

# VERTICAL WRITING ON THE WEB

Inadvertent layout inspiration from a search for cultural identity

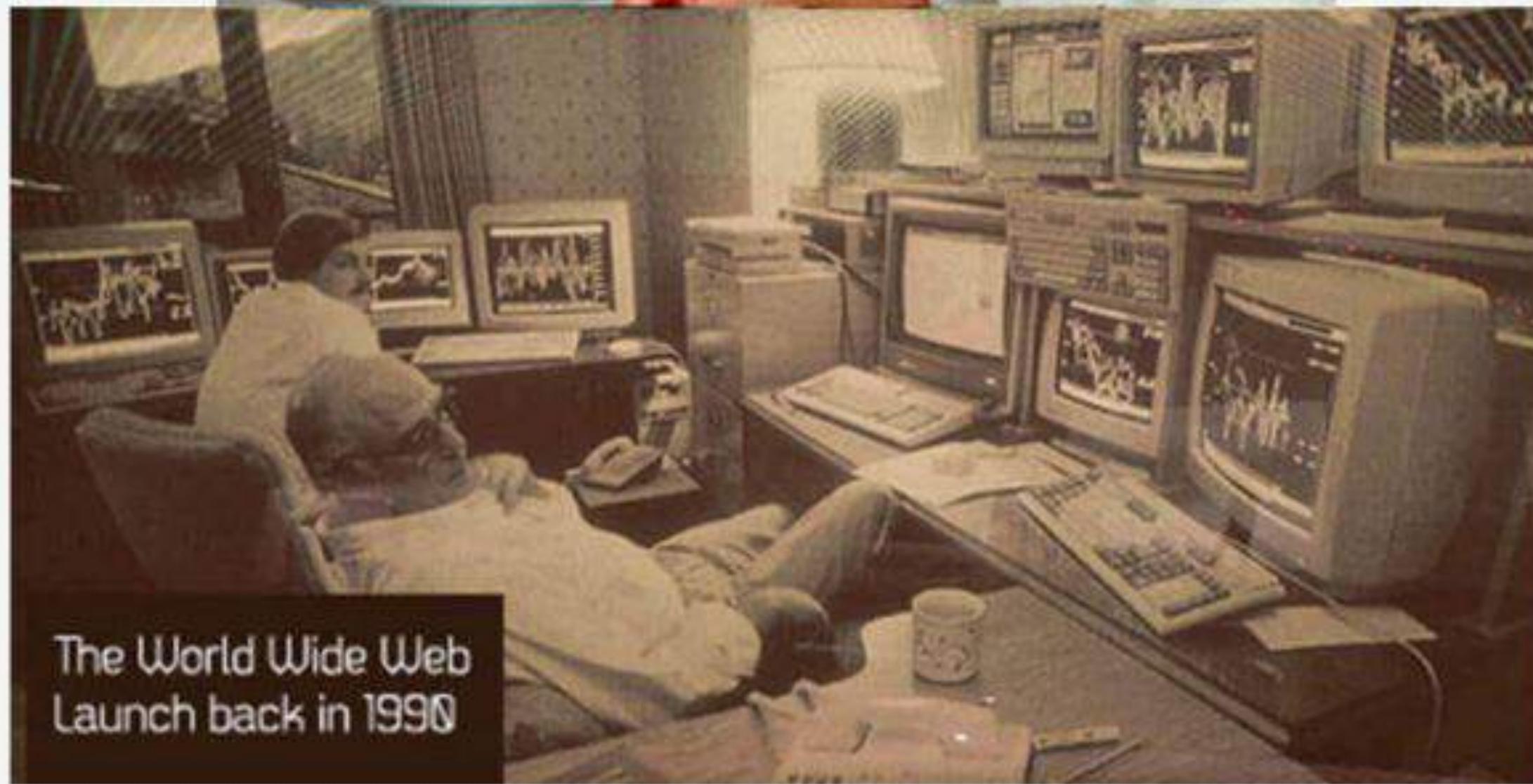
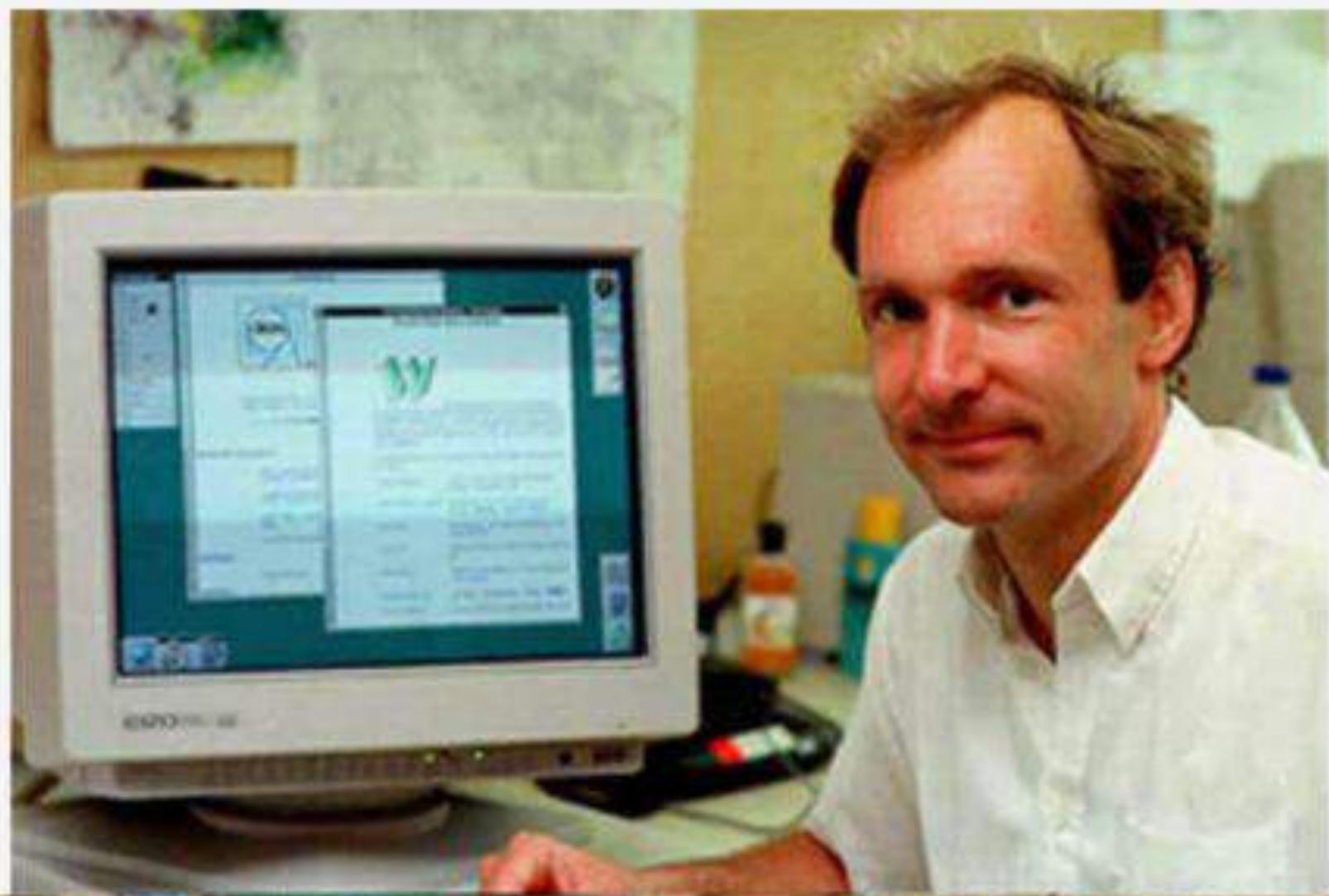




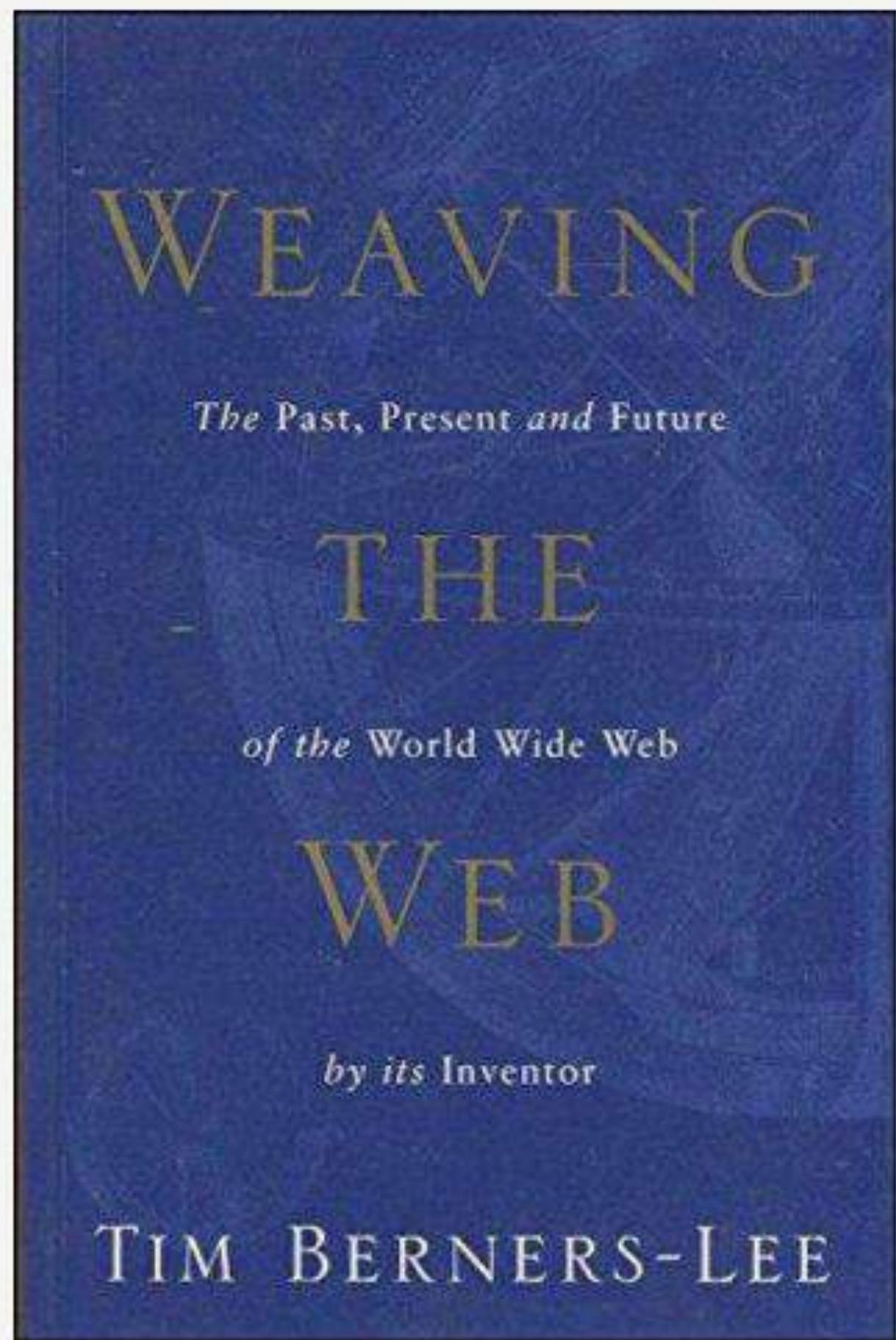
@hj\_chen



# What does the web mean to you?



The World Wide Web  
Launch back in 1990



“For the Web, the external link is what would allow it  
to actually become ‘worldwide’”

—Sir Tim Berners-Lee





Source: [ancientelectronics](#)



Source: [ancientelectronics](#)

