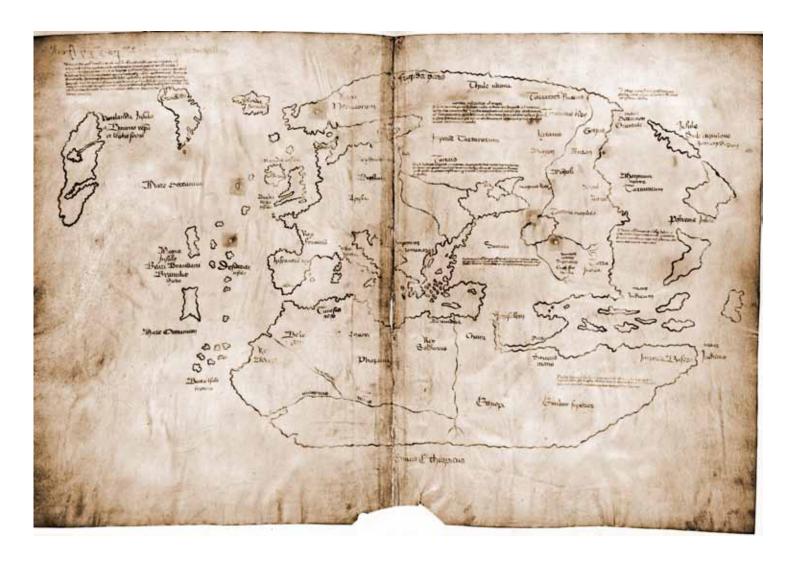


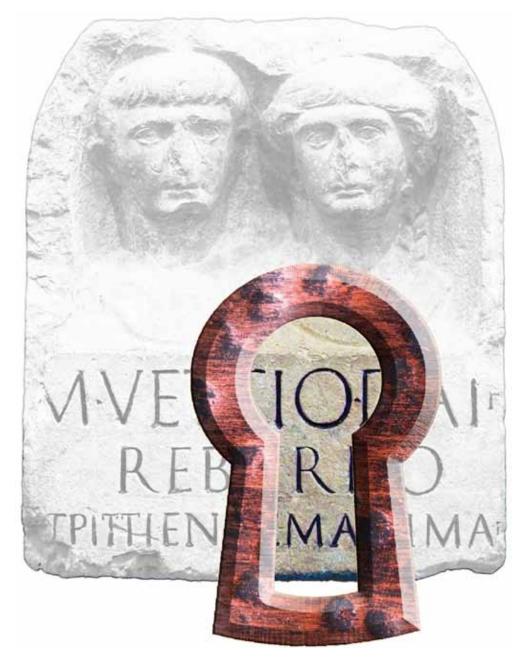
1. Life is wonderful 2. We're doomed



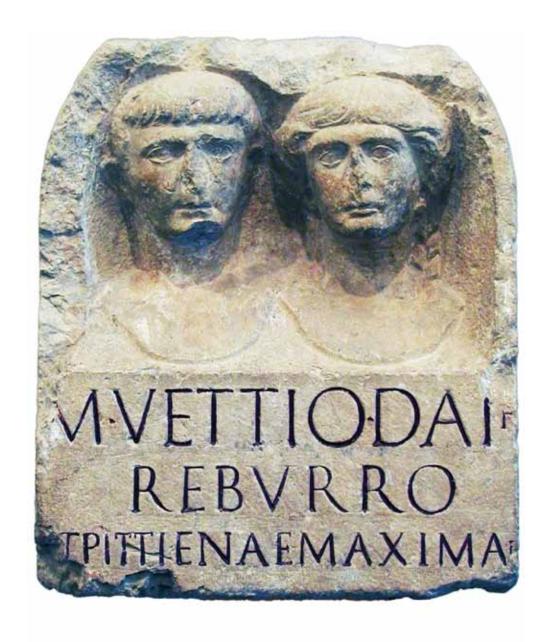
People who work with the alphabet see the world through a narrow keyhole.



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.

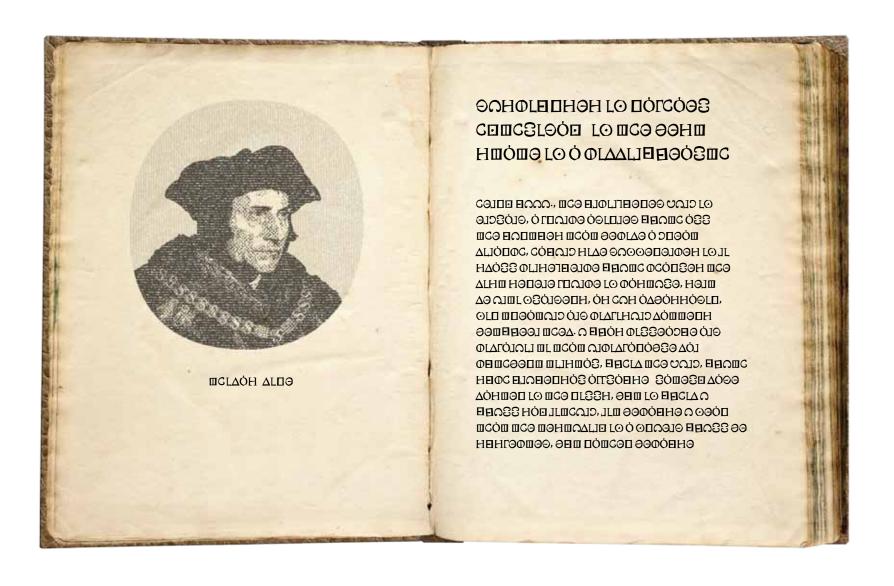


No doubt the couple on this Roman funerary stell had their dreams and joys and sorrows \dots



 \dots but most of us pay attention first to the spacing problem around the letter R. We like alphabets.



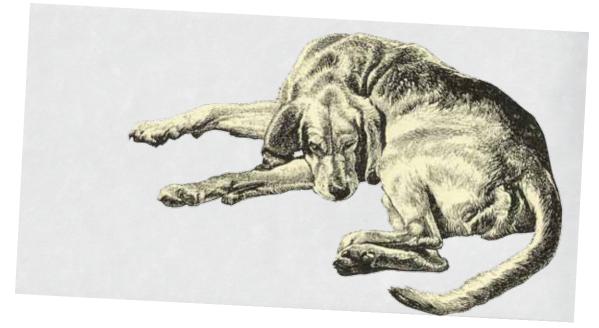


In Utopia, for example, family size is strictly regulated. Which means that children are taken from large families and given to people with too few. That's what I call a handbook for fascists. We show an interest in peoples with a written culture.

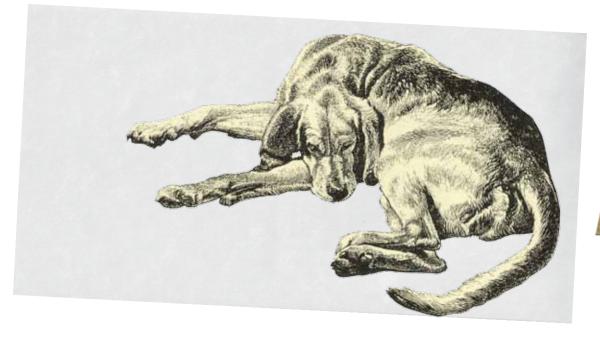




dog



dog adagio







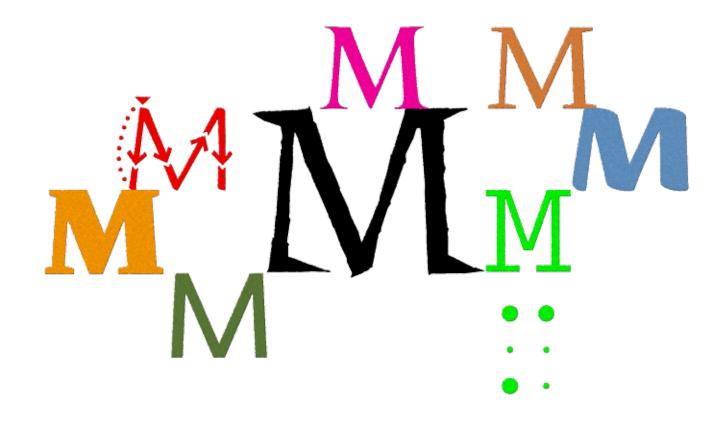




We also pay proper respect to the Egyptians who invented a perfectly serviceable alphabet, but still preferred writing in hieroglyphs. This is a granite slab, as flat as a windowpane, and it was cut to shape and carved with bronze tools.







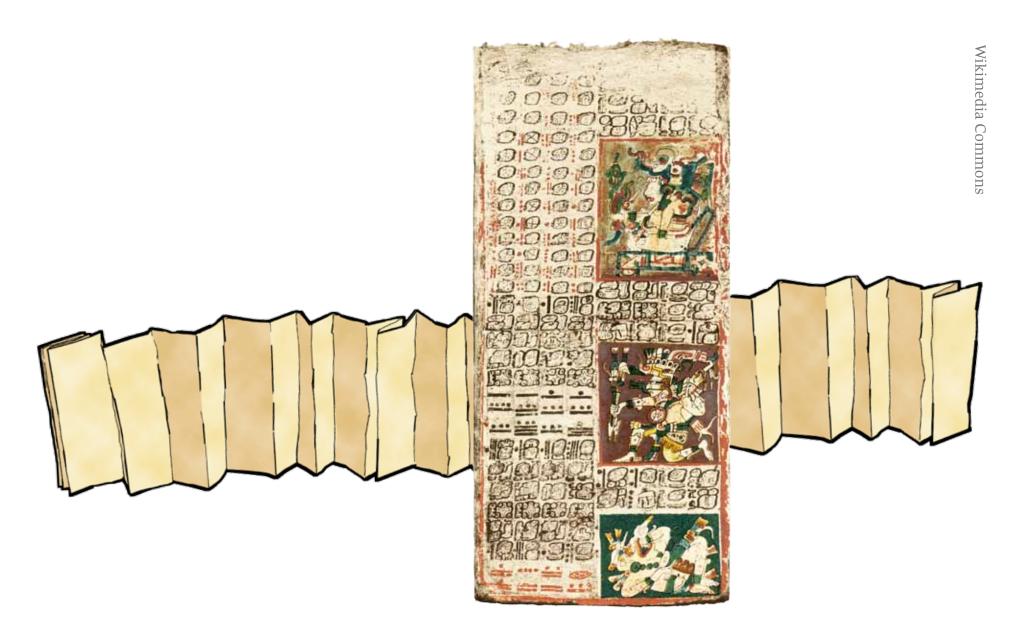




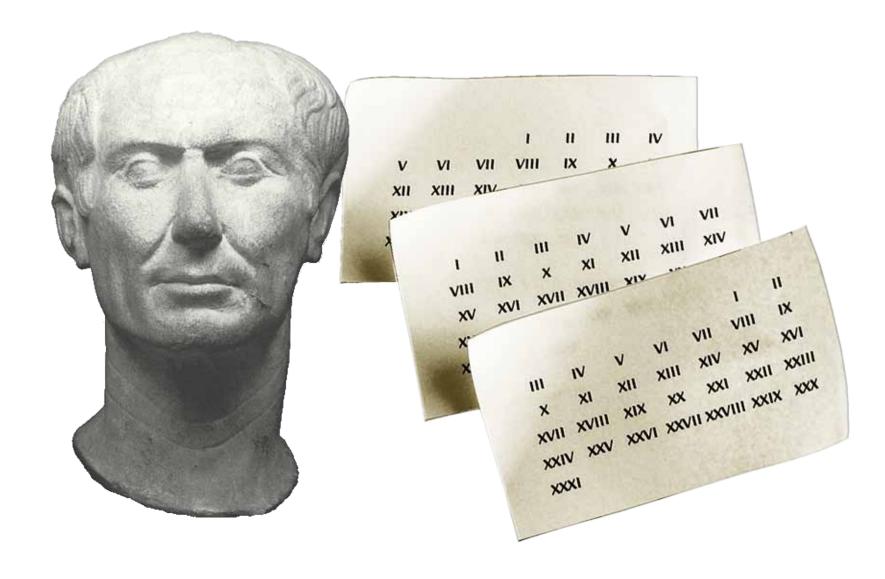
In Egyptian hieroglyphs, "father" was spelled with a poisonous snake. Here it is: reed, loaf of bread, horned adder and a male determinative.



"Mother" was spelled with a vulture. What does this tell us about the Egyptians? I don't know; it was a long time ago. We also recognize the ingenuity of the Mayans who had 800 signs for writing, full of variation and contractions.

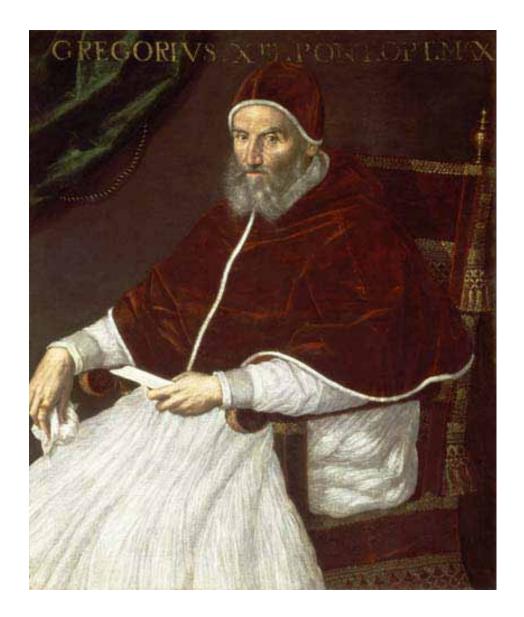


In the late 16th century, Christian missionaries came close to burning every book with Mayan hieroglyphs. Four examples have survived. Here's a page from the Dresden codex, a fragment of 74 accordion fold pages. I wonder where we would stand if foreign invaders had wiped out every European book before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



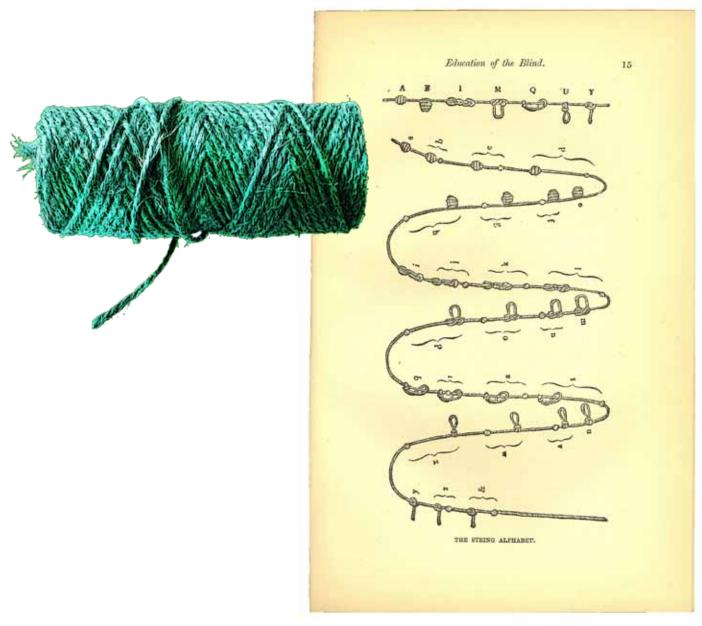


The Julian calendar year was about 11 minutes too long. In the late sixteenth century, the vernal equinox fell on 11 March instead of the 21st. Pope Gregory XIII tried to put this right. And people famously shouted "give us back our ten days." Some countries took their time to make the change. So the 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 image of a king usually involved a crown and a beard. The reliquary on the right was made 500 years after his death.



28 188

Here we have a contemporary likeness that to me looks like a middle aged bank manager on his way to a toga party.

docum utetlazarum Inca abibant extudaen etered INCRASTINUM, quaeuenerat addiem fei hierorolimam acceperui

Canensem & uersos

A unibalementalacres

A nseris & tutum nos

C um me castalia spec

Carolingian minuscule

9th–10th century The Metz evangeliary



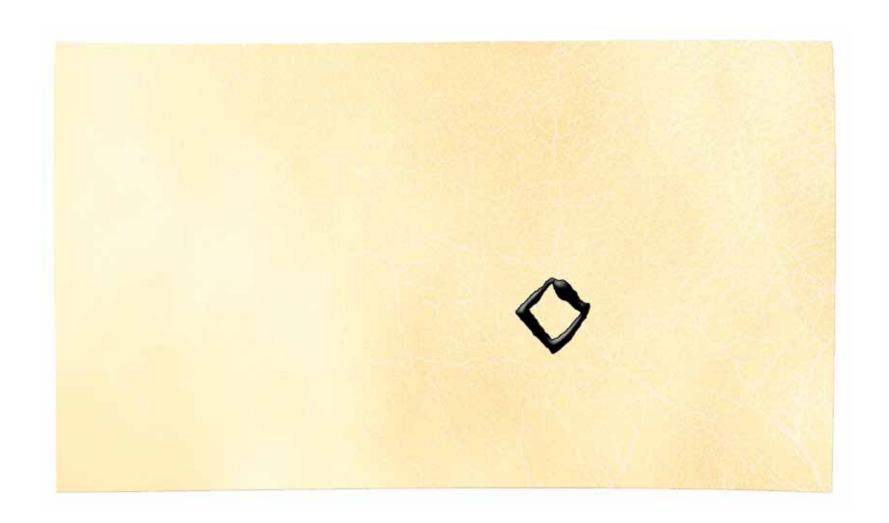
Humanistic minuscule

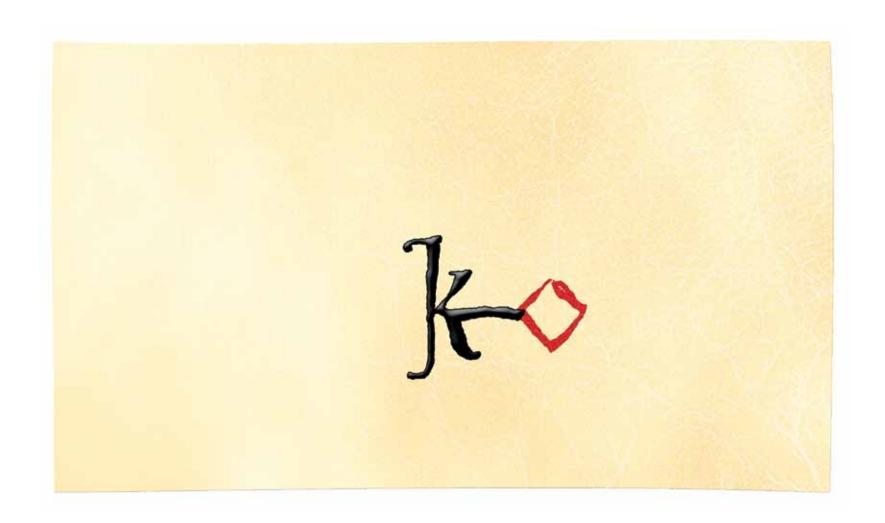
15th century Elegies of Sextus Aurelius Propertius

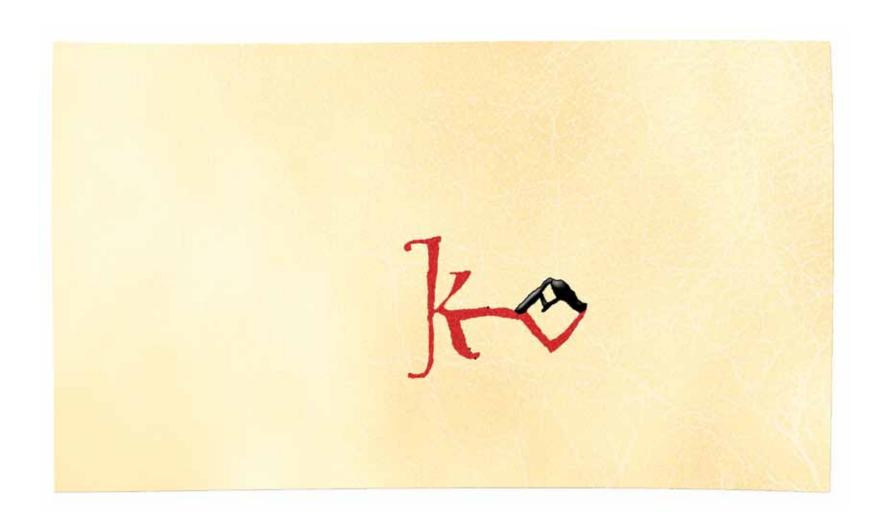


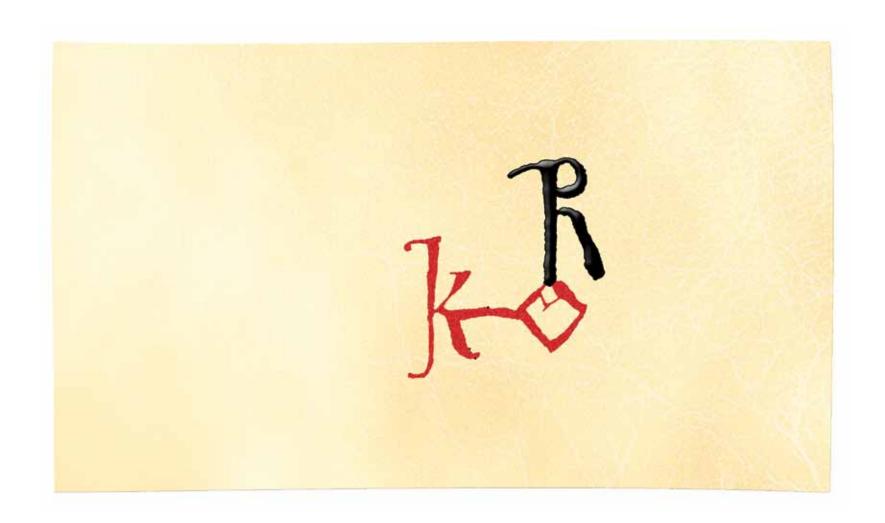
These dinar coins from his reign were struck in Tarvisium, which we now call Treviso.

