Finding Aid to the
Mark B. Lesser Papers, 1973-1999

Summary Information
   Title: Mark B. Lesser papers
   Creator: Mark B. Lesser (primary)
   ID: 119.3686
   Date: 1973-1999 (inclusive); 1976-1978 (bulk)
   Extent: 2.5 linear feet
   Language: The materials in this collection are in English.
   Abstract: The Mark B. Lesser papers are a compilation of technical documentation, notes, memos, and other information related to the programming of Mattel Electronics' handheld games (including *Auto Race*, *Football,* and *Baseball*), as well as documentation for other video game designs. The bulk of the materials are dated between 1976 and 1978.
   Repository:
      Brian Sutton-Smith Library and Archives of Play at The Strong
      One Manhattan Square
      Rochester, New York 14607
      585.263.2700
      library@museumofplay.org

Administrative Information
   Conditions Governing Use: This collection is open for research use by staff of The Strong and by users of its library and archives. Though the donor has not transferred intellectual property rights (including, but not limited to any copyright, trademark, and associated rights therein) to The Strong, he has given permission for The Strong to make copies in all media for museum, educational, and research purposes.
   Conditions Governing Access: Due to the nature of the printed source code on perforated, connected printer paper, reference scans of these pages may only be available at the discretion of the library staff. Please see The Strong's Digital Games Files Access Policy.
   Custodial History: The Mark B. Lesser papers were donated to The Strong in November 2019 as a gift of Mark Lesser. The papers were accessioned by The Strong under Object ID 119.3686 and were received from Lesser in one box, along with several published video games and game prototypes.
   Preferred citation for publication: Mark B. Lesser papers, Brian Sutton-Smith Library and Archives of Play at The Strong
   Processed by: Julia Novakovic, February 2021

Controlled Access Terms
   Personal Names
      - Cheng, Richard
      - Klose, George
      - Lesser, Mark B.

Corporate Names
- Mattel Electronics
- Mattel, Inc.
- MBL Research, Inc.
- Parker Brothers, Inc.
- Rockwell International

Subjects
- Auto Race (Mattel Electronics)
- Baseball (Mattel Electronics)
- Computer programmers
- Electronic games
- Football (Mattel Electronics)
- Game design and development
- Hand-held games
- Lord of the Rings: Journey to Rivendell (Video game)
- Mattel Electronics--Hand-held games
- MBL Research, Inc.
- Supercross 2000 (Video game)
- Video games

Biographical Note

Mark B. Lesser is an American electronic engineer and game producer, best known for programming Mattel Electronics' first handheld games, as well as the popular *NHL* video game series published by EA Sports.

Lesser earned a B.S. in Electrical Engineering from MIT. In 1972, he joined the Microelectronics Division of Rockwell International, in Anaheim, California, as a Circuit Designer. Lesser worked on designing circuits for handheld calculators and I/O (input/output) chips. Rockwell received a proposal from Mattel Electronics to convert handheld calculators into electronic games, and Lesser joined the project. He designed the program directly into the hardware, writing the program using punch cards in a minicomputer. Lesser not only designed the hardware chips but ultimately programmed the games for the first three titles of the Mattel handhelds line: *Auto Race* (1976), *Football* (1977), and *Baseball* (1978). The popularity of these titles spawned several imitators, including a line of electronic games by Coleco (which was sued by Mattel for patent violations).

After leaving Rockwell, Lesser worked at Parker Brothers, developing (never-released) handheld games and programming *Frogger II: Threeedeep!* (1984) for the Atari 2600, followed by an unproduced game, "Lord of the Rings: Journey to Rivendell." Lesser moved on from Parker Brothers to work with Rex Bradford at Microsmiths for several years before forming his own company, MBL Research, Inc.

In 1991, Lesser was subcontracted to program *John Madden Football '93* (1992) for the Sega Genesis; Electronic Arts later offered him the direct contract to develop *NHL '94*. He stayed with the *NHL* series through *NHL '99*. Lesser's final game was *Supercross 2000*, a supercross motorcycle simulation game published by EA Sports in 1999. Lesser has since retired from game programming.

Collection Scope and Content Note
The Mark B. Lesser papers are a collection of technical documentation, design notes, programming notes, schematics, memos, and other information related to the programming of Mattel Electronics' handheld games, including *Auto Race*, *Football*, and *Baseball*. Other materials include program overviews, development plans, and other game design documents. Additional scope and content information can be found in the Contents List section of this finding aid.

The Mark B. Lesser papers have been arranged into two series. The materials are housed in three archival document boxes.

Related Materials
Along with these professional papers, Mark Lesser donated several prototypes [Mattel *Football* handheld game (Object ID 119.3684), Atari 2600 *Lord of the Rings* cartridge (Object ID 119.3683), and Nintendo *Drac's Night Out* cartridge (Object ID 119.3682)] and published video games (Sega Genesis *NHL* series) to The Strong.

