Modular Scale and Harmonies in CSS

3 Concepts

Rhythm Ems Modular Scale

Rhythm

Rhythm

Timed movement through space; an easy, connected path along which the eye follows a regular arrangement of motifs







APIEOTÉAOYE ANAAYTIKÉN ÝSTÉ PON HTOI THE APODEIKTIKHE



อ่าง เหม่ อบภาคารถเปลาผู้อยี่สร้างมาการถึงเล่าเสอร์ รากอเลิสเล่ Beworks Before the for the Mister Alberta Line - Osphe have minerate cit ma pai funtirant-oid formani attable actività รี เริ่ม เกี่ วรัสสาร์สสรอย เมื่อสถานา ล เก่ รู้อายาสตร์ สามเสราร์ชา as is sid mu gustinat ossi i imumumin siire umumut estel enmanques As gersa parxaior respectator Ta 100 Birth metro hacubait siaruaist me ir re hage utrirest. funtras de media popo Oser or pair a mus à promis aimo Gian in Mair, orth, will firm to rep de comain de fit moral de inque Tien mairi ajoritir à pi miene l'erarinas los minis Ess Kerngilde me paper more por erweiler me This ana representation of the relativistic on Turyard in me in to zation die ist rate redon i map promie Figur i selberies เป็นเกาะเลยองอังเการาชางาราชางาราชางาราชางาราชางาราชางาราชางาราชางา ลและใชนรูร์เลืองเรียงเลียงเราะโรงเลาลู ของจางโร รู้อำราจแล้วแ delle Coità mules relgant procise mapacada Pa

PARTE PRIMERATYPESETTING

SEGVIDA.

DEL INGENIOSO HIDALgo D. Quixote de la Mancha.

COMPVESTA POR MIGVEL DE Ceruantes Saauedra.

AL SENOR DON FRANCISCO ZAPATA, hijo de los señores don Diego Zapata, y doña Maria Sidonia Riedreer Condes de Barajas, Cauallero del Orden de Calatraua, Comendador de la Fuente del Emperador, Capelian, y Colegial que fue del Colegio viejo de San Bartolome en Salamanca, Oidor de la Real Chancilleria de Granada, Visitador de las Armadas del mar O-. ceano, del Consejo de su Magestad, antes en el Real de Indias, y aoraen el Real de Castilla.

CON LICENCIA

.F. N M ADRID: Por Melchor Sanchez. And 1655.

· Acojia de Maseo de la Ballida, Mercader delibros.

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most cheristral values, such as patience, hard work, thoughthclasse, and grace. They meeted as that other

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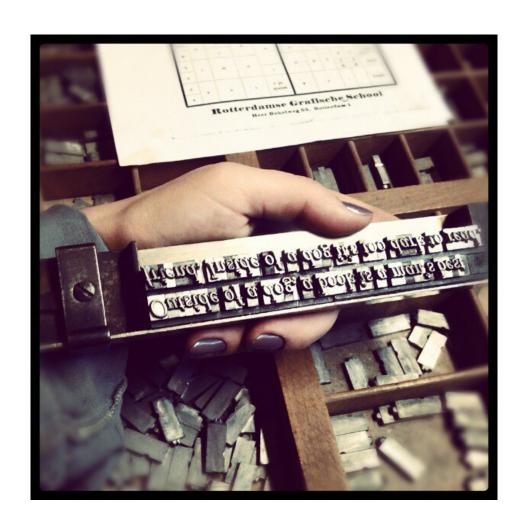


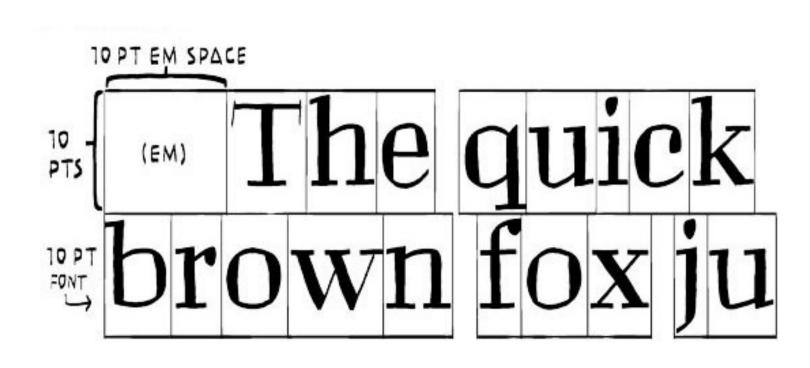


Ems

Ems

The typographer's em, a horizontal space, is equal to the type's point size, a vertical measure.