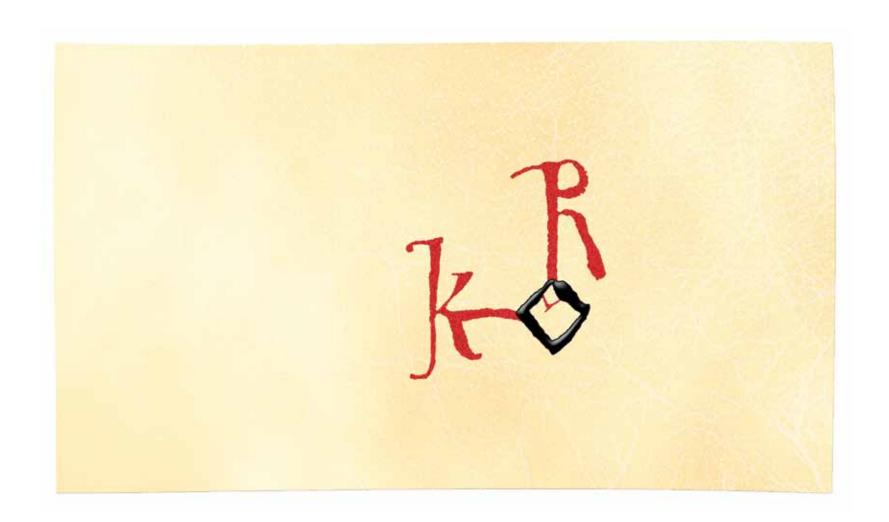
They have Charlemagne's signature on them.

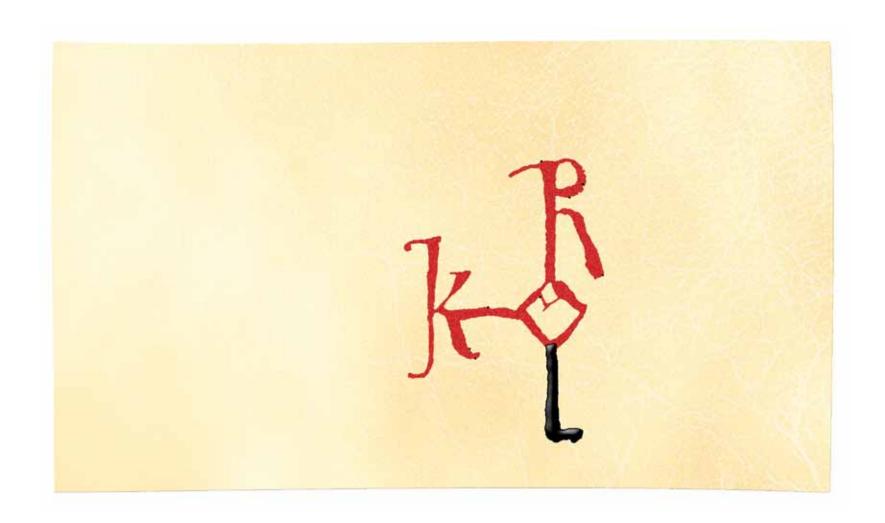


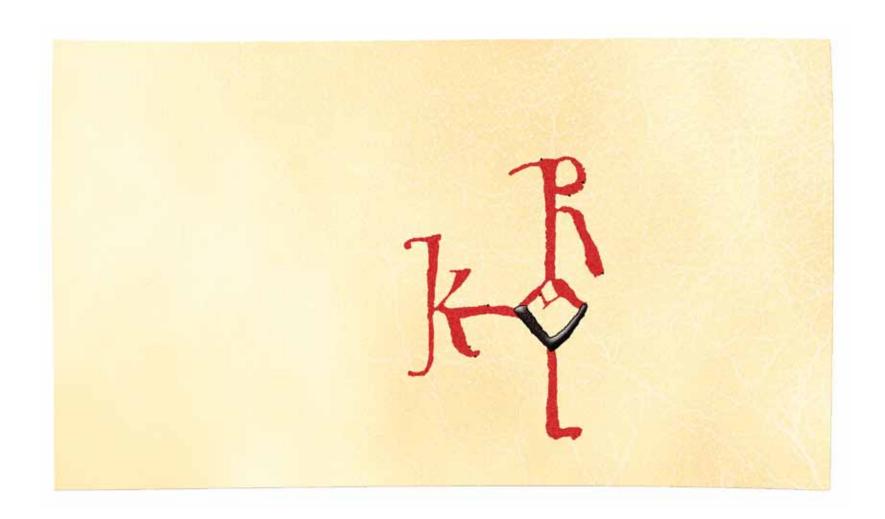


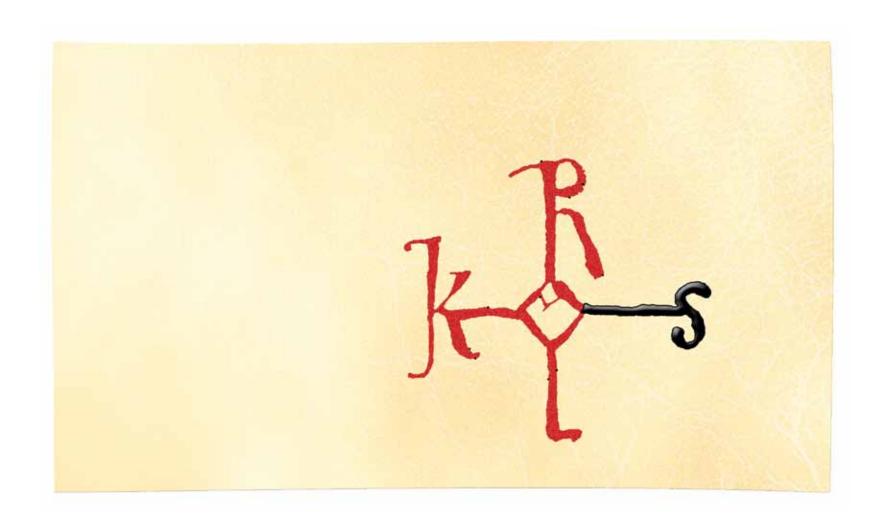


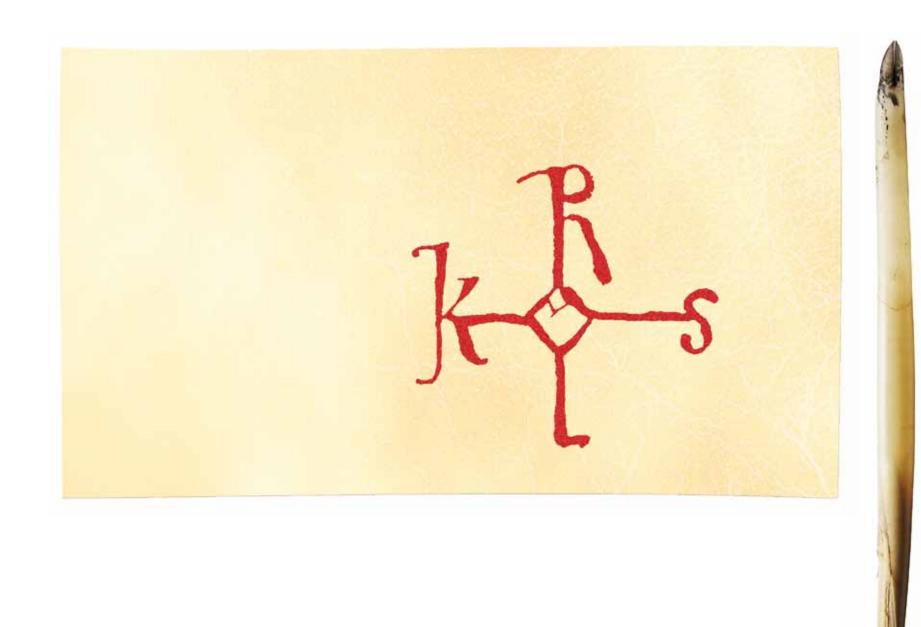






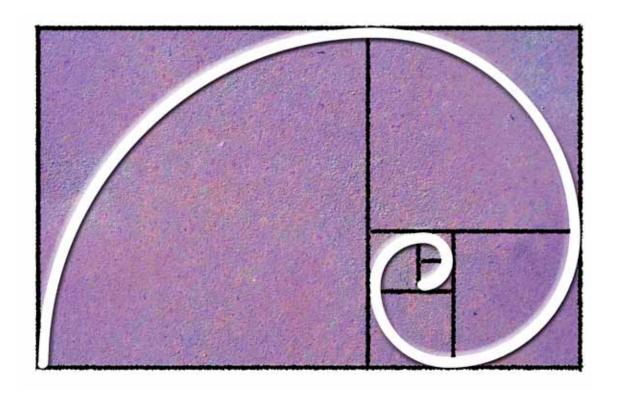




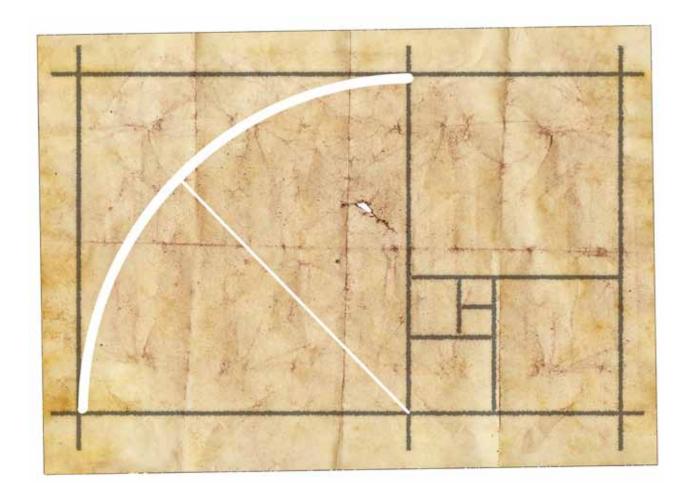


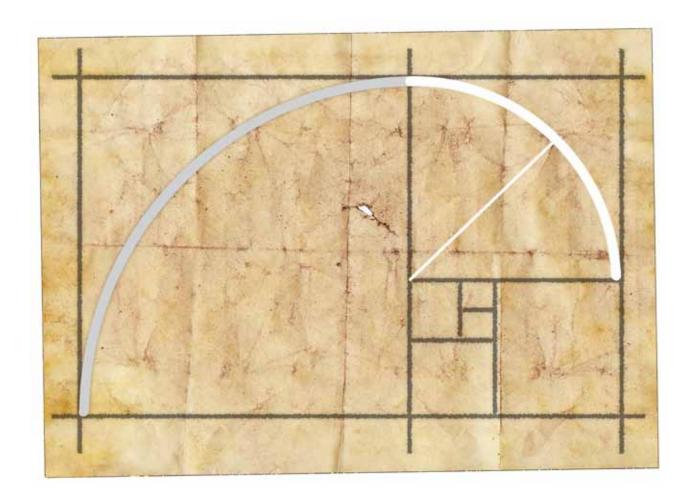


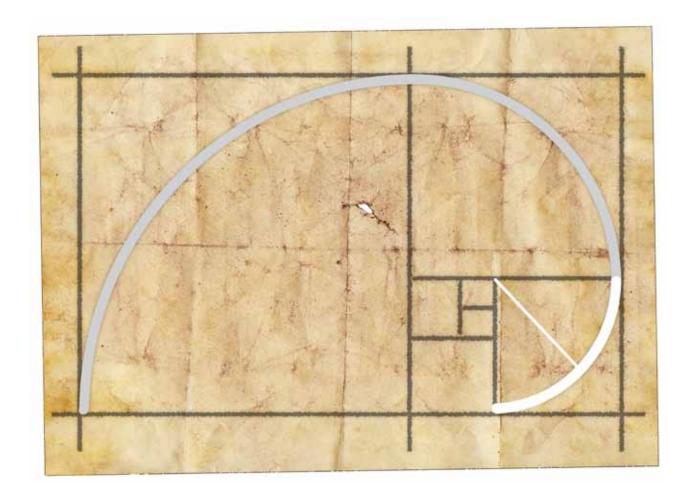
And now for something entirely different. Let me tell you why looking at line quality with type designers is much like listening to music with a bunch of piano tuners.

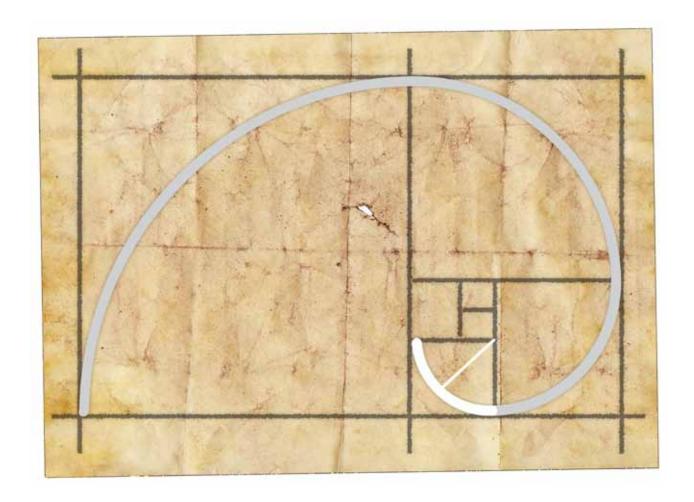


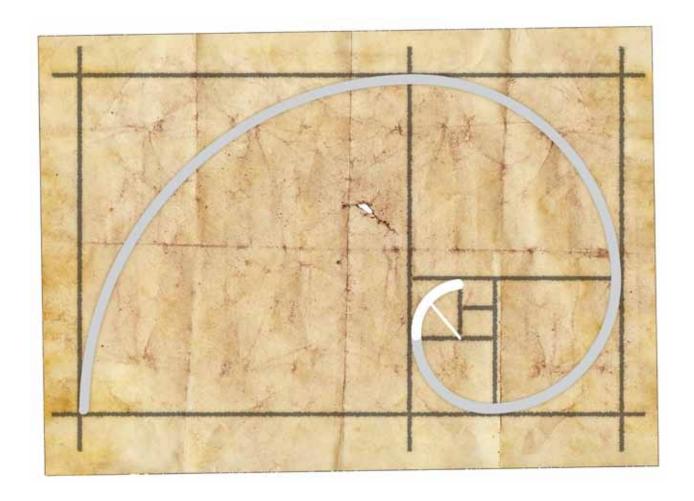
This spiral tends to have architects and engineers and some designers in raptures. It is based on a proportion that was defined by Euclid, but is usually credited to a 13th century mathematician we call Leonardo Fibonacci.

