# Nicholas R. Chrisman collection: Gray literature on the origins of computerized geographic information systems.

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Prepared by Ryan Moore

Finding aid encoded by the Library of Congress Geography amp; Map Division, 2017

## **Collection Summary**

Title: Nicholas R. Chrisman collection: Gray literature on the origins of computerized geographic information systems.

Span Dates: 1956-2006 Call No.: G70.2 coll Chrisman Extent: 41 boxes (21 linear ft.)

Language: Collection material in English and French

Location: Geography amp; Map Division, Library of Congress, Washington, D.C.

LC Catalog record: https://lccn.loc.gov/2017585117

**Summary:** Nicholas R. Chrisman is a pioneer in the field of geographic information systems, known commonly as GIS. From 1972 to 1983, he worked at the Harvard Lab for Computer Graphics and Spatial Analysis; he went to work in GIS research, instruction, and journal publications as an editor and writer. His forty-plus year career is represented in this collection of 41 archival boxes containing gray literature, manuscripts, letters and other printed material; it also contains GIS maps, computer files, software, and printouts.

#### **Selected Search Terms**

The following terms have been used to index the description of this collection in the LC Catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically.

#### People

Chrisman, Nicholas R.

#### **Subjects**

Cartography--History.

Historical geographic information systems.

#### Form/Genre

Manuscript maps.

#### **Provenance**

The materials were donated by Nicholas R. Chrisman in 2014.

## **Processing History**

The collection was arranged and described by Yannick Grandcolas in 2016-2017.

## **Copyright Status**

The status of copyright of the Nicholas Chrisman gray literature collection is governed by the Copyright Law of the United States (Title 17, U.S.C.).

#### **Access and Restrictions**

The Nicholas R. Chrisman collection is open to research. Researchers are advised to contact the Geography & Map Reading Room prior to visiting. Many collections are stored off-site and advance notice is needed to retrieve these items for research use.

## **Preferred Citation**

Researchers wishing to cite this collection should include the following information: Container number, Nicholas R. Chrisman collection, Geography & Map Division, Library of Congress, Washington, D.C.

## **Biographical Note**

Nicholas R. Chrisman was active in the development of geographic information systems as a former researcher at the Harvard Laboratory for Computer and Spatial Analysis, where he was employed from 1972 to 1982. From 1982 to 1987, he was Assistant Professor in the Department of Landscape Architecture at the University of Wisconsin-Madison, and from 1987 to 2004, Professor of Geography at University of Washington. From 2005 to 2012, he was Professor of Geomatics Sciences at the Université Laval, Canada as Scientific Director of the GEOIDE Network. He was Professor of Geospatial Science and Discipline Head at RMIT University in Melbourne, Australia in 2013-14.

## **Scope and Content Note**

The collection consists of 41 boxes of archival materials that span from 1956 to 2006.

## **Arrangement of the Collection**

The collection is organized into a three series

- <u>Series I Gray Literature</u>, Periodical Papers, and Others
- Series II Files: Letters, Articles
- <u>Series III</u> Computer Listings

