The Nibs Plus Ultra team

HOW TO CHOOSE YOUR FOUNTAIN PEN

For fountain pen lovers or those who wish to become ones

Practical guide

Photo front cover:
Fountain pens Spotlight Airline Blue, LE Horizon Sunset Red, Spectrum Merlot Red (Taccia)

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SUMMARY

1. SOME HISTORY

Long before the appearance of the fountain pen as we know it today, the most common means of writing as early as the 7th century BC was the calamus[1], a rod of reed cut into a point. Aristotle (384-322 BC) is said to have used a silver penholder to write his works. Bronze calames were also found in Pompeii[2]. As early as the 4th century, the goose quill - like that of the raven or swan - was used as a writing instrument that was dipped in an inkwell[3]. The flexibility and elasticity of the quill made it a remarkable and reliable writing instrument[4].

In the 10th century, the Caliph Al-Muizz had his collaborators make a gold nib with an ink reservoir. In 1538, Johann Mathesius produced a metal nib with an ink refill. In the 17th and 18th centuries, a succession of metal nibs with a reservoir appeared.

Known as "continuous nibs" or "endless nibs", they were capable of writing several sheets without interruption and were made of various metals (gold, steel) and even ivory. The metal nib came into use in the 19th century. Combined with a wooden shaft or other material, it became a penholder, a writing implement that was used until the 1950s.

The main constraint was to carry the inkwell with you. Various techniques were therefore invented to enable the writing instrument to contain the ink directly in its body[5]. The first instruments with a reservoir (from then on called "fountain pens") appeared in the 17th century.

[1] The calamus scriptorius can be considered as the ancestor of the stylograph.
[2] One of these is an authentic writing set in perfect condition, as well as a bronze inkwell.
[3] In the 18th century, the quill pen was considered a masterpiece of mechanical engineering.
[4] According to Saint Isidore of Seville, the tip of the quill "seemed to divide into two parts" (Encyclopedia Etymologies or Origins).
[5] In his Codex Atlanticus, Leonardo da Vinci (1452-1519) had already executed calamus sketches with an ink reservoir.

Made of metal, they were unfortunately often victims of corrosion. Two centuries later, we witnessed a series of inventions, each more ingenious than the last, to create a reservoir for our pen: from the integrated piston to the rubber bag – the ancestor of the cartridge – and the first pump system.

The techniques continued to improve and were successful... alas, only for a short time, as another problem persisted: ink leaking from the nib. It was not until 1884 and the invention by Lewis Edson Waterman of the first capillary feeder that the first fountain pen[6] with a non-leaking reservoir was born. This small, cleverly designed part on which the nib rests allows the ink to circulate normally, thus preventing it from leaking[7].

Feeder – top view

Feeder – bottom view

Made of ebonite or plastic, the feeder therefore allows a continuous flow of ink. As the ink flows by capillary action along the grooves, the volume released by the ink fills with an identical amount of air that enters the nib and rises to the reservoir through the feeder. The balance between the quantity of air and the quantity of ink thus maintained allows a regular flow.

[6] In 1905, The Automatic was the first self-filling pen, anticipating by far the manufacturing features that would be introduced between the end of the 19th and the beginning of the 20th century.

[7] Various factors are involved in the feeding of a fountain pen (capillarity, inertia, gravity, friction of the nib on the paper, the presence of air, the characteristics of the ink, etc.).

It was at this time that the fountain pen really took off. It continued to grow steadily until the 1950s, when the biros – created in 1938 – gradually replaced it because of its practicality and functionality. When home computers came on the market in the 1980s, it was a further blow to the fountain pen. Some even predicted that it would disappear.

What is the situation today?

Penholder from the beginning of the 20th century

(personal collection)

2. THE SITUATION OF THE FOUNTAIN PEN NOWADAYS

Many years ago, a number of experts prophesied the inevitable decline of the fountain pen, or even its disappearance. Their prediction was reminiscent of the one that other experts had also announced a long time ago: the definitive disappearance of vinyl, which was also going to be replaced by the compact disc, adorned, as it should be, with a thousand virtues.

And then one day, music lovers rediscovered the incredible sound of vinyl. It made such an impression on them that they began to abandon other media. The shelves of vinyl records began to grow and expand like never before. Turntable manufacturers multiplied and realised that there was a huge market waiting for them. And they were right. Since then, the phenomenon has only grown. If the vinyl record has managed to regain its credentials and seduce so many people, it is because everyone quickly noticed the incredible difference between analogue (vinyl) and digital, not only in terms of quality, but also in terms of warmth and authenticity.