Ems in CSS

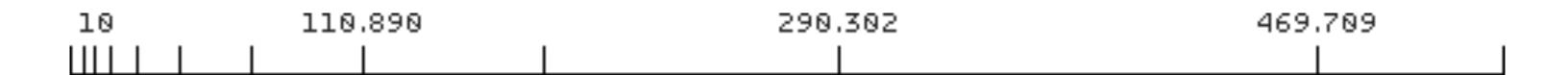
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html {
  font-size: 16px;
}

p {
  font-size: 1em;
  margin-bottom: 1em;
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```

Modular Scale

Modular Scale

A sequence of numbers that relate to one another in a meaningful way.

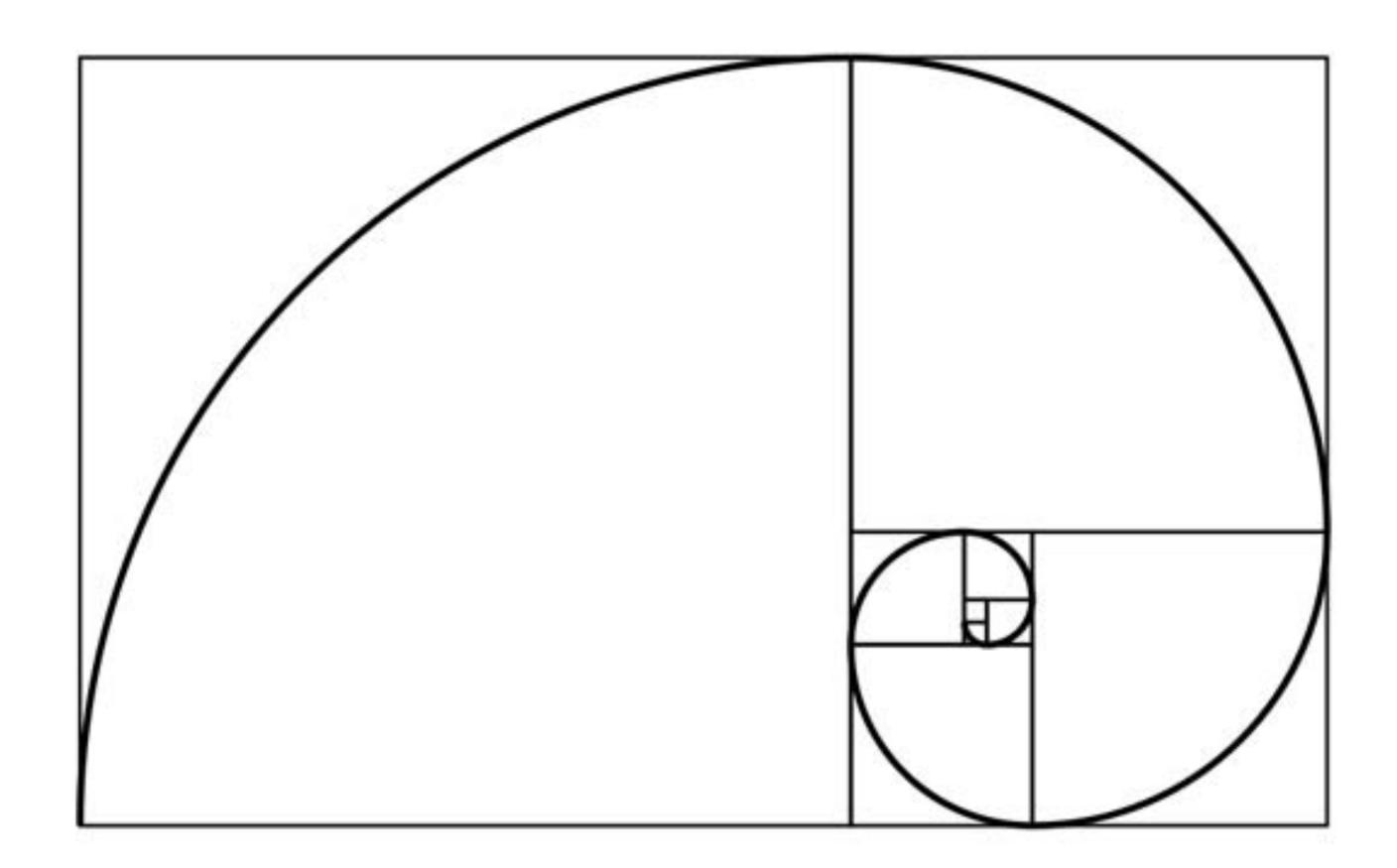


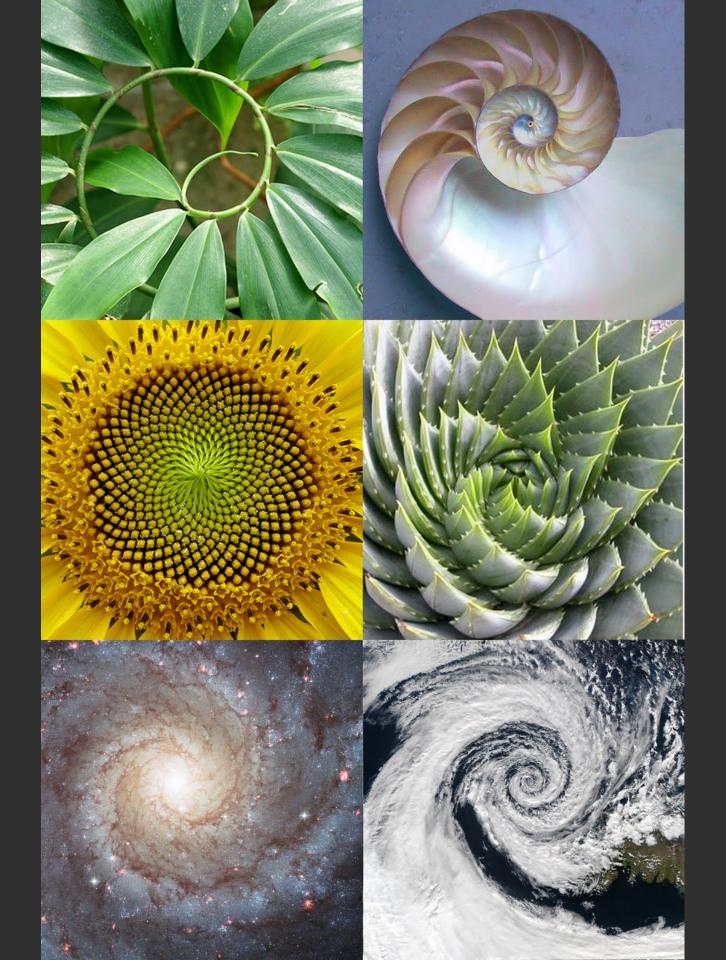
"Scribes and typographers, like architects, have been shaping visual spaces for thousands of years. Certain proportions keep recurring in their work because they please the eye and mind ..."

— Robert Bringhurst, *Elements of Typographic Style*

		Page/Column Proportions		Sample sizes in inches		
	A	Double Square	1:2	4.50 × 9	5.00 × 10	5.50 × 11
	В		1:1.924		5.20 × 10	
	C		1:1.866		5.36 × 10	
	D	Octagon	1:1.848	4.87 × 9	5.41 × 10	-10-11
Organic		5:9	1:1.8		5.00 × 9	
and	Ε	Hexagon	1:1.732	4.91 × 8.5	5.20 × 9	6.36 × 11
Mechanical		π : 2e	1:1.731			
Proportion	F	Tall Pentagon	1:1.701	5.00 × 8.5	5.29 × 9	6.47 × 11
		3:5	1:1.667			
		Legal Sheet	1:1.647			8.50 × 14