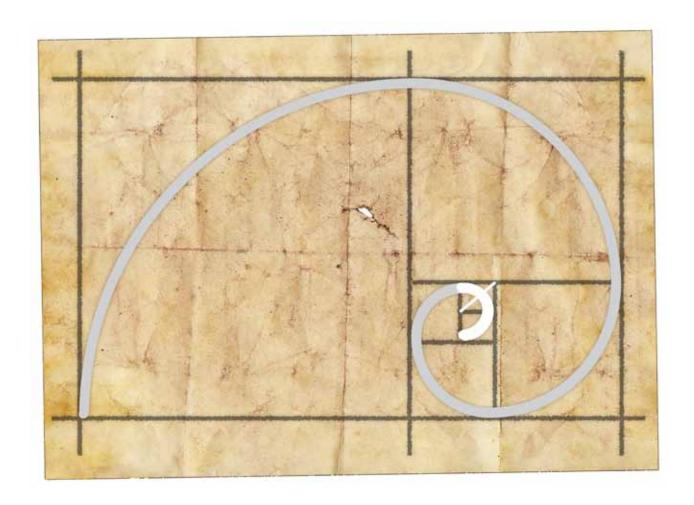


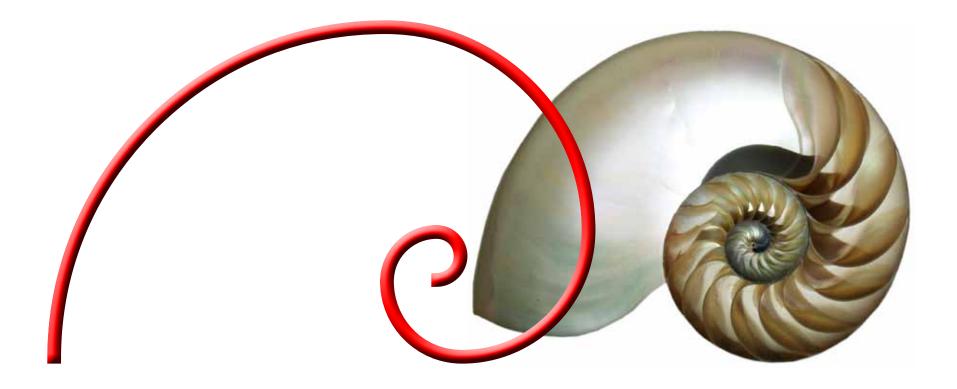


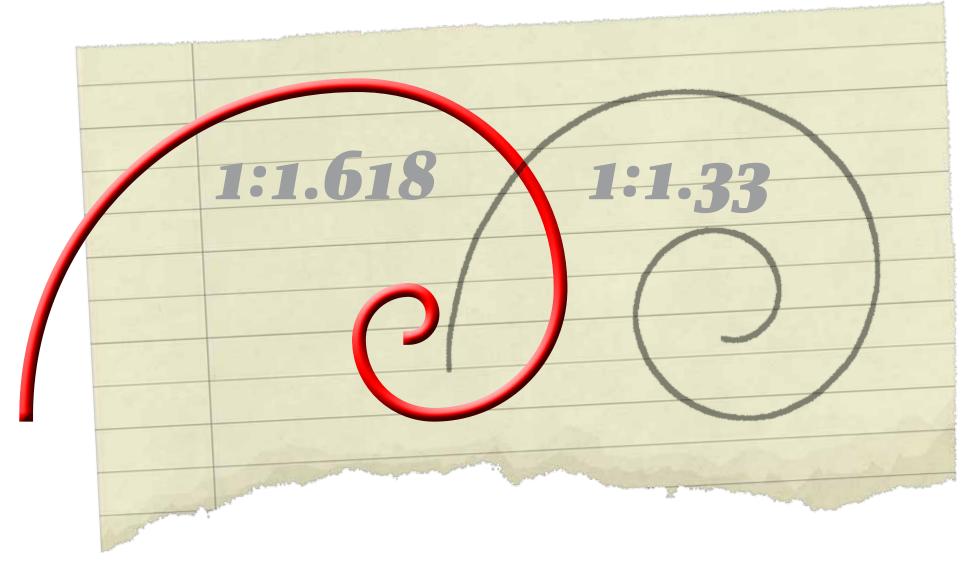


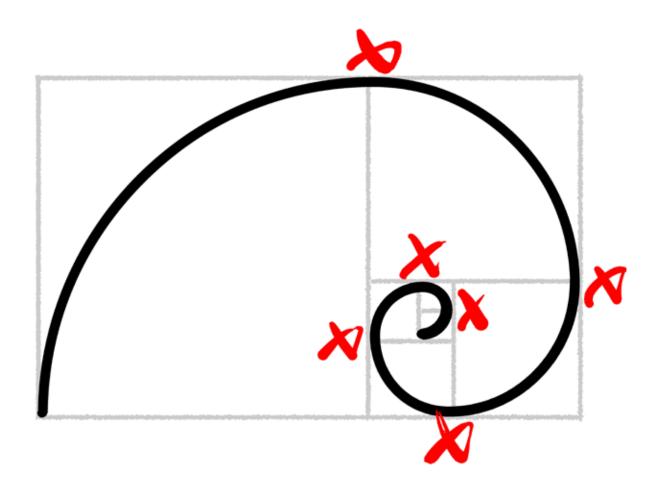


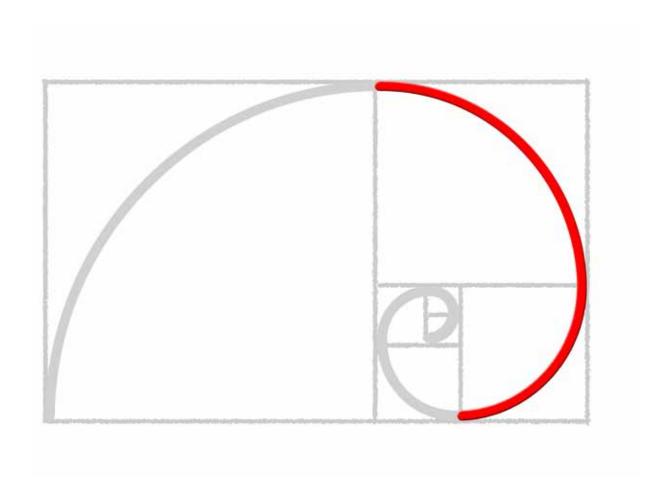


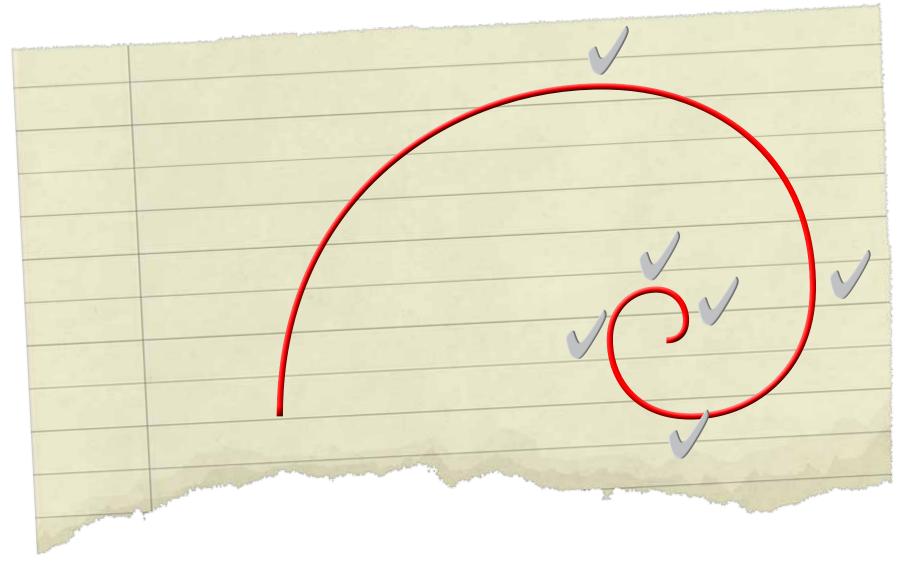
















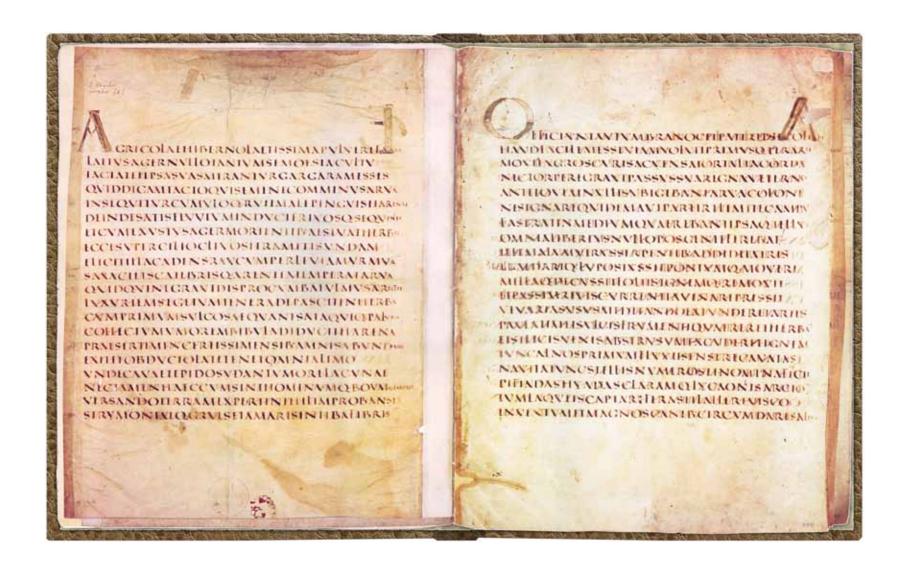
Only four or five original manuscripts from ancient Rome have survived. The rests are copies, and some better than others. A search for reliable versions of old texts began in earnest in the 18th century. It was a complicated business.



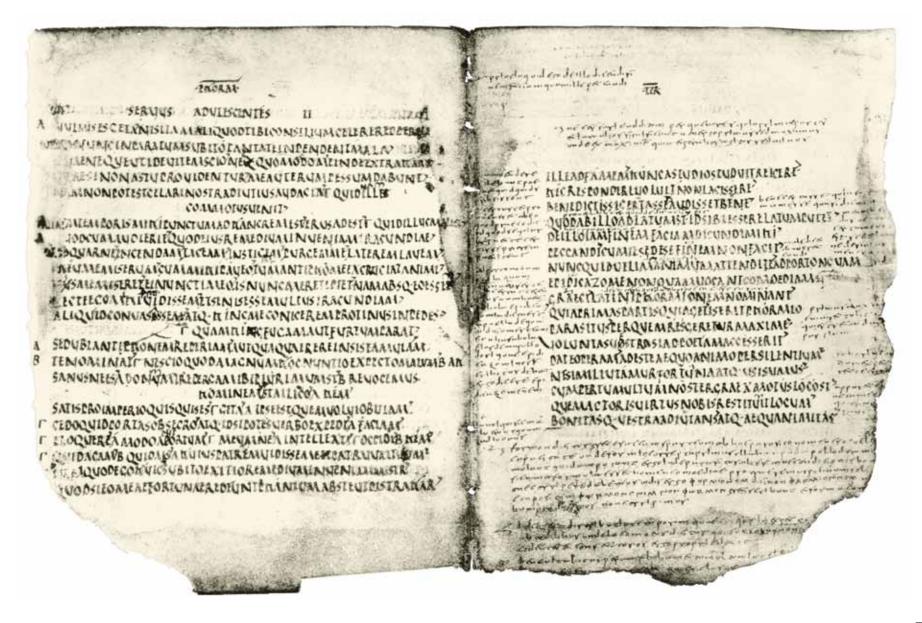
At the end of the first century, emperor Trajan paid for a great public building program in Rome by asset stripping and genocide in Dacia. On the base of the column that celebrates his conquest is a famous inscription.



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.



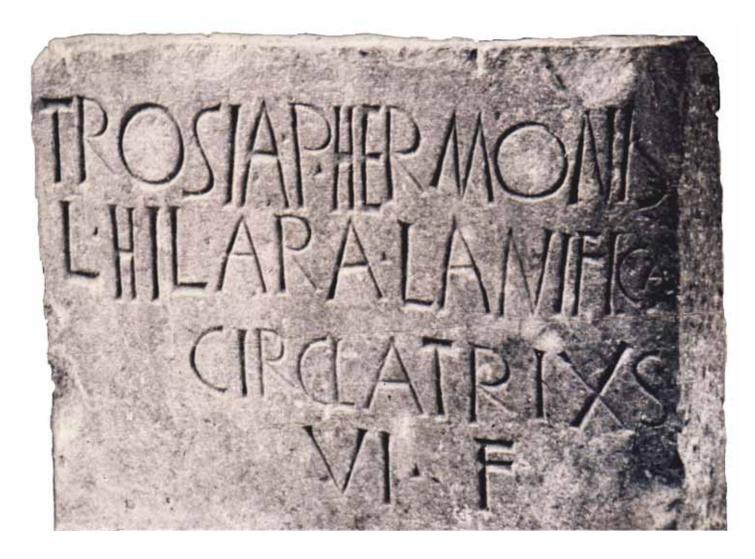




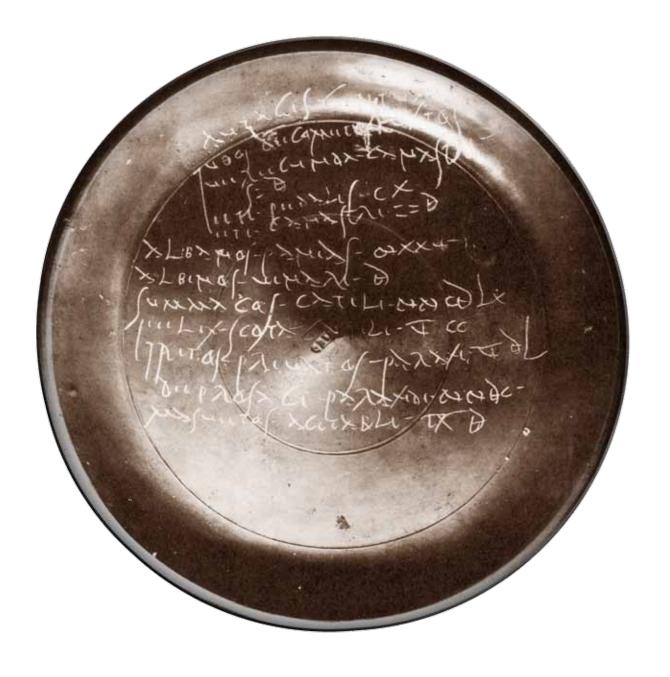
This script that the scholars thought was mainly fit for the provinces they called "rustic." But that seems to have been the book hand of Rome.



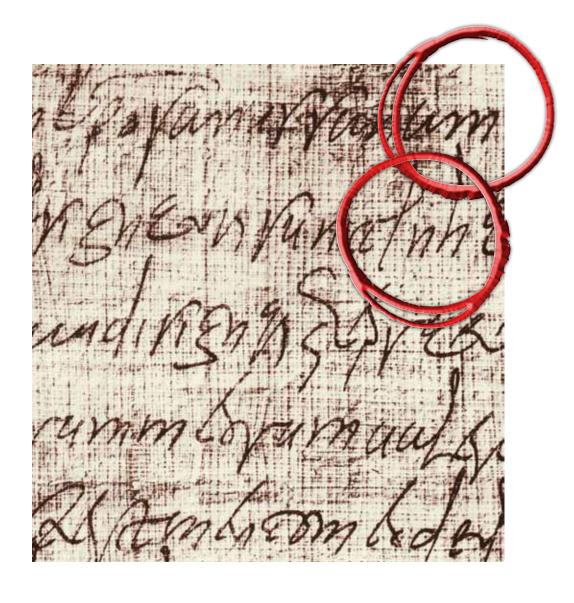




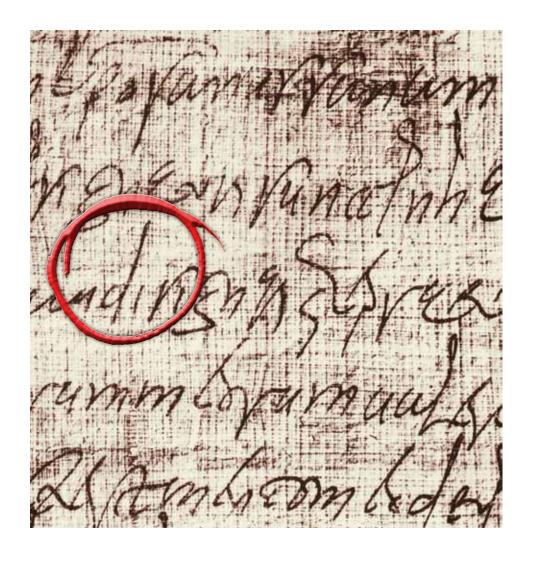
The empire had a rich and varied tradition. This fascinating inscription from the republican period is from a Roman settlement in North Africa.

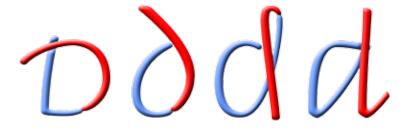


The early cursives are mainly attempts at writing capitals fast.

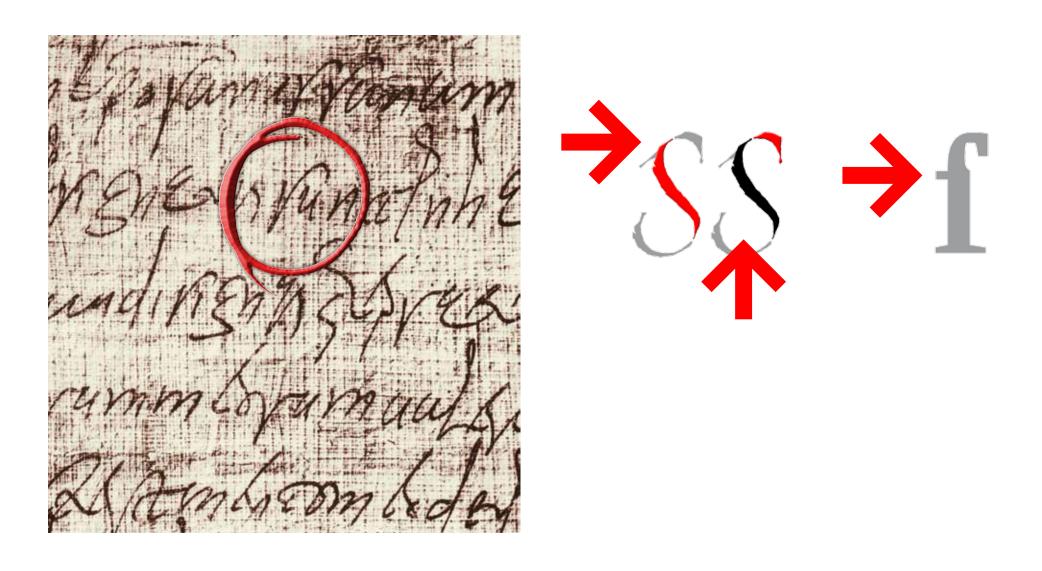


MM Nn





The shape of the letter D changed a lot over the centuries. The two strokes that make the letter, even the stroke sequence and direction, are still with us. Understanding the movement helps us to understand how the letters developed.



The letter S was written with a downstroke that over time lost the bottom curve. The pen then went up and added the top curve. Knowing where the letter started 1500 years ago explains the high serif on the long letter s. It's an entry stroke.

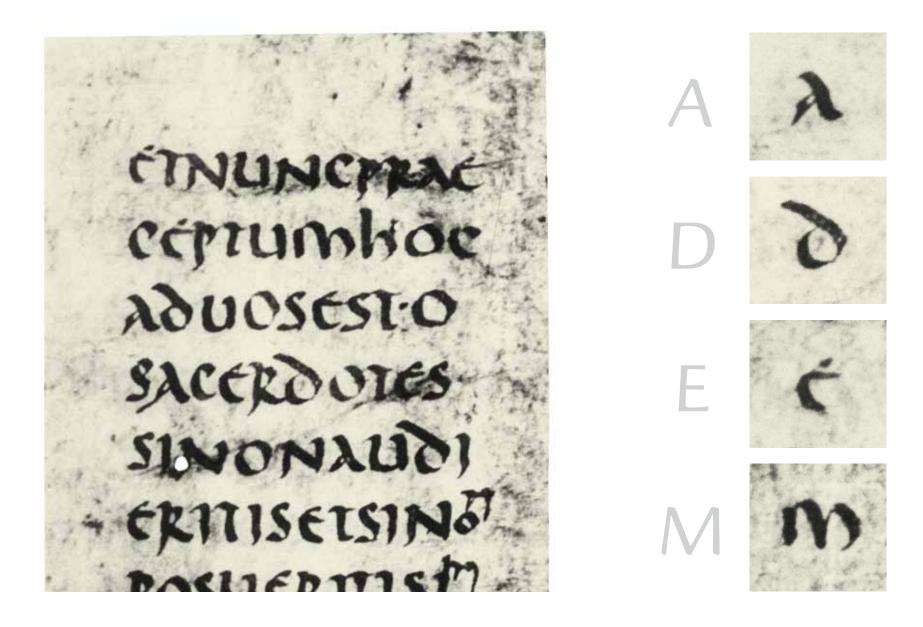




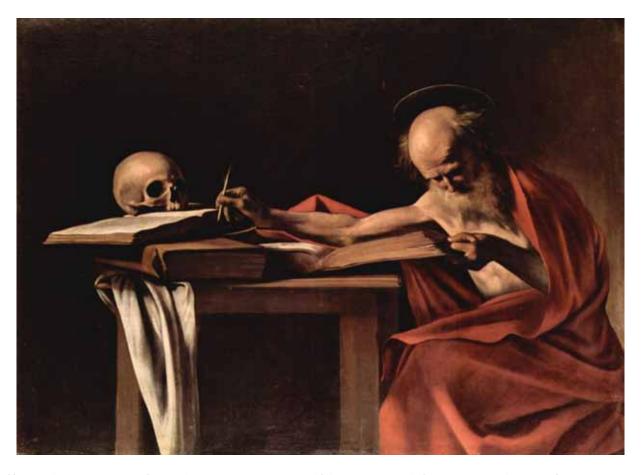
The clay beds in the Tiber valley provided material for Roman buildings. No doubt the trade saw some sharp practices. You don't want to pay for bricks and get a load of dried mud. That is one reason for the seal.



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 misunderstanding. It's in a preface to a Book of Job translation by Jerome, a Catholic saint and one of the four church fathers.