Typing from the keys of your computer, or touching the virtual keyboard of your tablet or smartphone with du b fingertips, and using a fountain pen is just as different, especially in terms of pleasure and feeling. What you feel when you hold your fountain pen in your hand and start using it is obviously nothing like what you feel when you use a keyboard. The pleasure of using a fountain pen by running it over the paper or playing with the variations in incidence and pressure is also a feeling that computers will never be able to provide for those who use them.

For several years now, the fountain pen has been in demand once again, and the interest in it is growing steadily. Its aesthetics, authenticity and elegance, but also what it reveals about its owner, are all reasons why it is an object to own and to carry with you on all occasions.

Examples of fountain pens (from closest to farthest):

Spotlight (Taccia), Diamond 580 (TWSBI), Macassar (Graf von Faber-Castell), Imporium (Lamy), Custom 845 (Pilot), Custom 823 (Pilot)

3. CHARACTERISTICS OF THE FOUNTAIN PEN

A. Anatomy

The fountain pen has evolved a great deal since its inception, becoming more and more complex over time. Four main parts have remained since its invention:

- the body or barrel
- the cap
- the feeling mechanism (built-in converter, free converter, cartridge)
- the nib

As well as other parts:

- the trims, which serve as ornaments such as rings or a filigree; the clip is used to attach the fountain pen to a jacket pocket or a notebook
- the section, which is the part you hold when writing
- the feeder, which brings the ink from the reservoir to the nib

Exploded view of a fountain pen

(Pro Gear Sapporo by Sailor)

B. Materials used

1. Basic materials

The fountain pen is most commonly made from one of five materials:

- ebonite: black or red vulcanised rubber to which 30% to 50% sulphur is added in the process

- resin: a natural or synthetic polymer product that is a basic material for the manufacture of plastics (among others)

- metal: stainless steel is the most common metal used in fountain pen design

- celluloid: a plastic polymer made from cellulose nitrate to which camphor has been added

- cellulose acetate: like celluloid, it is obtained by chemical modification of a natural polymer – cellulose – which is one of the most common organic substances found in nature. Cellulose acetate was the first injection-moulded plastic and is one of the cellulosic resins

- bakelite[8]: a synthetic resin made by polymerising phenol and formaldehyde, originally used as an insulator. The *Seven Treasures* fountain pens of the Japanese brand Wancher are made of this material. Bakelite can be black, but also in different colours.

[8] It was developed by the Belgian chemist Leo Baekeland, whose patent was filed in 1909.

2. Other materials

There are also fountain pens in silver (*Silver* by Pilot, *Shirogane by* Sailor), wood (*Ambition Coconut Tree by* Faber-Castell) or brass (*Age of Discovery by* Montegrappa). At the very top end of the market, the *Pen of the Year Olive* by Graf von Faber-Castell is covered in Galuchat or shagreen[9].

Fountain pen Silver Tiger by Pilot

3. Urushi lacquer and its techniques

Finally, let us note the fountain pens covered with urushi lacquer, of which we find superb models from the Japanese brands Sailor, Pilot-Namiki, Platinum-Nakaya and Taccia. It comes exclusively from the sap of the Lacquer tree (a tree that grows only in East Asian[10] countries) and has been

[9] Named after the inventor Jean-Claude Galluchat, master sheath-maker to the Marquise de Pompadour who was passionate about it, shagreen is a cartilaginous fish leather. It can come either from dogfish, dogfish or Greenland shark (small-grained shagreen), or from stingray (large-grained shagreen). This is the most famous leather, used in the major brands and in leather goods. It can be patinated.

[10] The urushi tree takes 15 years to mature and each mature tree can only produce 200g of sap which is mixed with other compounds to form lacquer.

used for thousands of years to protect the objects to which it has been applied, once it has dried[11].

Thus, it has this incredible ability to resist corrosion, scratches and even impacts. This type of fountain pen therefore has an exceptional life span which can easily extend over several generations. The colour of this lacquer varies according to its exposure to light, generating incomparable shades, brilliance and sparkle.

