The Classical Greek Alphabet

#89 of Gottschalk's Gestalts

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☐ the classical Greek alphabet
has 24 = two dozen letters

• the pattern for each Greek letter is:
(rank in canonical order) Greek letter's name in English
capital Greek letter lowercase Greek letter
Greek letter's name in Greek
English transliteration & phonetic value

(1) alpha

Α α

αλφα

ay A a

(2) beta

Β β

βητα

bee B b

(3) gamma

Γ γ

γαμμα

gee G g or en N n

(4) delta

Δ δ

δελτα

dee D d

(5) epsilon

Ε ε

ε ψιλον = simple e

ee E e (short)

(6) zeta

Ζ ζ

ζητα

zee Z z

(7) eta

Η η

ητα

ee E e (long)

(8) theta

Θ ϑ

ϑητα

tee – aitch TH th (digraph)

(9) iota

Ι ι

ιωτα

eye I i

(10) kappa

Κ κ

καππα

kay K k

(11) lambda

Λ λ

λαμβδα

el L l

(12) mu

Μ μ

μυ

em M m

(13) nu

N ν

νυ

en N n

(14) xi $=_{pr}$ zeye / kseye / ksee

Ξ ξ

ξι

ex X x

(15) omicron

O o

ο μικρον = small oh

oh O o (short)

(16) pi

Π π

πι

pe P p

(17) rho

Ρ ρ

ρω

ar R r or ar - aitch RH rh (digraph)

(18) sigma

Σ σ (nonend form) ς (end form)

σιγμα

ess S s

(19) tau

Τ τ

ταυ

tee T t

(20) upsilon

Υ υ

υ ψιλον = simple wye / yu

wye Y y or yu U u

(21) phi

Φ φ

φι

pe – aitch PH ph (digraph)

(22) chi

Χ χ

χι

cee – aitch CH ch (digraph)

(23) psi

Ψ ψ

ψι

pe – ess PS ps (digraph)

(24) omega

Ω ω

ω μεγα = large oh

oh O o (long)

□ a sampling of pre - emptive usage
of Greek letters in context
for specified mathematical notions

- α = angular acceleration

- $B(x,y)$ = the beta function

- $\Gamma(x)$ = the gamma function
- γ = the Euler constant

- Δ = the difference operator
- Δ = the increment sign
- Δ = the Laplacian operator
- $\delta(x)$ = the Dirac delta function
  (wi good for physicists
  but anathema for mathematicians)
- δ (with adscripts) = the Kronecker delta
- δ = countable intersection

- $\zeta(z)$ = the Riemann zeta functuion

- κ = the curvature of a space curve

- λ = a Lagrange multiplier

- μ = a measure function
- μ = statistical mean

- Π = the product sign
- π = the circle ratio

- Σ = the summation sign
- σ = countable union
- σ = standard deviation

- τ = the torsion of a space curve

- φ = a function
- φ = the golden ratio

- χ = the Euler characteristic of a surface say

- Ω = the least uncounable ordinal
- ω = the least infinite ordinal
- ω = angular speed
- ω = an exterior differential form

- (ξ,η) = plane rectangular coordinates ipo (x,y)
- (ξ,η,ζ) = solid rectangular coordinates ipo (x,y,z)
- (r,ϑ) = polar coordinates
- (r,ϑ,z) = cylindrical coordinates
- (r,ϑ,φ) = spherical coordinates

• in discourse about limits and convergence
ε and δ often appear;
if not the origin, then this is certainly a reinforcement:
ε stands for 'error'
&
δ stands for 'difference'

• the elementhood sign is taken to be
the lowercase epsilon or a stylized form of it;
this usage comes from
the initial letter of the Greek word εστι = is;
the Latin word est = is
has its origin in the first three letters;
that 'element' begins with the letter e is reinforcement

☐ the names of the 26 = two baker's dozens
of the letters of the English alphabet
in canonical order

(01)	A a	ay		(14)	N n	en
(02)	B b	bee		(15)	O o	oh
(03)	C c	cee		(16)	P p	pe
(04)	D d	dee		(17)	Q q	cue
(05)	E e	ee		(18)	R r	ar
(06)	F f	ef		(19)	S s	ess
(07)	G g	gee		(20)	T t	tee
(08)	H h	aitch		(21)	U u	yu
(09)	I i	eye		(22)	V v	vee
(10)	J j	jay		(23)	W w	double - yu
(11)	K k	kay		(24)	X x	ex
(12)	L l	el		(25)	Y y	wye
(13)	M m	em		(26)	Z z	zee