PERSONAL FAVORITES AND RECOMMENDATIONS

William Bricken
May 2005

This site collects most of my work that is currently available in electronic form, but does not discriminate on the basis of quality. So here is a rough guide to which pieces are good and best.

I went through the site and selected all the pieces that I liked, because of quality or creative content or personal interest. These are all listed below in three tiers: ***best***, ***good***, and ***other***. Pieces are further separated into ***technical*** and ***personal*** groupings. The technical pieces are mostly about formal math, the personal pieces are eclectic and often light.

The relative *technical complexity rating* is from 1 to 5, with 5 being most complex.

HTML page		technical complexity	pages
BEST TECHNICAL PIECES			
1.1.1	Boundary Logic from the Beginning	2	32
1.1.1	The Advantages of Boundary Logic--A Common Sense Approach	1	5
1.1.1	A Simple Space	1	22
1.2.3	Computational Complexity and Boundary Logic	5	66
1.5.1	Distinction Networks (published)	4	15
1.3.1	Nonsymbolic Logic (briefly and partially)	3	50
1.6	Bricken Graph Numbers	3	10

All of these technical pieces are about Boundary Mathematics; they are arranged in order of potential broad-based interest. The pieces represent a condensation of the many ways I have attempted to understand and convey this field.

BEST PERSONAL PIECES			
3.4	Losing Consciousness at Tucson III (Toward a Science of Consciousness'98): A Conference Report	3	22
2.9	All Dilemmas (8 pages)	3	8
3.2.5	Interface Design	2	7
3.2.7	Virtual Reality, as Unreal as It Gets	2	3
7.2	Self-referential Meta-psychologies	4	2
3.1.2	The Ruthless Self Orientation of Intelligent Programs	2	1

These pieces are less formal, more conversational, and diversely interesting. They are difficult to compare, the ordering is roughly how much I like each.

HTML page		technical complexity	pages
GOOD TECHNICAL PIECES			
1.1	The Canons of Formal Symbol Systems	4	3
3.1.2	Entities	3	3
3.1.6	Thoughts about an Architecture for the Semantic Web	3	14
3.2.1	Virtual Reality: Directions of Growth (published)	2	16
3.2.1	Inclusive Symbolic Environments (published)	3	8
3.2.7	Dimensional Analysis of Media	4	9
3.2.7	The Varieties of Space	4	1
3.3.4	Spatial Representation of Elementary Algebra (published)	4	14

All of these have had thought and refinement.

GOOD PERSONAL PIECES			
5.1.4	Losp Synthesis System Summary Report: Value Propositions	4	2
5.1.4	Losp Synthesis System Summary Report: Technical Descriptions	5	9
5.1.4	Losp Synthesis System Summary Report: Empirical Results	5	8
1.8	Tao Te Ching	1	1
2.1	Chapter Zero Exercises	3	4
2.1	Timeline - Ages of Concepts and Symbols	1	3
3.1.4	The Secret of Organization	2	3
3.1.6	Comments on Scott Kim's Thesis: Visual Interface	2	2
3.2.7	Art	1	1
3.3.2	Computer Humanities	2	2
3.4	The Evolution, Games and Learning Conference: Report	3	11
5.2	We'r'VR	2	3
7.2	Time Redefinition	2	3
7.2	Why I Want To Be a Professor	1	2
7.3	The Fish	1	6
7.6	New Happy Face	1	1

The Losp pieces at the top summarize my recent technical work at BTC. The rest are mostly humor and interface design, ordered by index.

HTML page		technical complexity	pages
OTHERS -- TECHNICAL, ESOTERIC			
1.1.2	Symmetry in Boolean Functions, Egs for 2 and 3 Variables	5	12
1.2.1	Generalization of Pervasion	5	4
1.2.1	Distribution Is Not Axiomatic	4	8
1.4.2	Pun-Encoded CM85A Circuit Schematics	4	43
1.5.2	BILD Engine Simulator Code	5	2
1.6	James Numbers	5	16
1.6	The James Imaginary	5	36
3.2.2.1	The VEOS Project (with Geoff Coco) (published)	4	29
3.2.3	Overview of Interactive Software Tools	2	10
3.2.1	Extended Abstract: A Formal Foundation for Cyberspace (published)	4	4
2.3	Comments on LISP	4	4
2.5	Versions of Factorial	4	4
2.6	Formal Symbol Systems	4	7
2.10.2	The Structure of a Cube	5	4
3.2.6	Coordination of Multiple Patrons in Virtual Space	3	4
3.2.7	Digital Flagship Think Piece	2	4

I like these pieces, but they are quite focused on esoteric technical subjects.

