



People who work with the alphabet see the world through a narrow keyhole.


We appreciate the fine blackletter cursive of the Vinland Map. Other people remember the $\$ 300,000$ price tag. Is it a forgery? Well, 15th century ink seldom if ever contained titanium dioxide. And before 1950 not many bookbinders used nylon thread.


No doubt the couple on this Roman funerary stela had their dreams and joys and sorrows

When Thomas More published Utopia in 1516, he gave the islanders an alphabet of their own. We appreciate that. The book itself is much admired by people who haven't read it.


In Utopia, for example, family size is strictly regulated. Which means that children are taken
from large families and given to people with too few. That's what I call a handbook for fascists.
We show an interest in peoples with a written culture.


The Mesopotamians usually get an honorable mention. Some less than reliable websites let


This is how ATypI might look in cuneiform characters. But it's a stretch.

## dog



Middle Eastern writing didn't use a lot of vowels back then. So the word "dog" ..



We also pay proper respect to the Egyptians who invented a perfectly serviceable alphabet, but still preferred writing in hieroglyphs. This is a granite slab, as flat as a windowpane, and it was cut to shape and carved with bronze tools.




In Egyptian hieroglyphs, "father" was spelled with a poisonous snake. Here it is: reed, loaf of bread, horned adder and a male determinative.



In the late 16th century, Christian missionaries came close to burning every book with Mayan hieroglyphs. Four examples
have survived. Here's a page from the Dresden codex, a fragment of 74 accordion fold pages. I wonder where we would stand if foreign invaders had wiped out every European book before 1600 and then stamped out the Latin alphabet.


The calendar reform of Julius Caesar made the year 46 BCE 445 days long and introduced regular leap years. (He also knocked the stuffing out of the Roman republic, and cleared a path for a line of emperors that included Nero and Caligula. And Tiberius who, according to the historian Suetonius, enjoyed sexual intercourse with fish.)


The Julian calendar year was about 11 minutes too long. In the late sixteenth century, the vernal equinox fell on 11 March instead of the 21st. Pope Gregory XIII tried to put this right. And people famously shouted "give us back our ten days."

Some countries took their time to make the change. So the Russians celebrate the October revolution on 7 November.

On a bright day during solstice and equinox you can tell if your solar calendar is correct. The lunar calendar is much easier. It can be refined every 28 days. The Mayan version has lasted unchanged for 1500 years and is only 33 seconds off. The Mayans also tell us the world will end on Sunday the 23rd of December 2012.


We don't pay as much attention to the Incas, who only wrote with a piece of string.


Yet writing with knots on a string was in use by the blind in 19th century Scotland. It's a stupid system. Some of the knots can only be made by pulling the end of the string through loops on the way. The text of Pride and Prejudice would be about a mile long.


Charlemagne is another character that we see when we look at the world through a narrow keyhole. In the middle ages the generic

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$C$ um me caftalea fero

# Carolingian minuscule 

9th-10th century The Metz evangeliary

## Humanistic minuscule

15th century
Elegies of Sextus Aurelius Propertius


## $\omega$



## Ko



## $\pi$




and the letter $S$ finished the job.


39
It reads "Karolus." It's not perfect but it's good enough for government use.



This spiral tends to have architects and engineers and some designers in raptures. It is based on a proportion that was defined by Euclid, but is usually credited to a 13th century mathematician we call Leonardo Fibonacci.

Piling up seven squares in the size sequence of 1 , another $1,2,3,5,8$ and 13 is easy enough. Then we set to work with a compass.


We adjust the size once for each square.


This creates a spiral that reminds many people of shapes in nature.



Maybe. Nature is a big place and some things in it do look alike

. especially if you don't go into detail.



One of them expands at the ratio of $1: 1.618$, the other at an average close to $1: 1.33$. There's more.


People who know how to use their eyes, people like type designers, can see that


There's more than one way of making a tense curve that crosses two segments and fits all sizes. This is my solution.


And this is the result, even curves and all. Sacred geometry? I don't think so.



Dacia is more or less the present territory of Romania. The poor people had the misfortune of mining gold and having money.
The first paleographers seem to have assumed that this beautiful style, the square capital, was the standard Roman writing.


They may be forgiven for having looked at these pages and assuming it was the book hand of the empire. But the Virgilius Augusteus was probably written in the fourth century.

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The letter A had lost the bar. And you'll notice that the book has an interesting way of justifying lines with smaller writing.


This script that the scholars thought was mainly fit for the provinces they called "rustic." But that seems to have been the book hand of Rome.


[^0]

The empire had a rich and varied tradition. This fascinating inscription from


The early cursives are mainly attempts at writing capitals fast.