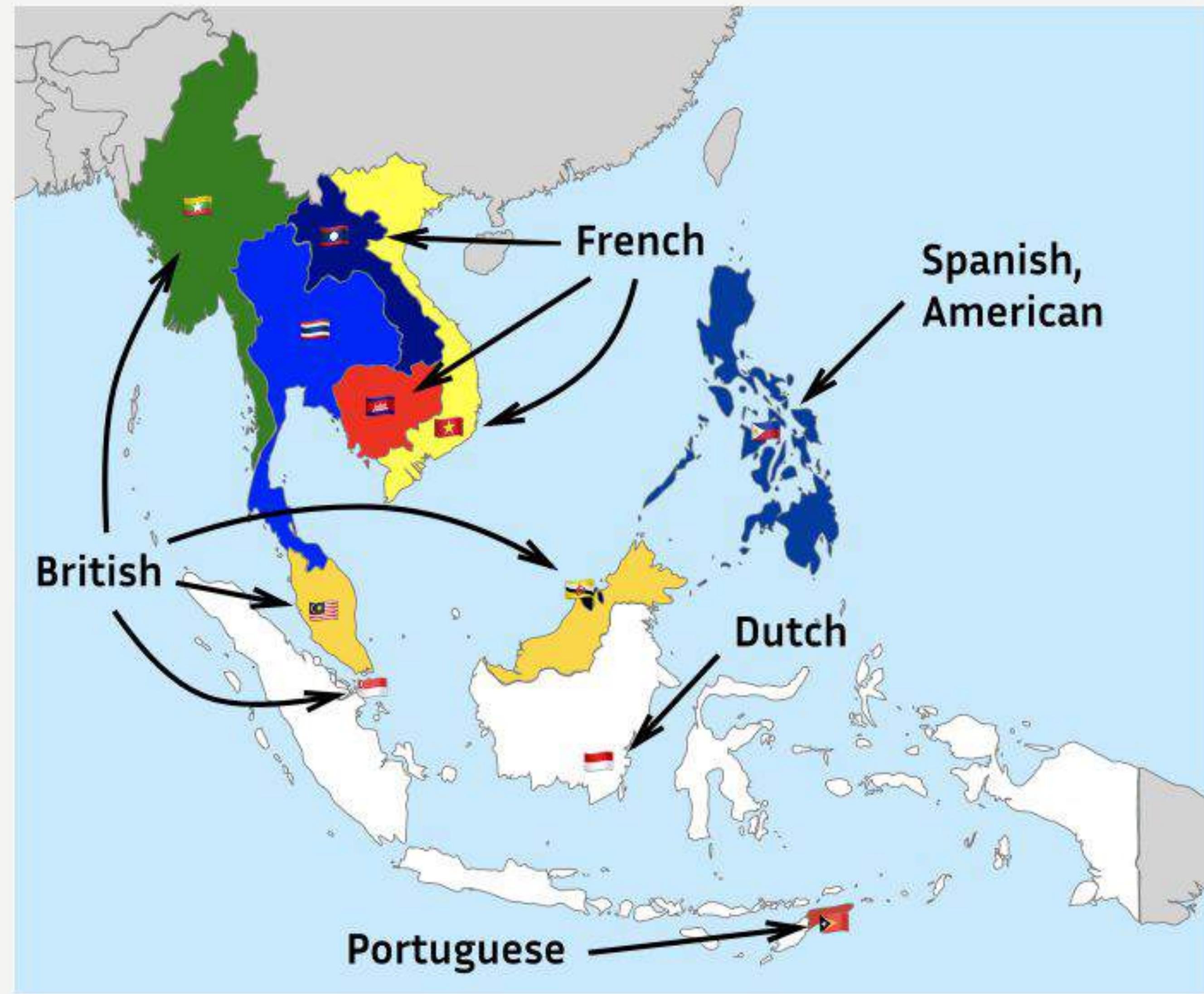


[https://youtu.be/0b6HxVA\\_q2U?t=190](https://youtu.be/0b6HxVA_q2U?t=190)

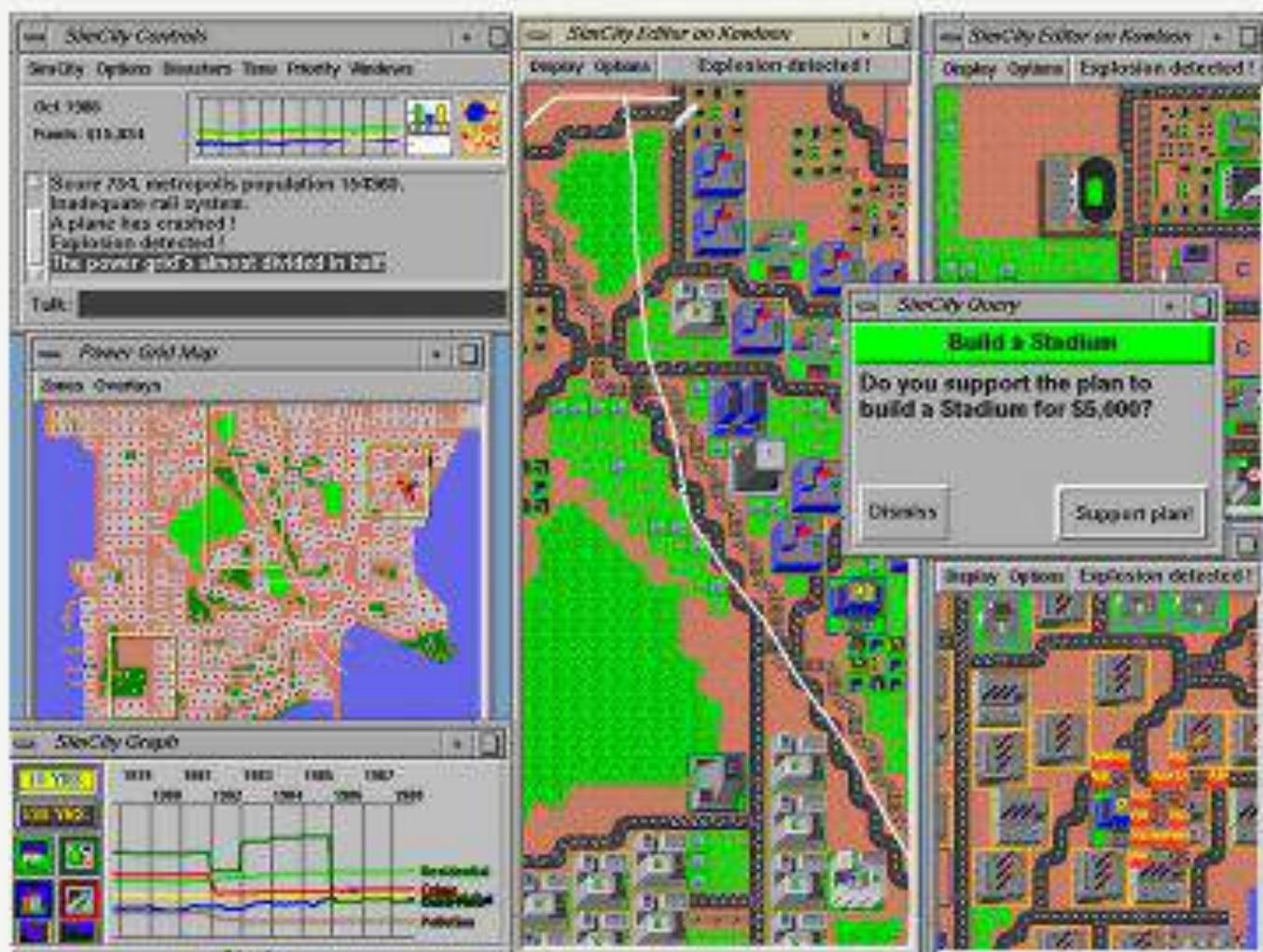
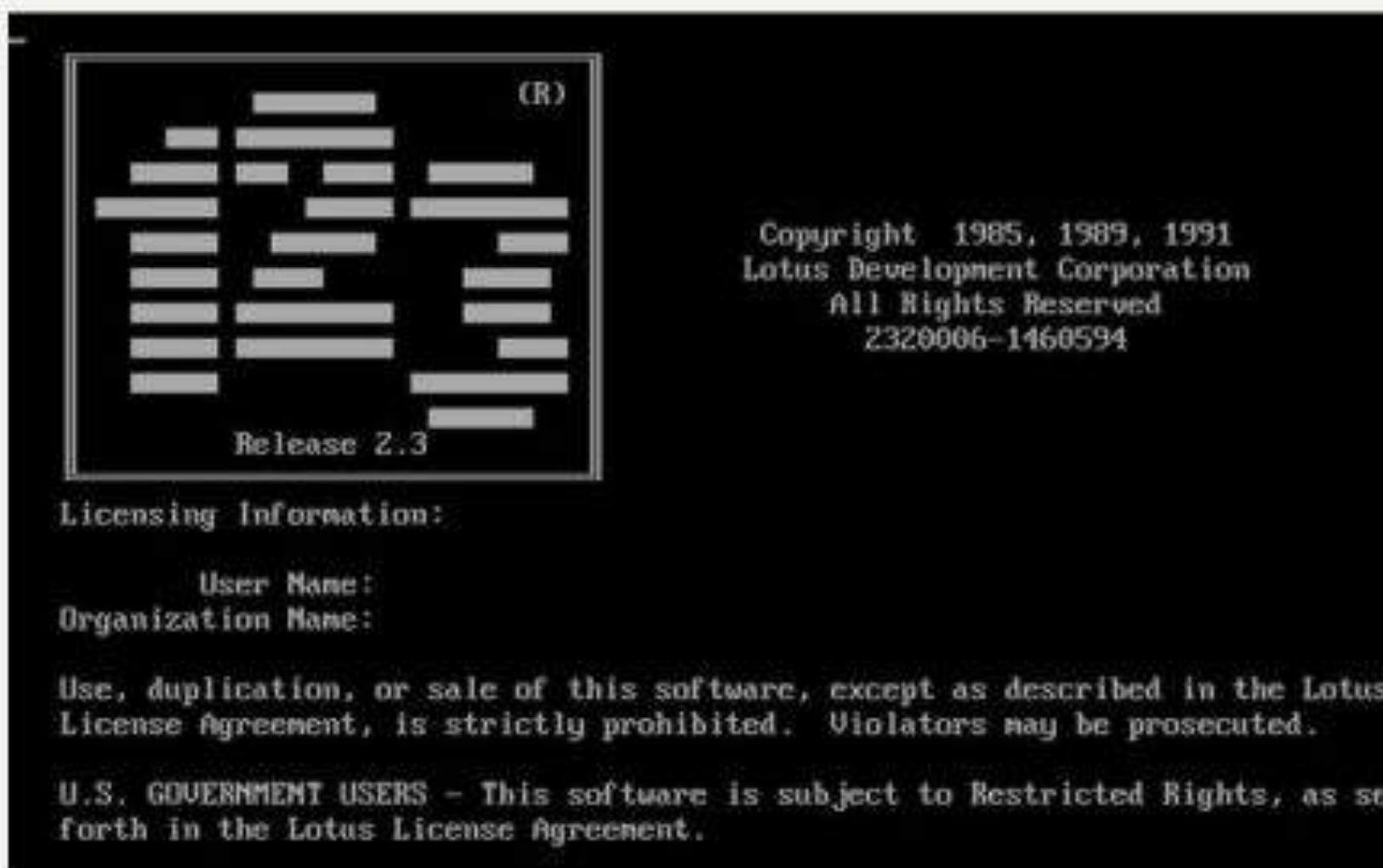
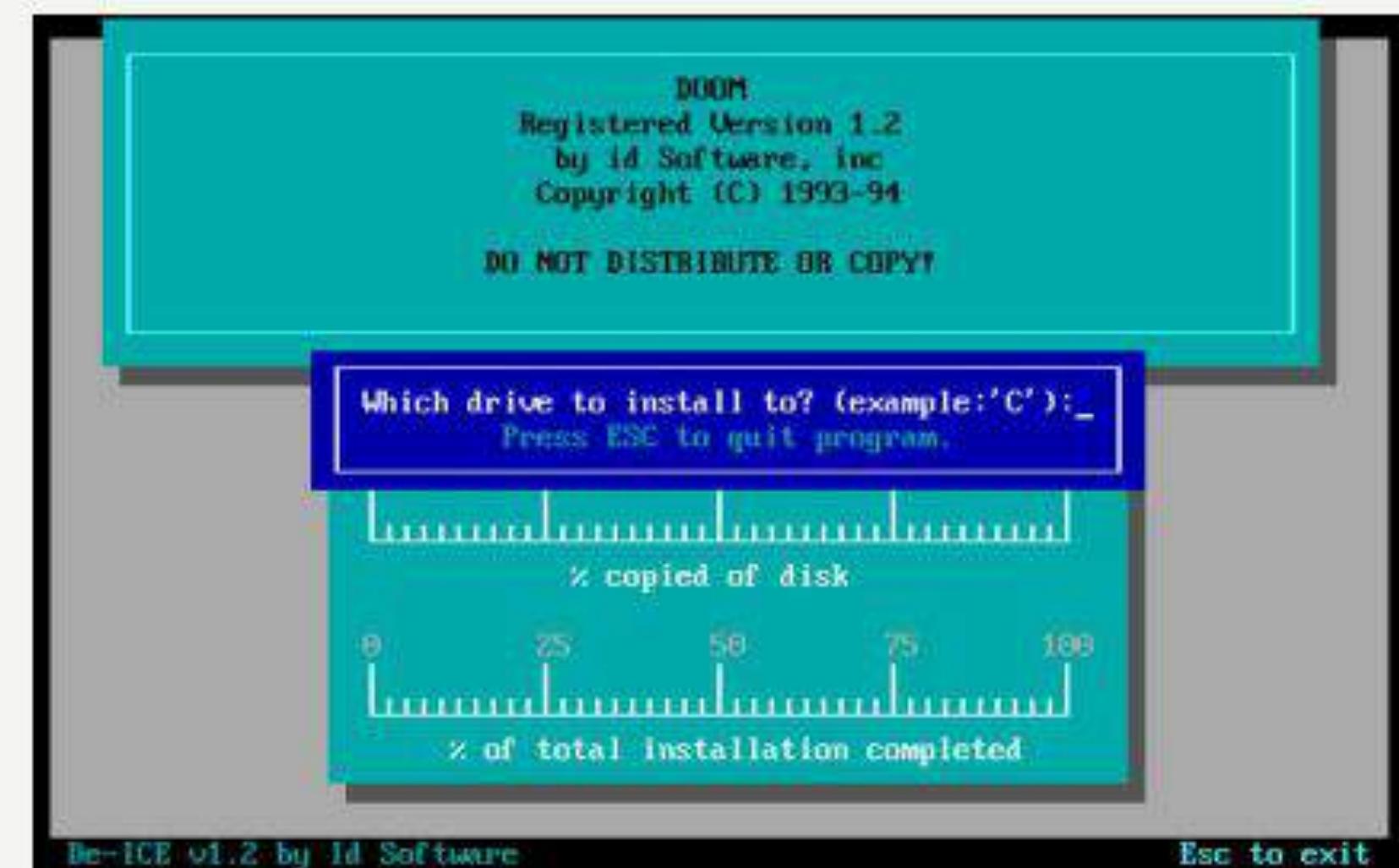




