

The VLSI Archive Spreadsheet

[V 3-02-21]

This spreadsheet lists the major files in the VLSI Archive down the left-most column, enabling an easy overview of the Each row across then links to detailed sections within those files, enabling easy access to specific items such as indivi

[For a general overview of the VLSI Revolution, read Lynn's "VLSI Reminiscences".](#)

[For reflective background context re the VLSI Revolution, read "The Many Shades of 'Out'", by Lynn Conway.](#)

[If you have ideas for things to add, please e-mail Lynn \(click here\).](#)

[If this sheet doesn't display well, click to download Excel version \(best for printing\).](#)

[\[See also the status-sheet of items filed in 2008 at the Computer History Museum\]](#)

Overviews:

The VLSI Archive								
The MPC Adventures	HTML	PDF	PDF2					
The Main Links Page	HTML		Advent	Bkqd	Book	MIT78	InstG	
The Main Links Page (cont.)			Conf	Impsrv	Univ	DARPA	Des	
Links re Impact	HTML		MCI	nrc	DL	ElecDes		
VLSI Archive News&Updates	HTML							

1: Innovation and exploratory development of the Mead-Conway design methods:

[Lynn's Early Work at IBM-ACS, 1964-68](#)

[A 2011 memoir of Lynn's early work at IBM-ACS, work that heavily influenced h](#)

Background and context	HTML							
Basic Limitations: 'ARPA report'	PDF	Front	Frnt	I	II	III	IV	
Scientific American article	PDF							
More re backgrounds of Mead and Conway	(TBD)							
The 'Sutherland letter', 1-76	PDF							

[The Xerox PARC/Caltech collaboration](#)

The ICARUS interactive layout system	HTML							
Mead's LSI circuit design course, 7-76	VIDEO		MCv2 C4	DAC78				
The OM project at Caltech	PDF							
Innovation of VLSI system design methods		SciAM	MCv2 C5					
Invention of scalable design rules		DM						
Lynn's tutorials on the methods		DR						
The idea of doing "the book"		WD	BI	SW				
The OM2 rigorously applies the methods			MCv2 C5					
PARC MPC, 11-77								

[Mead-Conway Text](#)

draft 1 (10-77)	HTML							
draft 1 (10-77)	PDF	Front	Ch1	Ch2	Ch3			
draft 2 (2-78)	PDF	Front	Ch1	Ch2	Ch3	Ch4	Ch5	
draft 3 (8-78) single-sided format	PDF	Front	Ch1	Ch2	Ch3	Ch4	Ch5	
draft 3 (8-78) double-sided format	PDF	Front	Ch1	Ch2	Ch3	Ch4	Ch5	

Intro to VLSI Systems, A-W (9-79) prelim

Intro to VLSI Systems, A-W (11-79) 1st pr

Intro to VLSI Systems, A-W (10-80) 2nd pr

Color Plates		Front						
			Fcov	FP	1	2	3	

Color Plates (cont.)			9	10	11	12	13
French translation	PDF	Front	Fore				
Japanese translation	PDF	Front					
Guide to LSI Implementation, 1st Ed	PDF	Front	C1	C2	C3	C4	C5
MIT'78 VLSI design course	PDF	Front	S1	S2	S3	S4	S5
Chip Photos (hi-res jpgs)			C1	C2			
Chip Photos (very hi-res)			C1	C2			
Instructors Guide	PDF	Front	L1	L2	L3	L4	L5
Instructors Guide (cont.)			L12	L13	S1	L14	L15
Guide to LSI Implementation, 2nd Ed	PDF	Front	C1	C2	C3	C4	C5
Intensive courses, summer '79	(TBD)						
PARC Course, summer '79	(TBD)						
The Instructor's Course, summer '79	(TBD)						
MPC79 Overview							
MPC79 Report, Lambda, 2Q81	PDF						
MPC79 Files	PDF	Front	AB	S1	S2	S3	S4
MPC79 messages/letters			M1	M2	M3	M4	M5
MPC79 team photo							
MPC79 Impl. Doc.	PDF	Front	S1	S2	S3	S4	S5
Chip Photos (PDFs)	PDF	Front	B	C	D	E	F
Chip Photos (hi res jpgs)			B	C	D	E	F
Designers and Projects			Calt	CMU	MIT	Stan	UCB
MPC580 Overview							
MPC580 Impl. Doc.	PDF	Front	S1	S2	S3	S4	S5
Designers and Projects	(TBD)						
Electronics Magazine alerts industry	PDF						
The MPC Adventures (PARC Tech Report)	PDF						

2: Early propagation, adoption, leveraging and commercialization of the methods:

