

Guide to the George Owen Collection

The Designs, Photographs, and Models of
a Superior Naval Architect, Yachtsman, and
MIT Professor

The Francis Russell Hart
Nautical Collections

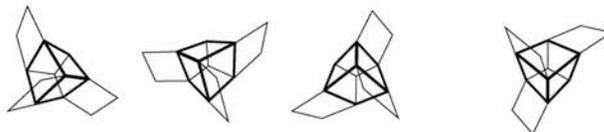
Introduction and List of Owen's Designs



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Project Background and Acknowledgements

This definitive guide to the George Owen Collection is the result of a comprehensive cataloging, database, and microfilming project begun in 1998 and completed in 1999. The guide describes all material related to Owen at MIT Museum, including major new additions in 2002 and 2003. The George Owen Project followed similar work completed earlier with two other major design collections. Printed guides were produced following the earlier projects involving the Haffenreffer-Herreshoff and Davis-Hand Collections. The Museum intended to publish a printed guide to the Owen Collection. While a lack of funds and new additions to the collection deferred this for several years, the guide now offers over 350 pages of easily accessible data. A printed guide of this size would not be practical. At this time, the Owen online guide is MIT Museum's first electronic finding aid and our largest, most extensive guide available.

The Owen Project and this guide would not be possible without the enthusiasm and support of Lloyd Bergeson (MIT class of 1938) and his many MIT classmates and friends. The following individuals generously contributed the core funding for the George Owen Project: David R. Wadleigh '38, Lloyd Bergeson '38, Daniel D. Strohmeier '34, Charles F. Adams, Richard W. Berry '32, Andrew H. Skinner, Jr. '42, Frederick C. Munchmeyer '48, Harry K. Sedgwick '40, Alexander P. Bates, Jr. '38, Frank J. Mather III '37, John A. Worton '48, Evan Cooper Polley, Russell W. Brown '42, Archibald M. Main, Jr. '38, Jerry Milgram '61, Donald H. Kern '42, and Halsey Herreshoff '60. Many of the above contributors were students of George Owen and/or had a professional association. All of the individuals with MIT class years following their names received degrees from the Department of Naval Architecture and Marine Engineering in which Owen was a professor from 1915-1941. We are most grateful to the above named Owen Project supporters and dedicate this guide to the memory of MIT Professor George Owen.

The project archivist responsible for processing the majority of the Owen material is Maria Bernier. Maria's highly professional processing and ordering of the Owen material was accomplished while she was a full-time graduate student in the archives program at Simmons College, Boston. This extensive guide would not have been possible without Maria's superb archival skill and diligent work. She and many others have patiently waited to see this guide become available.

Lastly, it is important to acknowledge the hard work and technical skill of Rachel Chatalbash, the most recent project archivist involved with the Owen Collections. After the Owen Collection was processed in 1999, two important donations of over 1000 Owen related objects were received. Rachel efficiently cataloged these new gifts, and has been instrumental in organizing all data for this extensive work. Rachel's contributions have been key to assembling this concise and comprehensive guide.

Kurt Hasselbalch
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Provenance

The formal Owen Collection is made up of several donations from Owen and his daughter. Near the end of his teaching career at MIT, Owen lent a large number of his personal half-models to the Hart Nautical Museum for an exhibit in 1939. A catalog of the models titled “Owen Collection of Half Models” was printed to accompany the display. After the exhibit was dismantled, Owen gave models to friends, kept some, and gave the remainder to the Hart Nautical Museum. Earlier, Owen had donated a few full-hull models, photographs and assorted artifacts to Hart. When Owen passed away on April 21, 1959, the bulk of his collection of plans, half-hull models, and business, technical and personal papers were left to his daughter, Florence Owen Preble. Shortly after Owen’s death, a family friend and former student of Owen’s, Lloyd Bergeson ‘38, advised Mrs. Preble to contact the Hart Nautical Museum Curator, Professor Evers Burtner ‘15, about donating Owen’s collection to MIT. Although a small number of Owen’s half-hull models were given to relatives and friends, Mrs. Preble donated the majority of his plans and remaining models to the Hart Nautical Museum (merged with MIT Museum in 1982). Unfortunately, most of Owen’s personal correspondence was not saved.