	G	Golden Section	1:1.618	5.25 × 8.5	5.56 × 9	6.80 × 11
		5:8	1:1.6	5.00 × 8		
		2:π	1:1.571			
	Н	Pentagon	1:1.539	5.52×8.5	5.85 × 9	7.15 × 11
		2:3	1:1.5		6.00 × 9	
		ш				
	1	ISO = 1:√2	1:1.414	6.36 × 9	7.07×10	7.75 × 11
		5:7	1:1.4			
	J		1:1.376	6.54×9	7.27×10	8.00 × 11
		3:4	1:1.333	6.75 × 9	7.50×10	9.00 × 12
	K	Tali Haif Octagon	1:1.307	6.89×9	7.65×10	8.42 × 11
		Letter Sheet	1:1.294			8.50×11
		4:5	1:1.25		8.00×10	
	L		1:1.207	7.46×9	8.29 × 10	9.11 × 11
		5:6	1:1.2			
	M	Truncated Pentagon	1:1.176	7.65×9	8.50 × 10	9.36 × 11
		6:7	1:1.167			
		ε:π	1 : 1.156	-		
		Turned Hexagon	1 : 1.155	7.79 × 9	8.67 × 10	
		Tall Cross Octagon	1 : 1.082	8.32 × 9	9.24 × 10	10.2 × 11
	P	Turned Pentagon	1:1.051	8.56 × 9	9.51 × 10	10.5 × 11
	0	Square	1:1			
	R	Broad Pentagon	1:0.951	0 × 0 5 6	100.54	
	S	Broad Cross Octagon		9 × 8.56 9 × 8.32	10 × 9.51	11 x 10.5
	Т	Broad Hexagon	1:0.924		10 × 9.24	11 × 10.2
		π : e	1:0.865	J ^ 1./9	10 × 8.67	11 × 9.53
	u	Full Cross Octagon	1:0.829	9×7.46	10 × 8.29	11 > 0 11
	_	Landscape Letter	1:0.773		10 × 8.29	11 × 9.11 11 × 8.50
		φ : 1	1:0.618	2 A 0.30	10 x 7.73	11 × 8.50
		T	0.016			

