and Joe [no last name]; dated Spring 1973; drawings: 3 leaves.

[Sphere, Delta System]

no location
dates: 1973
note/s: date from photograph caption ; name approximated by comparison with similar projects
holdings:
[086.III.A.222] [Sphere, Delta System]; model photoprints; 3 photoprints by Peckham; 3 photos dated 6/73; (3 photoprints).

[Model of a Sphere]
no location
dates: ca. 1973
note/s: name and date approximated by comparison with similar projects
holdings:
[086.III.A.223] [Model of a Sphere]; model photoprints; n.d.; (1 photoprint).

"Prestressed Steel Beam, P.S.B. System"
no location
dates: Fall 1973
note/s: M/P #136; full scale; model no longer in the collection
holdings:
[086.III.A.224] Prestressed Steel Beam, P.S.B. System; model photoprints, 1 photo of a load test; n.d.; (3 photoprints).

"Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #1"
no location
dates: ca. 1973
note/s: M/P #93, unknown scale; date approximated by comparison with related projects
holdings:
[086.I.110] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #1; structural model; ca. 1973; steel rods 1/8 inch diameter; 2 x 14 x 14 ¼ inches.
[086.III.A.225] Orthogonal Tetragrid [Delta System], Flat Floor Detail, Model #1; model photoprints; n.d.; (1 photoprint).

"Tetragrid, Hyperbolic Paraboloid, Delta System, Model #1"
no location
dates: ca. 1973
note/s: M/P #100; date approximated by comparison with related projects
holdings:
[086.I.111] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #1; structural model; ca. 1973; steel; 12 x 24 x 24 inches.
[086.III.A.226] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #1; model photoprints; n.d.; (3 photoprints).

"Tetragrid, Hyperbolic Paraboloid, Delta System, Model #2"

no location
dates: ca. 1973
note/s: M/P #101; model no longer in the collection; date approximated by comparison with related projects
holdings:
[086.III.A.227] Tetragrid, Hyperbolic Paraboloid, Delta System, Model #2; model photoprints, two photos of model with stretched fabric; n.d.; (2 photoprints).

"Tetragrid, [Delta System], Circular Hyperboloid"
no location
dates: ca. 1973
note/s: M/P # 102; date approximated by comparison with related projects
holdings:
[086.I.112] Tetragrid, [Delta System], Circular Hyperboloid; structural model; ca. 1973; steel tube 1/8 and ¼ inch diameter; 13 ½ x 23 x 42 ¾ inches.
[086.III.A.228] Tetragrid, [Delta System], Circular Hyperboloid; model photoprints; n.d.; (3 photoprints).

"Tetragrid Tube, Model #3"
no location
dates: ca. 1973
note/s: M/P #105; date approximated by comparison with related projects
holdings:
[086.I.113] Tetragrid Tube, Model #3; structural model; ca. 1973; steel tube 1/8 and ¼ inch diameter, steel cable; 105 x (diameter) 12 inches.
[086.III.A.229] Tetragrid Tube, Model #3; model photoprints, two photos of load tests; n.d.; (3 photoprints).

"Diagonal Tetragrid Tube, Delta System"
no location
dates: ca. 1973
note/s: M/P #106; date approximated by comparison with related projects
holdings:
[086.I.114] Diagonal Tetragrid Tube, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 18 x (diameter) 10 ½ inches.
[086.III.A.230] Diagonal Tetragrid Tube, Delta System; model photoprints; n.d.; (6 photoprints).

"King Post Floor System with Tetragrid Panels, Delta System"
no location
dates: ca. 1973
note/s: M/P #109; date approximated by comparison with related projects
holdings:
[086.I.115] King Post Floor System with Tetragrid Panels, Delta System; structural model; ca. 1973; steel rods 1/8 inch and ¼ inch diameter, bars ¼ x 1/8 inch cross section, cables; 18 ¼ x 9 3/8 x 9 3/8 inches.
[086.III.A.231] King Post Floor System with Tetragrid Panels, Delta System; model photoprints; n.d.; (6 photoprints).