MIT Museum also holds substantial material relating to George Owen in other collections. Most of these objects were acquired through individual donations and are formally part of Hart’s General Collections. For example, a full-hull model of *Little Rhody II*, was given to the Museum in 1952 by C.A. Wood, owner of the vessel. In 1985, James Burtner donated five models that Owen had given to Evers Burtner. In 1992, Charles Schock donated two letters that Owen sent to his father, Edson I. Schock. Over the 1990’s, Lloyd Bergeson donated the specifications for *Menioke V* and *White Cap*, as well as a photograph of the research vessel *Atlantis* under sail. The most substantial additional donations came in 1999 and 2003 from Chris Morehouse (Owen’s great-grandson) and in 2001 from Mr. and Mrs. John Marshall. The Marshalls donated 13 half-hull models previously owned by Owen. The Morehouse donations added more than 1000 slides, films, photographs, and printed articles, which had been retained by the family for many years. These later additions to the collection offer further insight into Owen’s professional career and personal life. All object numbers that begin with the prefix GO are part of the formal George Owen Collection.

A key purpose of this guide is to integrate all Owen related material in the Hart Nautical Collections regardless of provenance and specific association with a formal collection. A small amount of material outside of Hart is not part of this finding aid. The MIT Museum General Collections has several files of photographs, articles, and biographical material related to Owen’s MIT years (1915-1941) that are not represented in this guide. This material came to the Museum more than twenty years ago with a large number MIT News Office files. For access to those items, please refer to the “General Collections” page (under “Research and Collections”) of the MIT Museum’s web site. Researchers should also contact the MIT Archives to inquire about Owen’s academic career at MIT.

Biography of George Owen

George Owen's personal achievements in design and his impact on yachting history are not as familiar as they should be. Many with an interest in yachting heritage are only vaguely aware of Owen's contributions. One important reason why Owen's legacy has been largely forgotten is the scarcity of published material about his life and work. Another reason may be that although Owen produced more than 200 designs over more than 50 years, he was only a full-time yacht designer for seven years. We hope this guide to the Owen Collection will stimulate interest in the designs of Owen and lead to new publications concerning his role in American yachting history.

Most of Owen's published writing appears in professional engineering journals and in various boating or MIT-related publications. He wrote relatively little about his own design work. A fair amount of material about Owen's designs can be gleaned from the yachting press in the period he was a full-time yacht designer (1908-1914). As mentioned, most of Owen's professional correspondence appears to have been lost after his death in 1959. The most comprehensive information about Owen's life and work is found in two boating magazine articles. Owen's MIT colleague, professor Evers Burtner '15 wrote a two-part article ("George Owen", *Yachting*, 1961) that provides a summary of Owen's numerous design successes and a description of his personal character. More recently, Lloyd Bergeson '38, a student and friend of Owen, wrote an intriguing article ("The Tragedy of *Defiance*," *WoodenBoat*, vol. 102, 1991) that surveyed Owen's life work and focused on the details surrounding his only America's Cup aspirant. The articles above provide the most complete published information available. The following summary of Owen's life and work is drawn from these articles.

George Owen was born in Cambridge, Massachusetts in 1877. His mother died when he was young. After this loss, Owen was drawn closer to family in Rhode Island. The Owen family was active in yachting and commissioned boats from both Edward Burgess, and Herreshoff Manufacturing Company, Bristol, Rhode Island. In addition to many opportunities to race fast fine boats, Owen also began developing hobbies such as photography. The rare, 1888 photograph of N. G. Herreshoff and Lucian Shape in *Clara's* cabin, published in *Herreshoff of Bristol* (Bray and Pinhero, WoodenBoat Publications, 1989), was taken by Owen. In 1890, after completing high school in Rhode Island, Owen enrolled at MIT. In the late 1880s, MIT's Department Mechanical Engineering began offering courses in naval architecture and marine engineering. Although Owen took many of the courses offered in marine engineering and naval architecture, a degree in naval architecture was not available until 1897. He graduated in 1894 with a degree Mechanical Engineering. The title of his senior thesis (co-authored with Austin Sperry) was *Comparison between Automatic and Hand Stoking on a Galloway Boiler*.