Many coats are necessary to achieve such a result, but also a considerable investment of time since each of them will require a drying time that can vary from 3 to 7 days. Depending on the number of layers, which can be as many as 20, long weeks and often several months are needed to create such a piece. Let us not forget the fabulous finishing work on this type of object.

For example, the *King of Pens* by Sailor is coated with 12 separate layers of urushi lacquer, all of which must harden and dry completely before the next layer of lacquer can be applied. The whole process – from preparation to the finished product – can take up to two months of work.

[11] The sap is greyish-white in colour and flows from incisions made in the bark of the tree during harvesting. It contains a toxic irritant, urushiol, from which lacquer is derived. The lacquer is obtained after removing water and impurities from the sap by evaporation and filtration. The lacquer can then be dyed in different colours (black, red, yellow, green or brown). It is then dried under very precise conditions: the temperature must be between 25°C and 30°C and the humidity level must be between 75% and 80%.

Urushi lacquer fountain pens (from left to right):

Horizon LE Sunset red (Taccia), Dream Pens True Urushi black, Red and Aka-tamenuri (Wancher), Piccolo Cigar Kuro-tamenuri and Piccolo Writer Aka-tamenuri (Nakaya)

a) The maki-e technique:

Some urushi lacquered fountain pens are also decorated with designs using the maki-e technique. The craftsman creates the designs with ultra-fine brushes and then delicately sprinkles them with gold powder before a new layer of lacquer is applied. In imperial Japan, objects made using this technique were highly prized by royal families and military leaders as they symbolised power above all. Today, this lacquering technique is still used for precious objects, including some fountain pens.

Maki-e fountain pen, details

Flower Basket from Nippon Art collection (Namiki)

b) The raden[12] technique:

Another decorative technique, raden, consists of inlaying fine pieces of mother-of-pearl into the lacquer with which the fountain pen has been previously coated. These mother-of-pearl fragments come exclusively from shellfish such as pearl oysters or abalone[13]. Depending on their thickness[14], they are either inlaid in pre-sculpted patterns or (for the

[12] The kanji for *Ra*(茶) means "spiral shell" and *den* "decorate".

[13] Originally, mother-of-pearl was derived from shells such as the abalone, nautilus, pearl oyster and corbicula.

[14] The shellfish used are classified into two categories: those that produce ultra-thin mother of pearl – about 0.1 mm – and those whose mother of pearl is about 1 mm thick.

thinner ones) pressed into the lacquer, which must then be particularly thick. They are then covered with urushi lacquer before being polished.

4. The trims

The fountain pen's trims are made of stainless steel and can be plated with a precious metal such as gold, palladium or platinum.

4. THE NIB

The nib is the central element of the fountain pen and will undoubtedly be the most decisive factor in the choice of the object.

The nib is first and foremost the pleasure of the eye that caresses it. It is also the pleasure of letting it glide over the paper and testing it to see how it performs. The nib is also that special sound that sometimes gives you the shivers when it starts to run on the paper. You should therefore choose it carefully, according to your personality and your writing style. In this respect, various characteristics will inevitably come into play, such as its flexibility and the thickness of the line it is likely to produce.

A. Anatomy

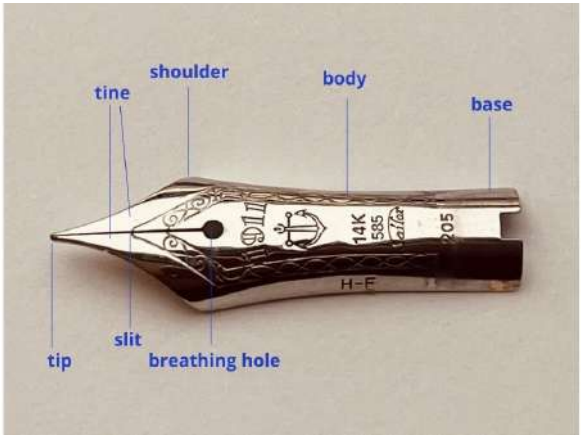
Although at first glance the nib appears to be a very simple piece of equipment, it is much more complex than it seems when you take a closer look. It is composed of 7 different parts:

- the body: part of the nib on which engravings can be found (brand name or logo, thickness of the line, degree of purity of the gold[15], etc.)
- the base: the upper part of the nib (hidden in the section)
- the shoulders: the two wider sides of the nib, between the body and the tine
- the tine (teeth): the upper part of the nib that joins the tip
- the breather hole: a round, heart-shaped or teardrop-shaped hole at the end of the slit, which is involved in the flow of ink (ink-air exchange)

[15] The purity of the gold is expressed in carats, noted "k" on the nib. The nibs may be made of 14-carat gold (58.5% pure gold), 18-carat gold (75% pure gold), or 21-carat gold (87.5% pure gold).