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

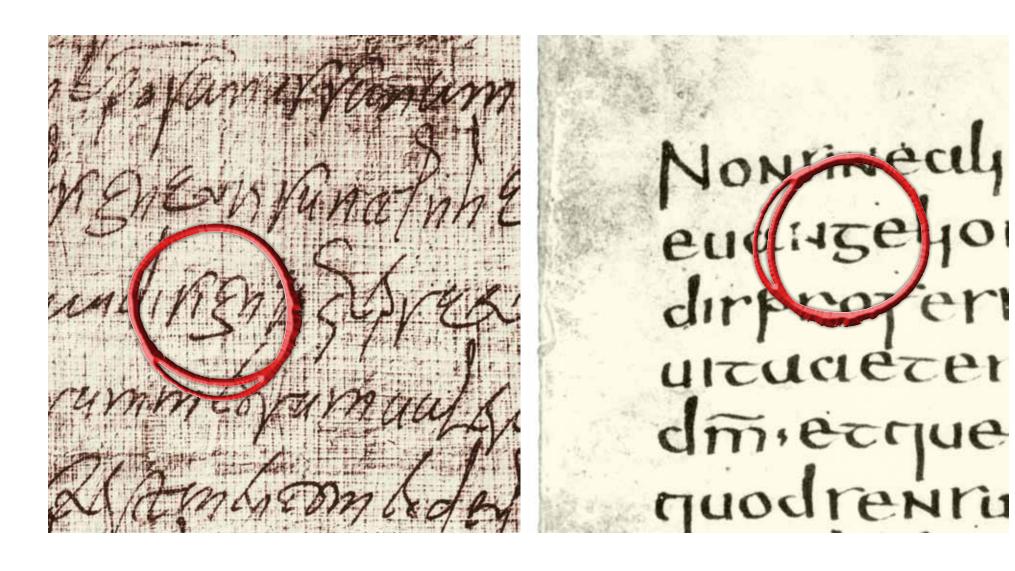
MONTENCROSCARISACAENSAIORINHACORIM NICTORPERICRANTPASSYSSVARIGNAVITIENO ANTHONIAINA HISA BIGIBANTARY ACOVONI SISIGNARIONIDIMANTI ARTICILIMITICAMIN FASERATIN MEDIN MONAER EBANTIFSAQUEITS OMNIAUBERTISHVILOPOSCHNIFLEREDAL DEFENDING ACCURATE SERVENTE BADDED CLAURES WELLMOARIQEVPOSIXSSHIVONIVAQMOVERI AHIEACEDECN SSUITOUISIGNEMOCREMOXII HEXSSING INTSCVERENHAVENARIPRISH VIVARIASUSVSAIMIUMNOODAIVNDIRUVARIIS PRATUMISVICISTRALIENHONMRERTHERBA EISTLICISVEN ISABSTRASVAIDA ON DER PUBGATA TVNCM NOSPRIAIVAITIVALISENSER EGAVALAST NAVILATON CSLITLISK VALLEDS HINOMERALICH PHIADASHYNDASCLARAMOLYCAON ISARCIO TVMLAQVIISCAPIARTIERASHILAHLERIVISCO INVINIVALETMACNOSCANLISCIRCUMDARISALO



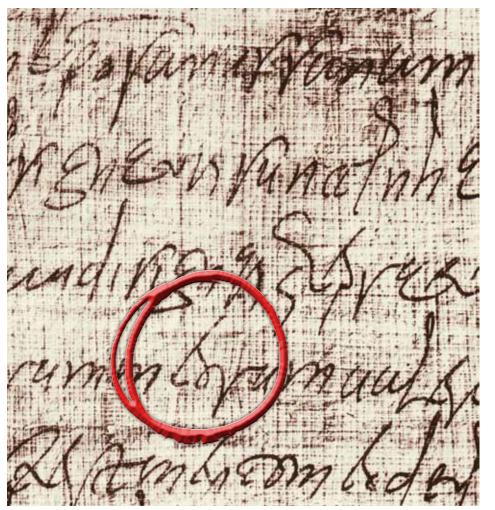
Uncials weren't an inch high, as the name would suggest. But the initials in the Virgilius Augusteus measure an inch and three quarters. And the estimated weight of the entire manuscript is about nine kilograms, or 20 pounds. Jerome wouldn't have approved.

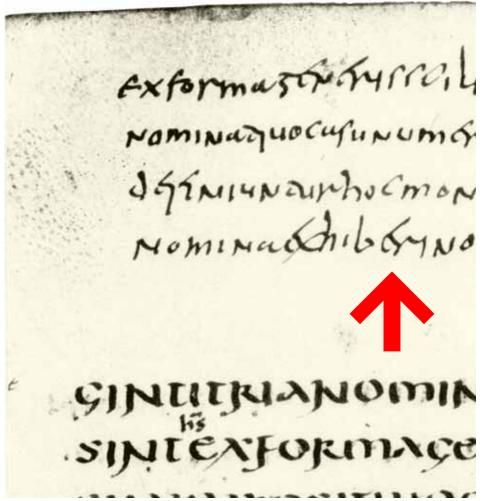


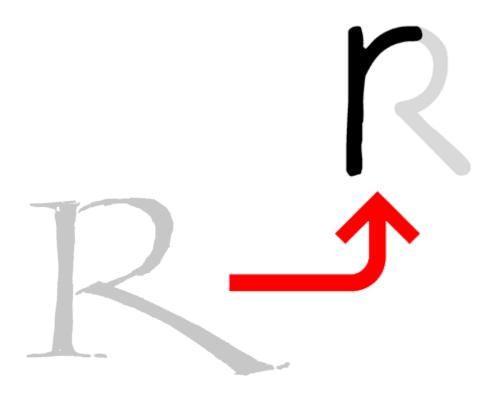
In our time, uncials are not in great demand. Still, they are used for street signs in parts of San Luis Obispo in California. Once our friends the early paleographers had got the name for the uncials wrong, there was no stopping them.

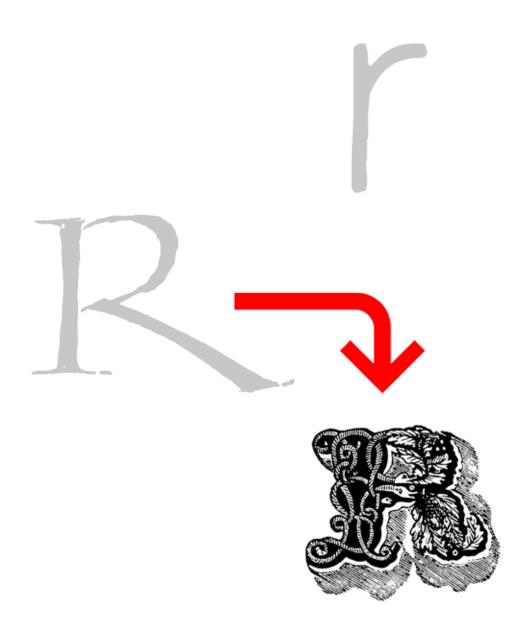


Another modest bookhand of the period, largely unrelated to the uncial, was called the halfuncial. The writing method, the stroke sequence and stroke direction, came from the documentary cursive of Roman clerks. The lettershapes changed at the hands of book scribes with broad edge pens and traditions of their own.











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... as fast as the general reader could make sense of them.





In ancient Egypt the internal organs of mummies were kept in containers called canopic jars. The lids were decorated with the heads of minor gods that represented the four cardinal points of the compass.

The jar for the intestines had the head of a hawk god that symbolized the west.





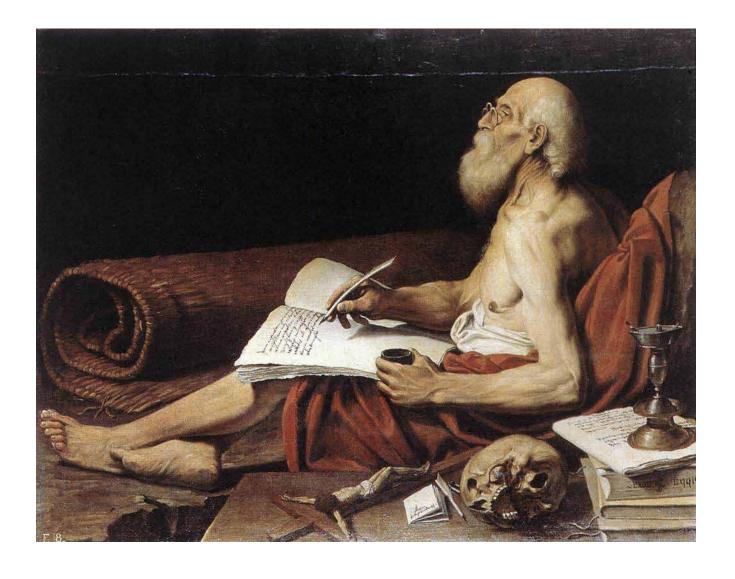
The liver was in a jar that was defended by a god with a human head, and appeared as the south.



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.

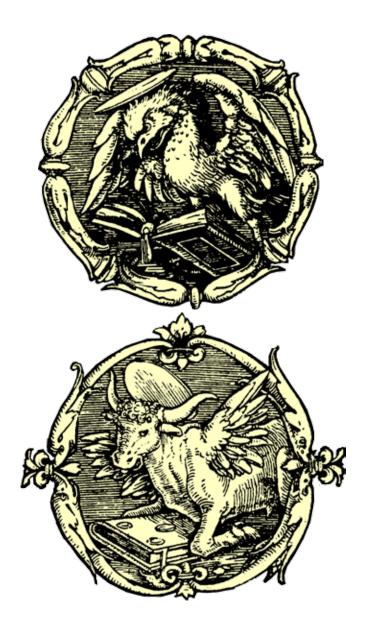


As the statues of Isis and Horus and of Mary with Jesus show, nothing can stop a good archetype. It passes smoothly through divisions of both culture and religion.

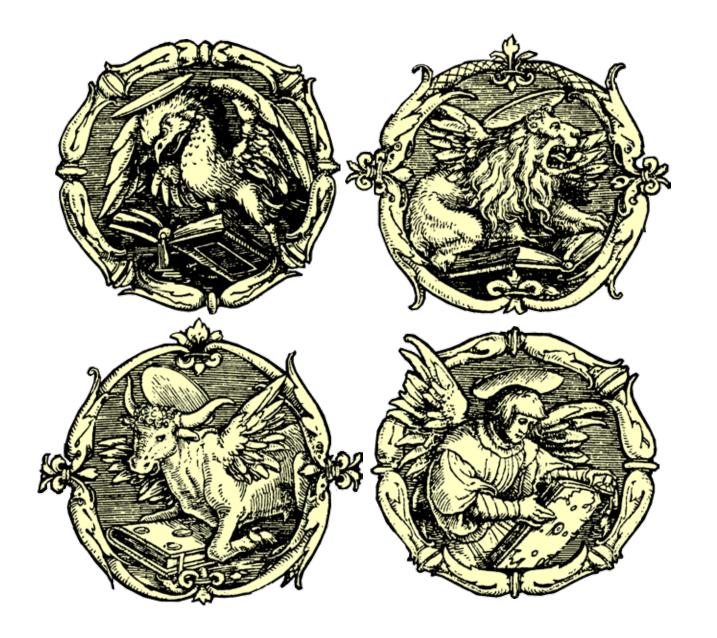


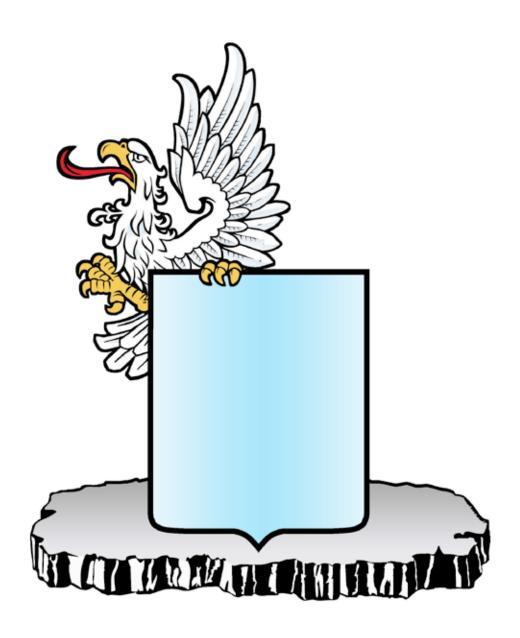
With the visions of Ezekiel and the book of Revelations, the church had to make sense of a lot of strange pictures. Three Catholic saints helped settle the matter: Irenaeus of Lyons, Augustine of Hippo and our friend Jerome. In this painting by Leonello Spada, he is portrayed as usual with a skull and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



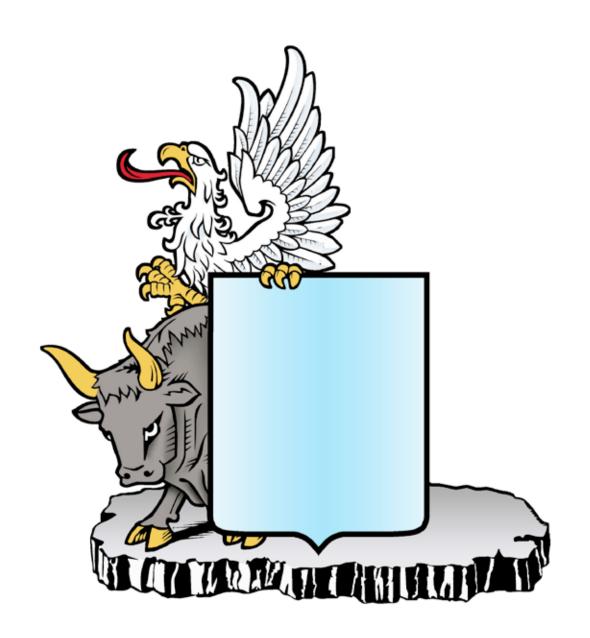


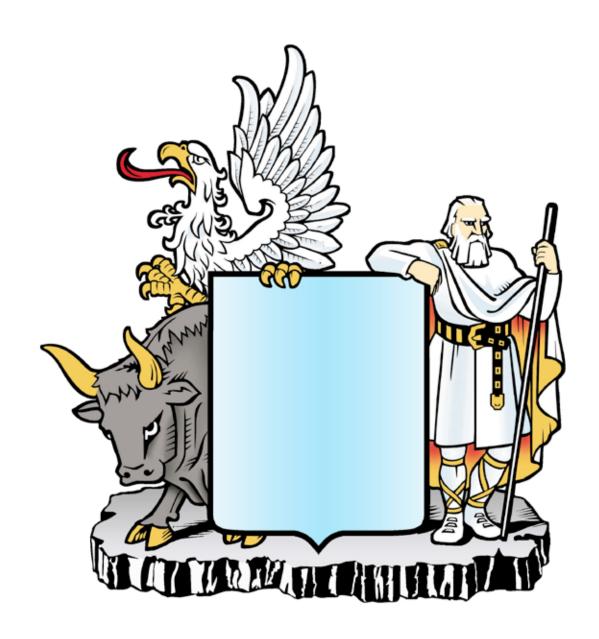


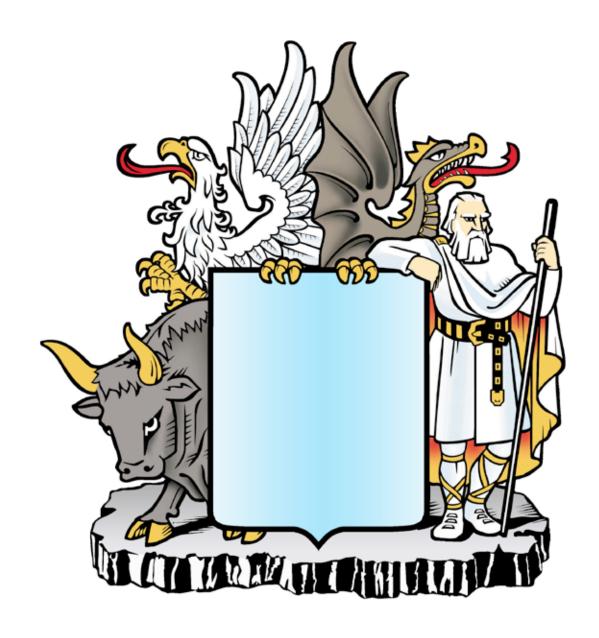




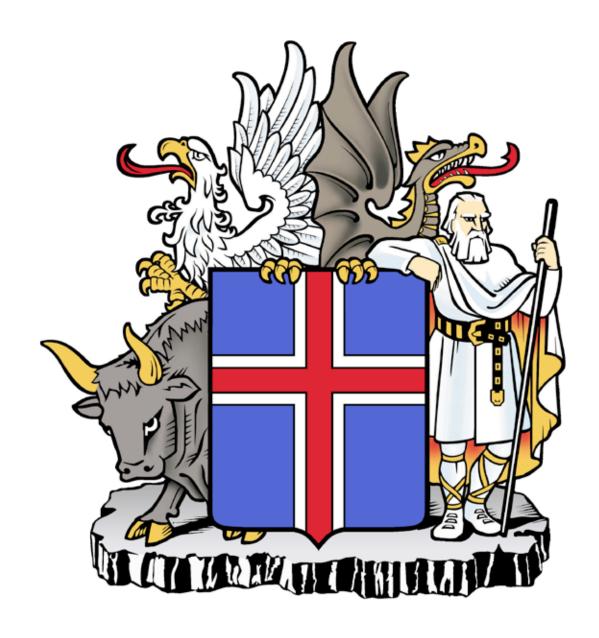
When Iceland got itself a coat of arms, it used four medieval guardians that represented the four cardinal points of the compass. A vulture protects the north.







And a dragon protects the east. These four should have gone on the shield. In proper heraldry you only get two supporters, one on each side.



Instead they put the flag on the shield. Never mind. Did the four evangelists turn themselves into the figures of the Icelandic coat of arms? Probably.



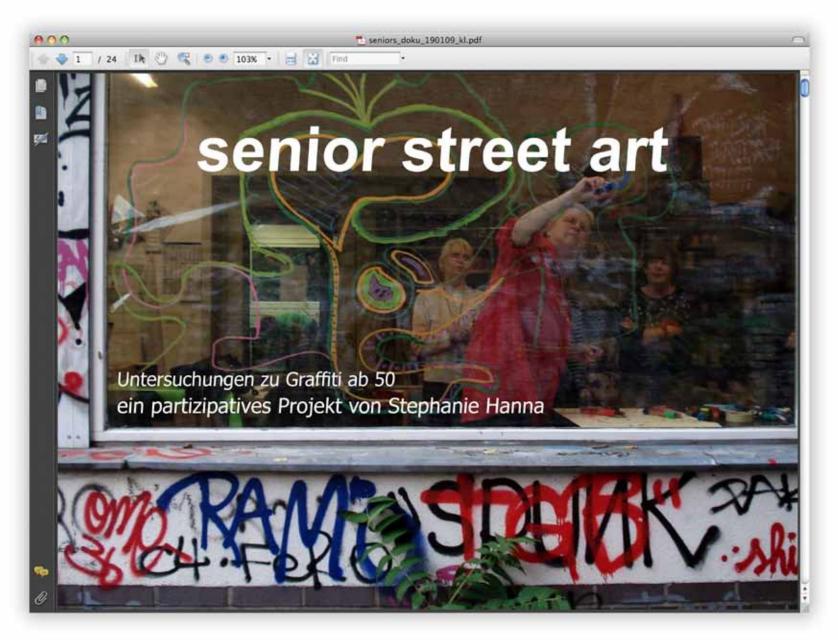




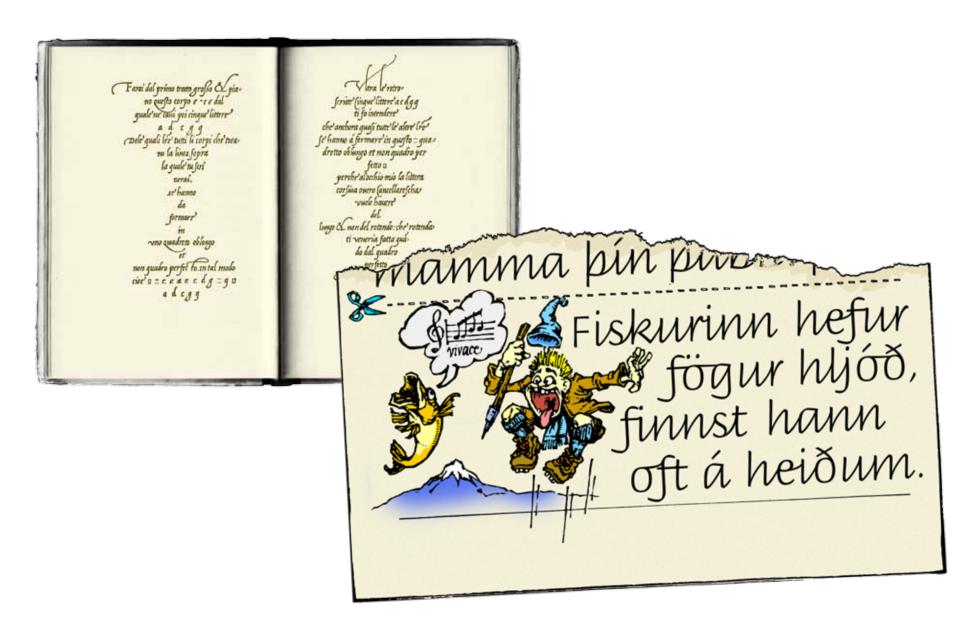


One of my back burner projects is a rendition of Völuspá, an epic poem of the Germanic account of creation and the twilight and downfall of the gods. Instead of doomsday with angels sounding trumpets, we had cockerels crowing.





