

LATEX SUPPORT FOR EREWHON

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Erewhon is a font package based largely on Andrey V. Panov's *Heuristica*, but with so many changes that it is no longer strictly compatible with that package, and is offered instead as an enhanced alternative. (*Heuristica* extended the *Utopia* font family made available by the T_EX Users' Group, adding many accented glyphs, Cyrillic glyphs, ligatures, superior and oldstyle fixed-width figures in all styles, and Small Caps in Regular style only. It is widely distributed as a free font collection in OpenType, TrueType and Type1 formats.) *Erewhon* is provided in OpenType and Type1 formats with L^AT_EX support files in encodings T1, TS1, LY1, OT2, T2A, T2B and T2C. Changes made in the transition from *Heuristica* to *Erewhon* include:

- *slanted* as well as *Italic* shapes;
- SMALL CAPS in **BOLD** as well as REGULAR upright shapes, with *ITALIC* and *SLANTED SMALL CAPS* shapes from the slanted variants;
- expanded lookup tables in the .otf files for users of XeLaTeX and LuaLaTeX;
- a number of f-ligatures have been modified, and a T_h ligature added;
- proportionally spaced figures (lining and oldstyle), adding to the existing tabold-style figures;
- full collections of superior lowercase letters (including è as è and é as é), mainly for the benefit of languages in which those are in common use—e.g., French, Spanish;
- size reduced by 6% from *Heuristica*, which matched the old version of *Utopia*—the new size matches that of Adobe's commercial *UtopiaStd*;
- shapes of some oldstyle figures modified to have more of an oldstyle appearance;
- fraction macros based on the new numerator and denominator figures;
- the bold upright face has been made less cramped.

The newtx package has been modified, as of version 1.26, to offer a new option *utopia* (or, equivalently, *heuristica* or *erewhon*) that uses math italic glyphs taken from *Utopia* and oldstyle figures from *Erewhon*. Its slanted Greek alphabets are constructed from the txfonts slanted Greek letters by reducing their italic angle from 15.5° to 13°, matching *Utopia*'s italic angle. So, for *Erewhon* text and matching math, you can use¹:

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¹There is most likely also a way to use *MathDesign* or *fourier* with at least partial compatibility.

```
% load babel package and options before erewhon
\usepackage[p,osf,scaled=.98]{erewhon}
\usepackage[varqu,varl]{inconsolata} % typewriter
\usepackage[type1,scaled=.95]{cabin} % sans serif like Gill Sans
\usepackage[utopia,vvarbb]{newtxmath}
```

The effect of the options `p,osf` is to force the default figure style in *erewhon* text to be proportional oldstyle 0123456789 while using lining figures 0123456789 in math mode. If no options are specified, tabular lining figures will be used throughout.

OPTIONS AVAILABLE:

- The option `scaled` allows you to change the scale. E.g., if you want *Erewhon* to render at the same size as the original *Utopia* or *Heuristica*, use `scaled=1.064`.
- The option `proportional`, or, equivalently, `p`, specifies the use of proportional rather than the default tabular figures.
- The space option allows you to specify a factor by which to increase the interword spacing, which is, IMO, a bit tight.
- The option `oldstyle`, or, equivalently, `osf`, specifies oldstyle figures in text mode—math mode always uses tabular lining figures. By itself, `osf` results in tabular old-style figures unless you also specify the option `p`, or `proportional`.
- The option `scof` changes the figure style to `osf` only within small caps.
- The option `sup` changes the footnote marker style to use the superior figures from *Erewhon* rather than the default superscripts based on reduced lining figures, which usually appear too light. (The `superiors` package offers further options.)

Erewhon is so austere for a text font and *Inconsolata* is so fancy for a typewriter font that you may find they blend together all too well. For more of a distinction replace the *inconsolata* line above with

```
\usepackage{zlm} % serified typewriter font extending cmtt
```

As *Utopia* text is a bit cramped, you might try applying a small amount of letterspacing (tracking) and increasing the interword spacing by means of the *microtype* package, or use the `space` option.