Owen's first job out of college was as a draftsman at Pacific Textile Mills in Lawrence, Massachusetts. Between 1898 and 1901 he worked in the drafting department of Herreshoff Manufacturing Company. In addition to routine drafting, Owen worked on calculating hull weights for America's Cup aspirant *Constitution*. About 1901, Owen, with his new wife Florence Wood, moved to Canada and took an engineering position with Hamilton Iron and Steel Company in Hamilton, Ontario. This move was a key turning point in his life as it marked the beginning of Owen's yacht design career and the initiation of enduring connections with Canadian yachting. Owen's early designs were developed on his own time while he worked as a

full-time engineer. His third design, *Whirl* was a 20-foot Restricted class of YRA Lake Ontario. From 1902 through 1903, Owen won 29 out of 30 races in his *Whirl*. This is the first concrete evidence that Owen had developed exceptional yachting skills as a young man.

After completing approximately six designs in Canada, Owen moved back to Massachusetts in 1904 to take a position in the design department of the Fore River Shipyard. At the time, the American yachting world was in transition. Designers were experimenting with N. G. Herreshoff's new Universal Rule yacht measurement formula—a specific reaction to the extreme design of Herreshoff's *Reliance*, the America's Cup winner of 1903. This rule gave birth to the J-class of America's Cup fame. Owen had great success designing winning yachts to this rule. In particular, his R-, Q-, P-, N-, and M-class yachts were, for the most part, quite successful against the established designers boats on both the Atlantic and Great Lakes. By 1908, Owen's part-time yacht design work had developed to the point that he decided to make it his full-time occupation.

From 1907 to 1913, Owen turned out 24 yachts designed to the Universal Rule. In this period, he was also designing boats to other racing rules in Canada and the US. In 1907, Owen proposed scantling rules (construction guidelines) for wooden yachts designed to the Universal Rule. These rules were adopted by many US and Canadian clubs, until new rules were written by N. G. Herreshoff in 1928. Owen's design successes include, 1902 *Whirl*, a winner in her class even after Owen sold the boat, 1904 sloop *Little Rhody*, winner of many ocean races; 1904 *Cynthia*, restricted yawl class champion on Lake Ontario for many years; 1911 skiff-class (16') *Velvet*, class champion 1911/12; 1910 R-class *Swarba* for Commodore RCYC and champion of class on Lake Ontario 1910; 1911 P-class *Patricia* for RCYC that defended International Fisher Cup against Herreshoff's *Seneca*; 1912 P-class *Mavoreen* set a course record in the Mackinac race that was unbeaten for 14 years; 1913 Q-class *Manataqua* champion of class at Marblehead, MA from 1913-1923 and first racing yacht with raised deck construction; and 1913 M-class *Dorello II*, winner of class in 1913, and Eastern Yacht Club Puritan Cup 1915.

Owen's most successful and innovative design was his N-class *Dorello* in which he introduced a high aspect ratio stem head rig. *Dorello*'s rig was later adapted by Herreshoff on the NYYC 50s and NYYC 40s. In 1908, *Yachting* magazine voted *Dorello* Boat of the Year. In three years of racing with Owen at the helm, this yacht won an incredible 58 of 62 races. Owen's record of winning yachts and his technical innovations clearly establish his place in the upper echelon of designers of the day. This high reputation brought Owen his one and only contract for a J-class yacht, which unfortunately, led to a great career disappointment and transition.

The story of Owen's J-class yacht *Defiance* is well told in Lloyd Bergeson's 1991 article mentioned earlier. After the disappointment of this episode, Owen changed directions. In 1915, he accepted an invitation to become an assistant professor of naval architecture at MIT, a position he would hold until retiring as a full professor in 1941. Owen was the first professor in the department of Naval Architecture and Marine Engineering to come from a yacht design background. His most important academic legacy at MIT was introducing course work in this specialized area of naval architecture. Owen trained a generation of men who became highly successful engineers and designers in a variety of fields. Bergeson's article cites the following names of well known yacht designers who studied under Owen at MIT: Philip L. Rhodes, Edson A. Shock, Bill McNary, Winthrop Warner, Spaulding Dunbar, Robert G. Henry, Jr., Henry A.

Scheel, and Wendell Calkins. Both Burtner and Bergeson provide solid testament to Owen's wisdom, professionalism, and skill as an inspirational educator and mentor.