**We are here!**

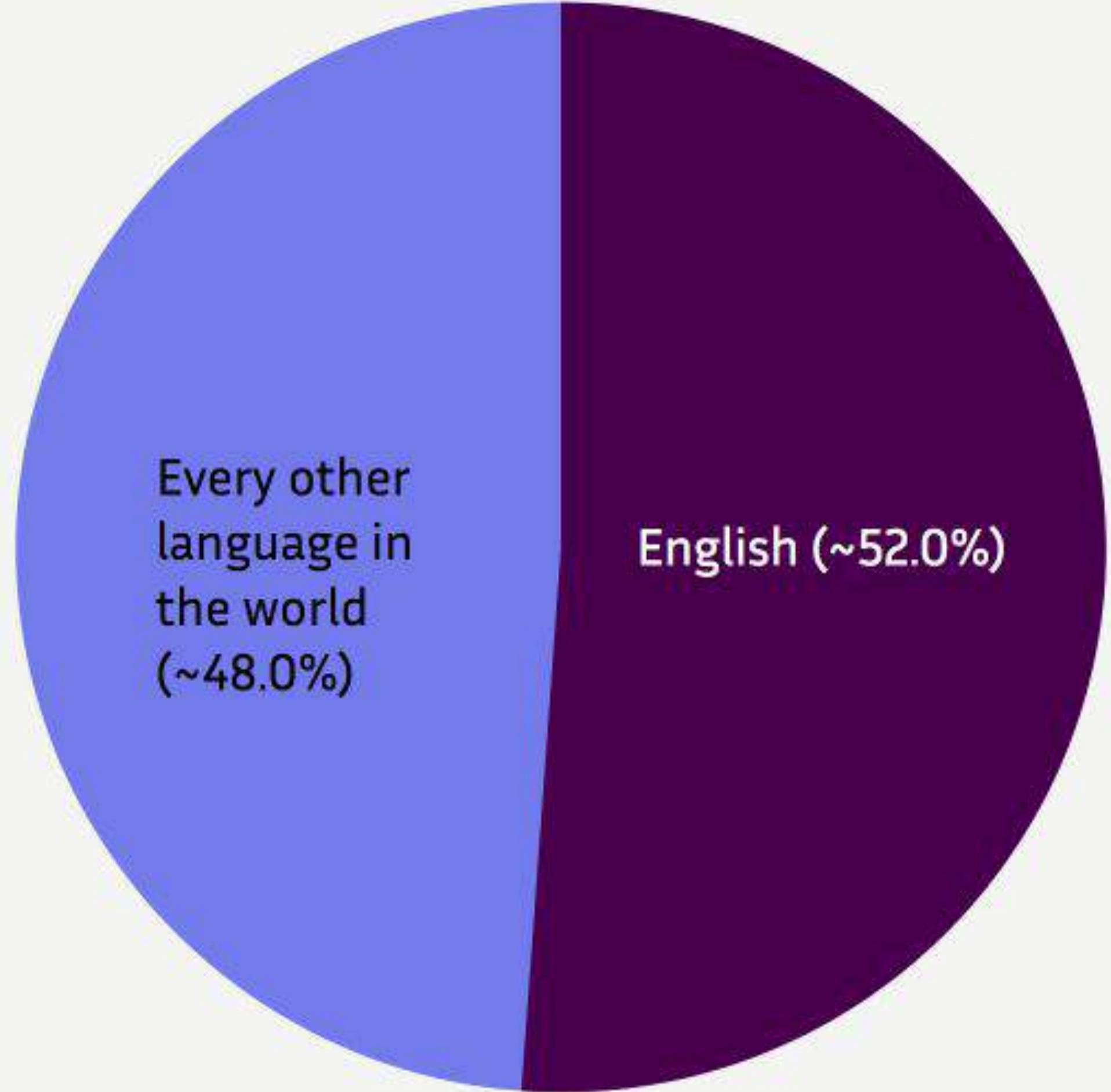








*Distribution of languages used around the world*



*Distribution of content languages on the web*

Sources: [Worldometers](#), [Ethnologue](#), [W3Techs](#)





# Internationalisation (i18n)

“To ensure that the technology supports text in any writing system of the world.”

—W3C Internationalisation



هانق تواه هو محارب وبحار ملايوى من ملاكا  
عاش في عهد حكم السلطان منصور شاه في  
القرن الخامس عشر الميلادي، وكان واحداً من  
أقدر أميرالات السلطان الذين يسمون لksamانا  
إلى جانب هانق كاستوري ، وهانق ليكيو، وهانق  
ليكير، وهانق جيبات.

ຄົນເມື່ອຄວາມດີວນນັ້ນຕາຍໄປແລ້ວຊຸນທັງສອງ  
ຈຶ່ງຜົງມັນໄວ້ທີ່ຫິວນາ ຕໍ່ມາຈຶ່ງມີເຄື່ອຫມາກ  
ນາເຕົາສອງເຄື່ອ ເກີດມາຈາກຮູ້ດັ່ງຄວາມແລ້ວ  
ກໍ່ມີຫມາກນ້າເຕົາໃຫຍ່ສອງ ຫັ້ນວຍ ເມື່ອຫ  
ມາກນ້າເຕົາໃຫຍ່ສອງຫນ່ວຍນັ້ນແກ່ແຫ້ງແລ້ວ  
ກໍ່ເລີຍໄດ້ຢືນສຽງຄືນ ຮ້ອງຊວ່າ ແຊວຢູ່ໃນຫ  
ມາກນ້າເຕົາຫນ່ວຍກິກ.

អាណាពារនោះថា «បង្កសិរាប្បែកស្តាន់ហើយ  
នានាតុជីជុចិត្តបងចេងនៅយបងស្សែច វិនោយ  
បងធ្វើម៉ែច ? » ។ មេនោះថា «បើសិរាប្បែក  
ចិត្តមួយនឹងត្រា មានតែលិខូអណ្តាតត្រា » ទីប  
មេនោះល្អនអណ្តាតហើយនោនទៅរក  
អាណាពារនោះ។

从前，在马来西亚的西海岸边上，住着一个叫左汉的渔夫，他每天早出晚归出海捕鱼，卖鱼的钱除了吃饭、穿衣等必需的日常开销外，剩下的就不多了。左汉对辛辛苦苦的捕鱼生活很不满意，一心只想着发财。可是，左汉心里明白：靠捕鱼，自己是永远不会成为富翁的。

Chẳng là xqja nay bọn mình chqja viết chung thq bao giờ. Cho nên cuối cùng phải thỏa thuận với nhau là cứ viết riêng thôi. Nhưng lại xảy ra chuyện tranh cãi là để ai viết trước bấy giờ. Đành rút thăm vậy. Kết quả là mình trúng đầu tiên.

ลิลิตพะลօเป็นเรื่องความรักที่มีอนุภาพ  
รุนแรงยิ่ง จนแม้ชีวิตก็ยอมพลีให้แก่กัน  
เนื้อเรื่องกล่าวถึงเมืองสองเมือง คือ เมือง  
สรวง กับเมืองสรวงเป็นศัตรูกัน เจ้า  
เมืองสรวงได้ม่าเจ้าเมืองสรองตายใน  
สนามรบ พระชายาเจ้าเมืองสรองมีความ  
แค้นเจ้าเมืองสรวงอย่างยิ่ง

မိုးလင်းကတည်းကပင် ကောင်းကင်သည်  
 အံ့မိုင်း ညီမှုန်လျက်ရှိသည်။  
 တမတိကဟူ၍ ဘာမှကြည်လင်စွာမဖြင်ရ။  
 မိုးကိုကြည့်ရသည်မှာ ဖြေသန်းနေသော  
 ပင်လယ်ပြင်ကြီးလုံ စိုးစိုးဝါးဝါးနေသည်။  
 မိုးသည် ကင်းကင်းလွှတ်လွှတ်ခဲသည်  
 ဟူ၍မရှု၊ တဖွဲဖွဲ ဖွဲနေလိုက်၊  
 တဖြင်ဖြင်ရွာချလိုက်နှင့် နောက် စွဲ၍  
 နေလေသည်။

Isa pang round at nagka-ayawan na pagka 11:00 na halos ng gabi. Namahagi si Manuel ng kaunting balato at ang natirang malinis niyang pinanalunan ay P700 na kanyang ibinukod habang matuling tumatakbo ang taksi na patungo sa kanyang inuuwian.

生命對幾米來說，剛開始像「接龍」，有了這一張牌，才能找到下一張牌，他在罹患血癌之後，靠一本本創作，才能維繫生命絲線。他作品呈現的「童真的憂鬱」，帶給讀者深深的共鳴。功成名就的幾米也越來越自信從容，但他說：「外面的虛浮都是假的，空洞的，只有當我的手握著筆，埋頭工作的時候，我才是最堅強。」

**Do developers even care about  
typography?**



**“Web design is 95% typography”**

—Oliver Reichenstein



“Typography is writing with prefabricated letters”

—Gerrit Noordzij



《吴越春秋》十卷，见《张志》  
《陆志》、陆《续跋》。宝庆  
张志》和《陆志》。宝庆三年

全文排列如下：

讒佞奸凶，害我忠貞；  
禍因所恃，滅極驕盈。  
這裡又對那位奪她夫君的趙陽臺  
安，全因了那位趙陽臺謔媚進言，恃  
一幅深情玄妙的「璇璣圖」的意圖  
只有自己會心品味，方能漸至佳境。  
作出一些「回文詩」外，都不稱意。

「絕紛」、「躍英」的容顏，但韶光已  
宋成歲凋松，真物知終始；  
顏衰改華容，仁賢別行士。



卷之三

三

林子默

四  
四

# 金殿

同映

照片紅  
題・袖  
祝紅

對片崇揚。本推讚讀。

佳評美譽  
口碑載道

同映

Phoenician  
alphabet

甲骨文

A large hippopotamus is shown from the side, facing right. It is standing in a misty, natural environment, possibly a riverbank or a swamp. The hippo's skin is dark grey, and it has a thick, wrinkled texture. Its eyes are partially closed, and its mouth is slightly open. The background is blurred, showing more of the same misty environment.

Hippopotamus  
(English) 12 letters

河  
马

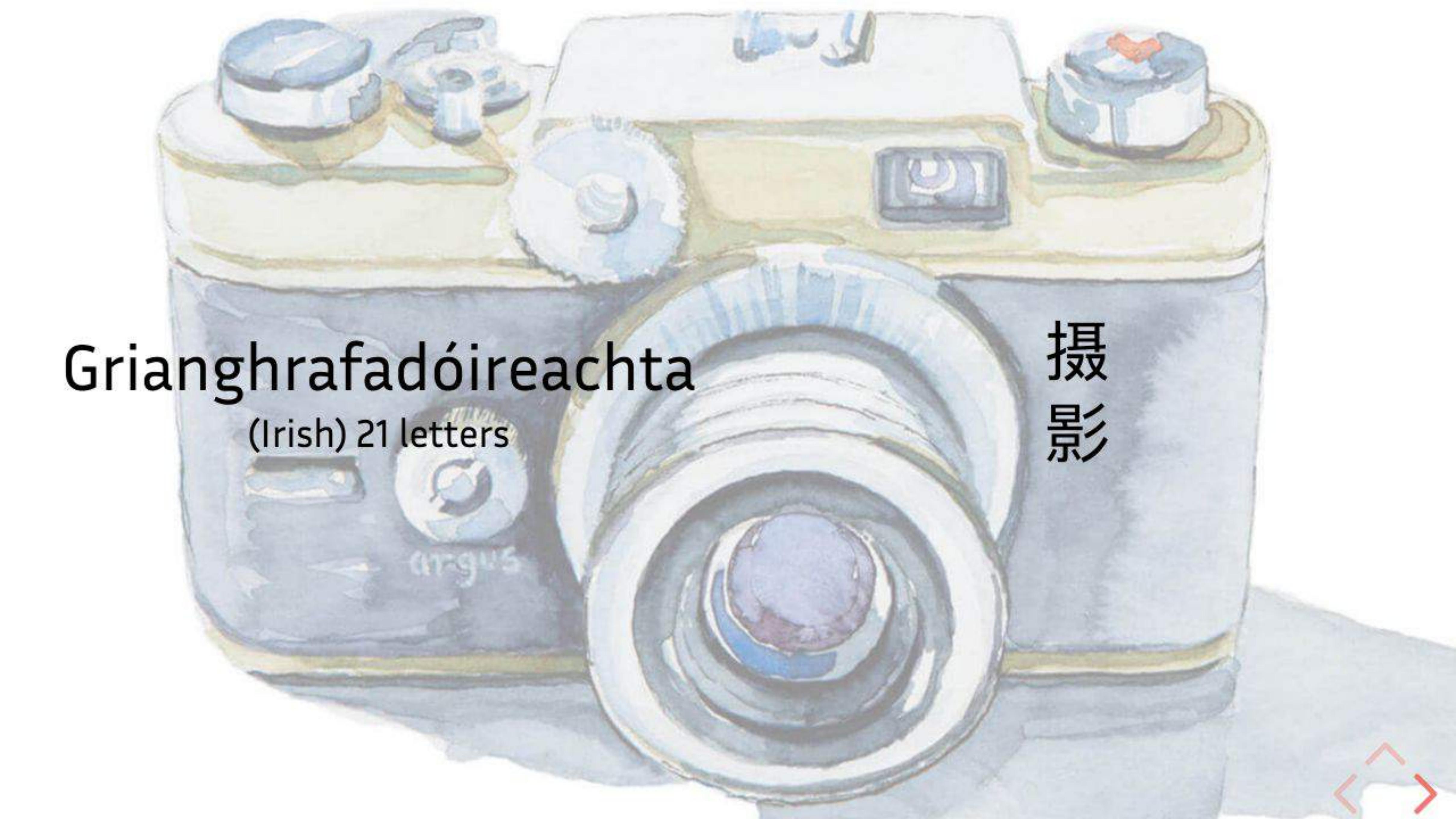




**Lebensgefährte**  
(German) 14 letters

伴  
侶



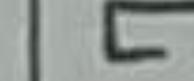
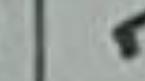
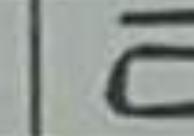
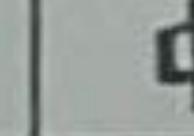
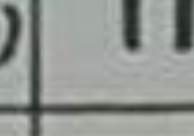
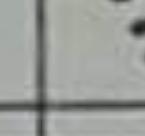
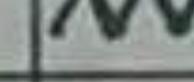
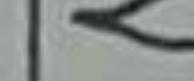