- the slit: an ultra-fine notch that runs from the nib to the breather hole in order to circulate the ink from the reservoir to the nib and at the same time ensure a good flow of air (the pressure of the pen opens a space that allows the ink to flow)

- the tip: the end of the nib to which a tiny amount of iridium (a platinum group metal) has been soldered, to ensure its longevity. After soldering, this small round tip is flattened and then hand-ground into its final shape. Some manufacturers prefer to use an alloy of osmium and iridium (osmiridium). Other brands use an alloy of precious metals whose composition remains confidential.[16]



Details of a 14-carat gold nib (Sailor)

B. Materials

The nib may be made of stainless steel, more rarely of glass as at Wancher (Japan). On the more upmarket fountain pens, it may also be made of gold (14, 18 or 21 carat). Some 14 or 21-carat gold nibs are sometimes coated with pure 24 carat gold (as at Sailor).

[16] Note that, at the beginning of the 20th century, Parker's *Lucky Curve* nib was made of an alloy of 44% osmium, 34% iridium and 20% ruthenium (approximate values)

Glass nib

Shizuku (Wancher)

Other nibs may be made of 23 carat (950/1000) palladium – a platinum group metal – such as the *Homo Sapiens* from Visconti. The steel nib is sometimes plated with a precious metal such as gold (or palladium).

The nibs can be of different colours: yellow gold, rose gold, silver, black or two-tone (black and gold at Lamy, silver and yellow gold at Sailor, for example).

Some nib colours (from left to right):

Heritage 91 (Pilot), Spotlight (Taccia), JR Pocket (Esterbrook), Studio (Lamy)

C. The nib size

First, a distinction must be made between Japanese and European/ American nibs. For the same size given by the manufacturer (e.g. F), Japanese nibs will be thinner than European/American nibs. Thus, a F (fine) nib from Sailor (Japanese nib) will correspond to an EF (extra-fine) nib from Jowo (German nib).

1. European/American nibs

These nibs are made:

- either by brands for their own fountain pens: Aurora, Lamy, Pelikan, Parker, Waterman
- or by nib manufacturers such as:
  - Jowo : Esterbrook, Faber-Castell, Taccia (for steel nibs, gold nibs are made by Sailor), TWSBI
  - Bock : Dupont, Graf von Faber-Castell, Montegrappa, Omas, Sheaffer, Visconti.

Note that for the same brand and size given by the manufacturer, there may also be slight differences (see table on page 28 for Platinum-Nakaya).

European and American nibs (starting at the bottom left, then clockwise):

Man 200 Night and Day (Waterman), Felicità (Montegrappa), Estie Scarlett (Esterbrook), Olympio Vertigo (Dupont), Accent Diamond Lacquer (Lamy), Souverän M600 (Pelikan)

2. Japanese nibs

These nibs are made by the manufacturers themselves: Pilot-Namiki, Platinum-Nakaya, Sailor. Some of them are almost impossible to find in France because they are so specific. The Japanese seem not to want to market certain nibs in Europe (like the Soft Fine nib of Pilot's *Custom 823*).

Japanese nibs (starting at the bottom middle, then clockwise) :

Capless (Pilot), Heritage 91 (Pilot), 3776 Century (Platinum), Spotlight (Taccia), Flower Basket (Namiki), Autumn Sky (Sailor)

3. The different nib sizes

a) The classic sizes: **EF** (extra-fine), **F** (fine), **M** (medium), **B** (broad). They can be found in all manufacturers.

b) The less common sizes: **EEF** (extra extra-fine), **MF** (medium-fine), **BB** (extra-broad), **3B** (extra extra-broad).

c) The particuliar sizes like such as:

- **Stub**: a nib with a tip that is wider than it is tall, allowing you to make thick vertical strokes and thin horizontal strokes, more commonly known as full and loose.