"Tetragrid Pylon Element, Delta System"
no location
dates: ca. 1973
note/s: M/P #114; date approximated by comparison with related projects
holdings:
[086.I.116] Tetragrid Pylon Element, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 53 ½ x 4 x 4 ¼ inches.
[086.III.A.232] Tetragrid Pylon Element, Delta System; model photoprints; n.d.; (8 photoprints).

"Tetragrid Sphere"
no location
dates: ca. 1973
note/s: M/P #115; date approximated by comparison with related projects
holdings:
[086.I.117] Tetragrid Sphere; structural model; ca. 1973; steel rods 3/16 inch and 1/8 inch diameter; 9 ¾ x 9 ¾ x 9 ¾ inches.
[086.III.A.233] Tetragrid Sphere; model photoprints; n.d.; (3 photoprints).

"Tetragrid Study Model, Delta System"
no location
dates: ca. 1973
note/s: M/P #116; date approximated by comparison with related projects
holdings:
[086.I.118] Tetragrid Study Model, Delta System; structural model; ca. 1973; steel rods ¼ inch and 1/8 inch diameter; 31 1/8 x 11 ¾ x 10 ¼ inches [including base].
[086.III.A.234] Tetragrid Study Model, Delta System; model photoprints; n.d.; (3 photoprints).

[Model of Building Complex, Z.D.S. Floor System]
no location
dates: ca. 1973
note/s: date from published article
holdings:
[086.III.A.235] [Model of Building Complex, Z.D.S. Floor System]; model photoprints; n.d.; (2 photoprints).
[086.IX.A.41] Published paper by Robert Le Ricolais, in French [PF II-28]; "Planchers de grande portée à déformation nulle (Z.D.S.)." *L'Architecture d'aujourd'hui* no. 168 (July 1973): viii; photocopy of article: 5 copies, magazine clipping: 3 copies.

"Octahedron, Soap Film Structure"
no location
dates: [ca. 1974; was dated 1959-1960 on the M/P list]
note/s: M/P #7; fabricated by Alain Courtaigne and Steven Millington
holdings:
[086.I.119] Octahedron, Soap Film Structure; structural model; ca. 1974; steel; 5 ¼ x 6 ¼ x 7 inches.
[086.III.A.236] Octahedron, Soap Film Structure; model photoprints; n.d.; (3 photoprints).
[086.VII.C.46] Student Report; "Minimum Surface Soap Film Configurations"; by Alain Courtaigne and Steven L. Millington; n.d. [ca. 1974]; photocopy of manuscript: 11 leaves.

"Circumferentially Prestressed Tube"
no location
dates: [ca. 1974-1975; was dated 1973 on the M/P list]
note/s: M/P #134; fabricated by Mike McLeod
holdings:
[086.I.120] Circumferentially Prestressed Tube; structural model; 1974-1975; steel tube ½ inch diameter, steel cable, steel plate 1/16 inch thick; 2 x 2 x 65 ¼ inches.
[086.III.A.237] Circumferentially Prestressed Tube; model photoprints; n.d.; (3 photoprints).
[086.VII.C.47] Student Report; "Prestressed Tube"; by Mike McLeod; n.d. [ca. 1974]; submitted for [Arch. 831 or 832] Experiments in Structure; manuscript: 3 leaves.

"Diamond Network System (D.N.S.) Bridge, Model #1"
no location
dates: Spring 1975
note/s: M/P #126; fabricated by Jesse S. Okie and Charles Sawyer; scale 1:1000
holdings:
[086.I.121] Diamond Network System (D.N.S.) Bridge, Model #1; structural model; Spring 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 3/32 inch diameter; 54 ¼ x 7 ¼ x 11 ½ inches.
[086.III.A.238] Diamond Network System (D.N.S.) Bridge, Model #1; model photoprints; n.d.; (15 photoprints).

"Funicular Polygon of Revolution, Lemniscate A"
no location
dates: Fall 1975
note/s: M/P #25; fabricated by Tanit Chareonpong and Pramote Tangtiang
holdings:
[086.I.122] Funicular Polygon of Revolution, Lemniscate A; structural model; Fall 1975; steel tube and discs, aircraft cable; 18 ¼ x (diameter) 2 ¾ inches.
[086.III.A.239] Funicular Polygon of Revolution, Lemniscate A; model photoprints; n.d.; (4 photoprints).
[086.VII.C.50] Student Report; "Studies on a Prestressed Tube"; by Tanit Chareonpong and Pramote Tangtiang; dated Fall 1975; submitted for Arch. 831; manuscript: 13 leaves; 5 photoprints.