**Grianghrafaidóireachta**

(Irish) 21 letters

摄  
影



ORIGINAL MEANING	Egyptian	Phoenician	Greek	Roman Capital	Roman Uncial	Roman Half-Uncial	Minuscule	MODERN FORMS
Ox				A	Α	α	α	Aa Aa Aa Aa Aa
House			B	B	ב	ב	ב b B B b B b	
Camel		>	Γ	G	Γ	γ	G g G G g g G g	
Door		A	△	D	δ	d	D d D D d D d	
Window			Ξ	E	ε	ε	E e E E e E e	
Water			N	M	מ	m	M m M M m M m	
Eye		o	Ο	O	ο	ο	O o O o O ο o	
Mouth			Λ	P	פ	p	P p P p P p פ p	
Cross	+	X	T	T	Τ	τ	T t T T t T t	

Illustrating the probable development of some of the letters of the alphabet



SERIFS  
serifs

SANS SERIF



甲骨文	曰	D	𠂔	𦥑
金文	曰	月	𦥑	駒
小篆	日	月	車	駒
隶书	曰	月	車	馬
楷书	日	月	車	馬
草书	日	月	车	马
行书	日	月	车	马





宋 体

*Song Ti*

楷 体

*Kai Ti*

仿 宋 体

*Fang Song Ti*

黑 体

*Hei Ti*



丁巳興祖學

二

長

江

往矣猶思舊

一

老

成海

申登食日折翼

二

青

山

小一云

王維九月九憶山東兄弟  
癸未歲荅用庚劉

老大入二子

至三九方法考

久自知我有

事

古

笑

水潦在頭雄水潦  
都逢一臘髮幾空是浪  
付古壺韜漁度文樵  
笑全濁蘋文

# “Chinese-script projects are crazy. The scope is mind-blowing.”

—David Březina from *The long, incredibly tortuous, and fascinating process of creating a Chinese font*



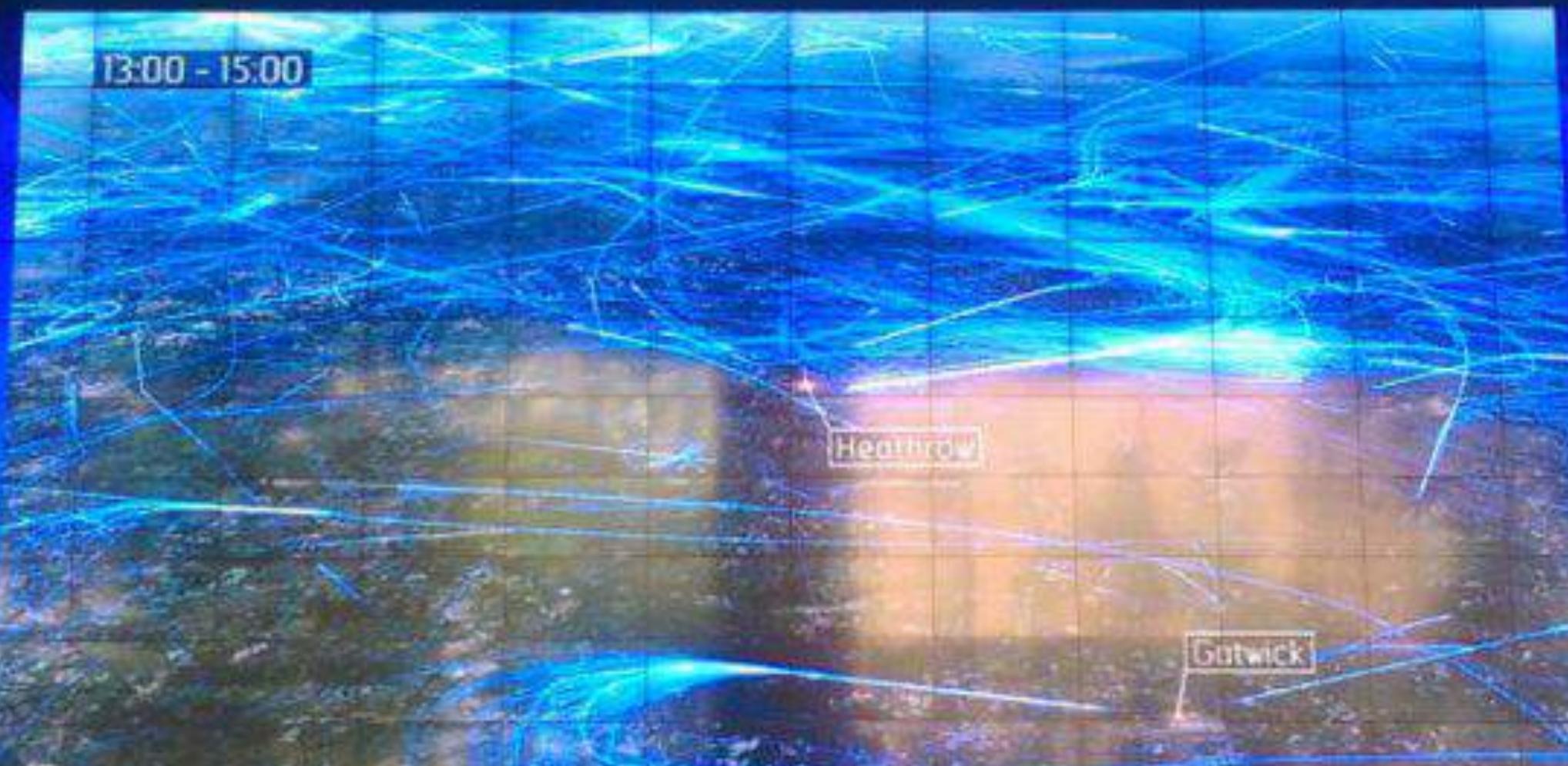


## The Big Picture Presents

### Europe 24

This data visualization of Air Traffic in Europe was created from real flight data. It shows the air traffic which flies on a typical summer day and highlights the intensity of the operation in Europe - an operation which runs 24/7, 365 days a year.

Video courtesy of NATS  
[nats.aero/blog](http://nats.aero/blog)



## The Big Picture Presents

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Video courtesy of NATS  
[nats.aero/blog](http://nats.aero/blog)



The web is a unique medium of  
its own



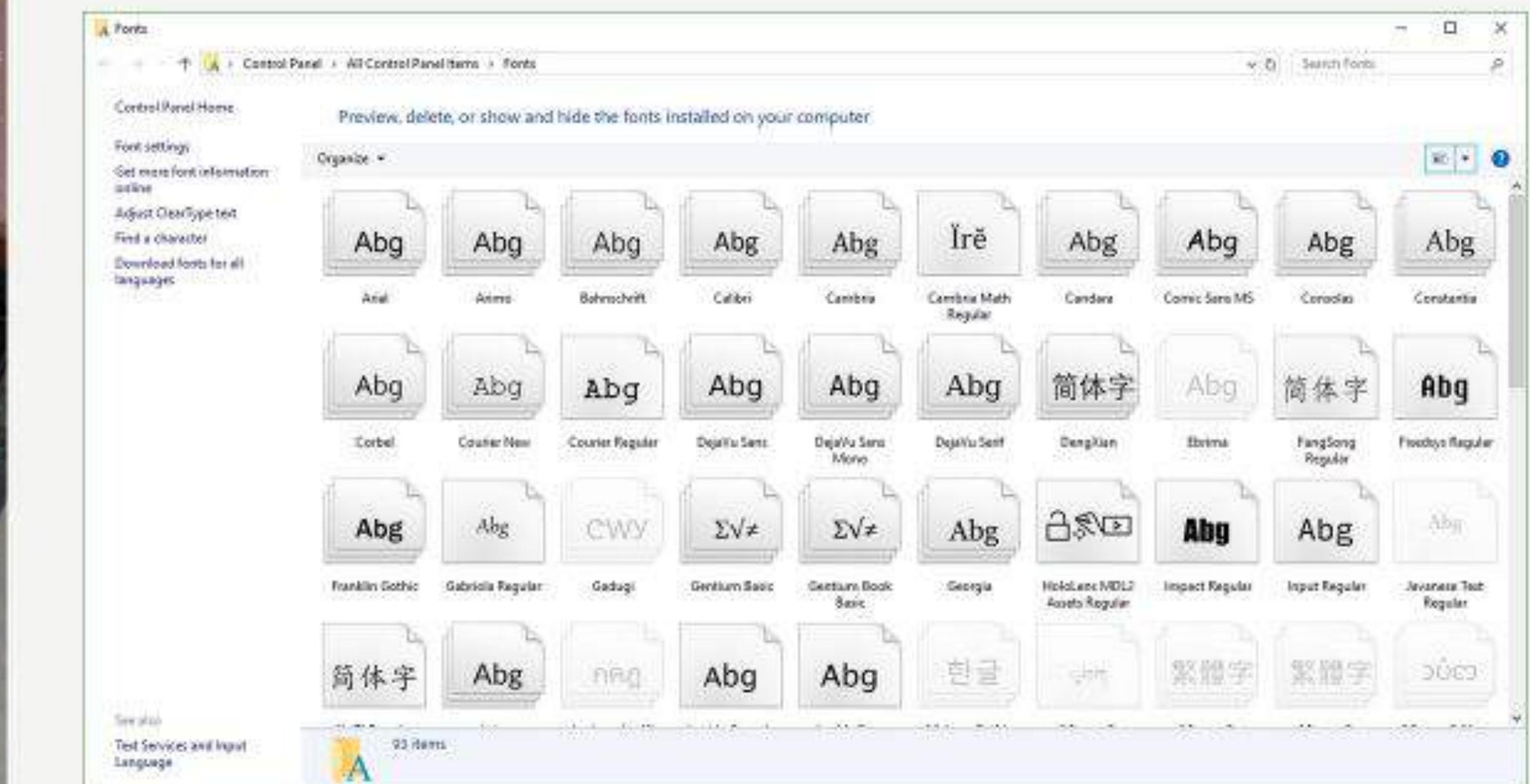
# Web fonts

The CSS3 Fonts specification describes the basic controls CSS provides for selecting and using fonts within documents.

<http://bit.ly/css-font-history/>



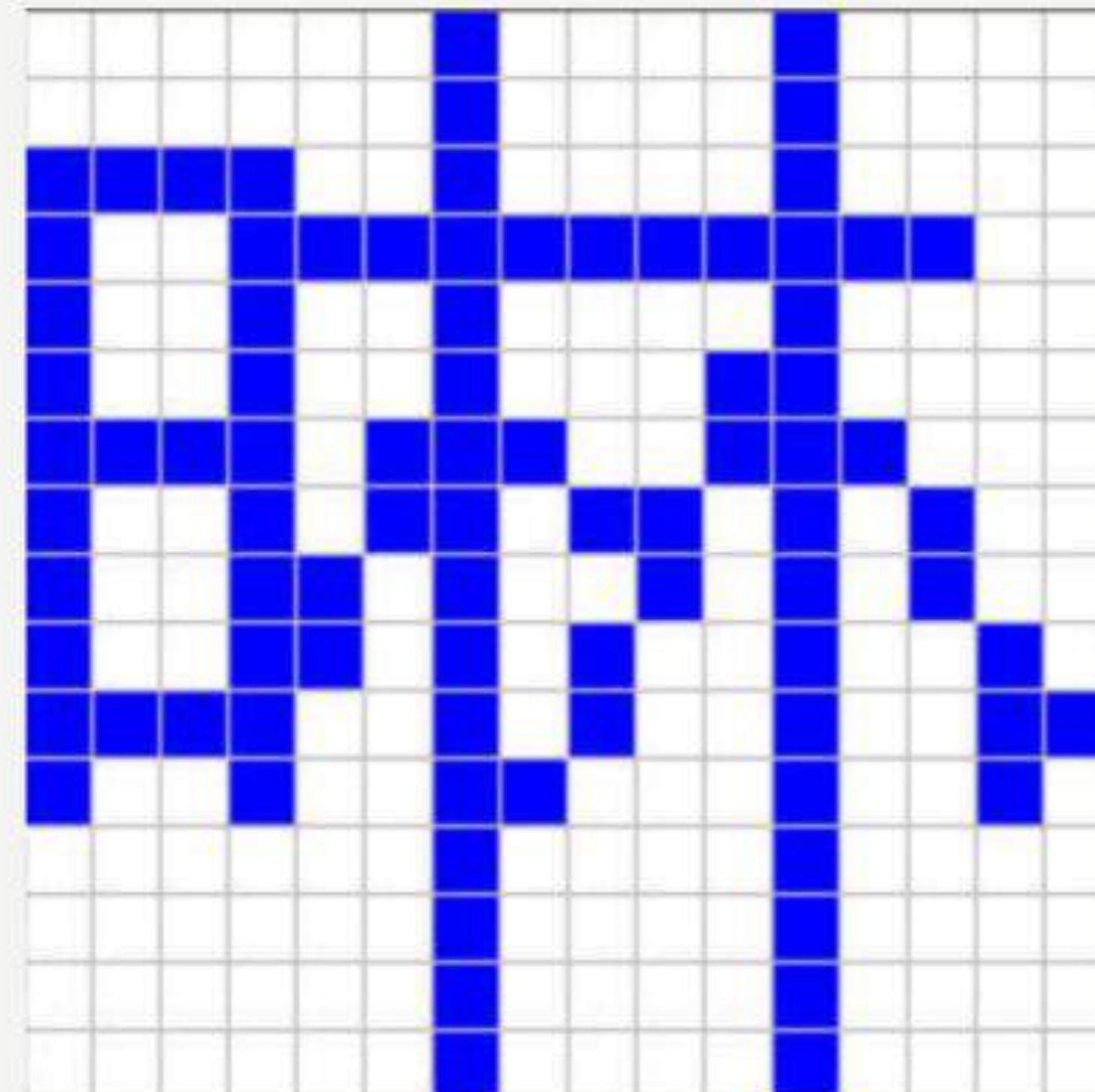
# What is a font?