- **IT (Italic)**: it has the same characteristics as the Stub, but its flattened tip and angular ends will provide less flexibility in writing. It is used in calligraphy; however, it is less convenient for everyday writing, as it is advisable not to write too quickly in order not to tear the paper. The "cursive italic" variant will have its tip edges slightly rounded (not as much as the Stub, however) to avoid this pitfall.

- **MS (Music)**: Stub nibs with two slots (except for Sailor), whose nib parts open up sharply depending on the pressure applied, allowing for a greater flow of ink. This increases the fluidity of the writing and makes it more humid. In addition to its extreme flexibility, the vertical strokes are thicker than the horizontal ones, making it an ideal nib for calligraphy.

- **Z (Zoom)**: a broad nib that allows the width of the line to be varied according to the angle of the nib. At Sailor, this nib is suitable for left-handed people.

4. The special nibs

a) **O (Oblique)**: broad tip slanted to the right (right oblique) or to the left (left oblique) which is designed for people who tilt their wrist slightly when holding their fountain pen; the right oblique (also called LH - left-hander) is suitable for left-handed people; the left oblique will come in OM (oblique medium), OB (oblique broad), OBB (oblique extra-broad) and O3B (oblique extra extra-broad). It is a rare nib today.

b) **Flexible or Soft nib**: a very flexible nib that allows the thickness of the line to be varied according to the variation in pressure. The two sides of the nib spread further apart than on a standard nib to allow a greater flow of ink and thus play on the thickness of the line. This nib can be used for

calligraphy. It is sometimes cut on both sides of the nib (FA nib on Pilot's *Custom 823*) which gives it more flexibility (Nakaya calls it an "elastic nib").

Examples of flexible nibs cut on both sides:

F nib (nib called « elastic »)

Piccolo Writer (Nakaya)

FA (Falcon) nib

Custom 823 (Pilot)

c) The Naginata[17] nibs in 21-carat gold from Sailor

- **The Naginata Togi series**: these nibs, literally meaning "sword nibs" in Japanese, are longer than the brand's standard nibs and their tine is less curved, like a Japanese sword blade.

- *Naginata Togi:* its tip is ovoid in shape. Depending on the angle of inclination of the fountain pen, the line thickness will vary from BB to 3B. In addition, the nib allows for a slight difference in width between vertical, horizontal and oblique strokes. The nib has an extraordinary writing feel. It is available in MF, M and B.

Naginata Togi

Naginata Concord: the tip of the nib and the point have been shaped like the nose of the famous Concorde. This tip offers the possibility of fine writing when the fountain pen is held in the classical way and thick writing when the nib is inverted.

Naginata Concord

[17] Naginata: Japanese weapon consisting of a curved blade. Formerly used for combat during wars, it is used nowadays for the martial art *naginatajutsu*, more practised by women. It can measure up to two metres in length.

Naginata Fude de Mannen[18]*:* unlike the Concord nib, the tip of the nib and the point face upwards. The nib offers writing from F to B depending on the angle of inclination of the fountain pen and nib.

Naginata Fude De Mannen

Naginata Emperor: a solid gold blade on top of the nib provides an additional ink reservoir. This ingenious process is very useful for those who write quickly or use particularly absorbent paper. The nib is available in MF, M and B.

Naginata Emperor

- **The Cross Point series**: these nibs have a superb design on the surface of the tine in the form of a cross. In addition, their tips are larger than those of the Naginata Togi series.

Cross Point: it allows a very wide and smooth line thickness, regardless of the angle.

Naginata Cross Point

[18] In Japanese, *Fude* means "folded" and *Mannen* "fountain pen".

Cross Concord: the nib is slightly inclined and, like the Naginata Concord, offers fine writing when the fountain pen is held in the traditional way and thick writing when the nib is inverted.

Naginata Cross Concord

Cross Music: this nib allows you to write thin lines when the fountain pen is held vertically and thick lines when the angle of inclination is changed.