[Short Intensive VLSI Design Courses](#)

PARC courses		Mead76	Parc77	Parc2-79
Courses by Carlo Sequin		1981	1983	1984
University-based short courses		Instr79	MIT	
Internal company courses		HP	DEC	IBM
VLSI Technology, Inc. courses	Front	Broch9-81		

[Lambda-VLSI Design Magazine](#)

Scans of covers and contents	1Q80	2Q80	4Q80	1Q81	2Q81
Doug Fairbairn's reflections (ext. link)					
Full issues on MagCloud.com (ext. links)	1Q80				

[Universities](#)

Early University Scene (Lambda)		1Q80	2Q80	4Q80	1Q81		
'82-'83 VLSI Instructors	PDF						
The DARPA VLSI Program	(TBD)						
The early VLSI Conferences							
Caltech, Jan 1979	Front	Moore	Mead				
MIT, Jan 1980	Abstr	MPC79					
Caltech, Jan 1981	Front	MPCAdv	MOSIS				
Edinburgh, Aug 81	Front	Mead	DesRul	DSP	MOSSIM		
CMU, Oct 81	Front	OpMouse	RISC	MIPS			
MIT, Jan 1982	PList	RISC	Sc'me81	Seitz	PixelPI		
IEEE Spring CompCon, Feb 82	PList	Conway	MIPS	RISC	Seitz	Lipman	
Caltech, Mar 83	Front	MIPS	Crystal				
Early Classic VLSI Design Tools							
Scalable Design Rules, Conway		Retrosp3	MCv1 C2	Plate2	Plate3	MCtext	
ICARUS, Fairbairn & Rowson		MCv2 C4	DAC78	79 Video			
CIF2.0, Lyon and Sproull		MCv2 C4	IGCh7				
Silicon Compilation, Dave Johannsen		CT79	DAC79				
MOSSIM, Randy Bryant		L1Q80	Thesis81	DAC81	Edin81	CTCS82	
Des. Verification, Baker & Terman		L4Q80	CB thesis	CB remin	CB notes	CT thesis	
CAESAR, John Ousterhout		VD4Q81	CC82				
CRYSTAL, John Ousterhout		UCB-Link	PDF83	CT83			
MAGIC, John Ousterhout		PDF12-83	V 7.5	DOCs	Wiki		
Early Classic VLSI Designs							
OM2, Dave Johannsen, et al		MCv2 C5	MCv3 C5				
The Geometry Engine, James Clark		L2Q80	C 7-80	L4Q80			
RSA Cipher Chip, Ron Rivest, et al		L4Q80					
Scheme78, 79, 81, Steele, Sussman, et al		MIT78	MIT80	AIM514	AIM514	AIM559	
Bit-Serial DSP, Dick Lyon		XP12-80	Edin81				
Optical Mouse, Dick Lyon		XP8-81	CMU81	VJF82	Layout82		
Pixel-Planes, Henry Fuchs & John Poulton		V3Q81					
RISC, Dave Patterson, Carlo Sequin, et al		ComArc81	V4Q81	CMU81	MIT82	CC82	
MIPS, John Hennessy, et al		CMU81	CC82	CT83	MIPS		
SPARC, Andreas Bechtolsheim		NRC hist					
Emergence of the VLSI EDA Industry (TBD)							
CAE workstations		VMA83					
VLSI Technology							
HP (internal)							
Cadence							
Valid Logic							
Daisy							
Mentor Graphics							

3: Widespread diffusion of VLSI Implementation Services and 'Silicon Foundries':

The VLSI Implementation Services							
U.S.		MOSIS					
Australia		AusMPC	CSIRO	Inst Ws	PR82	MC82	
Germany		E.I.S.	Hart80	Hart12			
France		CMP					
Nordic Countries		Hist. Notes	NORCHIP	Courses	History	Conf.	

[U.K.](#)
[Europe](#)

[EUROCHIP](#)

[The Emergence of "Silicon Foundries"](#) (TBD)
Early overviews and status reports

[L1Q81](#) [AWE81](#) [VJA82](#) [Intro](#) [Manuf](#)

4: Early reflections on what happened:

["The MPC Adventures" \(PARC Report\)](#) [PDF](#)
"The MPC Adventures" (Euromicro Journal) [PDF](#)
["The Design of VLSI Design Methods"](#) [PDF](#)
Lynn PARC photo, 1983 [JPG](#)
M-C Wetherill Medal Photo, 1985 [JPG](#)

Invited Talk, 1981

[Invited Paper 1982](#) [In ESSCIRC82](#)