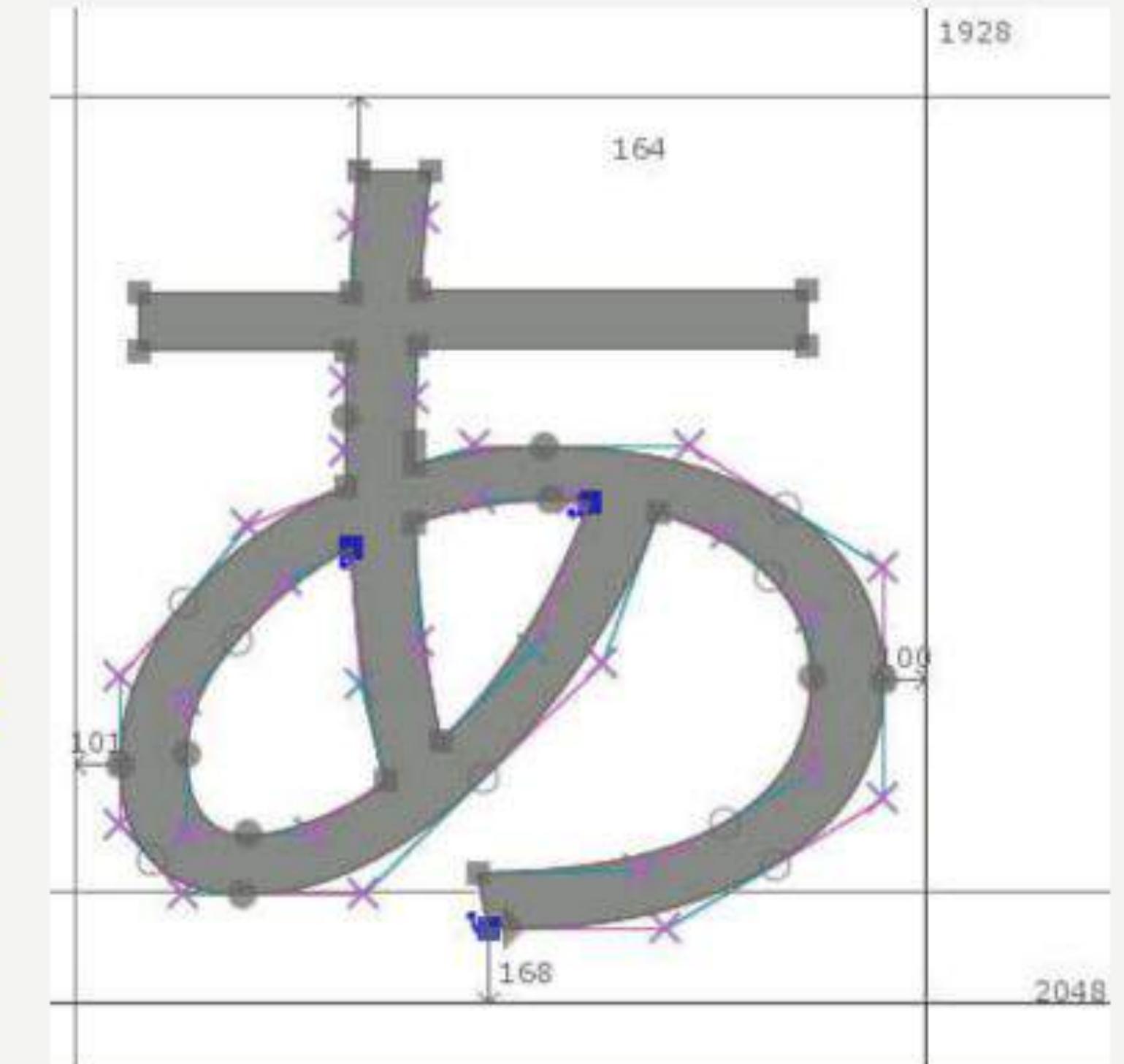
# And what are glyphs?



M



琳



あ



# Font formats for web use

WOFF2 (Web Open Font Format 2)



Microsoft

**moz://a**

Opera

WOFF (Web Open Font Format)



Microsoft

**moz://a**

Opera

OTF (OpenType)



Microsoft



Adobe

TTF (TrueType)



Microsoft



EOT (Embedded Open Type)



Microsoft

SVG (Scalable Vector Graphics)

W3C SVG

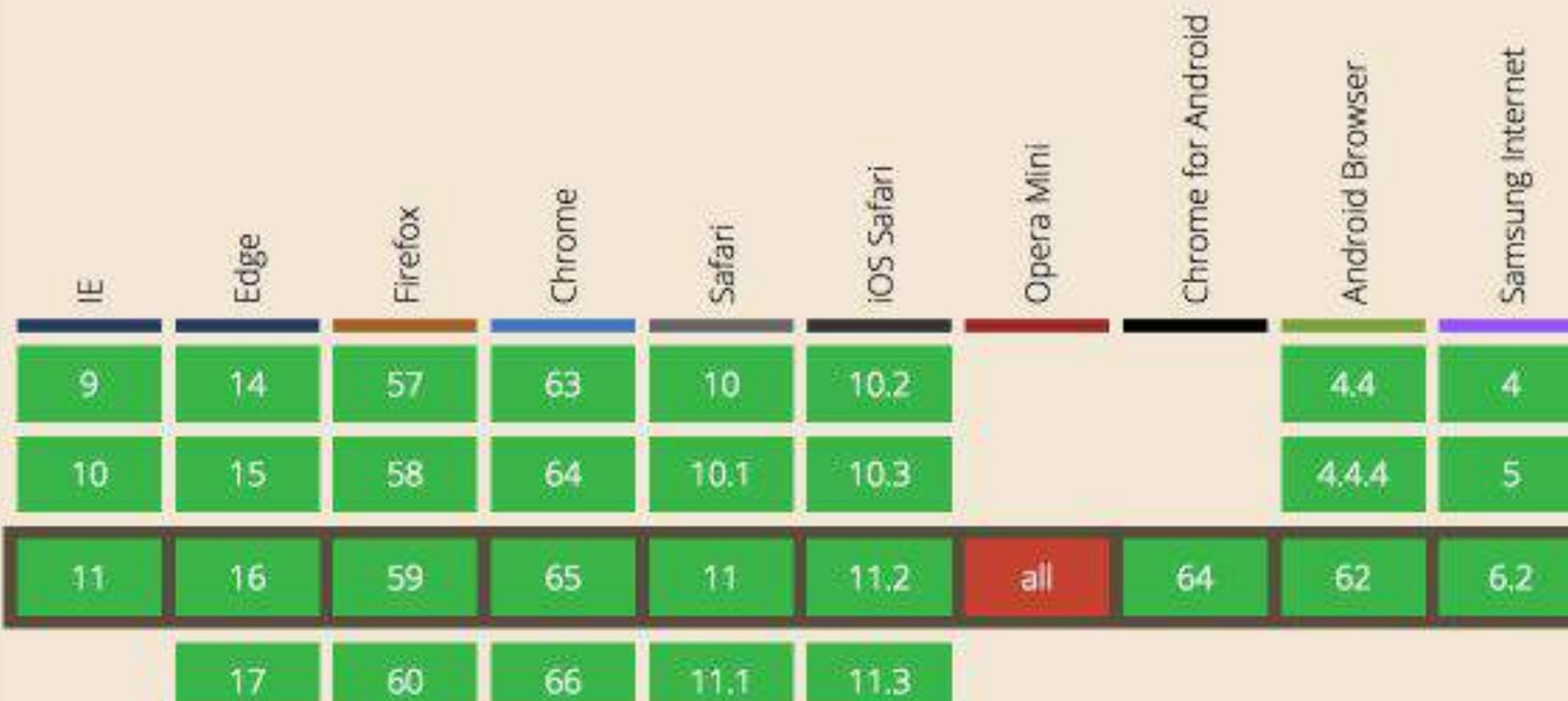


# @font-face

```
@font-face {  
    font-family: 'Inria Sans';  
    src: url('inriiasans-regular.woff2') format('woff2'),  
         url('inriiasans-regular.woff') format('woff');  
}
```

## WOFF - Web Open Font Format [↗](#)

Compressed TrueType/OpenType font that contains information about the font's source.



Global: 94.92% + 0% = 94.92%

## WOFF 2.0 - Web Open Font Format [↗](#)

TrueType/OpenType font that provides better compression than WOFF 1.0.



Global: 79.1% + 2.01% = 81.11%

# Anatomy of an @font-face rule

```
@font-face {  
    font-family: <family-name>;  
    src: [ <url> [ format(<string> #) ]? | <font-face-name> ]  
    font-style: normal | italic | oblique ;  
    font-weight: normal | bold | 100 | 200 | 300 | 400 | 500  
    font-stretch: normal | ultra-condensed | extra-condensed  
    unicode-range: <urange> #;  
    font-variant: normal | none | [ <common-lig-values> || <  
    font-feature-settings: normal | <feature-tag-value> #;  
}
```



```
@font-face {  
    font-family: 'Heiti Plus';  
    src: local('Heiti SC');  
    /* no range specified, defaults to entire range */  
}  
  
@font-face {  
    font-family: 'Heiti Plus';  
    src: url('fonts/andikanewbasic-r.woff2') format('woff2')  
         url('fonts/andikanewbasic-r.woff') format('woff');  
    unicode-range: U+0-2FF; /* Unicode range for Latin characters */  
}
```



这是一行中文字体。 This is some English text.

```
Inspect Console Debug Style Edit Performar Memo Network Storage + Search HTML  
+  
@font-face { font-family: 'Heiti Plus'; src: local('Heiti SC'); } @font-face {  
font-family: 'Heiti Plus'; src: url('andikanewbasic-r.woff2') format('woff2'),  
url('andikanewbasic-r.woff') format('woff'); unicode-range: U+0-2FF; /* Unicode  
range for Latin characters */ } body { font-family: 'Heiti Plus', sans-serif;  
font-size: 200%; }  
</style>  
</head>  
- <body>  
  <p>这是一行中文字体。 This is some English text.</p>  
</body>  
</html>  
html > body > p  
Rules Computed Layout Animations Fonts  
Heiti SC Light  
System  
- @font-face {  
font-family: "Heiti Plus";  
src: local("Heiti SC");  
}  
  
Andika New Basic  
file:///Users/huijing.chen/Desktop/webfontkit-20180404-021951/andikanewbasic-r.woff2  
- @font-face {  
font-family: "Heiti Plus";  
src: url("andikanewbasic-r.woff2") format("woff2"), url("andikanewbasic-r.woff") f...  
unicode-range: U+0-2FF;  
}  
Filter output Persist Logs  
»
```

# Descriptors

describe individual font faces

# Properties

requests for styling



# Basic CSS font properties

`font-size`

Indicates the desired height of the glyphs. Takes absolute or relative values.

`font-weight`

Specifies the weight of the glyphs in the font. Can use keywords or numerical values.

`font-style`

Allows italic or oblique faces to be selected.

`font-stretch`

Selects a normal, condensed or expanded face from a font family. Range spans over 9 keywords.

`font-size-adjust`

Adjusts the font-size to preserve the x-height of the first choice font.

`font-synthesis`

Controls whether user agents are allowed to synthesize bold or oblique font faces when missing.



# font-size-adjust

b b b

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

b b b

b b b

b b b

b b b

b b b

b b b

b b b



EDIT ON [CODEPEN](#)

This is a run of text in Merriweather.

This is a run of text in Georgia.

This is a run of text in Georgia with font-size-adjust set to 0.555, which is the (estimated) aspect ratio for Merriweather.

This is a run of text that's supposed to be set in Noticia Text but the font doesn't exist, so the fallback of Georgia has been invoked, with the font-size-adjust set to 0.530, which is the estimated aspect ratio of Noticia Text. Georgia has an estimated aspect ratio of 0.481.