# **Description of Series**

**Container** Series

**Gray Literature, Periodical Papers, and Others** 

Files: letters, articles and notes collection

**Computer listings 1970-83** 

# **Container List**

Container	Contents
	Gray Literature, Periodical Papers, and Others
вох 1-2	Harvard library of computer graphics, mapping collection, Laboratory for Computer Graphics and Spatial Analysis, Vol. 1-18. with bookmarks. 1979-1981
вох 1-2	Gray literature papers and periodical publications 1969 – 1980
	Interstate 57, Corridor selection study. University of Wisconsin, 1969
<b>BOX</b> 1-2	Gray literature papers and periodical publications 1969 – 1980
	Interstate 57, Corridor selection study. University of Wisconsin, 1969
	Computer atlas of Bangla Desh. Department of geography, Oneonta, New-York, 1972. (LoC property)
	Computer cartography, Association of American Geographers, Washington, D.C., 1972
	An automated fuzzy reasoning algorithm. University of Bristol. 1980
вох 1-2	Dossier John Snyder: contain originals maps graphic slides, folded maps, satellite imagery 1976-1982
вох 3	Gray literature papers and periodical publications 1974 –1991
	Geological survey, research 1974, U.S. Dept. of the Interior
	Remote sensing of the electro magnetic spectrum. 4. 1977
	USGS papers 1982-1990
	Letter from PR David Rhind and Ordnance survey annual report 1990/1991. Southampton. U.K
вох 3	François Bouillé papers n/a
	Computer and Geosciences. Vol. 2.
	Structure des phénomènes géologiques et archivage en banque de données
	Geological simulation using SIMULA. 1976.
	Thesis: Un modèle universel de banque de données, simultanément partageable, portable et répartie. Université Pierre et Marie Curie. Paris. 1977. Abstracts in English
BOX 4	Gray literature papers and periodical publications, U.S., Canada and France 1972 -1997
	Geocoding '72, papers of the Geographic base file SIG sessions, 1972. Annual URISA Conference, San Francisco, USA.
	François Bouillé papers and periodical publications: 1974-1978
	auto-carto II, proceedings of the international symposium on computer assisted cartography, 1975
BOX 5	Gray literature papers, periodical publications, maps 1972-1990
	1st International Hypergraph-Based Data Structure, Lisbon, Portugal, 1979, with manuscripts comments in English and French from François Bouillé
	USGS periodical publications 1972-1990 and 2 maps: Index of digital line graphs, 1988, and Status of digital mapping, 1990
	Proceedings of the International conference on automation in cartography 1974, Vancouver, Canada.
вох 6	Gray literature papers, conferences and files 1972-1990 Files 1967-1987:
	Bruce G. Cook, early Australian article 1967
	N. Chrisman, undergraduate Honor Thesis, Community identification in Northampton, 1972

Census publications 1979

N. Chrisman, PhD Original graphics.

N. Chrisman, original PhD, Methods of spatial analysis based on error in categorical maps, University of Bristol, 1982

Correspondence with PR W. Tobler, 1987.

Waldo Tobler's PhD copy, Map transformations of geographic space, University of Washington. 1961.

2nd symposium on geographical information systems, Ottawa, Canada. 1972, a synopsis, D. David Moyer, University of Wisconsin

Papers from the 1984 annual conference URISA, Urban and regional information systems association, Seattle, Washington

The computer image, Donald Greenberg and al. 1982. ISBN 0-201-06192-9

BOX 7 Gray literature papers and files 1966-1987

Waldo Tobler's papers 1966-1977

Harvard papers 1978-1986

KNRIS user guide to the data and capabilities of the Kentucky, Dept. for surface mining reclamation and enforcement, 1982

Spatial algorithms for processing land data with a microcomputer, colloquium, Lincoln institute of land policy, Cambridge, MA, 1983

A survey of G.I.S., The American farmland trust, 1985

Polygon overlay in prolog, Peter Y.F. Yu, Image processing lab., Troy, NY, 1987. Attached manuscript letter to Dr. White

Files 1970-1978 **BOX** 7

Wichita falls consortium, G.I.S., 1970.

Harvard laboratory for computer graphics analysis, 1978

Article about PR Edgar M. Horwood, 1985.

**BOX** 8 Gray literature papers 1956, 1977-1998

Statistical symbols for maps, Map laboratory, Yale, 1956

Geomap final RFP 1983. (Reserve, U. of Washington libraries property)

Denis White, Carl Steinitz, Alternative future for minute man National historical park, Cambridge MA, 1985.

Point in polygon algorithms, Helaman Rolfe Pratt Ferguson, University of Washington, 1986?

Others

Gray literature papers, correspondence, periodical publications and book 1972-1992

Standard FORTRAN programming manual, National computing centre, 1972

Letter from PR P.A. Burrough, cooperation with Utrecht University.

Gray literature papers, correspondence, memo, periodical publications and book 1969-1992

Gray literature papers, correspondence, memo, periodical publications and book 1969-1992

Letter to N.C. from University of Wisconsin, 1987

Manuscript memo N.C. Auto-Carto 7, 1985.