System of Arrangement
  Series I: Mattel Electronics handheld games, 1973-1980 and n.d.
  Series II: Video games, 1983-1999

Contents List

Series I: Mattel Electronics handheld games, 1973-1980 and n.d.

Scope and Content Note: This series houses various documentation relating to the programming and technical design of the earliest Mattel Electronics' handheld games: *Auto Race* (1976), *Football* (1977), and *Baseball* (1978). Materials include notes, memos, schematics, schedules, correspondence, source code printouts, data sheets, diagrams, and more.

When applicable, original folder titles appear in quotation marks. Game names are noted in brackets if not spelled out in the folder title.

Box 1

Folder	1	MOS/LSI Microprocessor reference and notes, 1973 and n.d.
Folder	2	Rockwell International data sheets [Serial Data Controller (SDC), Direct Memory Access Controller (DMA), Floppy Disk Controller (FDC), One-Chip Microcomputers], 1975-1977
Folder	3	Rockwell Parallel Processing System (PPS), PPS-4 Microcomputer Basic Devices Product Description, May 1976
Folder	4	"B5000 Logic & Circuits (Applies to B6000)" – notes, schematics, and memos; 1975-1980 and n.d.
Folder	5	"Docs Showing Instruction Sets & Op Codes for B61 & B60" [Mattel *Football*, Mattel *Auto Race*] – technical documents, notes, and schematics; 1974-1977 and n.d.
Folder	6	"Game specs – AR & FB" [Mattel *Auto Race*, Mattel *Football*] – game specifications documents and notes, George Klose and Mark Lesser, 1976
Folder	7	"Schedules B6000, B6100, Schedule Info Relating to Auto Race and Football" [Mattel *Auto Race*, Mattel *Football*] – memos and schedules, 1976-1977
Folder	8	"B6000 Race Program Listing" [Mattel *Auto Race*] – code printout, 1976
Folder	9	"B6000 ROM Code" [Mattel *Auto Race*] – source code printout, February 13, 1977
Folder	10	"B6099 Emulator Box Diagrams" – notes, schematics, and technical documents; 1976 and n.d.
Folder	11	"H482 (Football)" [Mattel *Football*] – technical documentation, correspondence, and notes; 1976 and n.d.
Folder	12	"Football Device Specifications" [Mattel *Football*] – technical document ["B6100 Device Specification H482 Game Chip," Rockwell], May 1977
Folder	13	"Parts Lists for Football" [Mattel *Football*] – notes, schematics, and technical documents; 1977 and n.d.
Folder	14	"B6100 Testing" [Mattel *Football*] – testing notes, n.d. [c. 1976-1977]
Folder	15	"Baseball" [Mattel *Baseball*] – proposal, notes, memos, and schedules; 1976-1977
Folder	16	"Baseball Game" [Mattel *Baseball*] – diagram sketches, design notes, notebook, memo, and test input notes; 1977-1978 and n.d.
Folder	17	"Electronic Baseball" [Mattel *Baseball*] – handwritten and typed specifications, diagrams, notes of conversations with George Klose; 1977-1978

Box 2
Folder 1   Engineering logbook – "Mattel Baseball" logbook, Mark Lesser, with loose note
              pages, 1977-1978 and n.d.
Folder 2   "B6001 Missile" [*Missile Attack*] – notebook and notes, 1977
Folder 3   "Electronic Soccer Game Description," Mark B. Lesser, preliminary game
              description and confidential disclosure agreement [Mattel *Soccer*]; April 17, 1978

Box 3
Folder 1   "B60_ Mattel" printout, September 14, 1976
Folder 2   "Final Baseball" [Mattel *Baseball*] source code printout with handwritten
              annotations, May 3, 1978
Folder 3   "Baseball w/Demo Fixes" [Mattel *Baseball*] source code printout, June 22, 1978
Folder 4   "Not used ADX-2" [Mattel *Baseball*] source code printout, October 16, 1978
Folder 5   "Used in new chip, ADX-3" [Mattel *Baseball*] source code printout, October 17,
              1978

Series II: Video games, 1983-1999
              Scope and Content Note: This series holds technical design documentation
              related to an unproduced game ("Lord of the Rings"), the released game
              Supercross 2000, and hockey reference materials (likely used for MBL
              Research's contributions to the *NHL* video game series).
Box 2
Folder 4   "Lord of the Rings" game description and rules, Rev. 5, September 27, 1983
              ["Lord of the Rings: Journey to Rivendell"]
Folder 5   Hockey reference – Maine Hockey 1996-1997 playbook and notes, n.d. [c. 1997?]
Folder 6   *Supercross 2000* Development Plan for PSX and N64, Version 2.1, June 24, 1999
Folder 7   *Supercross 2000* Program Overview, MBL Research, Inc., Version 1.0, October
              26, 1999
Folder 8   *Supercross 2000* Technology Overview, MBL Research, Inc., Version 1.0,
              November 9, 1999