MACROS:

- `\textlf` and `\texttlf` render their arguments in proportional and tabular lining figures respectively, no matter what the default figure style. E.g., `\textlf{345}` produces 345.
- `\textosf` and `\texttosf` render their arguments in proportional and tabular old-style figures respectively, no matter what the default figure style. For example, `\textosf{345}` produces 345.

- `\textsu` renders its argument in superior figures, no matter what the default figure style. E.g., `\textsu{345}` produces ³⁴⁵.
- `\textin` renders its argument in inferior figures, no matter what the default figure style. E.g., `\textin{345}` produces ₃₄₅.
- `\textnu` renders its argument in numerator figures, no matter what the default figure style. E.g., `\textnu{345}` produces ³⁴⁵.
- `\textde` renders its argument in denominator figures, no matter what the default figure style. E.g., `\textde{345}` produces ₃₄₅.
- `\textfrac` renders its two arguments as a vulgar fraction, using `\textnu` for the numerator and `\textde` for the denominator. E.g., `\textfrac{31}{64}` produces ³¹/₆₄.

VERY BRIEF, NONSENSICAL MATH EXAMPLE:

Let $B(X)$ be the set of blocks of Λ_X and let $b(X) := |B(X)|$ so that $\hat{\phi} = \sum_{Y \subset X} (-1)^{b(Y)} b(Y)$.

GLYPH COVERAGE EXAMPLES

Erewhon-Regular-tlf-ot2

	´	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	
´00x	Ѓ ₀	Ѕ ₁	Ї ₂	Љ ₃	Њ ₄	Ќ ₅	Ќ ₆	Ќ ₇	"0x
´01x	Ѓ ₈	Ѕ ₉	Ї ₁₀	Љ ₁₁	Њ ₁₂	Ќ ₁₃	Ќ ₁₄	Ќ ₁₅	"1x
´02x	Ю ₁₆	Ж ₁₇	Й ₁₈	Ђ ₁₉	Ў ₂₀	Ө ₂₁	Ў ₂₂	Я ₂₃	"2x
´03x	Ю ₂₄	Ж ₂₅	Й ₂₆	Ђ ₂₇	Ў ₂₈	Ө ₂₉	Ў ₃₀	Я ₃₁	"3x
´04x	ˆ ₃₂	ˆ ₃₃	ˆ ₃₄	ˆ ₃₅	ˆ ₃₆	ˆ ₃₇	ˆ ₃₈	ˆ ₃₉	"4x
´05x	(₄₀)	)₄₁	* ₄₂	ˆ ₄₃	, ₄₄	- ₄₅	. ₄₆	/ ₄₇	"5x
´06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"6x
´07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	« ₆₀	1 ₆₁	» ₆₂	? ₆₃	"7x
´10x	ˆ ₆₄	A ₆₅	B ₆₆	Ц ₆₇	Д ₆₈	E ₆₉	Φ ₇₀	Г ₇₁	"8x
´11x	X ₇₂	И ₇₃	J ₇₄	K ₇₅	Л ₇₆	M ₇₇	H ₇₈	O ₇₉	"9x
´12x	П ₈₀	Ч ₈₁	P ₈₂	C ₈₃	T ₈₄	Y ₈₅	B ₈₆	Щ ₈₇	"Ax
´13x	Ш ₈₈	Ы ₈₉	З ₉₀	[₉₁	" ₉₂	] ₉₃	Ь ₉₄	Ъ ₉₅	"Bx
´14x	‘ ₉₆	a ₉₇	б ₉₈	ц ₉₉	д ₁₀₀	e ₁₀₁	ф ₁₀₂	г ₁₀₃	"Cx
´15x	X ₁₀₄	и ₁₀₅	j ₁₀₆	k ₁₀₇	л ₁₀₈	m ₁₀₉	h ₁₁₀	o ₁₁₁	"Dx
´16x	п ₁₁₂	ч ₁₁₃	p ₁₁₄	c ₁₁₅	t ₁₁₆	y ₁₁₇	b ₁₁₈	щ ₁₁₉	"Ex
´17x	ш ₁₂₀	ы ₁₂₁	з ₁₂₂	— ₁₂₃	— ₁₂₄	№ ₁₂₅	Ъ ₁₂₆	Ъ ₁₂₇	"Fx
	"8	"9	"A	"B	"C	"D	"E	"F	

(This 7-bit encoding is intended for users lacking a Cyrillic keyboard. For further information, consult the documentation for the package `nimbus15`.)