Gray literature papers, correspondence, periodical publication 1962-1992 BOX 11

> Letter to N. Chrisman from Polaroid Corp., 1982. Enclosed document Graphic Harmony not found

Document from Prime computer, Inc., Orpheus project enclosed, a geoprocessing technology integration, 1988

USGS letter 1992, with comments on Kottman's booklet Some questions and answers about digital geographic information exchange standards, 1991

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	U.S. Dept. of Commerce, Interactive expert editing subsystem, 2 vol., 1987
	Thomas M. Lillesand, A proposal for the National center for geographic information
nov 11	analysis to the National Science Foundation, U. of Wisconsin-Madison, 1988
BOX 11	N. Chrisman correspondence and manuscripts: 1978-1982 Sidewalks / computation, draft article on National need for improved geographic
	information handling and Harvard lab. 1978-1980
	Clifford A. Kottman, comments from N. Chrisman on Some questions and answers about
	digital geographic information exchange standards. 1982
	Digitization calibration, letters from IOM-Towill, an automated digitizing service, 1982
BOX 12	Publications 1966-1989
	The Lab book, Harvard, 1966-1973. With comments on Post-Its. Ring binder
	Harvard booklet for the staff, 1976.
BOX 13	Files and Harvard papers 1972-1990
	John Cloud, 1986-87
	ACSM – ASPRS American Society for Photogrammetry and Remote Sensing, awards, 1987
	Hrvoje Lakatela original graphics, U. of Zagreb, 1987. Draft article for Dr. Dobbs journal, 1992
	Kenneth J. Duecker, Land resource information system, Iowa Planning Land Use System, 1974
	Thomas K. Peucker, article Geographic Data Structures with N. Chrisman, The American Cartographer, 1975. Digital representation of 3D surfaces, Office of naval research, 1976
<b>BOX</b> 14	Software and records 1989-2006
	Odyssey note 1989 with sessions listings printed, 1991
	Digital chart of the World 1.0 and VPFView, 3,5" and 5,25" disks, ESRI, 1992
	MapLink software, 3,5" disks, 1996.
	CDROMS Video interviews Charting the unknown, 2004-2006
<b>BOX</b> 15	Software and records 1986-2004
	OSU MAP V2.0, PC 5,25" disk, Ohio State U., 1987
	VORONOI Demo, 5,25" disk
	MAP II, Map Processor, Apple MAC 3,5" disks, Wiley, 1989
	MAP II, ThinkSpace Inc., 3,5" disk, 1992.
	GISTutor, GIS World Inc., 3,5" disk, 1988.
	Hrvoje Lukatela, letter with Auto-Carto 8 questionnaire, 5,25" disk, 1986
	MICROCAM Demo, Mapping program, MicroConsultants', 5,25" disk, 1989
	QTM Demonstration 3,5" disk, 1989.
	Miscellaneous software copy on CDROM.
	Harvard Lab interviews, 3 VHS tapes, ESRI, 2004
<b>BOX</b> 16	Files and Harvard papers n/a
	Harvard Laboratory for Computer Graphics and Spatial Analysis Internal reports, 1974-1977
	G. Dutton and J. Cohen, The Laboratory: an historical overview 1965-81, Harvard
	G. Dutton, Current research at the Laboratory for Computer Graphics and Spatial Analysis
вох 17	Gray literature papers 1972-81
	Harvard Computer Graphics Week papers, 1981
	Choosing and using charts, Gene Zelazny, 1972
	Image understanding, proceedings of a workshop, Palo Alto, 1979
	Engineering the 80's, computer graphics in transportation, 1981
	Course notes, Brian J.L. Berry, 1980.