 Mam Mave



Tin




 Auckighick






Christianity seems to have pushed forward the development of handwriting. This is the Codex Sinaiticus, written in the fourth century, in the Greek uncial style.


This early Roman uncial is freely written and on the rough side. The four letters that are typical of the style show how far three centuries of scribal shortcuts had changed what was considered legible. Like the rustic, the uncial name seems to come from a

"Habeant qui volunt veteros libros, vel in membranis pur pureis aut argentoque descriptos, vel uncialibus, ut vulgo aiunt, litteris onera magis exarata quam codices ..."


Uncials weren't an inch high, as the name would suggest. But the initials in the Virgilius Augusteus measure an inch and three quarters. And the estimated weight of the entire manuscript is about nine kilograms, or 20 pounds. Jerome wouldn't have approved.


In our time, uncials are not in great demand. Still, they are used for street signs in parts of San Luis Obispo in California.


Another modest bookhand of the period, largely unrelated to the uncial, was called the halfuncial. The writing method, the stroke sequence and stroke direction, came from the documentary cursive of Roman clerks. The lettershapes changed

gintityinNomin sintexfokmage

A third style that was mainly used for marginalia is sometimes called a quarter-uncial. It is obviously an offshoot of the late Roman cursive, and has little if anything to do with the uncial.


To sum up a big and tangled subject, we can probably say this.

as well as lavishly decorated letters




In ancient Egypt the internal organs of mummies were kept in containers called canopic jars. The lids were
The jar for the intestines had the head of a hawk god that symbolized the west.


A baboon headed god, expressing the north, guarded the lungs.


The liver was in a jar that was defended by a god with a human head, and appeared as the south.


And a god with a jackal head, representing the east, protected the stomach. These were the four sons of Horus, and later they seem to have served various purposes in a jumble of religious images in the Middle East and around the Mediterranean.



With the visions of Ezekiel and the book of Revelations, the church had to make sense of a lot of strange pictures. Three Catholic saints helped settle the matter: Irenaeus of Lyons, Augustine of Hippo and our friend Jerome. In this painting by Leonello Spada, he is portrayed as usual with a skull and a cardinal's red garb, and in addition given a pair of pince-nez spectacles.


The eagle was the symbol of John. This is the work of Hans Holbein the Younger.


The Bull was the symbol of Luke.



And the Lion represented Mark.



A bull protects the west.



And a dragon protects the east. These four should have gone on the shield.


Instead they put the flag on the shield. Never mind.





One of my back burner projects is a rendition of Völuspá, an epic poem of the Germanic account of creation




I was involved in the introduction of italic handwriting in Iceland, and that with an endorsement from the ATypI
Education Committee. The project is now largely in the hands of my senior partner, Freyja Bergsveinsdóttir.

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## аอеf03ир

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\section*{abefos

## abefos <br> ```SANS BOLDITALIC```

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Calligraphy, as we know, is handwriting as an art. It usually involves skilled handling of pens with unusual nibs. Or, if you really know what you intend to do, you can fake it in Photoshop as I did with these two.



And if calligraphy is writing as an art, lettering is calligraphy with cheating. What matters is how the piece
looks like in the end. How you go about it doesn't count. The Optiskop 62 projector hasn't been manufactured



All you need are photocopies, a pair of scissors, a pair of tweezers and some glue.


Type design I don't have to tell you about. Ernie and Larry and Robin made the nicest software I
have ever used for anything. FontStudio has plenty of bugs. Is hasn't been updated for nearly 20 years. But for as long as it takes, I'll own a Macintosh that can run it under System 9.


At this point you may well ask about the practical uses of looking at graffiti and writing with a broad nib. I'll tell you. Sometimes people send me designs and ask me what to do.


This is usually my first advice. Try a broad edge pen. Try two pencils. Just observe what they do. Now on to typography.


The Wood Beyond the World was published in 1894. Hundred and seventeen years later,


To people familiar with Raúl Rosarivo's Divine Proportion or Jan Tschichold's paper on non-arbitrary margins these lines seem like old friends, almost self-evident. In the nineteenth century, people who created books had to think for themselves.


William Morris used his eyes. He knew his stuff. Once we have the facts, books tend to design
themselves. Facts about tradition give us rules to follow or, if we feel like it, rules to break. Facts about legibility and reader preference help us choose typefaces. In our case, these facts help us design them.


Line length matters. Hypnerotomachia Poliphili is one of the most beautiful books ever printed. It has an average line length of over 60 characters. That's close to the upper limit for an educated reader. The Gutenberg Bible is in two columns of about 30 characters each. Unless you set your text ragged right, you'll need a lot of hyphens. One page has 17 of them in a row, if memory serves me.


Letterforms research is good, clean fun. Most prep work means going back to original



And as I burrow through Peter Karow's volumes, I am grateful that people who know stuff care enough to share it with the rest of us. Not enough people read research.