# font-synthesis

Minion Pro

afwn

Roboto

afwn

Minion Pro Faux Bold

afwn

Roboto Faux Bold

afwn

Minion Pro Bold

afwn

Roboto Bold

afwn

Minion Pro

afeunyi

Minion Pro Faux Italic

afeunyi

Minion Pro Italic

afeunyi

Image credit: Piotr Gochowski



# Font feature properties

font-kerning

A V W a

No kerning

A V W a

Kerning applied

font-variant-position

C<sub>10</sub> H<sub>16</sub> N<sub>5</sub> O<sub>13</sub> P<sub>3</sub>

C<sub>10</sub> H<sub>16</sub> N<sub>5</sub> O<sub>13</sub> P<sub>3</sub>

font-variant-position-ligatures

fi ► fi tʒ ► ß

**WORDS** ► **WoRDs**  
*labor of love* ► *labor of love*

font-variant-numeric

1st 17th 2a ► 1<sup>st</sup> 17<sup>th</sup> 2<sup>a</sup>

2 1/3 ► 2 1/3 Lining Old-Style

4000 ► 4000 409,280 409,280

367,112 367,112

155,068 155,068

171,792 171,792

font-variant-caps

The DOM, the HTML syntax, and the XHTML syntax cannot all represent the same content. For example, namespaces cannot be represented using the HTML syntax, but they are supported in the DOM and in the XHTML syntax.

font-variant-alternates

Jesuits ► Jefuits  
quick ► quick Quick ► Quick

**incroyable** ► **incroyables**

• ► ☰ ☱ ☲ 519 ► ⑤①⑨

# font-variant-east-asian

麹町 ➤ 麹町

大学 ➤ 大學

欧文フォント ➤ 欧文フォント



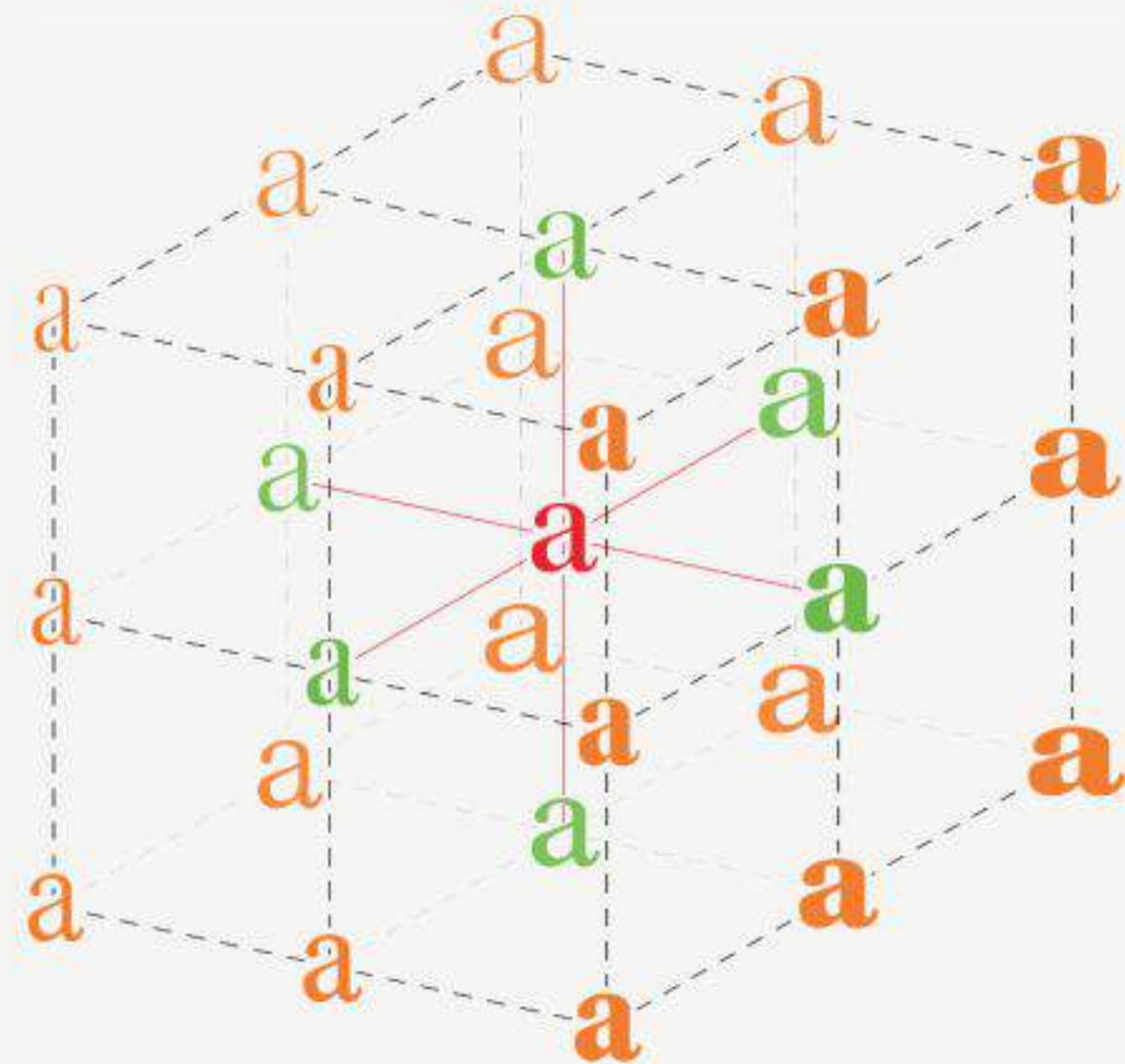
# font-feature-settings

Provides low-level control of advanced OpenType features

aalt	cpsp	frac	jp83	mset	psts	smcp	ss15	twid
abvf	cswh	fwid	jp90	nalt	pwid	smpl	ss16	unic
abvm	curs	half	jp04	nlck	qwid	ss01	ss17	valt
abvs	cv01-cv99	haln	kern	nukt	rand	ss02	ss18	vatu
afrc	c2pc	halt	lfbd	numr	rclt	ss03	ss19	vert
akhn	c2sc	hist	liga	onum	rkrf	ss04	ss20	vhal
blwf	dist	hkna	ljmo	opbd	rlig	ss05	ssty	vjmo
blwm	dlig	hlig	lnum	ordn	rphf	ss06	stch	vkna
blws	dnom	hngl	locl	ornm	rtbd	ss07	subs	vkrn
calt	dtls	hojo	ltra	palt	rtla	ss08	sups	vpal
case	expt	hwid	lfrm	pcap	rtlm	ss09	swsh	vrt2
ccmp	falt	init	mark	pkna	ruby	ss10	titl	vrtr
cfar	fin2	isol	med2	pnum	rvrn	ss11	tjmo	zero
cjct	fin3	ital	medi	pref	salt	ss12	tnam	
clig	fina	jalt	mgrk	pres	sinf	ss13	tnum	
cpct	flac	jp78	mkmk	pstf	size	ss14	trad	



# Variable fonts



*Image credit: John Hudson*



CSS property	Tag	Name	Description
font-weight	'wght'	Weight	Used to vary stroke thicknesses to give variation from lighter to blacker.
font-style	'slnt'	Slant	Used to vary between upright and slanted text.
font-stretch	'ital'	Italic	Used to vary between non-italic and italic.
font-optical-sizing	'wdth'	Width	Used to vary width of text from narrower to wider.
	'opsz'	Optical size	Used to vary design to suit different text sizes.



# Variable Fonts Experiments

A collection of experiments with variable font text effects. Warning: These are really heavy on your computer.

Special credit to David Berlow for the fonts <https://twitter.com/dberlow>

Mandy Michael follow

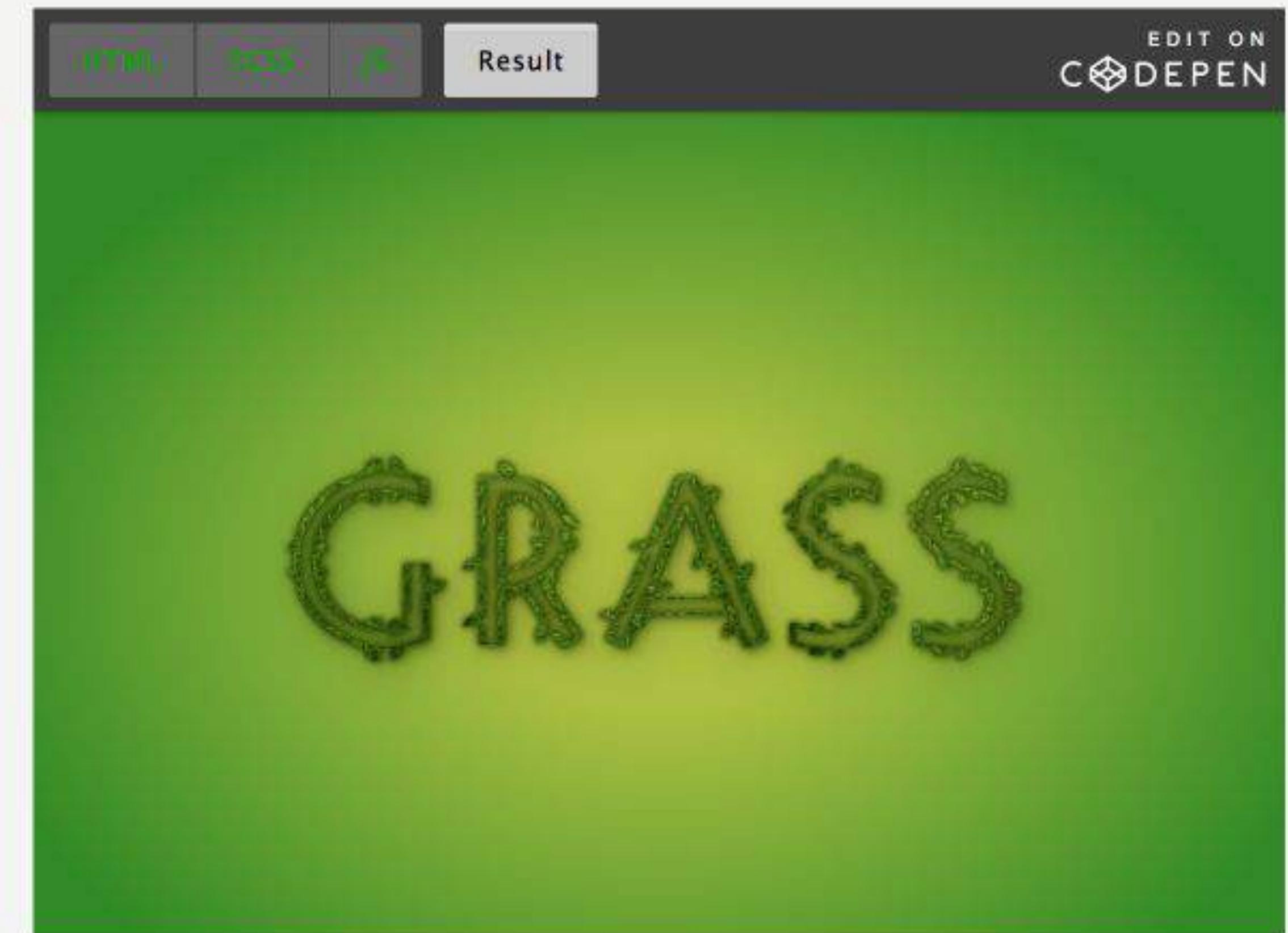
I/O  
"Draw In" Text Effect with Decovar  
Mandy Michael PRO 579 KB 0 MB 8.9K

variablefonts  
Variable fonts simple demo  
Mandy Michael PRO 1,549 KB 0 MB 38.9K

Next  
Abstract Editable Layered Variable Font Effect - D...  
Mandy Michael PRO 2,930 KB 0 MB 29.9K

Hello  
CSS only Variable Font demo using Decovar Regular  
Mandy Michael PRO 5,445 KB 2 MB 103.9K

Next >



# **font-variation-settings**

Provides low-level control over OpenType or TrueType font **variations**



[Introduction](#)**MY SPECIMENS**[Old Default](#)**SPECIMENS**[文鼎晶熙黑](#)[晶熙ゴシック体](#)[Amstelvar](#)[Avenir Next](#)[BitCount](#)[Buffalo Gal](#)[Compressa](#)[Decovar](#)[DIN 2014](#)

# 濃愁 小猶豫

小時候的煩惱很清澈，長大的煩惱卻很混濁。

如果以湯頭比喻煩惱這件事，

小時候的像是昆布鰹魚湯，滾燙的血騷動著整鍋的情緒，

但一眼就看出端倪來、

長大了莫名就變成南瓜牛奶湯，

就算再煮下去，

也只會，唉，越來越「濃愁」。

# 濃愁 小猶豫

<https://www.axis-praxis.org/>

**TEXTBOX**

Textbox

heading-1

Font

AR UDJingXiHeiVF Medium



Drag &amp; drop fonts here

Font size

Line-height

Alignment

CSS

New textbox

Delete textbox

**FONT VARIATIONS**

Instance

Medium (default)

Weight

500

Width

93.3

**FONT FEATURES****COLOUR**

新生火柴廠

Flyingman Safety Matches



TRADE MARK

ماهض اون شرکت ترسانه

SINCERE MATCH & TOBACCO FACTORY LTD.  
PETALING JAYA, KUALA LUMPUR, MALAYA.