"Diamond Network System (D.N.S.) Bridge, Model #2"
no location
dates: ca. 1975
note/s: M/P #127; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.123] Diamond Network System (D.N.S.) Bridge, Model #2; structural model; ca. 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 1/16 inch diameter; 41 3/8 x (diameter) 8 ¼ inches.
[086.III.A.240] Diamond Network System (D.N.S.) Bridge, Model #2; model photoprints; n.d.; (6 photoprints).

"Diamond Network System (D.N.S.) Bridge, Model #3"
no location
dates: ca. 1975
note/s: M/P #128; unknown scale; date approximated by comparison with related projects
holdings:
[086.I.124] Diamond Network System (D.N.S.) Bridge, Model #3; structural model; ca. 1975; steel tubes ½ inch diameter, rods ¼ inch diameter, cables 1/16 inch diameter; 121 x 16 x 8 ½ inches.
[086.III.A.241] Diamond Network System (D.N.S.) Bridge, Model #3; model photoprints; n.d.; (11 photoprints).

"Parabolic Floor Network, Study #1, with 2 Struts"
no location
dates: Spring 1976 [was dated Fall 1975 on the M/P list]
note/s: M/P #139; fabricated by Chuck Bloszies
holdings:
[086.I.125] Parabolic Floor Network, Study #1, with 2 Struts; structural model; Spring 1976; steel tube ½ x ½ inch and ½ x ¼ inch cross section, rods 1/8 inch diameter; ½ x 2 ½ x 42 7/8 inches
[086.III.A.242] Parabolic Floor Network, Study #1, with 2 Struts; model photoprints; n.d.; (1 photoprint).
[086.VII.C.51] Student Report; "Documentation and Computer Analysis of Robert Le Ricolais' Parabolic Network"; by Charles Bloszies; dated 9/29/1976; submitted for Arch. 832; bound photocopy of the report.

"Parabolic Floor Network, Study #2, with 5 Struts"
no location
dates: Spring 1976 [was dated Fall 1975 on the M/P list]
note/s: M/P #140; fabricated by Chuck Bloszies
holdings:
[086.I.126] Parabolic Floor Network, Study #2, with 5 Struts; structural model; Spring 1976; steel tube ½ x ½ inch and ½ x ¼ inch cross section, rods 1/8 inch diameter; ½ x 2 ½ x 42 7/8 inches.
[086.III.A.243] Parabolic Floor Network, Study #2, with 5 Struts; model photoprints; n.d.; (1 photoprint).
[086.VII.C.51] Student Report; "Documentation and Computer Analysis of Robert Le Ricolais' Parabolic Network"; by Charles Bloszies; dated 9/29/1976; submitted for Arch. 832; bound photocopy of the report.

"Parabolic Floor Network, Orthogonal"
no location
dates: Spring 1976 [was dated Fall 1975 on the M/P list]
note/s: M/P #141; fabricated by Chuck Bloszies et al.
holdings:
[086.I.127] Parabolic Floor Network, Orthogonal; structural model; Spring 1976; steel bars ½ x ½ and ¼ x ¼ inch cross section, rods 1/8 inch diameter; 2 3/8 x 39 ½ x 39 ½ inches.
[086.III.A.244] Parabolic Floor Network, Orthogonal; model photoprints; n.d.; (4 photoprints).
[086.VII.C.51] Student Report; "Documentation and Computer Analysis of Robert Le Ricolais' Parabolic Network"; by Charles Bloszies; dated 9/29/1976; submitted for Arch. 832; bound photocopy of the report.

"Pretensioned Tube, T-Lock System"
no location
dates: Spring 1977
note/s: M/P #135; fabricated by Chuck Bloszies
holdings:
[086.III.A.245] Pretensioned Tube, T-Lock System; model photoprints; n.d.; (1 photoprint).
[086.VII.C.52] Student Report; "Système Tencomp, An Idea of Robert Le Ricolais"; by Chuck Bloszies; dated 6/1/1977; submitted for Arch. 999; bound photocopy of the report.