Now is the Winter of our Discontent, Made glorious Summer by this Son of Yorke:
And all the clouds that lowr'd vpon our house In the deepe bosome of the Ocean buried.
Now are our browes bound with Victorious Wreathes, Our bruised armes hung vp for Monuments;
Our sterne Alarums chang'd to merry Meetings;
Our dreadfull Marches, to delightfull Measures.

Now is the Winter of our Discontent,
Made glorious summer by
this Son of Yorke:
And all the clouds that
lowr'd vpon our house
In the deepe bosome of
the Ocean buried
Now are our browes bound
with Victorious Wreathes,
Our bruised armes huing
vp for Monuments;
Outir sterne Allarums chang'd
to mery Meetings;
Our dreadfull Marches, to
delightiull Meastires.




Hyphens are usually designed to match the lower case and have to be lifted to work properly with capitals.
We already have ways of leaving this task to computers. But so far, few of them actually do it.


Mind you, I am grateful for any help I can get. Anybody who has justified a line of metal type by hand in recent times



Freedom has a dark side. A lot of people have never heard of a condensed design. I can't really
blame them for that. They squeeze type until the horizontals are thicker than the verticals. They





That means for instance using an en-dash instead of a hyphen in compound adjectives.
Not everybody will take the trouble of being above reproach if it means memorizing 1026 pages of


And I congratulate all here who haven't read Robert Bringhurst's book


Did you ever wonder what happened to all the typesetters? Some retired. Others became yoga instructors or something.






Here it is. This sign was made in-house, by an employee who was handy with a glue gun.




## GRANDTILE RCABINETE

[^1]I recommend them, although they did decline to sell me the sign.



..but they look pretty good when they are carved in stone. All this advances the human condition.


# ABCDEFGHIJKLM NOPQRSTUVWXYZ abedefghitklmnoparst uvwxyz 1234567890 

<br>

Don't get me wrong. A plastic template can save me time and effort. It doesn't do anybody


This is nothing new. Hundred and fifty years ago the world needed a way of automating the
writing of morse code as it came down the telegraph wire.


And in 1867, William Thomson, first Baron Kelvin, patented the inkjet printer. Yes, he's the man who said


We have come a long way lately. The Bald Prima Donna was Eugène Ionesco's first play.


Today Massin's famous type distortion would only take a few minutes. The tools of 1964 were different. He used rubber from


Making an ellipse with a piece of string is shown in all the basic texts. Even before personal computers it wasn't used a lot.


You know how the thing works. You drive thumbtacks into your drawing board and fiddle with the damn string.

And then you try not have an accident with your drafting pen. Fortunately, there were other ways.


155
You divide the horizontal and vertical axes into equal number of parts.
188


Then you connect dots.



This gives you a perfect curve

and a perfect ellipse.


A third method uses a trammel that is sometimes attributed to Archimedes. You mark half the horizontal axis ...

and half the vertical axis. A piece of cardboard will do.


You line them up on the two axes and start making dots.


You realign the trammel on the axes and add more dots.


This works like a charm.


$$
165
$$

You get a perfect work drawing, ready for the French curves .

just like this. Nowadays we can make ellipses just by clicking and dragging.
I shall not predict where computer aided design is taking us.



People usually predict that tomorrow will be an extravagant version of today.
If they were right, we'd go to work in nuclear helicopters. But I have more to say about ellipses.



You mark half the short axis on the longer axis.


You mark the remaining distance of the long axis on the diagonal.


Halfway up the remaining distance of the diagonal, you draw a line at right angles that crosses


With these lines in place, you're ready to draw sections of four circles.


174
The long sides look like this.


The end pieces close the shape. This really isn't an ellipse. No doubt you notice a dip in the area where the


With practice you can knock these things out in two minutes flat.


They are singularly ugly as shapes go and a miserable way of constructing the letter O .



I like lettershapes with a ragged edge. I like a tied pair like one of these, one or two to a page, to



# Nobody knows anything 



At the outset I said that life was wonderful, and that we were doomed. I still recommend that we love and


Icelandic folk tales tell us of huge trolls that lived in the mountains. They were heathens, most of them malevolent and some of them cannibals.


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We didn't have an easy life. The Lakagígar eruption of 1783 was a part of volcanic activity that caused a global winter. The famine that followed killed 100,000 people in Japan alone. But books were so much a part of life of my poor, half starved countrymen and women that their giants were not only bound to be literate, and have books, but sure to have their own alphabet.

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．and you I thank for coming．




[^0]:    60
    The early inscriptions were simple. The letters were close to basic geometric shapes

[^1]:    The shop employs nice people who gave me very good price on marble tiles.