Naginata Cross Music

5. Comparative table of nib sizes (expressed in mm)

Sizes	Aurora	Jowo	Lamy	Montegrappa
EEF	/	/	/	/
EF	0,35	0,30	0,36	0,35
F	0,45	0,40	0,46	0,45
MF	/	/	/	/
M	0,55	0,50	0,56	0,55
B	0,75	0,80	0,675	0,85
BB	0,90	/	/	/
3B	/	/	/	/
Stub	0,70	1,10	/	1,15
Music	/	/	/	/
Zoom	/	/	/	/

Sizes	Omas	Parker	Pelikan	Pilot-Namiki
EEF	/	0,20	/	/
EF	0,30	0,30	0,40	0,23
F	0,40	0,40	0,50	0,35
MF	/	/	/	/
M	0,60	0,60	0,70	0,50
B	0,75	0,80	0,85	0,60
BB	>1,00	0,90	1,00	/
3B	/	1,10	1,30	/
Stub	1,20	/	/	0,70
Music	/	/	/	1,00
Zoom	/	/	/	/

Sizes	Platinum-Nakaya	Sailor	Visconti	Waterman
EEF	0,18-0,24	/	/	/
EF	0,24-0,28	0,23	0,30	0,30
F	0,28-0,34	0,30	0,40	0,40
MF	/	0,36	/	/
M	0,34-0,44	0,50	0,50	0,60
B	0,44-0,54	0,60	0,80	0,80
BB	0,66-0,86	/	/	/
3B	/	/	/	/
Stub	/	0,70	1,10	0,90
Music	0,9-1,10	0,3-1,15	/	/
Zoom	0,3-1,00	0,70	/	/

Reminder: Aurora, Lamy, Parker, Pelikan, Pilot-Namiki, Platinum-Nakaya, Sailor and Waterman make their own nibs.

For the brands Esterbrook, Faber-Castell, Taccia (steel nibs) and TWSBI, the nibs are made by Jowo.

Taccia's gold nibs are made by Sailor.

For the brands Dupont, Graf von Faber-Castell, Montegrappa, Omas, Sheaffer and Visconti, the nibs are made by Bock. Unlike Jowo, the size of the nibs produced by Bock depends on the demand of each manufacturer.

As the tables above illustrate, depending on the manufacturer, the sizes will differ for the same size.

5. HOW TO CHOOSE A FOUNTAIN PEN

In the light of the above, there are a number of factors to be taken into account:

- the weight and dimensions of the fountain pen
- the filling mechanism
- the flexibility of the nib
- the thickness of the line

A. The weight and dimensions of the fountain pen

The weight will depend on two factors: the material of the fountain pen (metal being heavier than resin), but also on whether you want to post the cap (put the cap onto the top of the body when writing) or not. If you prefer to put the cap on the desk, the total weight of the fountain pen will be reduced (you can find all the measurements in each product sheet on our website). For example, the Sailor Pro Gear *Autumn Sky* fountain pen will weigh 22g if you post the cap, but 13g if you don't post it.

In terms of grip, men – who often have larger hands – may find it more difficult to write with a smaller fountain pen if the cap is not posted.

The diameter of the object is also very important: the thumb, the index finger and the middle finger should hold the fountain pen naturally without getting in each other's way. Thus, particularly slim models are generally preferred by women (*Felicità* by Montegrappa, *Capless Decimo* by Pilot), although this is primarily a personal choice.

The large models, which are also much longer and larger than average, are often preferred by men (*Estie Oversize* by Esterbrook, *Custom Urushi* by Pilot, *King of Pens* by Sailor).

The fountain pen is well held

(Estie Scarlett by Esterbrook)

It is less comfortable to hold the pen if it is short or the cap not posted

(Pro Gear Sapporo by Sailor)

B. The filling mechanism

The majority of fountain pens accommodate the converter and the cartridge. However, some models have a built-in piston[19] – or converter. In this case, the body of the fountain pen is not removable. It is only the end of the body that can be unscrewed to operate the internal piston and fill the fountain pen.

So, if you want to have a choice between a cartridge and a bottle of ink, the fountain pen with the built-in piston will not meet your requirements.

[19] Most models from TWSBI and Pelikan, the *Realo* from Sailor, for example.

Piston open before filling

(Sailor Pro Gear Realo black and Pelikan Classic M200 Golden Beryl)

Piston closed after filling

(Sailor Pro Gear Realo black and Pelikan Classic M200 Golden Beryl)

C. The flexibility of the nib

The flexibility of the nib will depend on the material used in its design, but also on the way it was designed.

1. The material

Standard steel nibs – whether gold/palladium plated or not – will be relatively stiff. Gold nibs, on the other hand, will always be softer. This flexibility will depend on the purity of the gold. For example, a 21-carat nib (Sailor) will be softer than an 18-carat nib, which is itself softer than a 14-carat nib. However, this difference is not always noticeable to everyone.