Undated Projects

"Trigrid [Triangular panel]"
no location
dates: n.d.
note/s: M/P #17
holdings:
[086.I.128] Trigrid [Triangular panel]; structural model; n.d.; steel channels 1/8 inch wide; ¾ x 14 ¾ x 13 ¼ inches.
[086.III.A.246] Trigrid [Triangular Panel]; model photoprints; n.d.; (1 photoprint).

"Trigrid"
no location
dates: n.d.
note/s: M/P #18
holdings:
[086.I.129] Trigrid; structural model; n.d.; steel rods 3/32 inch diameter; 12 x 12 ½ inches.
[086.III.A.247] Trigrid; model photoprints; n.d.; (1 photoprint).

"Octahedronal Tetrahedron"
no location
dates: n.d.
note/s: M/P #22; fabricated by Bolton; unknown scale
holdings:
[086.I.130] Octahedronal Tetrahedron; structural model; n.d.; steel rods ¼ inch diameter; 5 ½ x 51 x 56 ¾ inches.
[086.III.A.248] Octahedronal Tetrahedron; model photoprints; n.d.; (7 photoprints).

"Rhombohedral Unit"
no location
dates: n.d.
note/s: M/P #82
holdings:
[086.I.131] Rhombohedral Unit; structural model; n.d.; steel rods 1/8 inch diameter and wires, nuts and bolts; 24 x 21 ¼ x 1 ½ inches.
[086.III.A.249] Rhombohedral Unit; model photoprints; n.d.; (2 photoprints).

"Woven Starhex Panel"
no location
dates: n.d.
note/s: M/P #117
holdings:

[086.I.132] Woven Starhex Panel; structural model; n.d.; steel rods ¼ inch diameter; 27 ½ x 31 inches.
[086.III.A.250] Woven Starhex Panel; model photoprints; n.d.; (1 photoprint).

"Tied and Braced Arch"
no location
dates: n.d.
note/s: M/P #131
holdings:
[086.I.133] Tied and Braced Arch; structural model; n.d.; steel tube ¾ inch diameter, bars ¼ x 1/8 inch and ¼ x ¼ inch cross section; 4 5/8 x 3 ¼ x 33 inches.
[086.III.A.251] Tied and Braced Arch; model photoprints; n.d.; (11 photoprints).

"Spatial King Post"
no location
dates: n.d.
note/s: M/P #132
holdings:
[086.I.134] Spatial King Post; structural model; n.d.; steel tube ½ inch diameter, rods 3/16 inch diameter, cables; 29 ¾ x (diameter) 4 ½ inches.
[086.III.A.252] Spatial King Post; model photoprints; n.d.; (3 photoprints).

"Spatial Queen Post"
no location
dates: n.d.
note/s: M/P #133
holdings:
[086.I.135] Spatial Queen Post; structural model; n.d.; wood and strings; 14 ½ x (diameter) 3 ½ inches.
[086.III.A.253] Spatial Queen Post; model photoprints; n.d.; (2 photoprints).

"Octagon Truss"
no location
dates: n.d.
note/s: M/P #142
holdings:
[086.I.136] Octagon Truss; structural model; n.d.; wood; ¼ x 12 ¼ x 10 ½ inches.
[086.III.A.254] Octagon Truss; model photoprints; n.d.; (1 photoprint).

[King Post]
no location
dates: n.d.
note/s:
holdings:
[086.I.137] [King Post]; structural model; n.d.; steel tube 1 x 1 inch cross section, steel rod ½ inch diameter, cable, hardware; 5 3/8 x 1 5/8 x 48 inches
[086.III.A.255] [King Post]; model photoprints, six photoprints of load tests; n.d.; (6 photoprints).

[Unidentified Model Fragment]
no location
dates: n.d.
note/s:
holdings:
[086.I.138] [Unidentified model fragment]; structural model; n.d.; steel rods, ¼ inch diameter, 40 ¼ x 13 x 13 inches.
[086.III.A.256] [Unidentified Model Fragment]; model photoprints; n.d.; (3 photoprints).

[Large Monkey Saddle]
no location
dates: n.d.
note/s:
holdings:
[086.III.A.257] [Large Monkey Saddle]; model photoprints; n.d.; (1 photoprint).