[Mead-Conway Impact](#)
[Funding a Revolution, 1999](#) [HTML](#)
[Dealers of Lightning, 1999](#)
[Electr Des Hall of Fame, 2002](#) [PDF](#)

5: Later memoirs, reminiscences and career-legacy files:

["The Many Shades of 'Out", Lynn Conway](#) [PDF](#)
[Mead-Conway References](#) [HTML](#)
[VLSI 'Timeline of Events'](#) [PDF](#)

July 14, 2013 Huffington Post article provides further b.
Full set of references Lynn used when compiling her V/
Reminiscences of the VLSI Revolution: A Timeline of E

["ACS Reminiscences", Lynn Conway, 2011](#) [PDF](#) [Festschrift](#)
[Special Issue of the IEEE SSSCM, Fall 2012](#) [PDF](#)
["VLSI Reminiscences", Lynn Conway](#) [PDF](#) [SSCM](#)
["Paradigm Shift", Chuck House](#) [PDF](#) [SSCM](#)
["Birth of VLSI Design", Carlo Sequin](#) [PDF](#) [SSCM](#)
["Covering", Ken Shepard](#) [PDF](#) [SSCM](#)

Invited book chapter, Nov 2011. Includes discussion of
PDF of Special Issue containing Lynn's VLSI memoir a
Invited memoir, IEEE Solid State Circuits Magazine, F:
Invited commentary, IEEE Solid State Circuits Magazir
Invited commentary, IEEE Solid State Circuits Magazir
Invited commentary, IEEE Solid State Circuits Magazir

["Faith, Funds, & Fate", Bert Sutherland, 4/26/12](#) [PDF](#) [SLIDES](#)
[CHM Fellow Nomination, Bert Sutherland, 8/13/13](#) [PDF](#)

Invited presentation on the occasion of ISI's 40th Anniv
Bert Sutherland graciously supported the re-emergenc

["The Disappeared: Beyond Winning and Losing"](#) [PDF](#)
["An Invisible Woman", Lynn Conway, 4/25/19](#) [PPTX](#) [PDF](#)
[IBM Apologizes to Lynn Conway, 52 years later!](#) [10/14/20](#)

Invited article by Lynn Conway in IEEE Computer, Oct
"An Invisible Woman: The Inside Story Behind the Mici
[Forbes](#) [NY Times](#) [Mich Daily](#) [Wash Post](#) [LA Times](#)

["A Sociotechnical Exchange, Redux", 3/01/21](#) [HTML](#)
["Conway-Suchman conversation", 3/01/21](#) [HTML](#)

By Lucy Suchman, in "Backchannels | Reflections", So
Annotated transcript of conversations at PARC in 1980 betw

End of Spreadsheet

archive.
individual chapters, photos, etc.

[ImpG](#) [MPC79](#) [files](#) [fotos](#) [ID79](#) [ID80](#) [EA](#) [SICs](#) [VDM](#)
[Tools](#) [EDA](#) [FnSrv](#) [Meth](#) [Imp](#) [MCR](#) [SS](#)

[for later research in VLSI systems](#)

[V](#) [VI](#) [ApA](#) [ApB](#) [ApC](#) [ApD](#)

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[L16](#) [L17](#) [S2](#) [S3](#) [L18](#) [S4](#) [LL](#)

[C6](#) [C7](#) [AA](#) [AB](#) [AC](#) [AD](#) [AE](#)

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[UI](#) [UR](#) [Oth](#)

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[3Q81](#) [4Q81](#) [JF82](#) [MA82](#) [MJ82](#) [JA82](#) [SQ82](#) [ND82](#) [JF83](#) [MA83](#) [MJ83](#)

[MA82](#)

Eth'net Bell Wt'sen Caesar Panel

[L1Q80](#) [L1Q81](#) [SC1981](#) [Edin81](#)

;

[AIM559](#) MIT82

[VSO82](#)

[Bell82](#) [EP82](#) [Lip82](#) [Photos](#) [VJF83](#)

[QC](#) [Surv82](#) [Surv83](#)

background context re the VLSI Revolution
LSI Reminiscences and follow-on writings
Events

Lynn's early work at IBM that impacted her research in VLSI
and invited commentaries
Fall 2012
Fall 2012
Fall 2012

Anniversary, 2012 - re the origin of MOSIS
Reflections on the 50th Anniversary of my career legacy in 2013. He later shared this with me, in 2018.

October 2018
"The Microelectronic Computing Revolution in Silicon Valley" 4/25/19
[NY Post](#) [Daily News](#)

Journal of the Society for the Social Studies of Science (4S), 3/01/21
Interview with Lynn Conway & Lucy Suchman about early development of VLSI