Old age isn't all bad. In Germany, pensioners can take courses in graffiti. Handwriting is another aspect of letterforms that is worth our attention. At least it has been worth mine.



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.

But when it comes to brave handwriting models, nobody can touch Reginald Piggott.

BOCCEFONJJKLZ THE KULCK DYDEN FOX JUZPS OVER THE LOZY DOO NOT NOT POXIVE STUNDENT OF THE LOZY DOO NOT THE

- LeakisannLeakisannLeakisannZexico cilaCilaLeakisannLeakisa
- ◆ ST Petersburg brighton Lisbon •
- helsinki → blaconse. → lose → lose
 - ◆ соъбираоби◆

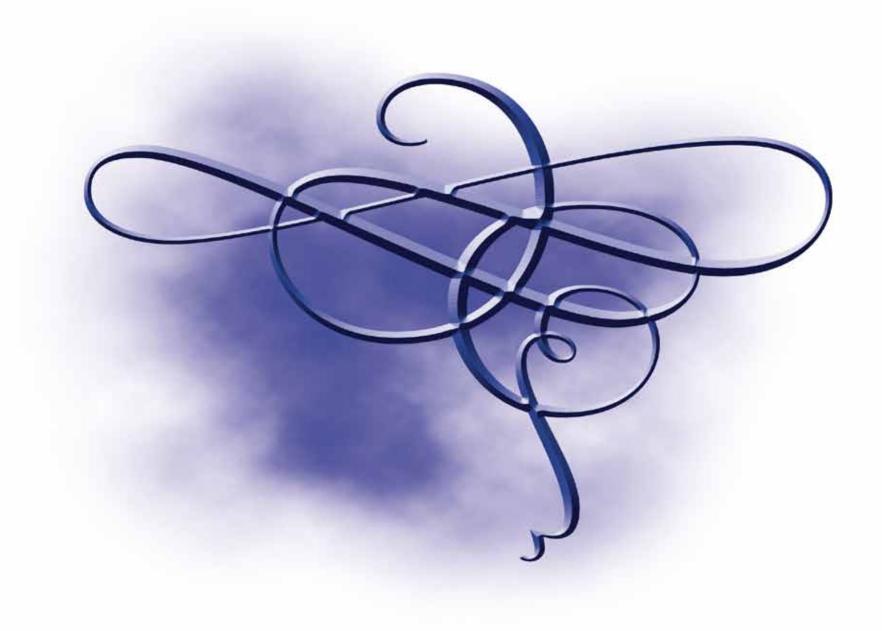




the knuck broen fox jusps over the lozy dog



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.



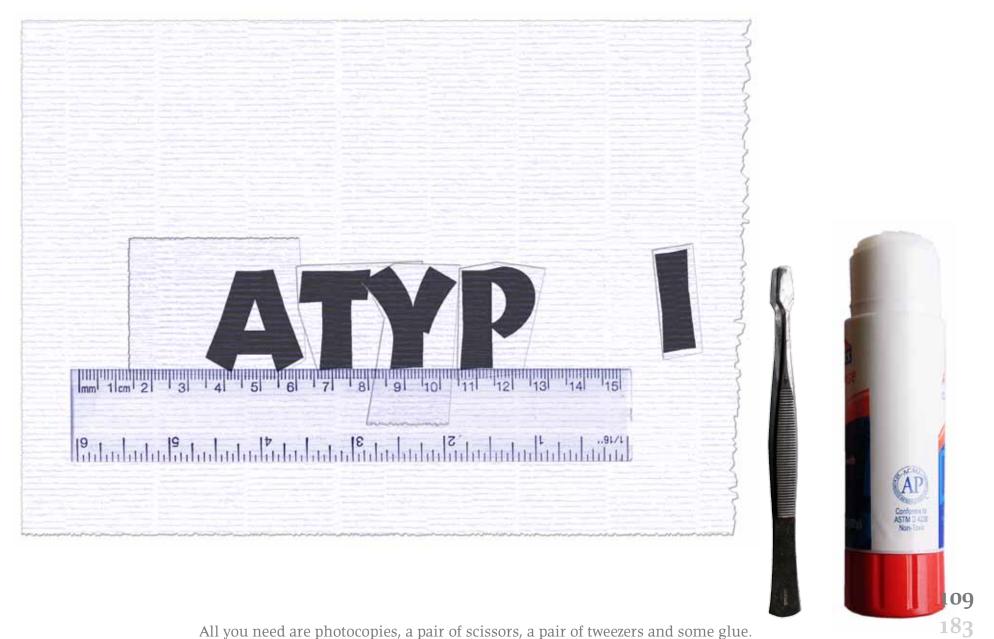
Calligraphy doesn't even need letters. As United States Supreme Court Justice Potter Stewart said about pornography, you know it when you see it.



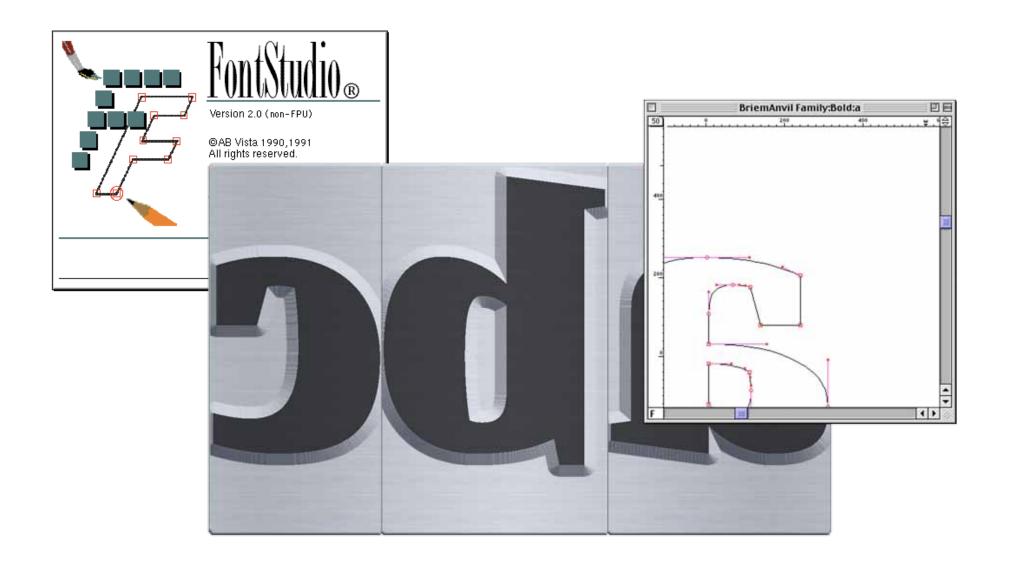
And if calligraphy is writing as an art, lettering is calligraphy with cheating. What matters is how the piece looks like in the end. How you go about it doesn't count. The Optiskop 62 projector hasn't been manufactured since the seventies. If you find one, it will need rewiring. For my money, it will be worth it.

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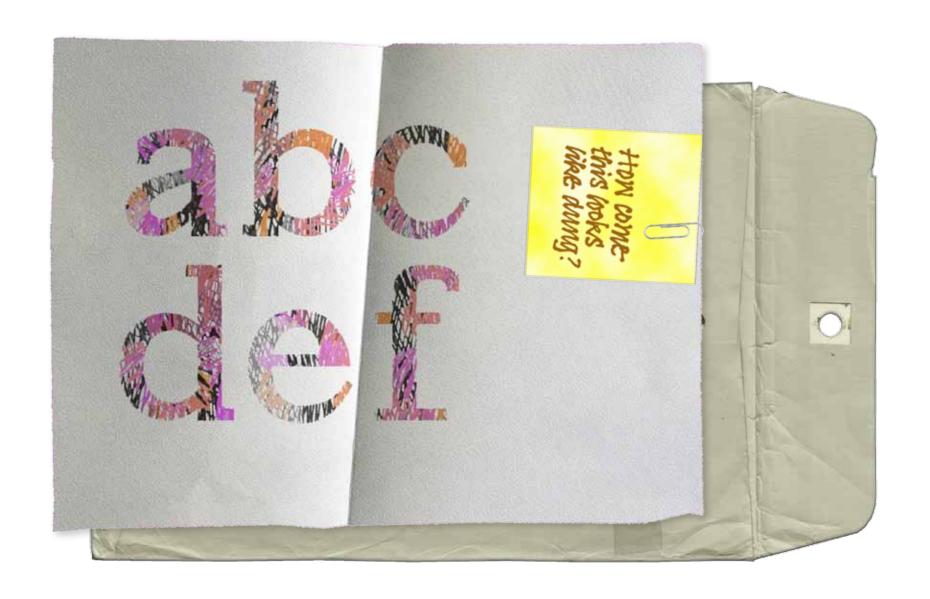




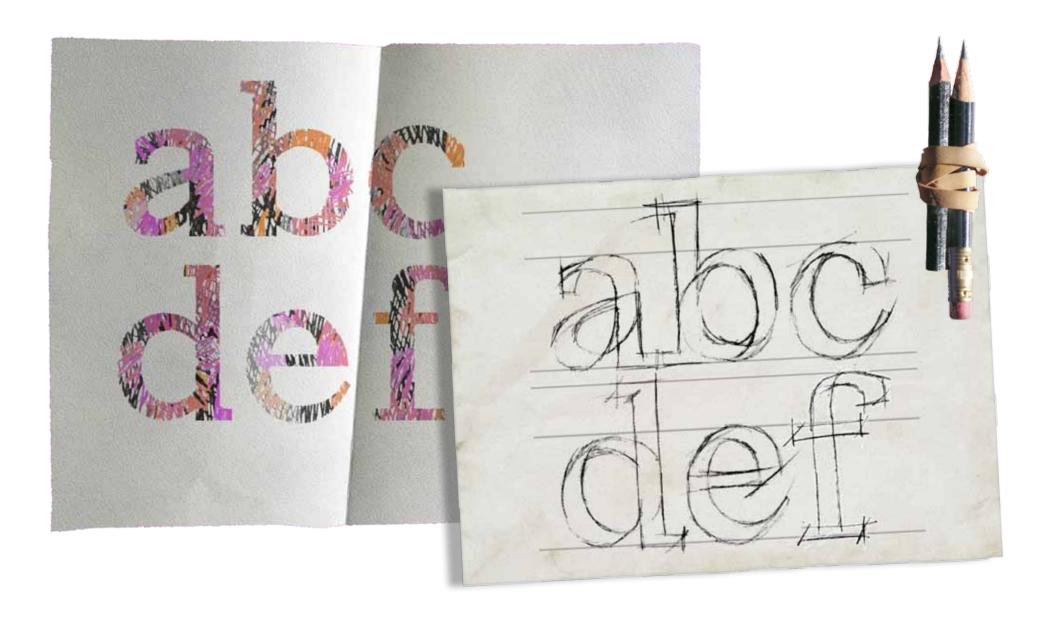
All you need are photocopies, a pair of scissors, a pair of tweezers and some glue.



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.

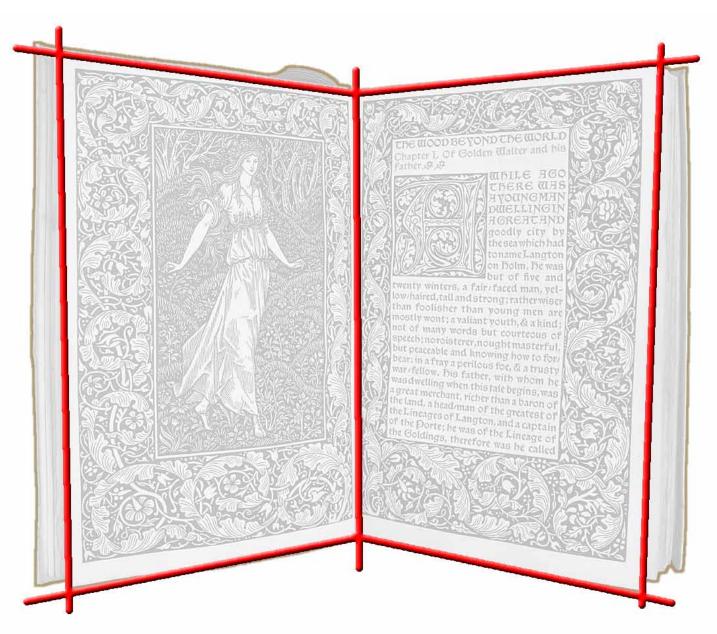


At this point you may well ask about the practical uses of looking at graffiti and writing with a broad nib. I'll tell you. Sometimes people send me designs and ask me what to do.

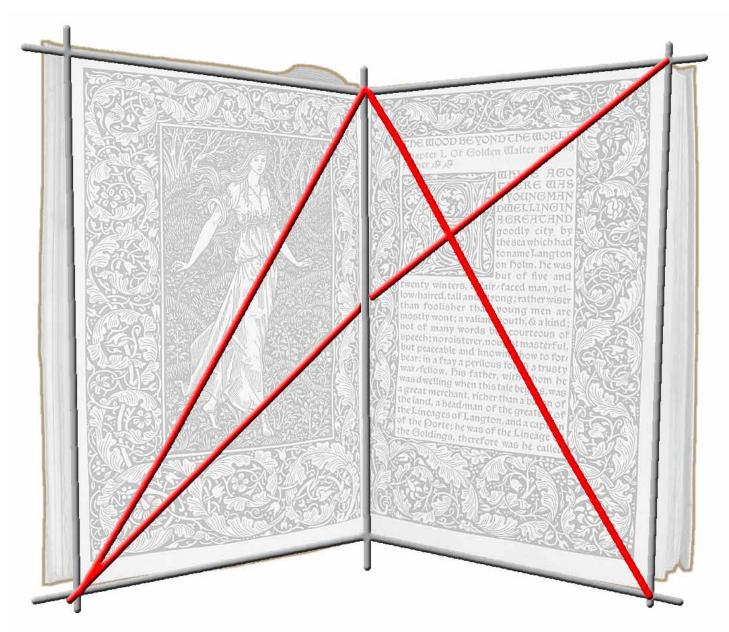


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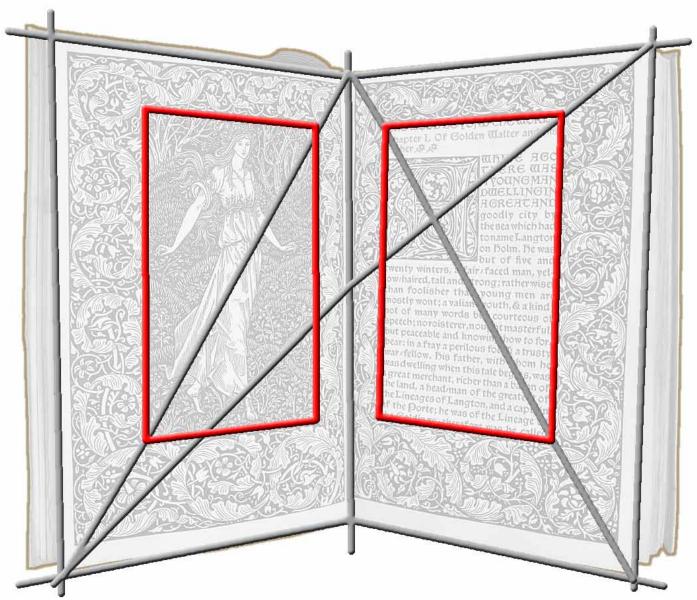




The Wood Beyond the World was published in 1894. Hundred and seventeen years later, the most striking quality I see in it is his conviction.



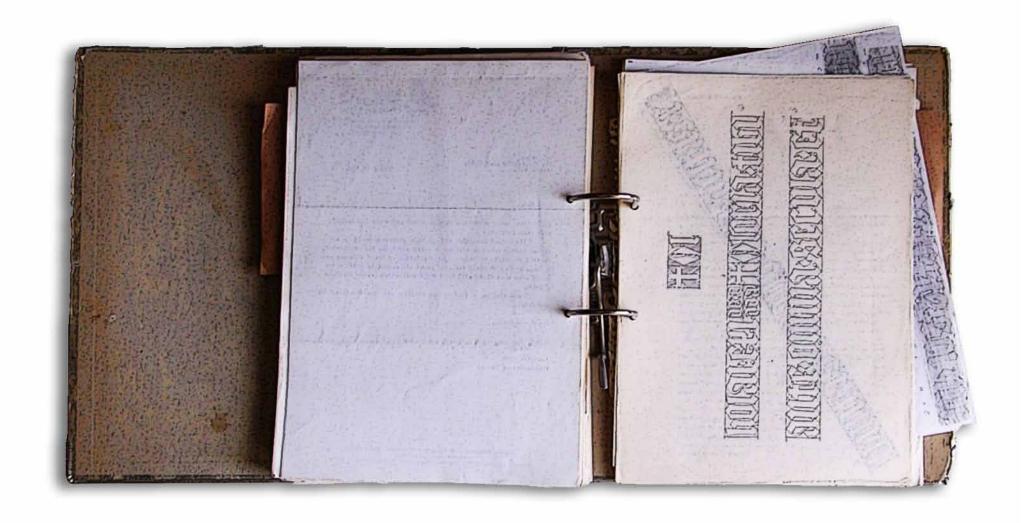
To people familiar with Raúl Rosarivo's *Divine Proportion* or Jan Tschichold's paper on non-arbitrary margins these lines seem like old friends, almost self-evident. In the nineteenth century, people who created books had to think for themselves.



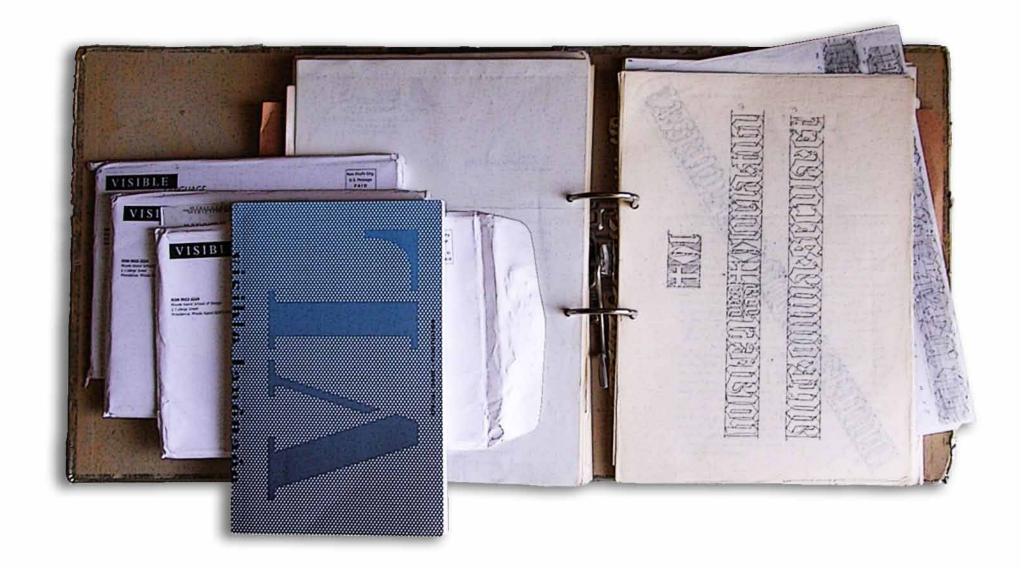
William Morris used his eyes. He knew his stuff. Once we have the facts, books tend to design themselves. Facts about tradition give us rules to follow or, if we feel like it, rules to break. Facts about legibility and reader preference help us choose typefaces. In our case, these facts help us design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



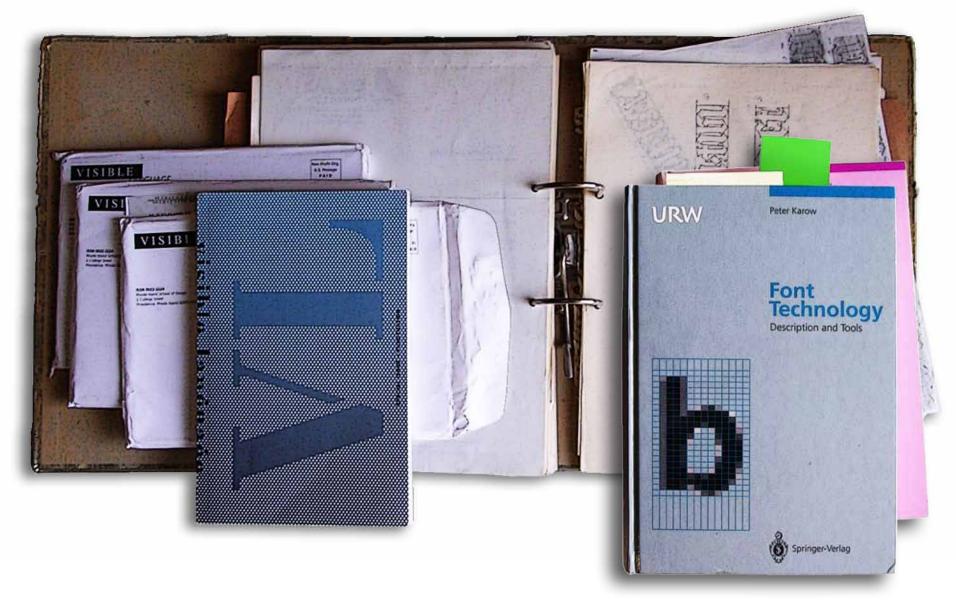
Line length matters. *Hypnerotomachia Poliphili* is one of the most beautiful books ever printed. It has an average line length of over 117 60 characters. That's close to the upper limit for an educated reader. The *Gutenberg Bible* is in two columns of about 30 characters each. Unless you set your text 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 sources, or facsimiles thereof, teasing out a new slant on old stuff. There are methods. There are rules about the methods. There's usually a framework to hold the rules in place.