## **Gray Literature, Periodical Papers, and Others**

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BOX 18	Gray literature papers 2/2 1972-81
	An overview and output examples, A. Babin and al., U. of Montreal, 1981
	Why space is important, Rockwell International, 1981
BOX 19-20	Harvard Computer Graphics Week 1982
вох 19-20	ODYSSEY 1976-1988
	User's manual, vol. I-II, Harvard, 1982.
	User's manual, vol. 1-3, Harvard, 1982.
	Installation and testing guide, 1983.
	Topological polygon cycling, 1978, rev. 1983
	Files: Odyssey papers, index and notes, 1976-1980
	Paul B. Wilson, H.E. Wilkinson, Getting started with Odyssey, U. of Montana, 1988
	Denis White, The ODYSSEY system for display and analysis of geographic information, Harvard computer graphics week, 1979
	Cyclops Odyssey topological polygon cycling program, user's reference manual, 1983
BOX 21	Set of microfiches 1981-83
BOX 21	Gray literature papers and manuals 1975-86
	Harvard Laboratory for Computer Graphics and Spatial Analysis, Harvard Graduate School of Design:
	A report on the conversion of twelve urban atlas files, 1975
	Cartographic data structures, 1976.
	DOT.MAP, user's reference manual, 1978.
	Ted Driscoll, SOLARE, a computer program for automated modeling, 1978
	Proceedings, vol. I-II, 1983
	Dana Tomlin, An IBM PC-version of map analysis package, 1983
	Denis White, Issues in map digitizing, 1985
	Geographic information systems on microcomputers, 1986
BOX 22	Gray literature papers, files and manual 1969-78
BUA 22	Donald S. Shepard, Thesis, A load-shifting model to reduce exposure to air pollution caused by electric power generation, Laboratory for Computer Graphics and Spatial Analysis, 1969. Article: A two-dimensional interpolation function for computer mapping of irregularly spaced data, 1969
	Computer mapping as an aid in air pollution studies, 1970
	SYMAP manual, 1973, with two plastic rulers
	SYMAP reference manual, fifth ed. 1975, rev. 1977
	Files: SYMAP/SYMVU test data
вох 23	LARS Graphics, Landsat converted to Odyssey chain file format. n/a
	Harvard Laboratory for computer graphics and spatial analysis, Calform manual, V.2.0, 1978
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	Topology 1859-1967
	Topological data structures, 1977.
	Map analysis package data structure, 1986-87
	Topological information systems, 1974.
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	Networks analysis and software, 1979.
	Geometric computation, 1989
	Topology / algebraic, 1989

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	Film and video conversions, 2004.
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	Preface
	Permission paper work
	11 chapters
	Files: letters, articles and notes collection
вох 25	Files: letters, articles and notes 1972-1978
	ARPA Network 1975-76
	LUDA Geographic Information Retrieval and Analysis System, 1974-78
	CV Computer Vision 1974
	JPL Jet Propulsion Laboratory 1974-77.
	BZIS, GGIS Generalized Geographic Information System, IBM 1974
	GRDSR Geographically Referenced Data Storage and Retrieval System 1972
	ESRI Environmental Research Institute, DIMECNV, sketchbook 1976
	PILLAR, Canada 197?
	Thomas C. Waugh, GIMMS Geographic Information Manipulation and Mapping System 1973?
	Topo USGS, 1977-78
	WDB II, 1972-74
вох 26	Files: letters, articles and notes 1970-1975
	CODES 1970-72
	COMPUTERS 1968-75
	DIME DOC Dual Independent Map Encoding 1971-75
	CGIS Canada GIS 1975
	NASA 1977-79
	ASPO American Society of Planning Official, 1976-77
	Wolf D. Rase, Subroutines for plotting graduated symbol maps, EDV Report 1980. Copy
	LBL Mapedit Fortran program users guide, 1974
	IMGRID Information Manipulation System for Grid cell data structures, 1976 CSIRO Australia 1971-73
	MLIS Minnesota Land Management Information System, 1978-82

MLIS Minnesota Land Management Information System, 1978-82

David RHIND, Computer-aided cartography, 1976

Kansas, 1977?