_	Column/Page Propo	rtions	Sam	ple sizes in ir	iches '	
a	Quad Square	1:4	2.25×9	2.50 × 10	2.75 × 11	
	1 : √15	1:3.873				
	5:18	1:3.6				
b	Octagon Wing	1:3.414	2.64 × 9	2.93 × 10	3.22 × 11	
	1:2φ	1:3.236				Shapir
	5:16	1:3.2				the
с	1:√10	1:3.162	2.85×9	3.16 × 10	3.48 × 11	Page
d	1:π	1 : 3.142	2.86×9	3.18 × 10	3.50 × 11	
	1:3	1:3				
е	Double Pentagon	1:3.078	2.92 × 9	3.25×10	3.57 × 11	
f	Wide Octagon Wing	1:2.993	3.01 × 9	3.34 × 10	3.68×11	
g	1:2√2	1:2.828	3.18×9	3.54×10	3.89×11	
	5:14	1:2.8				
h	Pentagon Wing	1:2.753	3.27 × 9	3.63×10	4.00×11	
i	1 : e	1:2.718	3.31 × 9	3.68×10	4.05×11	
	3:8	1:2.667				
į	1:√7	1:2.646	3.40 × 9	3.78×10	4.16 × 11	
k	Extended Section	1:2.618	3.44×9	3.82×10	4.20×11	
ı	Tall Octagon Column	1:2.613	3.44×9	3.83×10	4.21×11	
	5:13	1:2.6				
m	Mid Octagon					
	Column	1 : 2.514	3.56 × 9	3.98 × 10	4.38 × 11	
	2:5	1 : 2.5				
n	Short Octagon					
	Column	1:2.414	3.73×9	4.14×10	4.56 × 11	
	5 : 12	1:2.4				
	3:7	1:2.333				
0	Hexagon Wing	1:2.309	3.90 × 9	4.33×10	4.76 × 11	
P	Double Truncated					
	Pentagon	1:2.252	4.00 × 9	4.44×10	4.88×11	
	1:√5	1:2.236	4.03×9	4.47×10	4.92 × 11	
	5:11	1:2.2				
	Double Square	1:2	4.50 × 9	5.00 × 10		







Musical Scales



Example: Perfect fourth

Name	Interval in C	Ratio	Ratio (1:x)
unison	C→C	1:1	1:1
minor second	$C \rightarrow D \ \flat$	15:16	1:1.067
major second	$C \rightarrow D$	8:9	1:1.125
minor third	C→E♭	5:6	1:1.2
major third	C→E	4:5	1:1.25
perfect fourth	C→F	3:4	1:1.333
augmented fourth or diminished fifth	C→F#/G♭	1:√2	1:1.414
perfect fifth	C→G	2:3	1:1.5
minor sixth	$C \rightarrow A \flat$	5:8	1:1.6
major sixth	C→A	3:5	1:1.667
minor seventh	С→В♭	9:16	1:1.778
major seventh	C→B	8:15	1:1.875
octave	$C \rightarrow C^{\uparrow}$	1:2	1:2
major tenth	$C \rightarrow E^{\uparrow}$	2:5	1:2.5
major eleventh	$C \rightarrow F^{\uparrow}$	3:8	1:2.667
major twelfth	C→G [↑]	1:3	1:3
double octave	C→C [↑]	1:4	1:4
Name	Interval in C	Ratio	Ratio (1:x)

In practice...

Steps:

- 1. Code setup
- 2. Find ideal font size
- 3. Find scale (synesthesia)
- 4. Typesetting
- 5. Spacing
- 6. Utility classes
- 7. Breakpoints

github.com/lukeaskew/cssharmony