Like many other naval architects of his era, Owen took on commercial designs as well as yachts. Owen continued to design a few Universal Rule yachts while at MIT, but also moved on to many other vessel types. Prior to his MIT employment, he had designed a variety of power boats as well as commercial and naval vessels. His biggest commercial job was the 193' passenger and express freight Lake Ontario steamer *Dalhousie City* in 1910. In 1914, Owen designed *Emblane*, a 125' torpedo-testing steamer. For most of his career, Owen worked alone. It is clear, however, that other hands were at work on some of his plans. We know for example that Samuel S. Crocker '11 worked for Owen from 1912-15. A notable exception was the Francis Minot '23 design partnership that resulted in the famous 142' steel Woods Hole Oceanographic Institute research vessel *Atlantis* in 1930-31, and the 130-foot North Atlantic trawlers *Kittiwak* and *Bittern* in 1936-37. *Atlantis* was the first oceanographic research vessel commissioned by WHOI. At the time, only a few vessels in the world had been purpose-designed for this work. *Atlantis* logged over 600,000 miles from 1931 until its retirement by WHOI in 1966. Several years ago, *Atlantis* was still operating in South American waters.

After 1916, Owen became more involved with larger yachts, experimental designs, specialized commercial work, and small boats. Some notable examples are: *Fontinalis*, a 68' auxiliary schooner; *Lynx V*; a 96' steel jib-headed staysail schooner built in Croatia (part of Italy at time of construction in 1926); *Oriole IV*, a 91' auxiliary steel ketch built for George H. Gooderham, Commodore of RCYC—after many years of private ownership gifted to Canadian Navy and still in use as an officer training ship out of British Columbia; *Elsie*, a 54' yawl for Gilbert H. Grosvenor (publisher of *National Geographic* magazine) built at Alexander Graham Bell's Cape Breton Island lab; *Ruweida II*, a cat-rigged "rule beater" which caused a change in the Displacement Rule; a 75' power boat designed for the sardine fishery of Lubec, Maine in 1937; and thirty 13' sailboats and a 12' rowboat built by Graves of Marblehead in 1941 for the Boston Metropolitan District Commission's community sailing program on the Charles River.

Owen's most enduring legacy at MIT is without question the MIT Tech Dinghy and his involvement in starting up collegiate sailing. Owen was commissioned to design the first boat for organized intercollegiate sailboat racing. In 1936, MIT contracted Herreshoff Manufacturing Company to build the first 40 lapstrake MIT Tech Dinghies for \$10,000. In 1952, Owen designed the first fiberglass replacements of the original fleet. The most recent new fleet was delivered to MIT in 2004.

In his 1961 *Yachting* article about George Owen, Evers Burtner concluded, "George was very artistic, had a good eye...for fair hull form and a balanced sense of proportion. ... [He] was rather selective in the choice of the builders of his yachts, and he took great interest in important details... Many owners of Owen's yachts returned to him for new boats. They had individuality and quality that made them outstanding."

"...George Owen's many admirable qualities and broad experience added up to a colorful personality which is missed by his numerous friends in his Alma Mater, his home community and in yachting."

Series Listing

Series I: Plan List

Primarily contains plans by George Owen. Also includes plans by other designers, which he collected.

Series II: Professional Papers and Photographs

Contains manuscript and printed material dealing with some of Owen's designs, as well as files on specific subjects that interested him. Also contains a large group of photographs and a small amount of artwork.

Series III: Models and Artifacts

Contains primarily half-hull models created by Owen, as well as other models and artifacts that Owen commissioned or collected, such as sail material and pennants.

Series IV: Personal and Family Life Images

Contains 35mm slides and 16mm films of Owen's personal and family life.

Scope and Content

The George Owen Collection spans the career of George Owen, from 1889 to 1958, and provides the most complete record available of his design career. It also contains elements related to his personal life and teaching career at MIT. Most of Owen's yacht designs, model plans, and commercial work including passenger steamers, motorboats, and concrete tankers, are represented here. In addition, some of Owen's MIT student drawings are included in the collection.

This electronic guide provides item level description of the collection in the form of lists that can be browsed or searched by keyword. Each series is located in a separate PDF file. Summary data similar to the information below is found in each series of the Owen Collection. Researchers should understand that information about a particular vessel may be located in each series. It was beyond the scope of this work to provide a master cross-reference across each series that locates all material related to subject of interest.