Other people's research is the next best thing. It's useful to know what's going on. The latest issue of *Visible Language* is a special edition about punctuation. Great stuff.



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.

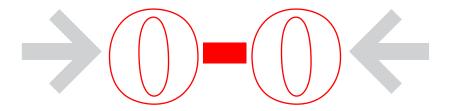
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Earlier this year, new research of textbooks was in the news. It concluded that students remembered better what they had trouble reading. It covered much the same ground as another study from 2005. And as far as I remember, Herbert Spencer's Readability of Print Research Unit had nailed down the same facts in the seventies. Was that the first time? I don't know.



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When they come across the straight apostrophes in the top line, they should of course stick in the curly apostrophes in the middle line. Instead they usually and incorrectly replace them with the pair of single quotes that you see in the bottom line.





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.

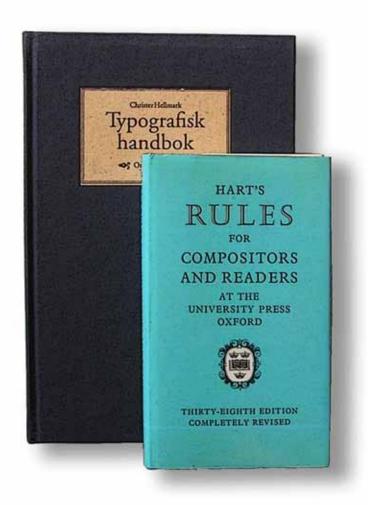


Mind you, I am grateful for any help I can get. Anybody who has justified a line of metal type by hand in recent times must have given a thought to the power and the glory of Linotype wedges that do the job by just sliding into place.

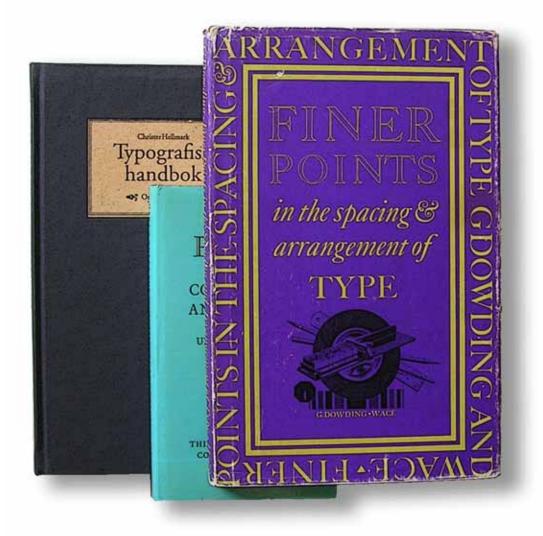


Maybe you remember Multiple Masters and wonder why they are no longer with us? Most computers are used by people who can't tell the difference between Times and Helvetica. And the interface didn't help.

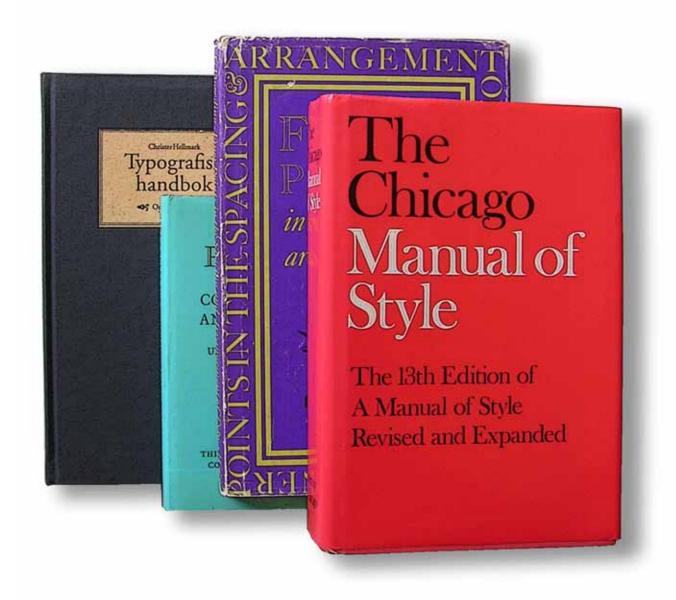
Freedom has a dark side. A lot of people have never heard of a condensed design. I can't really blame them for that. They squeeze type until the horizontals are thicker than the verticals. They were never told that this solution is reserved for the Goths, the Vandals and Attila the Hun.

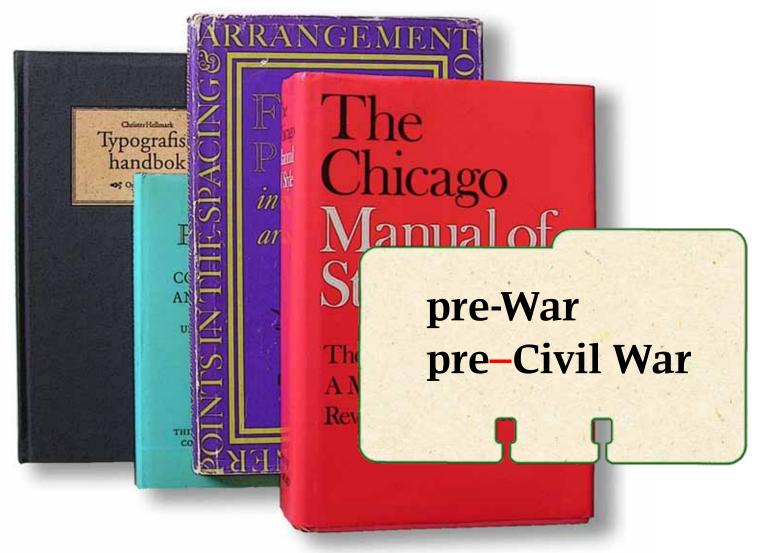


The rules are readily available, but who reads them? Horace Hart laid a foundation for typesetters but left a lot of detail to common sense.

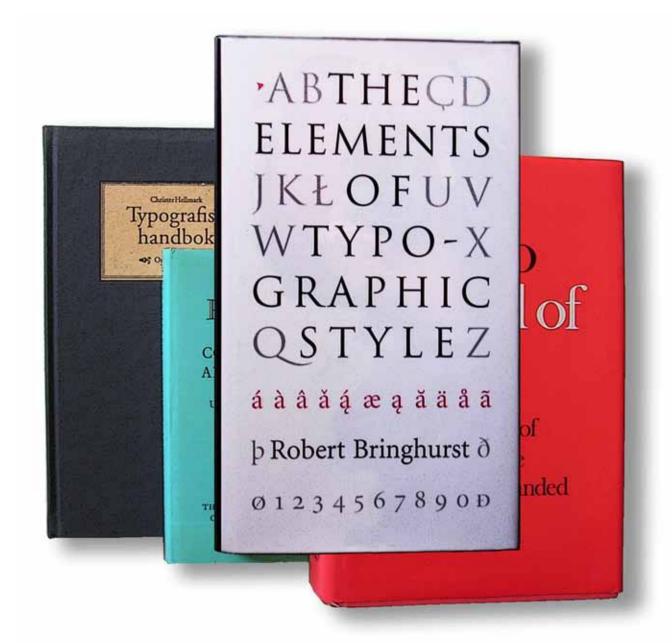


Geoffrey Dowding gave us more good advice and in some of us he instilled the fear of his disapproval even from beyond the grave.

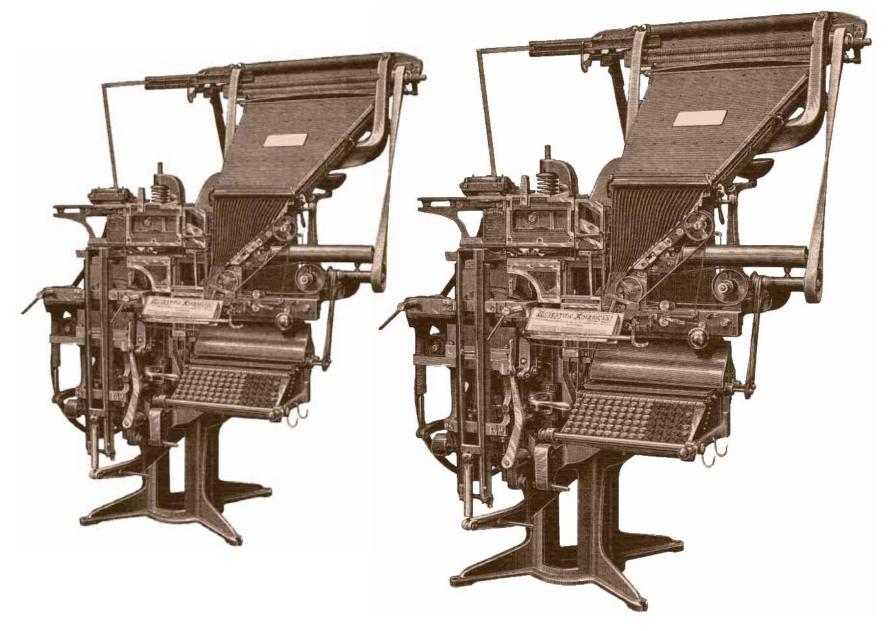




That means for instance using an en-dash instead of a hyphen in compound adjectives. Not everybody will take the trouble of being above reproach if it means memorizing 1026 pages of rules. It's a pity: civilization is largely a set of useless details that make a difference to us.



And I congratulate all here who haven't read Robert Bringhurst's book for they have at least one joy in their professional lives left to look forward to.



Did you ever wonder what happened to all the typesetters? Some retired. Others became yoga instructors or something. Many of them disappeared because away from their wondrous, awesome machines they weren't much better than typists.











Indecent spacing

Decent spacing

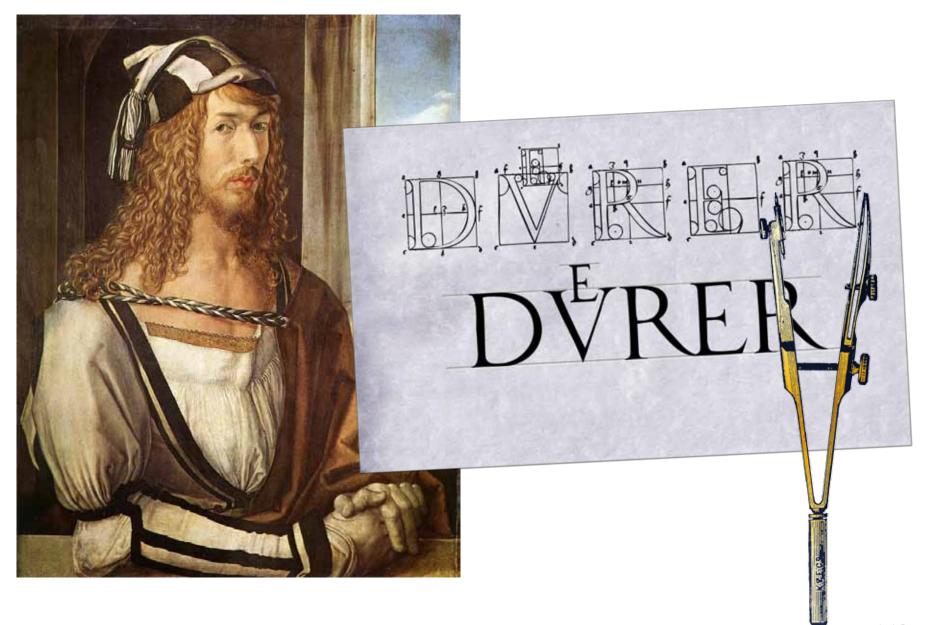


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GRANDTILE & CARDINET SHOWROOM

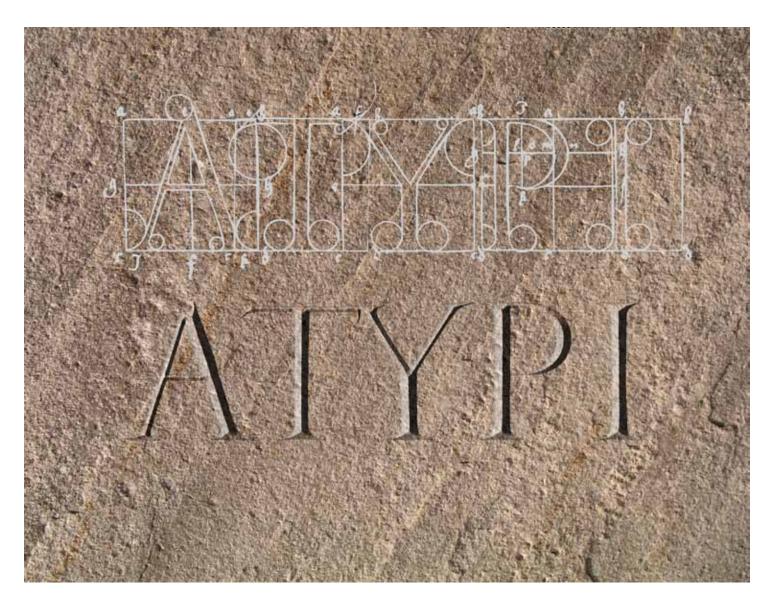
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...but they look pretty good when they are carved in stone. All this advances the human condition. But let's not forget the heart of the matter. The purpose of mechanization is to eliminate skilled labor.



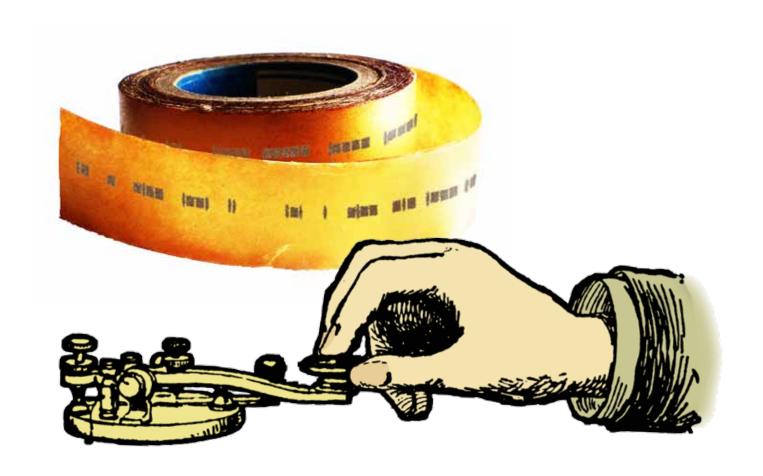


The purpose of mechanization is to eliminate skilled labor

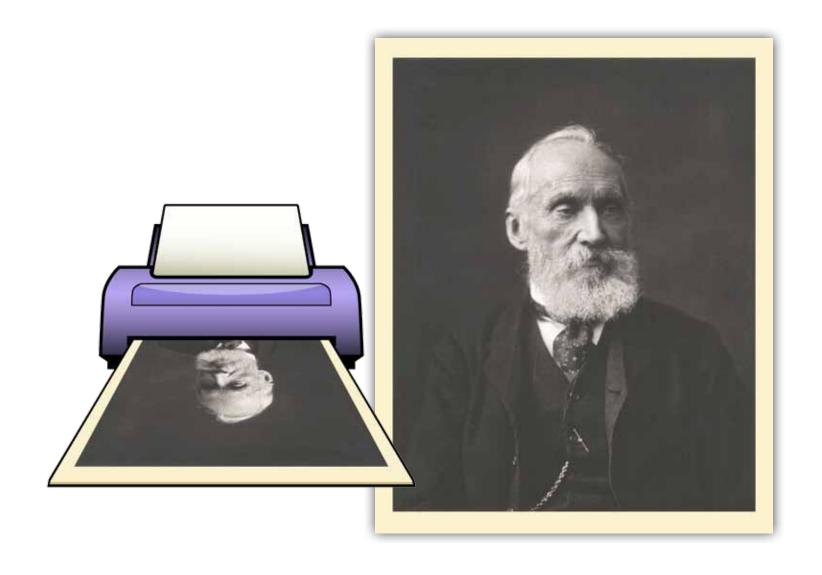
Gustave Doré drew this in Drury Lane during his London visit of 1872. These were destitute people in the center of the capital of what was then the richest country on the planet. I look at them and remember what happened to the typesetters.







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 "radio has no future" and "heavier-than-air flying machines are impossible." But if I start quoting strange predictions by great men, we'll be here all night. They don't know where we're heading. Nobody does.

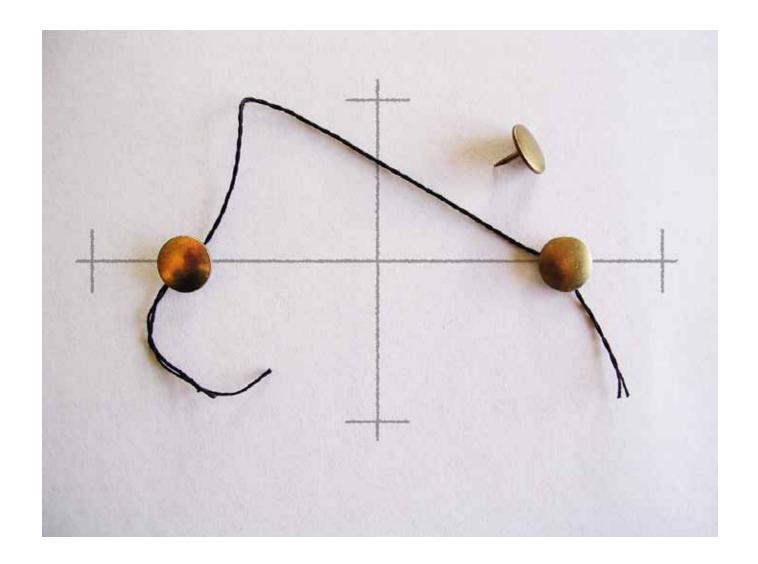


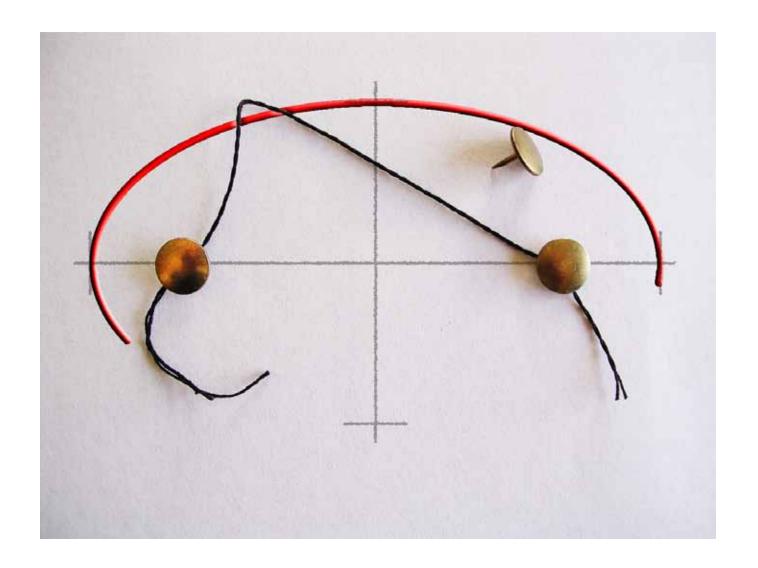
We have come a long way lately. *The Bald Prima Donna* was Eugène Ionesco's first play.