Erewhon-Regular-tlf-t2a

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	` 0	´ 1	^ 2	˘ 3	¨ 4	" 5	° 6	˘ 7	"0x
´01x	˘ 8	˘ 9	˙ 10	, 11	˘ 12	I 13	fb 14	fh 15	"1x
´02x	" 16	" 17	fj 18	fk 19	˘ 20	– 21	— 22	Th 23	
´03x	24	1 25	j 26	ff 27	fi 28	fl 29	ffi 30	ffl 31	"2x
´04x	˘ 32	! 33	" 34	# 35	\$ 36	% 37	& 38	' 39	
´05x	(40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	"3x
´06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	
´07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	"4x
´10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	
´11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	"5x
´12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	
´13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	"6x
´14x	' 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	
´15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	"7x
´16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	
´17x	x 120	y 121	z 122	{ 123	| 124	} 125	~ 126	- 127	"8x
´20x	Г 128	Ф 129	Б 130	Т 131	Н 132	Ж 133	134	ЛБ 135	
´21x	Ї 136	К 137	138	139	Æ 140	Н 141	Н 142	С 143	"9x
´22x	Θ 144	Ç 145	Ÿ 146	Y 147	Y 148	X 149	Ц 150	151	
´23x	Ч 152	Є 153	Ә 154	Н 155	Ё 156	№ 157	α 158	§ 159	"Ax
´24x	Г 160	Ф 161	Б 162	Н 163	Н 164	Ж 165	166	ЛБ 167	
´25x	Ї 168	К 169	170	171	æ 172	Н 173	Н 174	С 175	"Bx
´26x	Θ 176	Ç 177	Ÿ 178	Y 179	Y 180	X 181	Ц 182	183	
´27x	Ч 184	Є 185	Ә 186	Н 187	Ё 188	„ 189	« 190	» 191	"Cx
´30x	A 192	Б 193	В 194	Г 195	Д 196	Е 197	Ж 198	З 199	
´31x	И 200	Й 201	К 202	Л 203	М 204	Н 205	О 206	П 207	"Dx
´32x	Р 208	С 209	Т 210	У 211	Ф 212	Х 213	Ц 214	Ч 215	
´33x	Ш 216	Щ 217	Ъ 218	Ы 219	Ь 220	Э 221	Ю 222	Я 223	"Ex
´34x	a 224	б 225	В 226	Г 227	Д 228	е 229	Ж 230	З 231	
´35x	и 232	й 233	К 234	Л 235	М 236	Н 237	О 238	П 239	"Fx
´36x	р 240	с 241	Т 242	У 243	Ф 244	Х 245	Ц 246	Ч 247	
´37x	ш 248	щ 249	ъ 250	ы 251	ь 252	э 253	ю 254	я 255	
	"8	"9	"A	"B	"C	"D	"E	"F	