OTHERS -- MAINLY PERSONAL INTEREST			
2.6	Interesting Books on Human Psychology	2	2
3.2.1	Exploring Virtual Reality in Cyberspace	1	2
3.2.3	The Software Projects	3	14
3.2.8	Hip, Hype, Hope--The Three Faces of Virtual Worlds (published) (Siggraph'90 Panel with Warren Robinette, Jaron Lanier, myself, Esther Dyson, Timothy Leary, John Perry Barlow)	2	9[46]
5.1.2	Strategic Principles	1	2
5.1.2	What We Have Done Bullets	2	5
5.1.3	Technical Description of Losp/Pun	3	2
5.1.5	Problems Solved (from an engineering perspective)	2	7
5.4	Selling Mathematics	2	3
5.4	Preliminary Technical Evaluation of Mathematica	2	3
6.1	Six-Page Complete Resume	3	6
6.4	Student Comments on SPOT Response Sheets	2	13
7.1.4	Internal Management	1	1
7.2	Why It Is Hard to Publish	1	5
8.3	Paauilo House in Hawaii	1	-
10	Editorial Policies	1	4

All of these have some personal attachment, either large projects or interesting people or something that tickles my fancy.

TECHNICAL PIECES ARRANGED BY TOPIC

Here, all technical pieces are grouped together and arranged by technical topic. Personal pieces follow.

HTML page		technical complexity	pages
Software Design and Other Topics			
2.3	Comments on LISP	4	4
2.5	Versions of Factorial	4	4
2.6	Formal Symbol Systems	4	7
3.1.2	Entities	3	3
3.1.6	Thoughts about an Architecture for the Semantic Web	3	14
3.2.7	Dimensional Analysis of Media	4	9
PERSONAL PIECES ARRANGED BY TOPIC			
Boundary Math Applied to EDA, and BTC			
1.2	An Overview of the Losp Deductive Engine	2	6
1.5	Bit-stream Circuit Simulation	4	7
1.5.3	Place-and-Route Layout Diagrams	5	9
1.5.3	Place-and-Route Description and Examples	5	17
5.1.2	Strategic Principles	1	2
5.1.2	What We Have Done Bullets	2	5
5.1.3	Technical Description of Losp/Pun	3	2
5.1.4	Losp Synthesis System Summary Report: Value Propositions	4	2
5.1.4	Losp Synthesis System Summary Report: Technical Descriptions	5	9
5.1.4	Losp Synthesis System Summary Report: Empirical Results	5	8
5.1.5	Problems Solved (from an engineering perspective)	2	7
Virtual Reality			
3.2.1	Exploring Virtual Reality in Cyberspace	1	2
3.2.7	Virtual Reality, as Unreal as It Gets	2	3
3.2.7	Art	1	1
3.2.8	Hip, Hype, Hope -- The Three Faces of Virtual Worlds (published) (Siggraph'90 Panel: Warren Robinette, Jaron Lanier, myself, Esther Dyson, Timothy Leary, John Perry Barlow)	2	9[46]
5.2	We'r'VR	2	3

HTML page		technical complexity	pages
Software Design and Interface			
3.1.4	The Secret of Organization	2	3
3.1.6	Comments on Scott Kim's Thesis: Visual Interface	2	2
3.2.3	The Software Projects	3	14
3.2.5	Interface Design	2	7
5.4	Preliminary Technical Evaluation of Mathematica	2	3
Education			
2.1	Chapter Zero Exercises	3	4
2.1	Timeline - Ages of Concepts and Symbols	1	3
2.6	Interesting Books on Human Psychology	2	2
2.9	All Dilemmas (8 pages)	3	8
3.3.2	Computer Humanities	2	2
6.4	Student Comments on SPOT Response Sheets	2	13
Personal Projects			
3.4	Losing Consciousness at Tucson III (Toward a Science of Consciousness'98): A Conference Report	3	22
3.4	The Evolution, Games and Learning Conference: Report	3	11
6.1	Six-Page Complete Resume	3	6
8.3	Paauilo House in Hawaii	1	-
Commentary, Humor and Play			
1.8	Tao Te Ching	1	1
3.1.2	The Ruthless Self Orientation of Intelligent Programs	2	1
5.4	Selling Mathematics	2	3
7.1.4	Internal Management	1	1
7.2	Why It Is Hard to Publish	1	5
7.2	Self-referential Meta-psychologies	4	2
7.2	Time Redefinition	2	3
7.2	Why I Want To Be a Professor	1	2
7.3	The Fish	1	6
7.6	New Happy Face	1	1
10	Editorial Policies	1	4