[Rectangular Plasteel Panel]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.139] [Rectangular Plasteel Panel]; structural model; n.d.; Plasteel?, 3/32 x 22 ¾ x 23 ¾ inches.

[Hexagonal Plasteel Panel]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.140] [Hexagonal Plasteel Panel]; structural model; n.d.; Plasteel?, 3/32 x 28 ¾ x 33 3/8 inches.

[Funicular Polygon of Revolution]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.141] [Funicular Polygon of Revolution]; structural model; n.d.; steel tube, steel rod, steel discs; 42 x (diameter) 6 inches.

[Cable Net Tube Bridge]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.142] [Cable Net Tube Bridge]; structural model; n.d.; steel , wire; 6 ¼ x 5 ½ x 83 inches.

[Double Curvature Network]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.143] [Double Curvature Network]; structural model; n.d.; 4 ½ x (diameter) 31 inches.

[Tensegrity Dome, Hexagonal Frame]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.144] [Tensegrity Dome, Hexagonal Frame]; structural model; n.d.; wood dowels, 3/8 inch diameter, string, wood frame; 25 x 52 x 45 ¼ inches.

[S.F.S. #1]
no location
dates: n.d.
note/s:
holdings:
[086.I.145] [S.F.S. #1]; structural model; n.d.; metal rods 1/16 inch diameter; 7/8 x 11 ½ x 3 ¾ inches.
[086.III.A.258] [S.F.S. #1]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #2]
no location
dates: n.d.
note/s:
holdings:
[086.I.146] [S.F.S. #2]; structural model; n.d.; metal rods 1/16 inch diameter; 1 3/8 x 13 ½ x 3 inches.
[086.III.A.259] [S.F.S. #2]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #3]
no location
dates: n.d.
note/s:
holdings:
[086.I.147] [S.F.S. #3]; structural model; n.d.; metal rods 1/8 inch diameter; 2 ¼ x 15 ½ x 2 ¾ inches.
[086.III.A.260] [S.F.S. #3]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #4]
no location
dates: n.d.
note/s:
holdings:
[086.I.148] [S.F.S. #4]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 4 x 5 ½ inches.
[086.III.A.261] [S.F.S. #4]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #5]
no location
dates: n.d.
note/s:
holdings:
[086.I.149] [S.F.S. #5]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 11 ½ inches.
[086.III.A.262] [S.F.S. #5]; model photoprints; n.d.; (5 photoprints).

[S.F.S. #6]
no location
dates: n.d.
note/s:
holdings:
[086.I.150] [S.F.S. #6]; structural model; n.d.; metal rods 1/16 and 3/32 inch diameter; 1 ½ x 1 ½ x 8 inches.
[086.III.A.263] [S.F.S. #6]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #7]
no location
dates: n.d.
note/s:
holdings:
[086.I.151] [S.F.S. #7]; structural model; n.d.; metal rods 1/16 inch diameter; 1 x 4 ¼ x 8 ½ inches.
[086.III.A.264] [S.F.S. #7]; model photoprints; n.d.; 3 photos with soap film; (6 photoprints).

[S.F.S. #8]
no location
dates: n.d.
note/s:
holdings:
[086.I.152] [S.F.S. #8]; structural model; n.d.; metal rods 1/16 inch diameter; 6 ½ x 7 ½ x 7 ¾ inches.
[086.III.A.265] [S.F.S. #8]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #9]
no location
dates: n.d.
note/s:
holdings:
[086.I.153] [S.F.S. #9]; structural model; n.d.; metal rods 1/16 inch diameter; 4 x 7 ¾ x 7 ¾ inches.
[086.III.A.266] [S.F.S. #9]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #10]
no location
dates: n.d.
note/s:
holdings:
[086.I.154] [S.F.S. #10]; structural model; n.d.; steel bars ¼ x 1/8 inch cross section, wire; 6 ¾ x 7 1/8 x 7 1/8 inches.
[086.III.A.267] [S.F.S. #10]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #11]
no location
dates: n.d.
note/s:
holdings:
[086.I.155] [S.F.S. #11]; structural model; n.d.; metal rods 1/16 inch diameter; 5 ¾ x 7 ¾ x 7 ¾ inches.
[086.III.A.268] [S.F.S. #11]; model photoprints; n.d.; (3 photoprints).