Erewhon-Regular-tlf-t2b

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	˘ ₀	˘ ₁	ˆ ₂	˜ ₃	¨ ₄	˝ ₅	° ₆	ˇ ₇	”0x
´01x	˘ ₈	˘ ₉	˙ ₁₀	˙ ₁₁	˙ ₁₂	I ₁₃	fb ₁₄	fh ₁₅	”1x
´02x	“ ₁₆	” ₁₇	fj ₁₈	fk ₁₉	˘ ₂₀	— ₂₁	— ₂₂	Th ₂₃	
´03x	₂₄	l ₂₅	j ₂₆	ff ₂₇	fi ₂₈	fl ₂₉	ffi ₃₀	ffl ₃₁	”2x
´04x	˘ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	
´05x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	. ₄₆	/ ₄₇	”3x
´06x	0 ₄₈	l ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	
´07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	”4x
´10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	”5x
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	
´13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	”6x
´14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	”7x
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	”8x
´20x	₁₂₈	F ₁₂₉	₁₃₀	Ѓ ₁₃₁	h ₁₃₂	Ж ₁₃₃	₁₃₄	З ₁₃₅	
´21x	Љ ₁₃₆	Њ ₁₃₇	₁₃₈	Ѓ ₁₃₉	₁₄₀	Ѓ ₁₄₁	Ѓ ₁₄₂	Ѓ ₁₄₃	”9x
´22x	Θ ₁₄₄	₁₄₅	Ѓ ₁₄₆	Y ₁₄₇	₁₄₈	X ₁₄₉	₁₅₀	₁₅₁	
´23x	Ч ₁₅₂	Ѓ ₁₅₃	Θ ₁₅₄	₁₅₅	Ё ₁₅₆	№ ₁₅₇	¤ ₁₅₈	§ ₁₅₉	”Ax
´24x	₁₆₀	F ₁₆₁	₁₆₂	Ѓ ₁₆₃	h ₁₆₄	Ж ₁₆₅	₁₆₆	З ₁₆₇	
´25x	Љ ₁₆₈	Њ ₁₆₉	₁₇₀	Ѓ ₁₇₁	₁₇₂	Ѓ ₁₇₃	Ѓ ₁₇₄	Ѓ ₁₇₅	”Bx
´26x	Θ ₁₇₆	₁₇₇	Ѓ ₁₇₈	Y ₁₇₉	₁₈₀	X ₁₈₁	₁₈₂	₁₈₃	
´27x	Ч ₁₈₄	Ѓ ₁₈₅	Θ ₁₈₆	₁₈₇	Ё ₁₈₈	„ ₁₈₉	« ₁₉₀	» ₁₉₁	”Cx
´30x	A ₁₉₂	Б ₁₉₃	В ₁₉₄	Г ₁₉₅	Д ₁₉₆	Е ₁₉₇	Ж ₁₉₈	З ₁₉₉	
´31x	И ₂₀₀	Й ₂₀₁	К ₂₀₂	Л ₂₀₃	М ₂₀₄	Н ₂₀₅	О ₂₀₆	П ₂₀₇	”Dx
´32x	Р ₂₀₈	С ₂₀₉	Т ₂₁₀	У ₂₁₁	Ф ₂₁₂	Х ₂₁₃	Ц ₂₁₄	Ч ₂₁₅	
´33x	Ш ₂₁₆	Щ ₂₁₇	Ъ ₂₁₈	Ы ₂₁₉	Ь ₂₂₀	Э ₂₂₁	Ю ₂₂₂	Я ₂₂₃	”Ex
´34x	a ₂₂₄	б ₂₂₅	в ₂₂₆	г ₂₂₇	д ₂₂₈	е ₂₂₉	ж ₂₃₀	з ₂₃₁	
´35x	и ₂₃₂	й ₂₃₃	к ₂₃₄	л ₂₃₅	м ₂₃₆	н ₂₃₇	о ₂₃₈	п ₂₃₉	”Fx
´36x	p ₂₄₀	c ₂₄₁	t ₂₄₂	y ₂₄₃	ф ₂₄₄	x ₂₄₅	ц ₂₄₆	ч ₂₄₇	
´37x	ш ₂₄₈	щ ₂₄₉	ъ ₂₅₀	ы ₂₅₁	ь ₂₅₂	э ₂₅₃	ю ₂₅₄	я ₂₅₅	
	”8	”9	”A	”B	”C	”D	”E	”F	