Series I: Plans consists of approximately 1760 plans generated by Owen and his draftsmen, ranging from c.1891 to 1958. It is the largest of the three series. The majority of the plans relate to Owen's design business, while others demonstrate his interest in other yacht designs and historic vessels. The bulk of the plans in this series are plans drawn by Owen. Vessel plans designed by other naval architects are also included, either because Owen was hired by the owner to design re-rigs and alterations or because he was interested in the characteristics of certain vessels and collected these plans for reference. Gaps in the design sequence, especially from the Owen and Minot years indicate missing plans or have an unknown purpose.

Series II: Professional Papers and Photographs consists of two legal size document boxes of manuscript material, 1903-1968, four pieces of artwork, and approximately 725 photographs and slides, 1889-1957. Approximately half of the manuscript material relates to vessels designed by Owen or to other named vessels. The remaining half of the material is correspondence and subject files containing clippings and ephemera. The bulk of the photographs, which were collected by Owen, are of vessels designed by him. Other photographs in the collection range from images of well-known vessels to pieces of furniture. Together, the photographs and the manuscript material, shed light on Owen's career and personal interests.

Series III: Models and Artifacts consists of 86 models, 21 pieces of sails or sailcloth, and seven other artifacts, including a course protractor and a mast section for the J-class America's Cup yacht *Whirlwind*. Owen made most of the models. The small half-hull models with wooden sails were made by E. H. Peterson, on commission from Owen. The full-hull models appear to have been built by people other than Owen. Owen collected the sail material and additional artifacts over time and donated his collections to MIT before he died. Additional objects in this series came from sources other than Owen.

Series IV: Personal and Family Life Images consists of 28 black and white and color 16mm films, 1934-1950, and 986 color 35mm slides, 1930-1955. The subject matter of these films and slides differs greatly from that of the rest of the collection. The films and slides are primarily of family members, family trips, and events. A small cross-section of the series is related to Owen's professional career. Chris Morehouse donated the material in this series in 2003.

Appendix A

Description of Database

The George Owen Collection was catalogued on an item level using 46 data fields. All of the data collected during the cataloging of the plans, photographs, and artifacts was entered into Paradox for Windows (7.0) database. Several years ago, the data was migrated into a Filemaker Pro (6) database. This detailed cataloging and the ability to search and sort the information provides in-depth access to almost 4000 objects. In the future, we expect to digitize all objects represented in this guide. The image data will be linked with the database for the purpose of creating an online image database of Owen's diverse collections at the MIT Museum.

The fields or subject headings in the lists provided in this guide represent a small number of the fields created to catalog the collection. For example, fields relating to physical information about the objects were not included in the lists. The fields used in this guide were selected to provide the most concise data about objects for general research. Most of the lists in this guide are constructed from a basic database search and sort on a particular field. Within the lists, vessel names are written in all capitals, instead of the conventional italics because it was not available as a database font.

Appendix B

List of George Owen's Designs

The following list includes all named vessels designed by Owen that are represented in the guide. The list also contains named vessels not designed by Owen. For the most part, vessels with a design number were created by Owen. Most of the vessels with a question mark in the design field relate to models that Owen produced plans for. An exception is the original MIT Tech Dinghy. Owen designed this boat as part of his MIT departmental work and therefore, did not consider it a private job. For a variety of reasons, some of Owen's plans are not associated with a vessel name. Reference to this design work is not found in the list. The following list is intended only as a vessel name cross reference to the complete plan list in Series I, which is sorted by Owen design number. It is not a complete listing of all of Owen's design work.

Explanation of Fields

Vessel Name = Original name of the vessel. Later names, if known, are in parenthesis next to original name.

Des. # = The design number assigned by Owen. A question mark in this field generally means that Owen did not design the vessel.