The design (shape, size and cut)

The width of the shoulders (the two widest sides of the nib, between the body and the tine) will contribute to the suppleness. So the wider the shoulders, the softer the nib. The Sailor *King of Pens* is a very supple nib because not only is it broad in the shoulders, but it is also made of 21-carat gold. In addition, its large size also adds to the flexibility.

As far as special nibs are concerned, we have seen that it is their shape or their particular characteristics that give them their incomparable suppleness: the *Falcon* from Pilot, the so-called "elastic" nibs from Nakaya (cut on the sides), the Music nibs from all manufacturers.

D. The line thickness (the nib size)

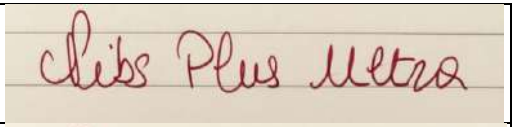
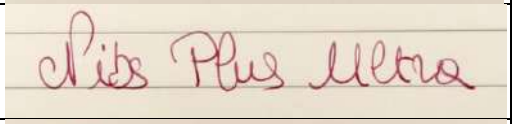
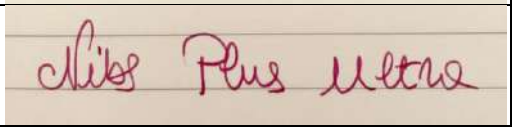
Some may say that this is a matter of taste, and we agree with them entirely! However, when we write, we want to be properly read and... to be able to read ourselves again in time. It will be more difficult to decipher small handwriting if the line is thick.

So, if your writing – whether cursive or scribal – is small and the letters are close together, it is best to choose an EF or F nib (whether Japanese or European/American). We do not recommend the EEF nib because it is rather fragile and requires high quality paper.

On the other hand, if you are writing large characters with possibly large spaces between letters, you can freely choose sizes M, B, BB and 3B... but also choose sizes EF and F! It all depends on what you want to express in your writing, your personality, your character. If you use your fountain pen for signing purposes, M and B nibs are recommended. For writing numbers, for example in accountancy, we recommend EF and F nibs, possibly the EEF nib with the precaution we have already mentioned.

It is important to know, however, that the thickness of the line will also depend on the pressure you exert when writing. This difference in pressure

will result in a thicker or thinner line for two people writing with the same pen. However, this difference is not always significant.

F nib (0,30 mm) from Sailor	
EF nib (0,30 mm) from Esterbrook (Jowo)	
EF nib (0,36 mm) from Lamy	

Difference in line thicknesses between 3 nibs

(Sailor, Esterbrook, Lamy)

6. MAINTENANCE OF THE FOUNTAIN PEN

Investing in a fountain pen also means taking care of it by maintaining it as often as possible. To protect it from dust, scratches and possible knocks, storing it in a pen case after use seems obvious.

The main cause of corrosion on a fountain pen is undoubtedly the ink, whatever its nature and whatever the brand. Pigment inks are much more corrosive than traditional inks. We do not recommend them for fountain pens.

We recommend that you clean your fountain pen thoroughly each time you change ink. If you decide not to use your fountain pen for a while – e.g., for a few weeks – we also recommend that you empty it of its ink and clean it thoroughly.

A. For beginners

1. prepare a glass of cold water, if possible non-calcareous (filtered or mineral water)
2. remove the cap, unscrew and remove the body of the fountain pen to access the converter
3. turn the converter knob counter-clockwise so that it is in the filling position
4. immerse the fountain pen in water and turn the converter knob clockwise to fill it with water
5. empty the converter into another container by turning the knob counter-clockwise again
6. repeat the operation until the water comes out of the fountain pen completely clear

If you use a fountain pen without a converter (because you use cartridges only), we recommend that you simply immerse the nib-section part in a container filled with cold water (if possible, not hard water) and leave it there for a while. Then change the water as often as

necessary until it becomes clear. You can also put the section to your mouth and blow the excess water out through the nib until the excess water is free of ink. Then simply place the pad in a paper towel to dry. And that's it!