飛人牌火柴

# PANAU SALAP CHAP GAJAH



*Hanya satu sahja PANAU SALAP yang selalu dipakai orang yaitu*

## **PANAU SALAP CHAP GAJAH**

*kerana penyakit*

- ★ PANAU
- ★ KURAP
- ★ GATAL<sup>2</sup>
- ★ Dan Lain<sup>2</sup>

*Ada terjual disemua kedai obat diseluroh Malaysia, Singapura dan Brunei.*



# Kansai Yamamoto Fashion Avant-Garde - Art+Culture

## Japanese Contemporary Kimono - Classic

Kansai Yamamoto became known for his avant-garde designs in the early 1980s. After his last collection in 1992, he has returned to kimono designs which caught the eye of David Bowie. He has also designed a train for JR East and in 2010 also designed the Skyliner train.



# The magic of Writing Modes

CSS Writing Modes Level 3 defines CSS features to support for various international writing modes, such as **left-to-right** (e.g. Latin or Indic), **right-to-left** (e.g. Hebrew or Arabic), **bidirectional** (e.g. mixed Latin and Arabic) and **vertical** (e.g. Asian scripts).





to-right.

literally turn on its side from left-

You can make your browser



i s f u n -

> e r t i u s - t e x t



Or make it read from right-to-left.



to-right.

literally turn on its side from left-

You can make your browser

# writing-mode property

horizontal-tb 从1987到现在

---

vertical-rl  
到现在 从1987

---

vertical-lr  
从1987 到现在

---

sideways-rl\*  
到现在 从1987

---

sideways-lr\*  
从1987 到现在



# text-orientation property

从1987到现在

*mixed*

从1987到现在

*upright*

从1987到现在

*sideways*



# text-combine-upright property

民國106年7月3日

*none*

民國106年7月3日

*all*

民國106年7月3日

*digits <integer>\**

[Codepen example for text-combine-upright](#)



## max-height: 25em

### MNBL女子决赛·昔加末攀高峰夺冠

(吉隆坡29日讯)国手陈慧晶昨晚在第一届大马全国篮球联赛(MNBL)女子决赛中爆发，全场轰进18分4篮板，带领昔加末篮球公会以60比51击败吉隆坡高峰集团，以大热姿态在第一座MNBL奖杯上留名。

#### 陈慧晶夺生涯首个MVP

陈慧晶在初赛与半决赛并不是特别抢眼，岂知来到决赛却成为了球队的致胜功臣。身高17公分的陈慧晶此役14投8中，命中率高达57%，尤其最后一节更是独得8分，顶住了高峰队的反扑。凭藉决赛的精彩演出，陈慧晶也因此当选决赛MVP(最有价值球员)，生涯首次获得这一项荣誉。对于陈慧晶的表现，昔加末主帅戴正钧也赞不绝口，他说：「陈慧晶在这一场比赛的发挥是大家有目共睹的。而除了我们的MVP(陈慧晶)，汪秀婷、邱嫖媚也在关键时刻投进了几个三分球，我们才能够在紧要关头将比分扩大。」

#### 多次靠三分球扩大比分

昔加末靠三分球抛离对手的纠缠，本场比赛就出现了好多次，像第三节高峰队追至20比26时，邱嫖媚就轰进三分球，然后在22比31时，汪秀婷也射出一记三分弹，来到比赛最后5分钟高峰以45比53咬紧比分时，邱嫖媚又适时出手命中三分球，让高峰队多次努力无功而返。

除了陈慧晶，邱嫖媚与彭燕燕在此役也各射下8分，汪秀婷和钟佩金各得7分，彭慧萍虽然只得5分，但却抢下全场比赛最高的10个篮板。

高峰队的陈巧婷此役的发挥也极为出色，射下23分8篮板，但却无法带领球队取胜。此外叶佛仪取得10分5篮板、李秀雯8分6篮板、伊查蒂7分6篮板等。

#### 雷升龙：发挥输对手5%

高峰队主帅雷升龙表示，高峰队其实在本场决赛发挥得不错，只是昔加末的表现更为出色，防守也比他们更为严谨。

雷升龙说：「我们和昔加末其实都属于同样水平的队伍，胜负关键就要看双方球员的临场表现，而在这一方面我们在决赛中输了5%。」

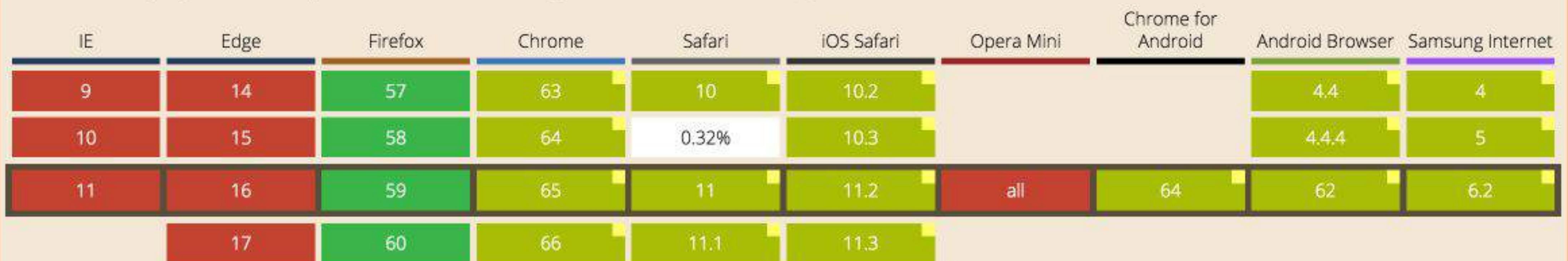
# Willem de Kooning

If Jackson Pollock was the public face of the New York avant-garde, Willem de Kooning could be described as an artist's artist, who was perceived by many of his peers as its leader. He was born in Rotterdam, where he grew up in an impoverished household and attended the Rotterdam Academy, training in fine and commercial arts. In 1926, the adventurous young artist stowed away on a ship bound for Argentina. While the ship was docked in Virginia, de Kooning slipped off, skirted immigration, and made his way to New Jersey—and so began the rest of his life.

# CSS Logical Properties

## CSS Logical Properties

Use start/end properties that depend on LTR or RTL writing direction instead of left/right



✓ Partial Support ✗ Prefixed

Global: 4.86% + 85.21% = 90.07%

Data from caniuse.com | Embed from caniuse.bitsofco.de

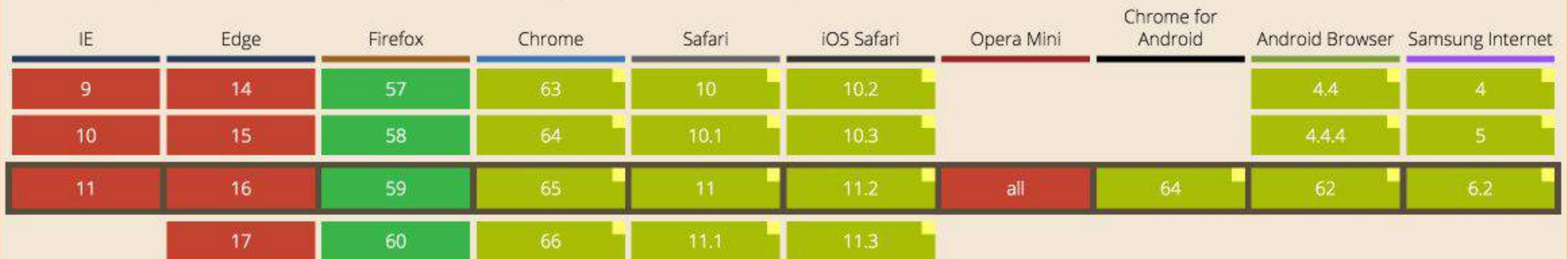
Enable accessible colours



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### 陈慧晶夺生涯首个MVP

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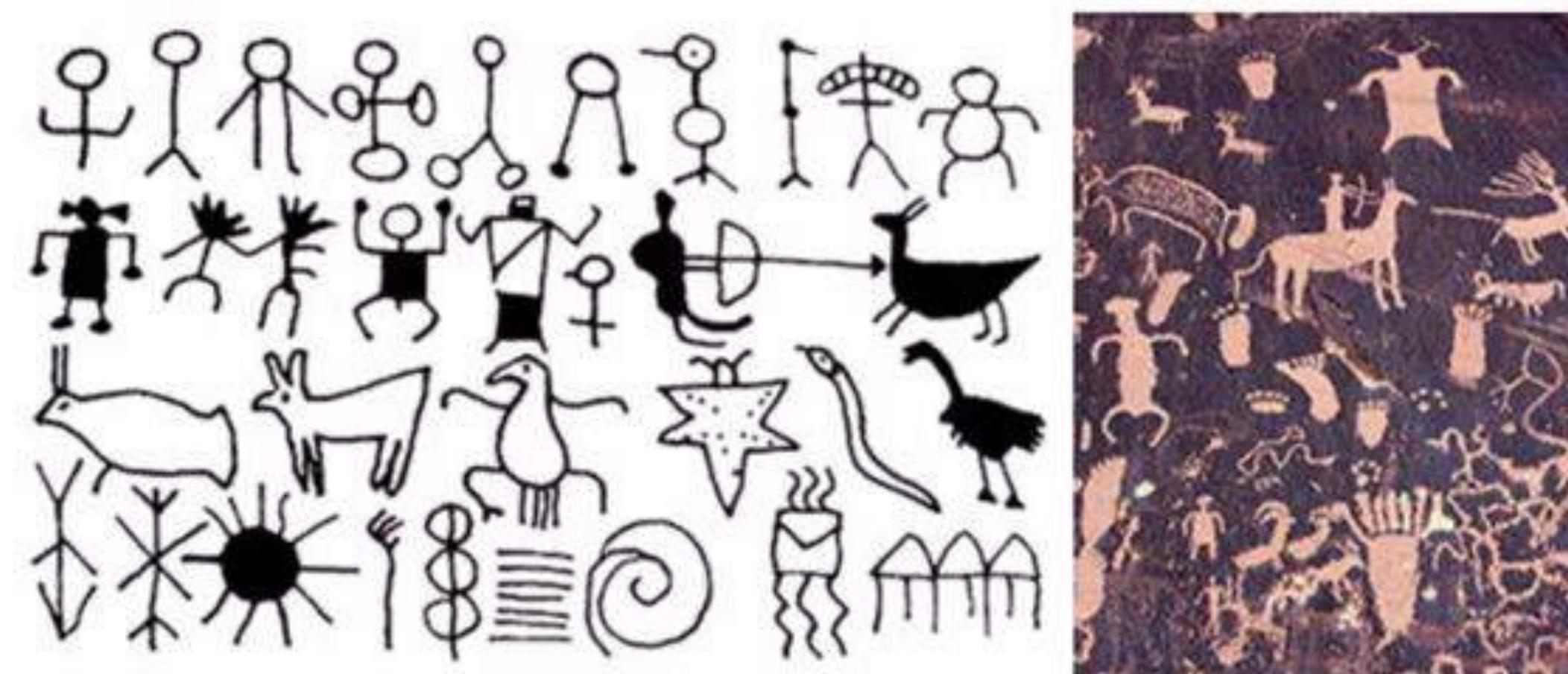
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# 文字的故事

記錄：演變 05/20/2014

人類和其他生物物種總是在以自己獨特的方式和語言給大自然和自己的生命歷程留下一些印跡。當遠古時期的獵人根據熊掌印開始追蹤的時候，那便是最早的「視覺交流與傳播」(Visual Communication) 的開始。

最早的視覺傳達方式基本都是利用圖形進行的。這是北美印地安在史前的岩洞壁畫



法國發現的拉斯考克岩洞中，古代人類的原始繪畫，大約西元前一萬——萬五千  
年



The W3C Internationalization (i18n) Activity works with W3C working groups and liaises with other organizations to make it possible to use Web technologies with different languages, scripts, and cultures. From this page you can find articles and other resources about Web internationalization, and information about the groups that make up the Activity. Read also about the opportunities to participate and fund work via the new Sponsorship Program.

[Learn more about the Activity...](#)

## Recent highlights

- ▶ For review: inline markup and bidirectional text in HTML [December 4, 2017](#)
- ▶ Updated article: Using character escapes in markup and CSS [August 30, 2017](#)
- ▶ New article: Strings and bidi [August 25, 2017](#)
- ▶ For review: Strings and bidi [August 7, 2017](#)
- ▶ For review: Floating times [June 15, 2017](#)
- ▶ New article: Approaches to full justification [April 3, 2017](#)
- ▶ Talk slides: JEPAP seminar
- ▶ Unicode Conference speaker submission deadline 24 March [March 20, 2017](#)
- ▶ For review: Approaches to full justification [March 13, 2017](#)

## All news

December 13, 2017

### Updated article: *Inline markup and bidirectional text in HTML*

An update for the article *Inline markup and bidirectional text in HTML* has just been published.

This article tells you how to write HTML where text with different writing directions is mixed within a paragraph or other HTML block (ie. inline or phrasal content). The article has been updated to bring it in line with recent browser developments and to simplify the guidelines. Examples are linked to live versions, and indications are given for which features are supported by which browsers.