EROS Data Center USGS, 1975

SMSA Standard Metropolitan Statistical Areas, 1971-74

**BOX** 27 Files: letters, articles and notes 1972-1981

William Warntz, Distance in the man-made environment, unpublished 1972

W.R. Tobler, 1975 Articles, 1975-81 GEOFIL 1974

	NRIS Natural Resource Information System, 1973
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	History of LCG Laboratory for Computer Graphics, 1978-81
	Eric D. Teicholz Dennis Preher
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	USGS, NMD – DLG, LUDA, 1975
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	Odyssey – DMA
	CIRCE 1977-81
	SORSA International Segment-Oriented Referencing System Association 1976-77
	ODYSSEY documentation 1978
	Historical code 1976-77
	Denis White, Odyssey Computer Graphic Week 1979
	WRR 1977-78
	Scott MADRY 1983-87
BOX 32	Files: letters, articles and notes 1969-1980
	Workshop Graphic Week 1979
	Cyclops 1979
	NUBS memory management module 1978.
	Russel Seitz, Siberian fire as 'nuclear winter guide', Nature vol.323, 1986
	Voronoi polygons subroutine, 1977.
	GBF program conversion DIME to ODYSSEY, 1980
	Iran DIME, 1976
	Urban Atlas development, 1974-75.
	FLECS user's manual, conversion program 1974-76
	William A. Gates, 1977
	Boston SMSA census (1939-1970) housing maps.
	MacDonald Barr, 1984-86
	NCGIA National Center for Geographic Information Analysis, 1988

Rubber-sheet map transformation 1985-87.

G. Dutton, GG513 cartography 1984

Harvard Computer Graphics Week, 1979-83.

NSF Grant sponsorship, 1976

**DIMEX 1977** 

LUTM - MIDI - SYMAP, 1977

Odyssey maps -1986

GIS 1975

University of Wisconsin, Senator Kasten proposal, 1986

Lawrence D. Mann, University of Arizona, 1986

**BOX** 33 Files: letters, articles and notes 1973-1998

Alfonso Govela-Thomae, Mexico, 1982? David M. Mark, Digitizing topography

Miscellaneous: notes, convert, census 1983-87

GBF conversion system for Brown University, 1977

Dot map program listing

Oak Ridge National Laboratory, geoecology thematic maps 1980, Natural Landschaft 1982

Transparencies Odyssey

GBF Geographic Base Files 1973-.

Matrix processor 1976

Mapping, 1977-87

Cartogram proposal

CALYPSO 1976?

GIS surveys 1982-85

Bernard J. Niemann on Allan H. Schmidt, 1998

International conference on automation in cartography, 1974

World maps – data

CUTUP program listing 1978

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Little's Creek

LUDA - Demo 1977

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Historical files notes

Cartographic data bases

Counties maps (1790-1900)

Harvard – university of Bristol correspondence, 1980-82

RDW – NSF, National Science Foundation 1978-79

Correspondence 1974-85

TDS final? 1979

Tutorials 1982

Calform 3.0 1981

Color shading 1982

Rat tails notes

**BOX** 35 Files: letters, articles and notes 1971-1982

Lisbon seminar, French and English papers, 1979

Multi. Var. Maps

BUA 33

Redistricting 1965-

INPOM Interactive Polygon Mapping Program, 1974

W.R. Franklin, 1980-82 Geoffrey H.Dutton, 1981 Geograf routines 1975 Geograf plans 1973

Inoperative

Geograf old ideas 1974

Geograf Dox Modules Odyssey Small answers 1979 Lab 1971-79

DIDS Domestic Information System 1979. Odyssey Forest Service questionnaire 1979.

Union Pacific Odyssey package

TVA Tennessee Valley Authority stuff 1979.

**BOX** 36 Files: letters, articles and notes 1983-1989

Fundamental principles of GIS 1987

National Geographic Information and Analysis Center 1983-87

DCLRP Dane County Land Record Project 1986-89

**AAAG 1989** 

Auto-Carto London 1986-87

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NSF 1986

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NSF National Science Foundation 1983-87.

Standards task force 1985-91

CITAS China In Time And Space 1993-94.

**BOX** 38 Files: letters, articles and notes 1973-1992

Roots 1987-88 with 3,5" and 5,25" disks.

Whirlpool statistics 1982

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Teklicon IBM 1973 Dates 1988-89 Roger Babson 1981

**BOX** 39 Files: letters, articles and notes 1963-1999

> Correspondance 1973-92 GIS program 1997-99

History of Department, University of Washington (Seattle) 1963-98

ACIO, A diagnostic test for categorical maps, Maptest 1991

systems.

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