[S.F.S. #12]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.156] [S.F.S. #12]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ½ x 8 inches.

[S.F.S. #13]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.157] [S.F.S. #13]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 6 ¼ inches.

[S.F.S. #14]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.158] [S.F.S. #14]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 7 ½ inches.

[S.F.S. #15]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.159] [S.F.S. #15]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 ¼ x 7 ¾ inches.

[S.F.S. #16]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection\
holdings:
[086.I.160] [S.F.S. #16]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 11 ¾ inches.

[S.F.S. #17]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.161] [S.F.S. #17]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¾ x 9 inches.

[S.F.S. #18]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.162] [S.F.S. #18]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¼ x 8 inches.

[S.F.S. #19]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.163] [S.F.S. #19]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 ¼ x 9 inches.

[S.F.S. #20]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.164] [S.F.S. #20]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 8 ¼ inches.

[S.F.S. #21]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.165] [S.F.S. #21]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 2 ¼ x 8 inches.

[S.F.S. #22]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.166] [S.F.S. #22]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ½ x 2 x 9 ½ inches.

[S.F.S. #23]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.167] [S.F.S. #23]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 2 x 8 ½ inches.

[S.F.S. #24]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.168] [S.F.S. #24]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 9 ¾ inches.

[S.F.S. #25]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.169] [S.F.S. #25]; structural model; n.d.; metal rods 1/16 inch diameter; 3 x 3 x 12 ¾ inches.

[S.F.S. #26]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.170] [S.F.S. #26]; structural model; n.d.; metal rods 1/16 inch diameter; 9 ¼ x 12 x 6 ¾ inches.

[S.F.S. #27]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.171] [S.F.S. #27]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 3 ¾ x 16 inches.

[S.F.S. #28]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.172] [S.F.S. #28]; structural model; n.d.; metal rods 1/16 inch diameter; 3 x 4 ¾ x 12 ¼ inches.

[S.F.S. #29]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.173] [S.F.S. #29]; structural model; n.d.; metal rods 1/16 inch diameter; 12 ¾ x 2 ¾ x 2 1/8 inches.

[S.F.S. #30]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.174] [S.F.S. #30]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 x 8 ¼ inches.

[S.F.S. #31]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.175] [S.F.S. #31]; structural model; n.d.; metal rods 1/16 inch diameter; 6 x 4 ½ x 1 ½ inches.

[S.F.S. #32]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.176] [S.F.S. #32]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 6 ½ x 9 ¾ inches.

[S.F.S. #33]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.177] [S.F.S. #33]; structural model; n.d.; metal rods 1/16 inch diameter; 2 ¼ x 4 ½ x 9 ¾ inches.

[S.F.S. #34]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.178] [S.F.S. #34]; structural model; n.d.; metal rods 1/8 inch diameter; 2 3/8 x 3 ¼ x 14 1/8 inches.

[S.F.S. #35]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.179] [S.F.S. #35]; structural model; n.d.; metal rods 1/16 inch diameter; 2 x 2 ½ x 9 ½ inches.

[S.F.S. #36]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.180] [S.F.S. #36]; structural model; n.d.; metal rods 1/16 inch diameter; 1 ¾ x 1 ½ x 9 ¼ inches.

[S.F.S. #37]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.181] [S.F.S. #37]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 3 1/8 x 11 inches.

[S.F.S. #38]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.182] [S.F.S. #38]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 3 x 11 inches.

[S.F.S. #39]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.183] [S.F.S. #39]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 ¼ x 9 ¼ inches.

[S.F.S. #40]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.184] [S.F.S. #40]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 ¼ x 8 inches.

[S.F.S. #41]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.185] [S.F.S. #41]; structural model; n.d.; metal rods 1/16 inch diameter; 1/16 x 2 x 3 7/8 inches.

[S.F.S. #42]
no location
dates: n.d.
note/s: there are no extant photographs of this model in the collection
holdings:
[086.I.186] [S.F.S. #42]; structural model; n.d.; wood dowel, 1/8 inch diameter; 6 x 6 ½ x 7 ½ inches; [note: this model consists of several pieces]