[Leave a comment](#)

Tags: [article-inline-bidi-markup](#)

Categories: [news](#) [news\\_i18n](#) [i18n](#) [internationalization](#) [multilingual](#) [internationalization](#)

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i18n site search:

RSS Feeds

## Quick links

- ▶ Current projects
- ▶ Articles etc.
- ▶ Tech reports
- ▶ Text layout index
- ▶ Text layout tracker
- ▶ Type samples
- ▶ Review radar
- ▶ Review tracker, github
- ▶ Review guidelines
- ▶ Document issues
- ▶ Layout work
- ▶ I18n wiki
- ▶ Tests
- ▶ I18n checker
- ▶ MultilingualWeb
- ▶ @webi18n

## Group pages

- ▶ Activity Statement
- ▶ I18n WG
- ▶ I18n Interest Group
- ▶ I18n Tag Set (ITS) IG
- ▶ Arabic Layout Task Force
- ▶ Chinese Layout Task Force
- ▶ Ethiopic Layout Task Force
- ▶ Hebrew Layout Task Force
- ▶ Indic Layout Task Force
- ▶ Community groups



*Penang Hokkien website*

*About page*

为什么呢？因为我想把所有跟槟城福建话有关的资料收集在这里。如果你觉得我是吃饱没事做，其实这是有理由的。

几个月前，我在面子书看了一个「Dx茨广街」的视频，名称如果福建话失传了，我们失去什么？演讲者是黄致源，而他尽然是用粤语来演讲。但是这个演讲让我更加赏识槟城福建话。

槟城福建话是我的母语。我记得小时候跟妈妈一起阅读英文书，记得阿嬷教我写中文字，但是觉得自己一出生就已经会说福建话了。念书时，在学校能够用福建话沟通的同学少之又少，算起来也只有一位。即使我们俩说的都是福建话，但是腔调跟词汇都显然有差别，因为她说的是新加坡福建话。

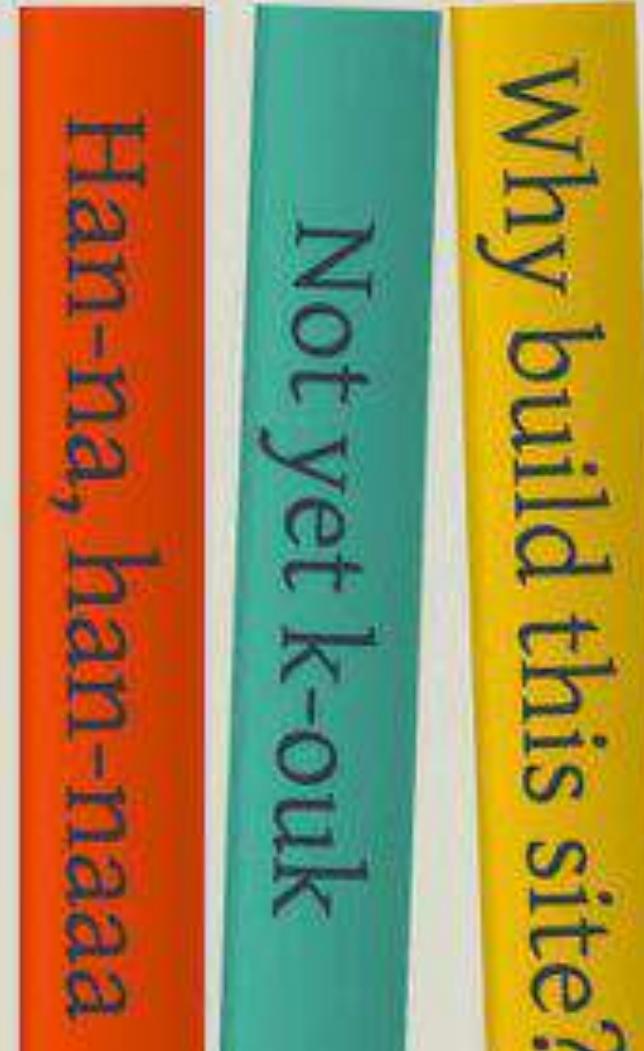
我跟家人离开槟城已经有二十多年了，所以我只有在家中有机会听到槟城福建话，或则就是一年一度回乡的那几天而已。虽然偶尔会有闽南语的电视节目，但是我从来没听过槟城福建话的广播。



Have a story? [Send it in!](#)

世端禪穀の物語

PGHK stories



*Bookshelf-style design with vertical text*





Capabilities

Partners

**Blog**

Contact

# Cognition

the Wismut Labs engineering blog

*posted on Apr 24, 2017*

## Building for cross-browser compatibility

*This is the third post of a multi-part series about developing the brand identity for Wismut Labs.*

The [previous post](#) covered a number of design decisions made with regards to the overall style of the Wismut Labs brand. This post will focus on the actual building of the Wismut Labs website.

*Vertical blog tags*

Front-end



**关于 ABOUT**

 Home  English 

This is a website dedicated to Penang Hokkien, the language of my hometown. I talk about the inspiration for the content of this site in the [inaugural story post](#). But I am also a web developer, and so this site also serves as my CSS playground for experimenting with the concept of mixed writing-modes. If that sentence made sense to you, [technical details here](#).

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*Responsive vertical to horizontal layout*



EPYPHITE

Without roots.  
Everywhere.

ABOUT US

PRODUCTS

SERVICES

OUR PHILOSOPHY

BLOG

CONTACT

Waiting...  
Waiting...  
Waiting...  
Waiting...  
Waiting...  
Waiting...



CHENHUIJING-PC



*Vertical mobile navigation*



17 bugs found.

ID	Product	Comp	Assignee	Status	Resolution	Summary	Changed
626476	Core	Layout	nobody@mozilla.org	UNCO	---	css3flexbox : create pseudo css states :orient-vertical and :orient-horizontal	2011-01-27
1380602	Core	Layout	nobody@mozilla.org	UNCO	---	Vertical margin and padding in percent in the inner of flex layout container	2017-09-22
1389122	Core	Layout	nobody@mozilla.org	UNCO	---	Vertical flex container does not correctly auto-size on the main axis when it contains a flexed item	2017-09-27
1397768	Core	Layout	nobody@mozilla.org	UNCO	---	flex children of <button> are always vertically centered, despite align-items or justify-content	2018-02-23
1427798	Core	Layout	nobody@mozilla.org	UNCO	---	Element occupy vertical space in flexbox when has no height	2018-02-20
734525	Core	Layout	dholbert@mozilla.com	NEW	---	multicol elements are too tall, as flex items in a vertical flex container	2013-09-20
799713	Core	Layout	nobody@mozilla.org	NEW	---	Investigate sizing of auto-height/auto-width multicol elements in a vertical flexbox	2013-04-01
995020	Core	Layout	nobody@mozilla.org	NEW	---	intrinsic width of vertical multi-line flexbox is incorrect, when wrapping is needed (with flex-flow: column wrap)	2018-02-23
1054083	Core	Layout	nobody@mozilla.org	NEW	---	In vertical flex containers, treat intrinsic sizing keywords for flex-basis as if they were "auto"	2014-08-14
1092007	Core	Layout	nobody@mozilla.org	NEW	---	For flex items in a vertical flex container, only treat heights as definite (for resolving % heights on children) if the flex-basis (or flex container's height) is also definite	2018-01-12
1228176	Core	Layout	nobody@mozilla.org	NEW	---	offsetWidth/offsetHeight calculation is slow in vertical flexbox, with flex item that has default "min-height:auto" and tons of child nodes	2017-06-06
1318825	Core	Layout	nobody@mozilla.org	NEW	---	[css-flexbox] Vertical-writing-mode flex item in horizontal flex container has wrong width	2017-12-03
1310551	Core	Layout	nobody@mozilla.org	NEW	---	orthogonal flows (vertical writing-mode inside horizontal) can produce intrinsic sizes of 0, e.g. in floats & flex items	2018-02-06
1349163	Core	Layout	nobody@mozilla.org	NEW	---	[css-flexbox] In Firefox flex item with writing-mode:vertical-rl stretches, not in Chrome	2017-07-17
1384266	Core	Layout	nobody@mozilla.org	NEW	---	Assertion failure: sideToMeasureFrom == eSideBottom (We already checked that we're dealing with a vertical axis, and we're not using the top side, so that only leaves the bottom...), at src/layout/generic/nsFlexContainerFrame.cpp:1987	2018-03-02
1420631	Core	Layout	nobody@mozilla.org	NEW	---	Vertical inline-flex throws content far away from where it should be	2017-11-27
1436896	Core	Layout	nobody@mozilla.org	NEW	---	Flex item with child-percent-padding-imposed aspect-ratio & vertical WM isn't sized the same as in other browsers	2018-02-20

17 bugs found.

Long Format

XML

[Short URL](#) | [REST](#) | [CSV](#) | [Feed](#) | [iCalendar](#)  
[Change Columns](#)

Edit Search

Remember search

as

Bugs, bugs, bugs



Bugzilla@Mozilla

mozilla

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Bug	Updated	Status	Summary
<a href="#">1181227</a>	14 hours ago	ASSIGNED	[meta] CSS Grid Inspector
<a href="#">1296209</a>	3 days ago	NEW	Support calc() in CSS properties that take <integer> values
<a href="#">1339672</a>	9 days ago	NEW	[css-grid] grid-auto-columns/rows should accept multiple track-size values
<a href="#">1329261</a>	4 months ago	NEW	All auto margins resolve to 0, on elements with vertical writing-mode (in a horizontal writing-mode parent)

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# Bugzilla@Mozilla

bugs Project: chromium ▾ Issues People Development process History [Edit profile](#) | Profile | Sign out

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★ Issue 501071 color emoji disappear at 257 device pixels on Android, ChromeOS and Linux Back to list

Started by 57 users [Edit profile](#) Reported by [benton@chromium.org](#), Jun 16 2015

Status: Assigned Version: Google Chrome 45.0.2429.0 <- ChromeOS on Chromebook Pixel (1st-gen)  
Owner: bunge\_@chromium.org Google Chrome 44.0.2403.41 <- Android on Motorola Nexus 6  
Cc: tsalmer@chromium.org OS: ChromeOS, Android  
tbehdad@chromium.org  
kwon@chromium.org  
is\_@chromium.org  
mochando@chromium.org  
n\_@chromium.org  
drotl@chromium.org

What steps will reproduce the problem?  
1. Open a new tab  
2. Navigate to

```
data:text/html;charset=utf-8,<title>disappearing emoji</title><meta name="viewport" content="width=device-width,initial-scale=1" /><body onload="setInterval(function(){[document.body.style.zoom=1/devicePixelRatio],1e3)}>256dp><span style="font-family:sans-serif;font-size:256px" title="8F0%F8C%8F%F0%F8C%8F">8F0%F8C%8F%F0%F8C%8F</span><br />257dp><span style="font-family:sans-serif;font-size:257px" title="8F0%F8C%8F%F0%F8C%8F">8F0%F8C%8F%F0%F8C%8F</span>
```

Components: Internals>Skin  
EstimatedDays: ---  
NextAction: ---  
OS: Linux, Android, Chrome, Mac  
Pri: 2  
Type: Bug

Add to hotlist  
Screenshot 2015-06-16 at 13.37.62.png 96.1 KB [View](#) [Download](#)

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# Chromium Bugs



# A long list of references

- Usage of content languages for websites
- The faces of Microsoft
- No @font-face Syntax will ever be Bulletproof, Nor Should It Be.
- 字体漫谈
- Source Han Serif / Noto Serif CJK History & Development
- Chinese Fonts & Related Issues
- Variable fonts, a new kind of font for flexible design
- Introducing OpenType Variable Fonts
- fvar – Font Variations Table
- Variable Fonts on the Web
- How to Use Variable Fonts on the Web
- Getting started with variable fonts
- 全球首款! 文鼎晶熙黑體支援可變式字體格式
- W3C Internationalization & Text Layout Requirements
- Berners-Lee, T., & Fischetti, M. (2011). *Weaving the web: The original design and ultimative destiny of the World Wide Web by its inventor*. New York, NY: HarperBusiness.
- Zhang, X. & Han, Q. (2009). *The history of Chinese printing: (illustrated)*. Paramus, N.J: Homa et Sekey Books.
- Brokaw, C. & Reed, C. A. (2010). *From woodblocks to the Internet: Chinese publishing and print culture in transition, circa 1800 to 2008*. Leiden: Brill.
- Tsien T. (2011). *Collected writings on Chinese culture*. Hong Kong: The Chinese University Press.
- Tsien, T. & Shaughnessy, E. L. (2013). *Written on bamboo & silk: the beginnings of Chinese books & inscriptions*. Chicago: The University of Chicago Press.
- Houston, K. (2016). *The book: a cover-to-cover exploration of the most powerful object of our time*. New York: W.W. Norton & Company.
- 厉致谦 (2013). 西文字符的故事. 上海市: 同济大学出版社.
- Choi, K. E., & Kim, M. S. (2015). *A Comparative Study on the Sociocultural Drivers in the Development of Printing Technology in Korea and Europe*. Korea Journal, 55(4), 7-35.
- Park, H. O. (2014). The History of Pre-Gutenberg Woodblock and Movable Type Printing in Korea. International Journal of Humanities and Social Science, 4(9), 1.
- Haralambous, Y., & Horne, P. S. (2007). *Fonts & encodings*.





<http://tategaki.github.io/awards/>

### Intro to CSS Grid

5 Basic Examples of how CSS Grid Works

12 Variations of Card Layouts

Example of Nesting Flexbox and Grid

Monopoly on CSS Grid

Study of Viewport

Study of Whitespace

Study of Verticality

The Experimental Layout Lab of Jen Simmons

REB Boston 2017  
2016 demo

See how these boxes work in Firefox with the Firefox Grid Inspector tool.

WANT TO SEE CSS Grid

<http://labs.jensimmons.com/>

# Thank you!



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