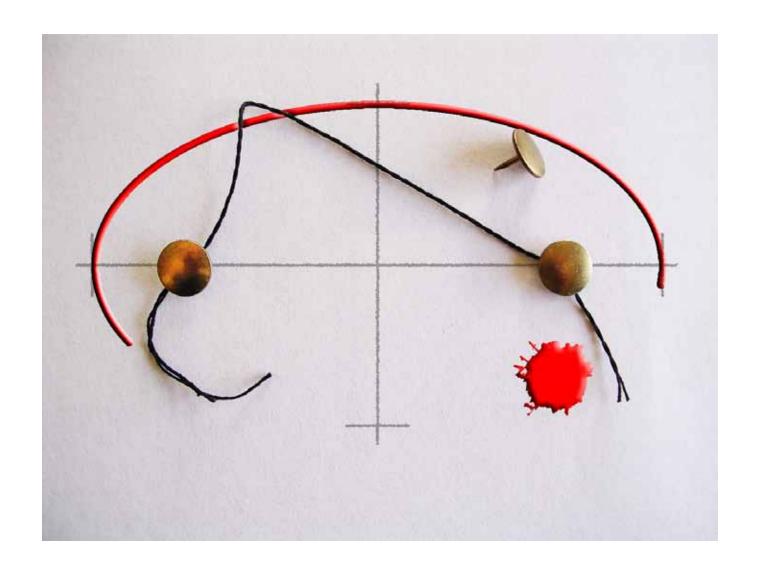
Massin's design of it is one of the landmarks of 20th century book design. Copyright restrictions prevent me from showing what he did. Please consider this composite image an homage.

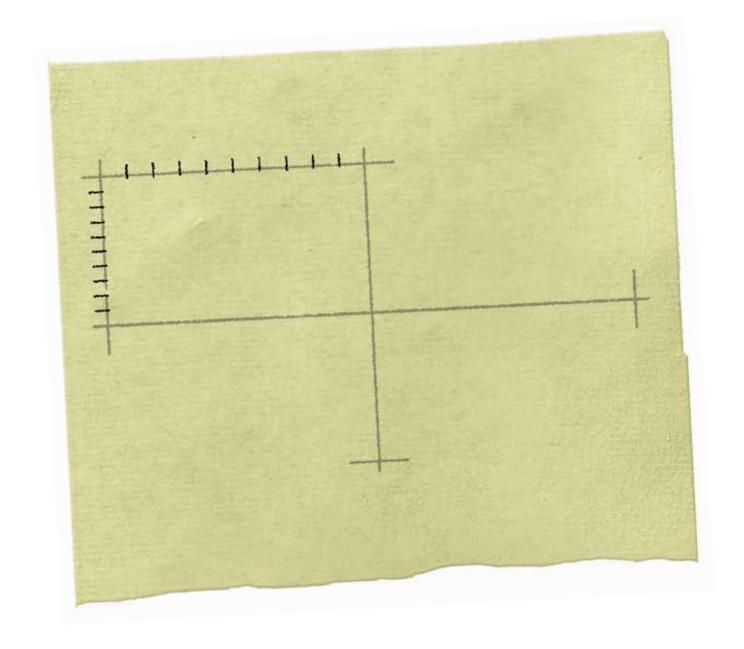


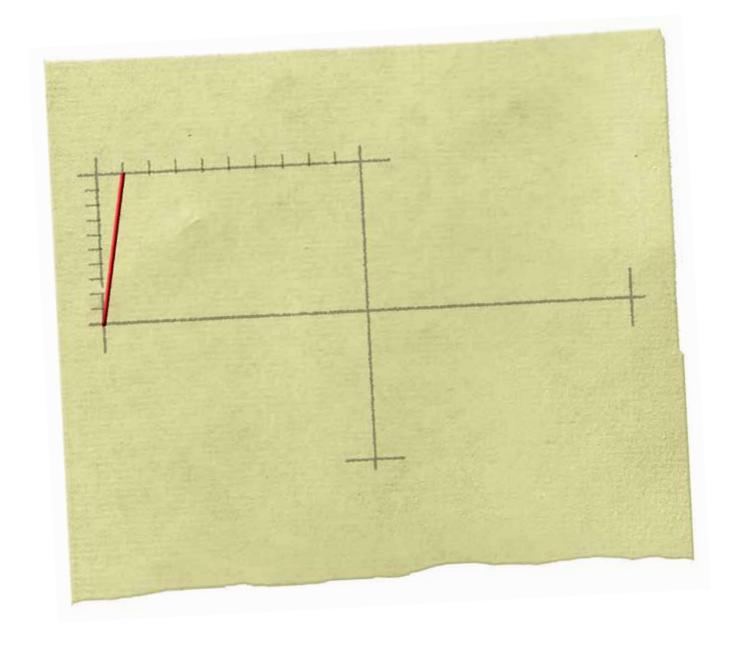
Today Massin's famous type distortion would only take a few minutes. The tools of 1964 were different. He used rubber from condoms. New tools changed everything. It changed a drawing office from wood and some metal to plastic and more plastic.

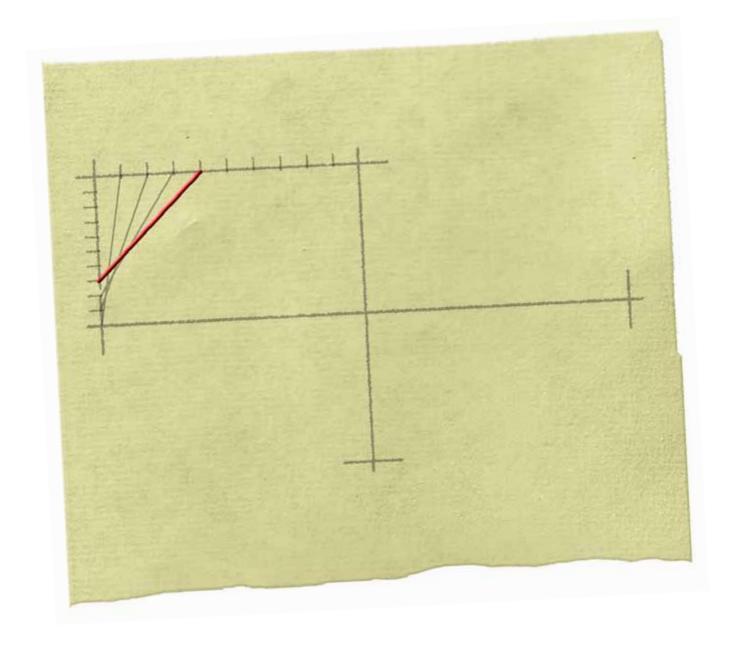


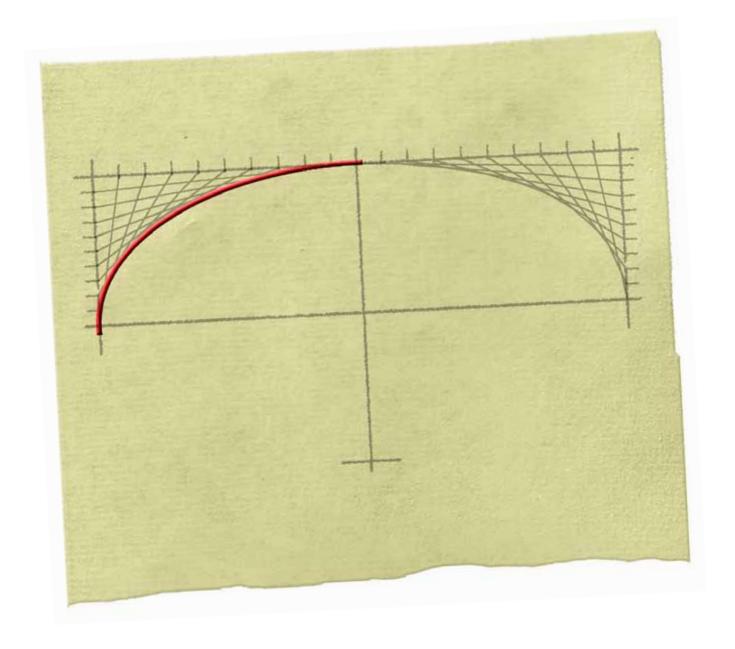




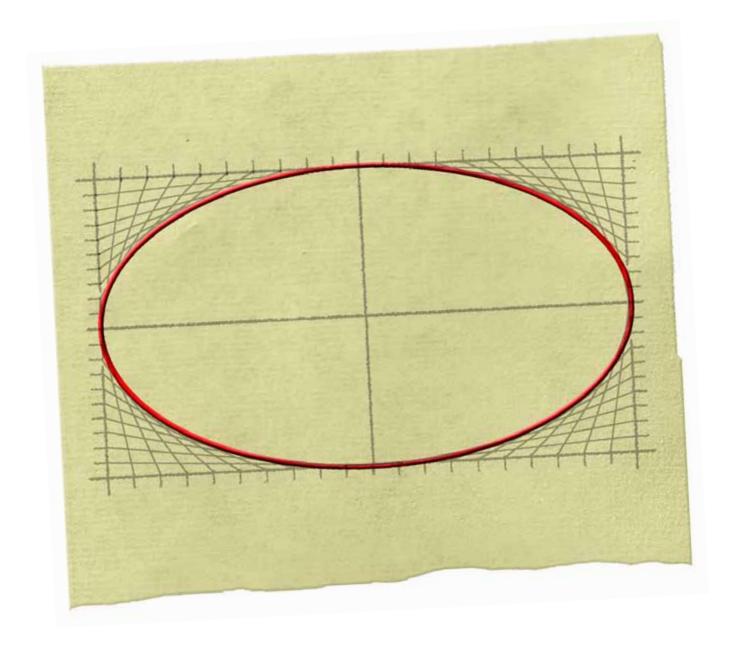


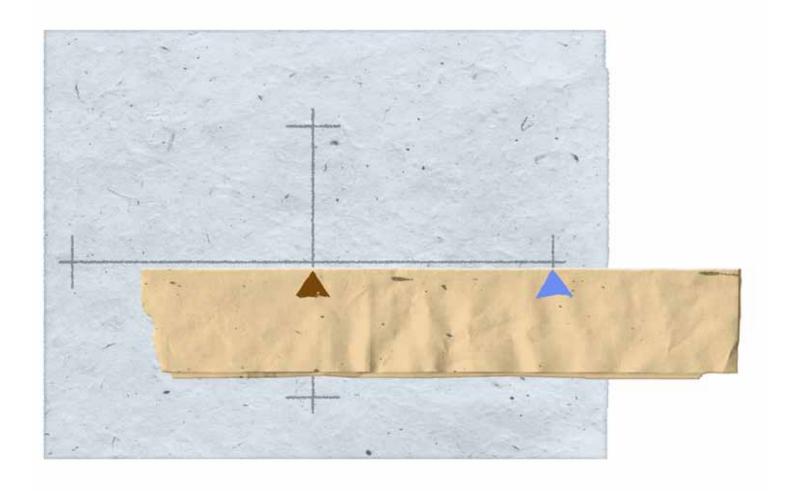


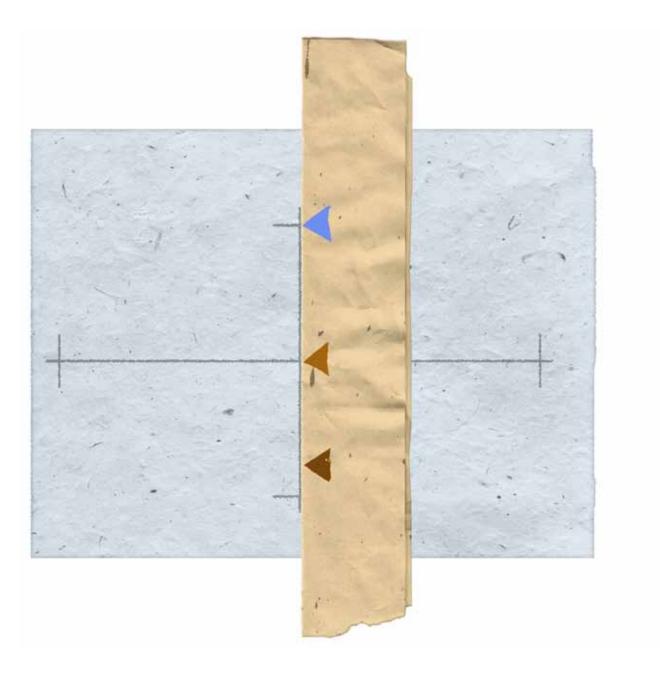




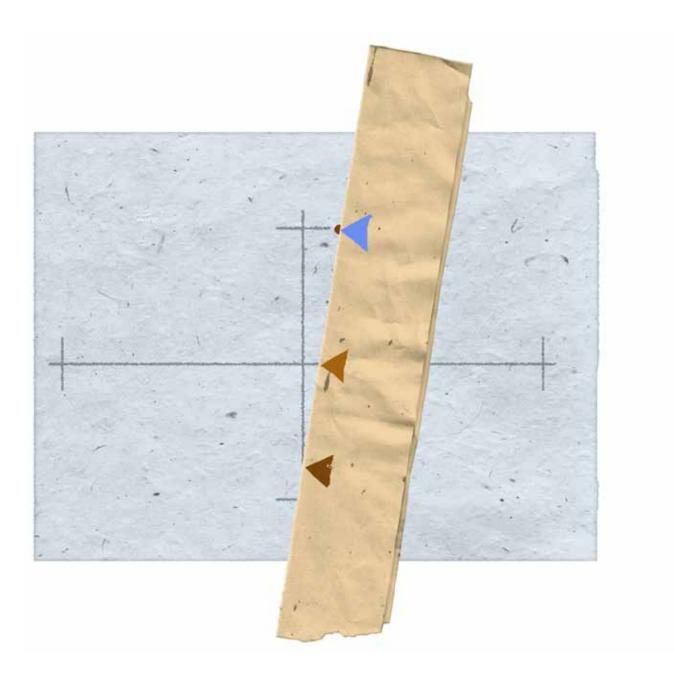
This gives you a perfect curve ...



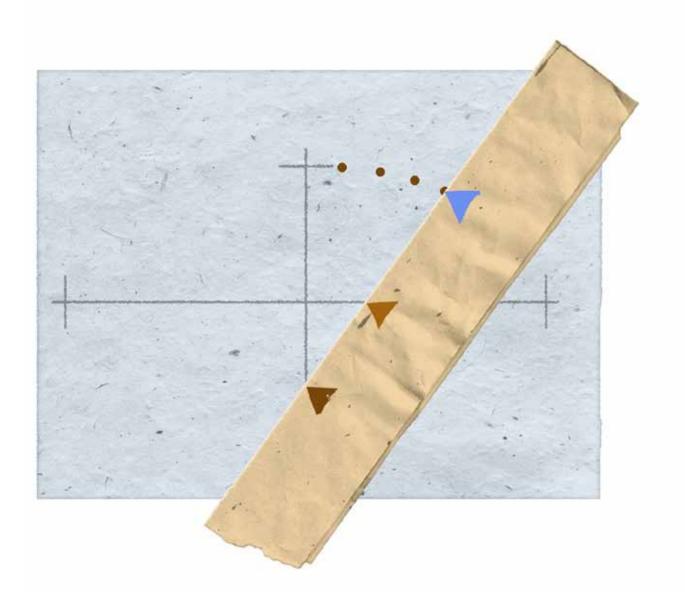




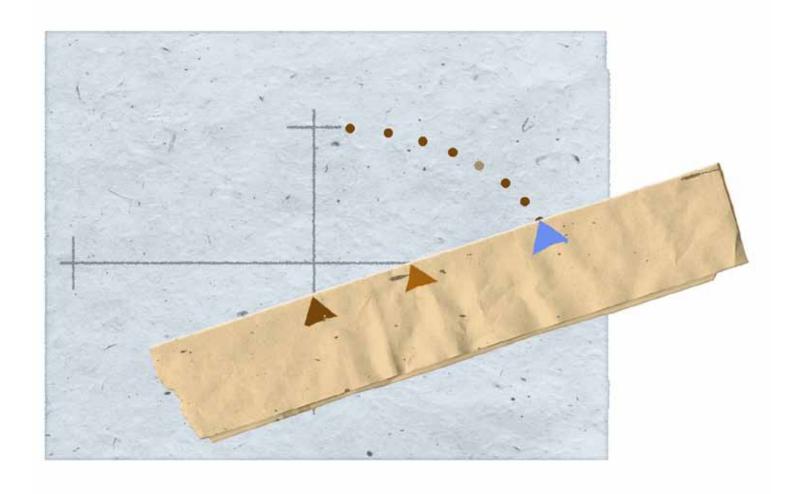
... and half the vertical axis. A piece of cardboard will do.

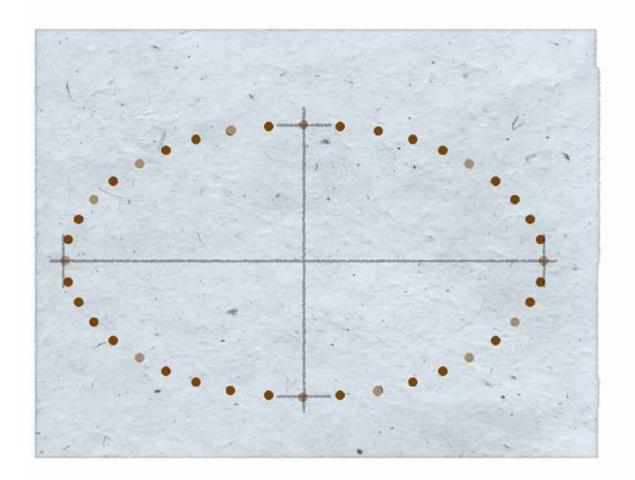


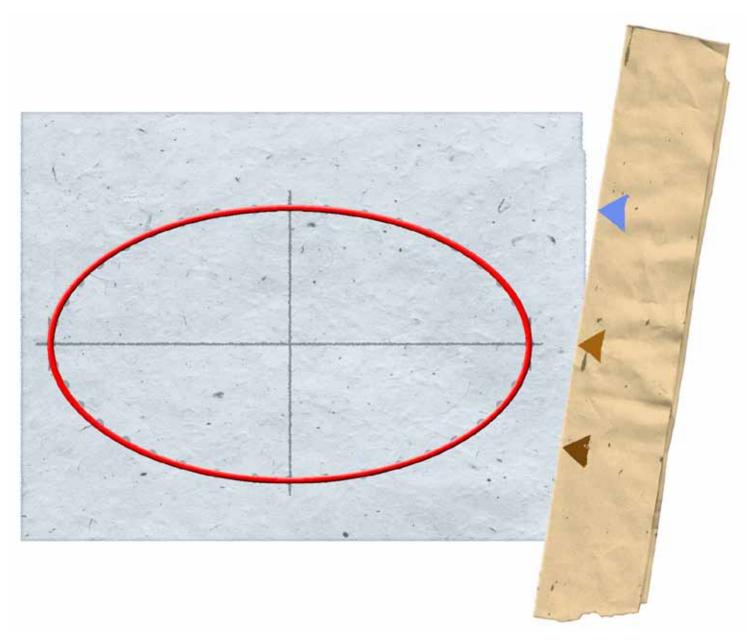
You line them up on the two axes and start making dots.