Erewhon-Regular-tlf-t2c

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	˘ ₀	˘ ₁	ˆ ₂	˜ ₃	¨ ₄	” ₅	° ₆	˘ ₇	”0x
´01x	˘ ₈	˘ ₉	˙ ₁₀	, ₁₁	˘ ₁₂	I ₁₃	fb ₁₄	fh ₁₅	”1x
´02x	“ ₁₆	” ₁₇	fj ₁₈	fk ₁₉	˘ ₂₀	— ₂₁	— ₂₂	Th ₂₃	
´03x	₂₄	l ₂₅	j ₂₆	ff ₂₇	fi ₂₈	fl ₂₉	ffi ₃₀	ffl ₃₁	”2x
´04x	˘ ₃₂	! ₃₃	" ₃₄	# ₃₅	\$ ₃₆	% ₃₇	& ₃₈	' ₃₉	
´05x	(₄₀)	)₄₁	* ₄₂	+ ₄₃	, ₄₄	- ₄₅	· ₄₆	/ ₄₇	”3x
´06x	0 ₄₈	l ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	
´07x	8 ₅₆	9 ₅₇	: ₅₈	; ₅₉	< ₆₀	= ₆₁	> ₆₂	? ₆₃	”4x
´10x	@ ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	”5x
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	
´13x	X ₈₈	Y ₈₉	Z ₉₀	[₉₁	\ ₉₂	]₉₃	^ ₉₄	_ ₉₅	”6x
´14x	‘ ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	”7x
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	{ ₁₂₃	|₁₂₄	} ₁₂₅	~ ₁₂₆	- ₁₂₇	”8x
´20x	₁₂₈	Ц ₁₂₉	Т ₁₃₀	Ђ ₁₃₁	h ₁₃₂	₁₃₃	₁₃₄	З ₁₃₅	
´21x	₁₃₆	Ќ ₁₃₇	₁₃₈	Ќ ₁₃₉	₁₄₀	Н ₁₄₁	₁₄₂	Н ₁₄₃	”9x
´22x	Ө ₁₄₄	Ǝ ₁₄₅	Ǝ ₁₄₆	₁₄₇	₁₄₈	Х ₁₄₉	Ц ₁₅₀	Ɔ ₁₅₁	
´23x	Ч ₁₅₂	₁₅₃	Ә ₁₅₄	₁₅₅	Ё ₁₅₆	№ ₁₅₇	Ѡ ₁₅₈	§ ₁₅₉	”Ax
´24x	₁₆₀	Ц ₁₆₁	Т ₁₆₂	Ђ ₁₆₃	h ₁₆₄	₁₆₅	₁₆₆	З ₁₆₇	
´25x	₁₆₈	Ќ ₁₆₉	₁₇₀	Ќ ₁₇₁	₁₇₂	Н ₁₇₃	₁₇₄	Н ₁₇₅	”Bx
´26x	ө ₁₇₆	Ǝ ₁₇₇	Ǝ ₁₇₈	₁₇₉	₁₈₀	х ₁₈₁	ц ₁₈₂	ѡ ₁₈₃	
´27x	Ч ₁₈₄	₁₈₅	Ә ₁₈₆	₁₈₇	ё ₁₈₈	„ ₁₈₉	« ₁₉₀	» ₁₉₁	”Cx
´30x	A ₁₉₂	Б ₁₉₃	В ₁₉₄	Г ₁₉₅	Д ₁₉₆	Е ₁₉₇	Ж ₁₉₈	З ₁₉₉	
´31x	И ₂₀₀	Й ₂₀₁	К ₂₀₂	Л ₂₀₃	М ₂₀₄	Н ₂₀₅	О ₂₀₆	П ₂₀₇	”Dx
´32x	Р ₂₀₈	С ₂₀₉	Т ₂₁₀	У ₂₁₁	Ф ₂₁₂	Х ₂₁₃	Ц ₂₁₄	Ч ₂₁₅	
´33x	Ш ₂₁₆	Щ ₂₁₇	Ъ ₂₁₈	Ы ₂₁₉	Ь ₂₂₀	Э ₂₂₁	Ю ₂₂₂	Я ₂₂₃	”Ex
´34x	a ₂₂₄	б ₂₂₅	в ₂₂₆	г ₂₂₇	д ₂₂₈	е ₂₂₉	ж ₂₃₀	з ₂₃₁	
´35x	и ₂₃₂	й ₂₃₃	к ₂₃₄	л ₂₃₅	м ₂₃₆	н ₂₃₇	о ₂₃₈	п ₂₃₉	”Fx
´36x	p ₂₄₀	c ₂₄₁	t ₂₄₂	y ₂₄₃	ф ₂₄₄	x ₂₄₅	ц ₂₄₆	ч ₂₄₇	
´37x	ш ₂₄₈	щ ₂₄₉	ъ ₂₅₀	ы ₂₅₁	ь ₂₅₂	э ₂₅₃	ю ₂₅₄	я ₂₅₅	
	"8	"9	"A	"B	"C	"D	"E	"F	