Appendix B: Owen Design List

Vessel Name	Design #
AHMEEK (MARGANITA)	82
AMERICAN ATTORNEY	?
AMORET	38
ANOATOK	?
ANOATOK III (SKI BUM IV)	141
AQUANNO (SOUWESTER, ALERT, HOB NOB, PATTIE)	119
ATLANTIS	140-34
BERNICE (BERNICE II)	095*
BITTERN and KITTIWAKE	163-57
BONIVEE (DOROTHY)	43
BONNIE	?
BRITANNIA	?
BRITOMART	078,82,95
CARIBEE	?
CHARLOTTE M.	?
CHIRIYA	7
CHIRIYA II	117
CLEOPATRA	?
COCKATOO	?
COCKATOO II (PINTAIL)	?
COLUMBIA	?
CORINTHIAN	113
CRUISER	?
CYNTHIA	10
DALHOUSIE CITY	49
DEFIANCE	81
DELTA	168,170,178X
DESPATCH	59
DORELLO	020-38
DORELLO II (BAGATELLE IV)	62
DORIS and SALLY VII	?
ELKABAR (SAYONARA II)	75
ELLEN	?
ELSIE	98
EMBLANE	87
ENDEAVOR	?
ENFIELD	173
FONTINALIS	93
FS III Jr.	196
GALATEA and INDEPENDENCE	?
GEISHA	17
GEM	69
GRAYLING	?
HALCYON	?
HATHOR (AVENIR, FAWN, GAIRA)	121
HAYSEED IV (MICHICAGO)	?
HEATHER	15
HELEN and WHIRL	3
HOPE	201
HUSKIE II	085&97
IBIS	45
IRENE MYRTLE	?
IRIS	?

Appendix B: Owen Design List

ISLANDER	?
ITALIA (DORIAN II)	53
JANE	?
JUNIATA	5
KATHLEEN	18
KENO	4
LARK	?
LASCAR (SHADOW)	112
LIGHTNING	?
LIMMERSHIN	169
LITTLE RHODY	8
LITTLE RHODY II (SINDBAD)	16
LIVONIA	?
LYNX V (DORELLO III, MORNING STAR)	126
MAFALDA	41
MANATAQUA (NOR'EASTER II, SOU'EASTER, SUNBEAM)	068&69
MANCHESTER	?
MARIA VICTORIA	?
MARION III	73
MAVOURNEEN (BAYS LEA)	037 & 38,40
MEBLEH (ELYRIA)	97
MENIKOE V	131, 132, 134
MINERVA	?
MIT TECH DINGHY (Original Design)	?
MIT TECH DINGHY (Fiberglass)	203&204
MOLLIE & JANE	?
MORE TROUBLE and HAYSEED	?
MURIEL	?
NAHMA	?
NIRWANA	058&63
ODYSSEUS II	?
OLYMPIAN	?
OPEONGA	114
OPITSAH II	?
ORIOLE IV	104
PASSACONAWAY	108
PATRICIA	54
PETREL II	6
PROGRESS	?
PSYCHE (HAYSEED V, VALIANT, ELLEN)	?
REVERY (ACUSHLA, HARPOON)	?
RIOWNA (SVEA)	118
RUWEIDA (NITUNA)	89
RUWEIDA II (BERNIDA, SAINTE CLAIRE)	102&162
RUWEIDA III	107,63&112
SACHEM	?
SALMON	9
SANTA MARIA and LIGHTNING and NORMANDIE	?
SAPPHO	?
SAYONARA and ITALIA and PATRICIA	047,53,54
SAYONARA II (ANOATOK II, ELKABAR, TYPHOON)	75
SAYONARA III (AVENIR, DORIS III, NORTH STAR, MOGU)	128
SCRAPPER II	63
SCRAPPER III	103

Appendix B: Owen Design List

SEABISCUIT	?
SHAMROCK II	?
SILVERHEELS	?
SOUTH SHORE (INTREPID)	071, 75, 78
SS WELLHART	?
STRANGER	067,71,75,78
SUMAKI (GOSsoon III)	40
SWAMBA	42
TEXAS	?
THISTLE	014*
TIMANDRA (ANITA, BRONCE, ODETTE)	30
URSULA M. NORTON	?
VALKYRIE II	?
VELVET	052,60,74
VIVIA II	050,58,63
WANDER BIRD	?
WASAKA II (JOSEPHINE)	?
WHIRL	3
WHITE CAP (MISHOON)	162
WIANNO (HESTER, INTREPID)	29
WIANNO and TIMANDRA	029 & 30
YANKEE	136
YELLOW CAT	83
ZELMA and TEMERAIRE	?
? and HOPE	200&201
[proposed as HAYSEED IV]	046,47,53