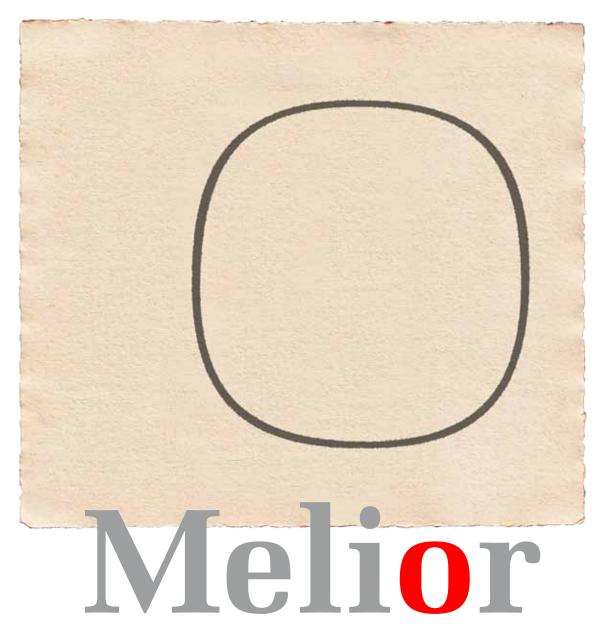
You realign the trammel on the axes and add more dots.







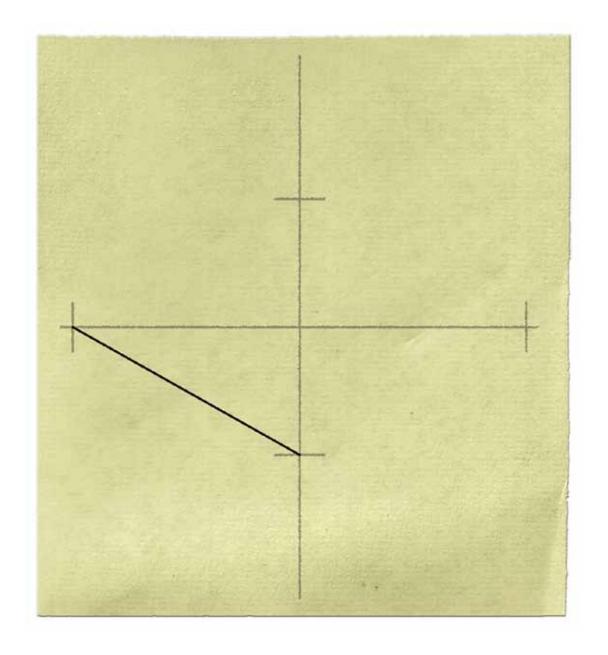
... just like this. Nowadays we can make ellipses just by clicking and dragging. I shall not predict where computer aided design is taking us.

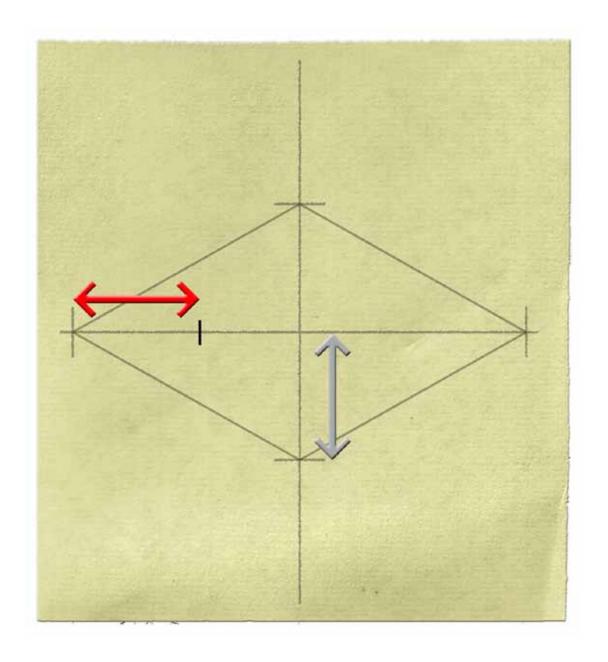


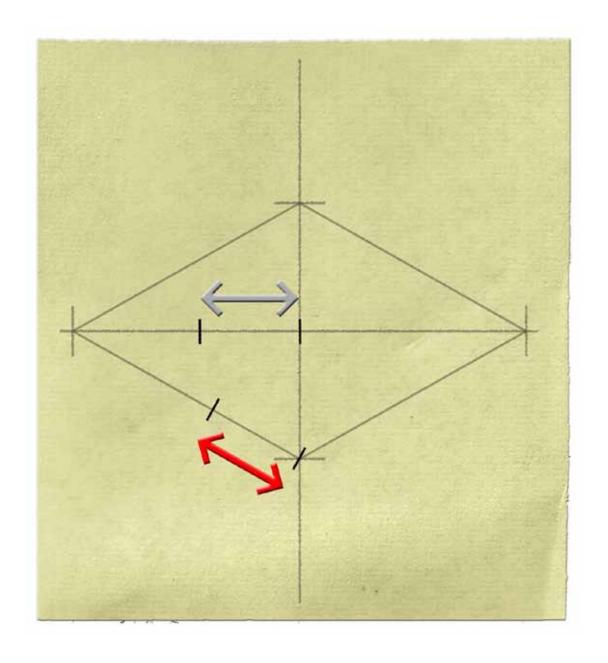
I remember a time when intelligent people said with a straight face that soon all typefaces would have curves that looked like television screens.



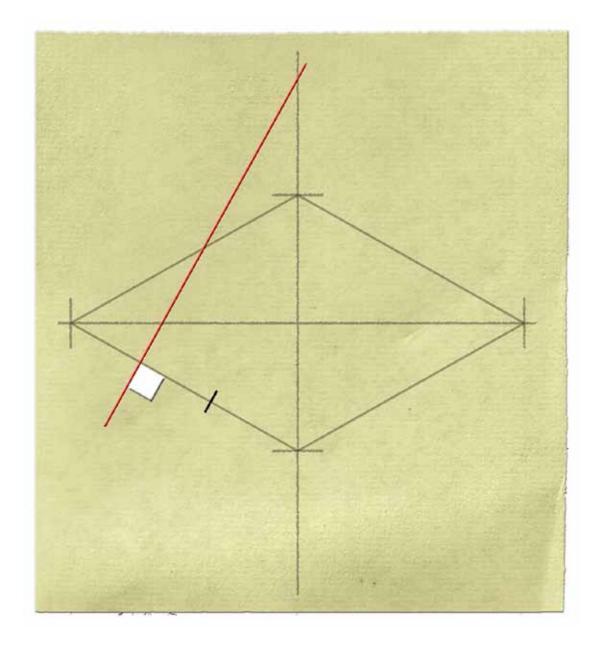
People usually predict that tomorrow will be an extravagant version of today. If they were right, we'd go to work in nuclear helicopters. But I have more to say about ellipses.



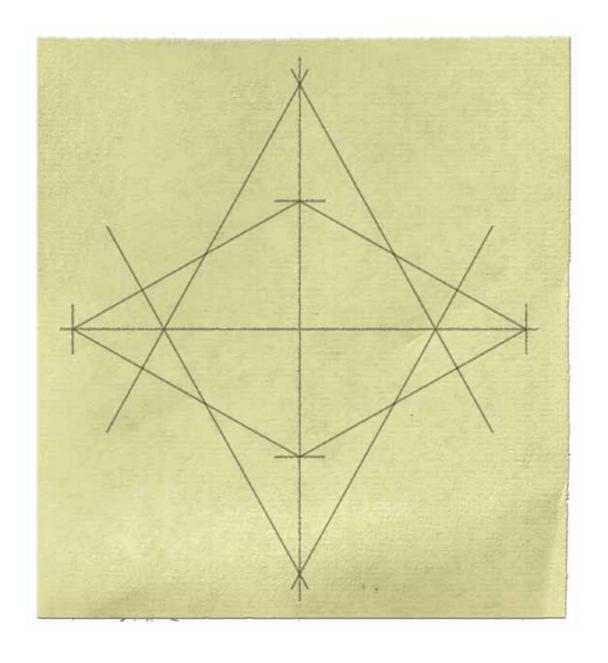




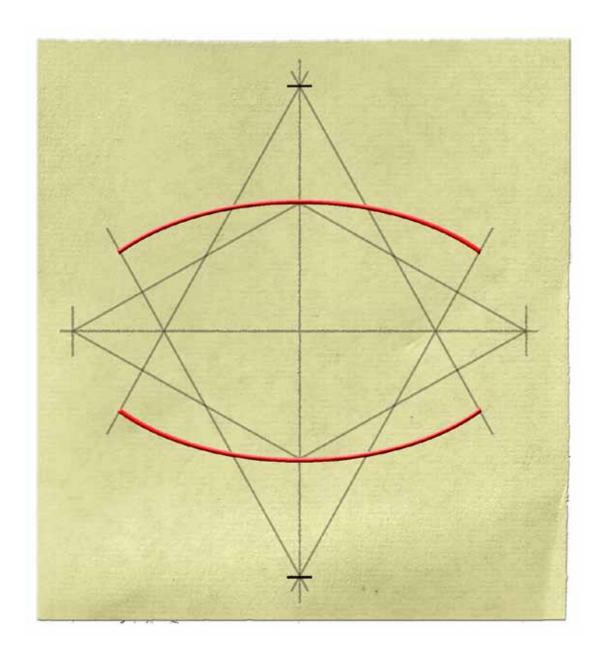
You mark the remaining distance of the long axis on the diagonal.

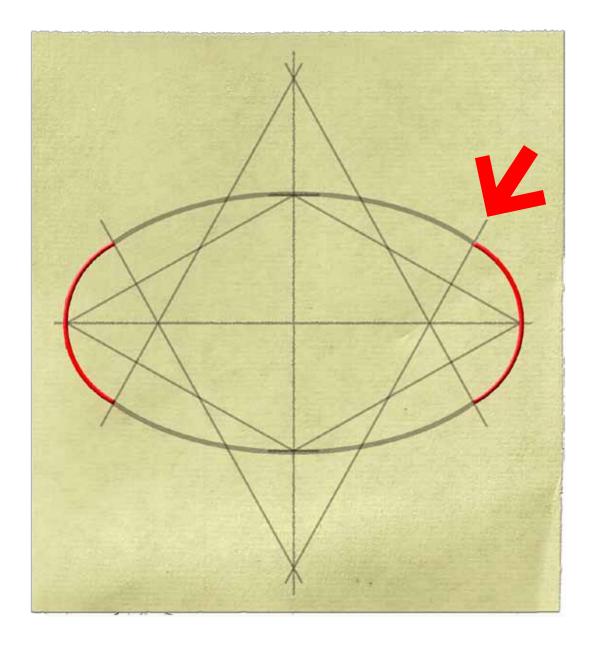


Halfway up the remaining distance of the diagonal, you draw a line at right angles that crosses an extension of the vertical axis. This is very simple in practice, and easy to carry out with a compass.

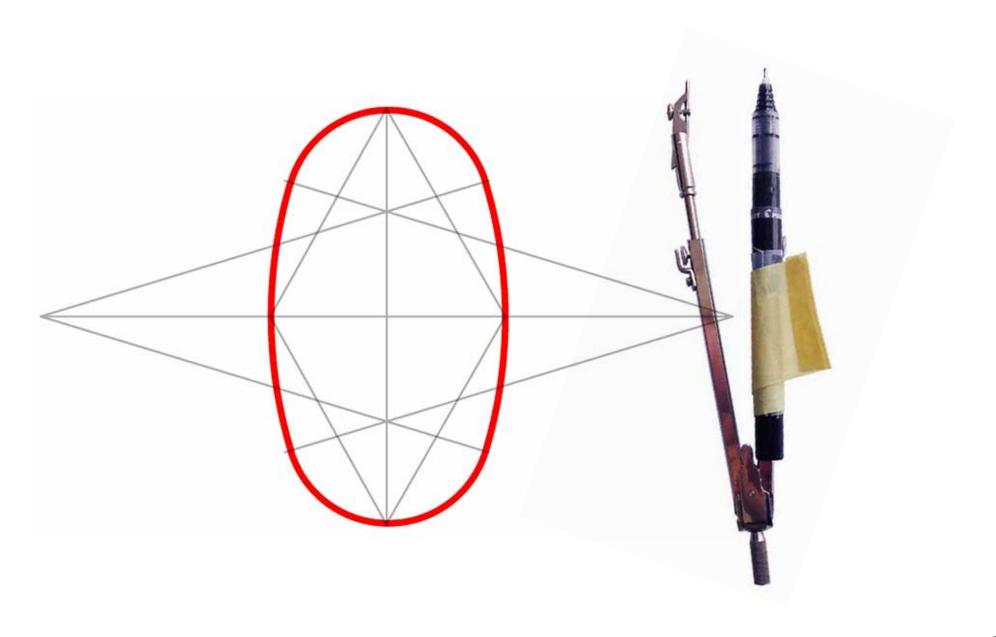


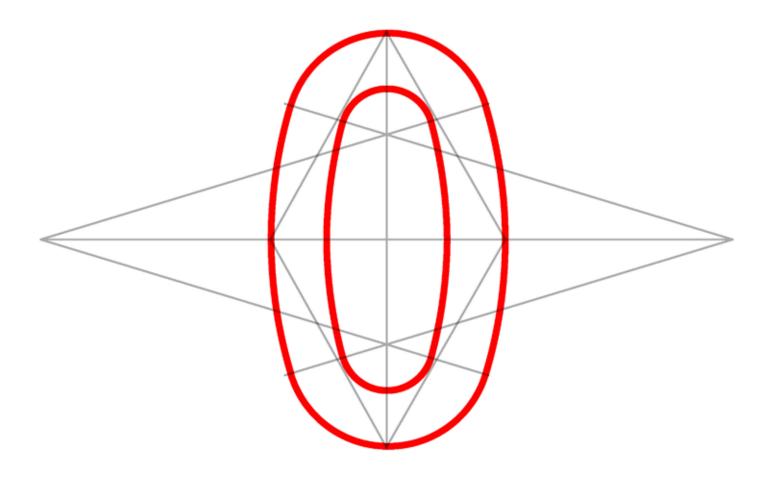
With these lines in place, you're ready to draw sections of four circles.

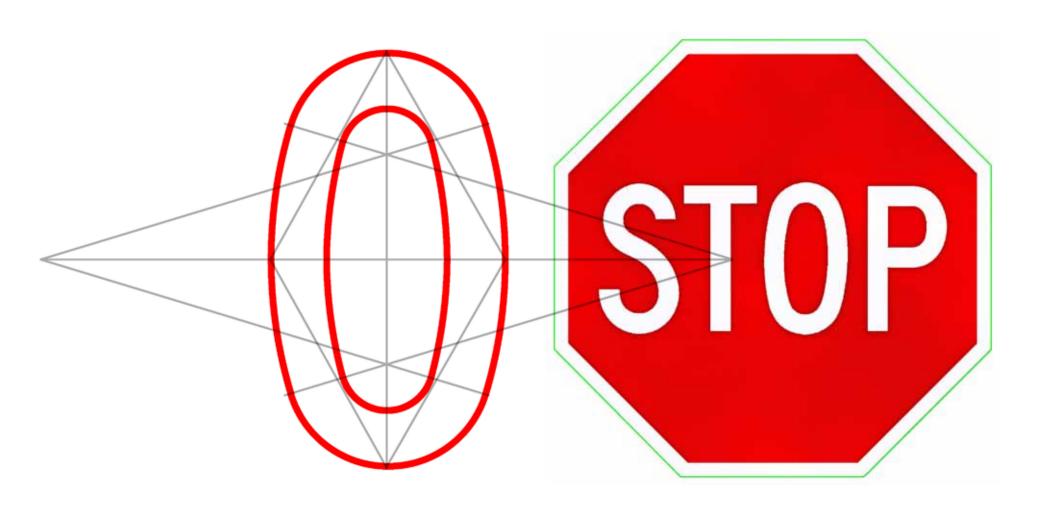




The end pieces close the shape. This really isn't an ellipse. No doubt you notice a dip in the area where the sections meet. Pretty it isn't. But like Charlemagne's signature, it is good enough for government work.



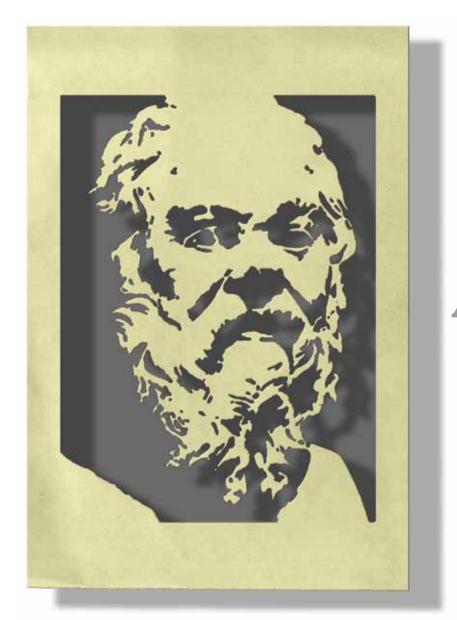




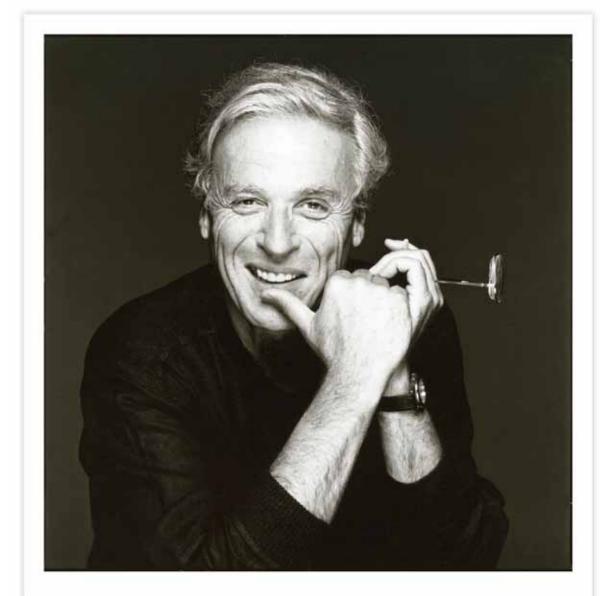
But to my eye, they're not half as bad as the letter S can be. The enemy, as I said before, is indifference to what is good and beautiful.



I like lettershapes with a ragged edge. I like a tied pair like one of these, one or two to a page, to remind me that I'm not just reading but looking at somebody's design at the same time. Will things improve tomorrow with better programming and worse interfaces? I don't know.



All I know is that I know nothing

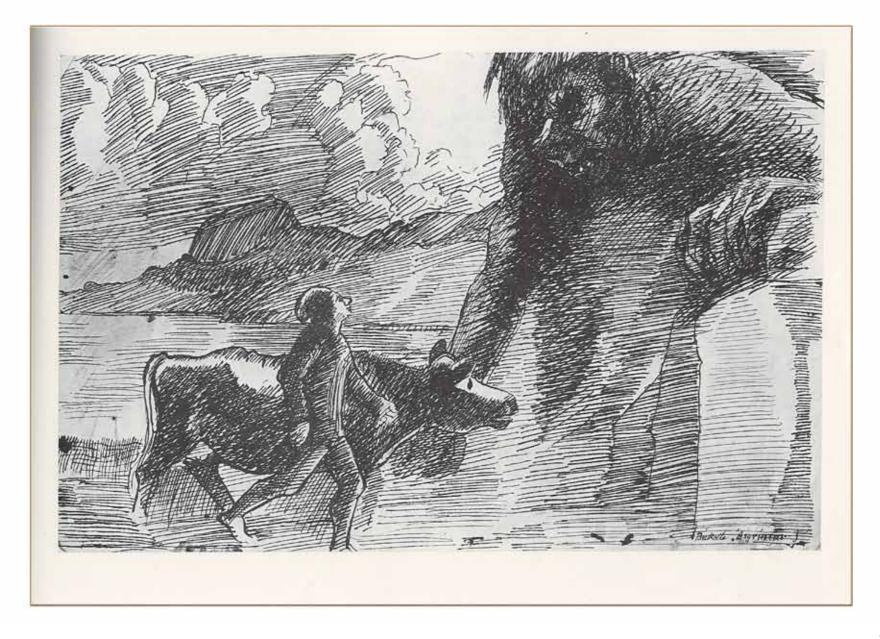


Nobody knows anything

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At the outset I said that life was wonderful, and that we were doomed. I still recommend that we love and cherish while we still can. Remember that we are a part of a field that stretches from furtive scratchings on walls to the greatest books of mankind. But before I finish I have one more point to make.



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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