B. For experienced

1. prepare a glass of cold water, if possible non-calcareous (filtered or mineral)
2. remove the cap, unscrew and remove the body of the fountain pen, then remove the converter
3. unscrew the metal cylinder of the converter and disconnect all the parts; immerse them in the glass of water
4. a) if the model has an integral nib and feeder assembly (as in the Esterbrook models, for example), grasp the feeder and nib between thumb and forefinger and unscrew the assembly; immerse it in the glass of water
   (b) if the model does not have an integral nib-feeder assembly, using a small rectangle of leather or soft rubber, grasp the nib and the feeder between thumb and forefinger and pull gently; disconnect the nib from the feeder and immerse them in the glass of water
5. leave to soak for a few hours, changing the water regularly until it is perfectly clear
6. dry all parts with absorbent paper, including the inside of the converter, before reassembling the nib, converter and fountain pen.

We would like to stress that this second method must be carried out with care to avoid damaging the nib and the feeder, which are fragile parts. If you have any doubts, we suggest that you carry out the first method or leave it to a professional.

7. IN CONCLUSION

Any advice or suggestions you may have received – or that you yourself may have picked up here and there – are one thing. However, you should not underestimate that the choice of a fountain pen will always be somewhat subjective. In other words, the one you choose will not necessarily meet all the criteria you already had in mind, but it will have that little something that makes all the difference. A detail that you would not have thought of before discovering it, but which will nevertheless be decisive for everything else. It's a kind of "*coup de cœur*".

It goes without saying that our personality undoubtedly guides our choice, as does the experience we have of the object or may have of it in the future. After all, each of us started with our first fountain pen. A first pen that we may still have in our possession and whose brand we have not forgotten. And even if we still look at it today with a certain nostalgia and affection, some of us will have continued to progress in our knowledge of the object and its use, others will have naturally returned to it, putting aside soulless objects such as their tablet or smartphone.

There are indeed several types of users, all different in terms of need and use. All with their own value and respectability. A novice user will probably not have the same requirements as an experienced user who already knows the object well. And an experienced user will not necessarily have models in his/her collection which possession remains confidential at an experienced collector. But all of them, without exception, will have in common the love of this fabulous object called "fountain pen".

To all fountain pen lovers, whether they are beginners, experienced, enthusiasts or collectors, we wanted to convey in this booklet all the passion we have for this magnificent object.

And we thank them for having accompanied us during these few pages.

Transparent fountain pens, called Demonstrators[20] (from left to right):

Spotlight (Taccia), 3776 Century (Platinum),
Heritage 92 (Pilot), Diamond 580 (TWSBI)

[20] Demonstrators are made of resin: they allow to observe, and even admire, the internal mechanism and to appreciate the ink level.

GLOSSARY

Band: a ring larger than the other rings on the fountain pen and located at the base of the cap. It is often engraved with the name of the brand and sometimes the date of the company creation.

Base: the back of the nib, inserted into the section.

Body (of the fountain pen): the longest part of the fountain pen which houses the reservoir (converter, cartridge or built-in piston).

Body (of the nib): the part of the nib between the base and the shoulders on which the engravings (brand name or logo, nib size, gold purity, etc.) are located.

Breather hole: round, heart-shaped or teardrop-shaped hole located at the end of the slit and which participates in the flow of ink (ink-air exchange).

Built-in piston: a piston integral with the body of the fountain pen and is activated by screwing and unscrewing the top of the body. Some pistons are pushed/pulled after unscrewing the top of the barrel (Pilot *Custom 823*).

Cap: the top part of the fountain pen that covers the nib and is attached to the barrel by screwing or snapping it on to close the fountain pen.

Cartridge: a plastic cylinder containing ink that is attached to the top of the section. There are two sizes: short and long. Some fountain pens from brands that manufacture their own inks only accept cartridges from that brand. The ink manufacturers (Diamine) produce so-called "standard international format" cartridges that fit all fountain pens whose manufacturers do not sell ink. The first cartridge, which was created at the end of the 19th century, was made of glass.

Celluloid: a plastic polymer made from cellulose nitrate to which camphor has been added. It was the first plastic material to be invented (mid-19th century).

Cellulose acetate: a material obtained by chemical modification of a natural polymer – cellulose – which is one of the most common organic substances in nature. Cellulose acetate is the first injection-moulded plastic and is one of the cellulosic resins.

Clip: a small, long, thin piece of stainless steel, sometimes plated with a precious metal, which is attached to the cap and is used not only to add a decorative touch to the fountain pen, but also to attach it to a notebook or jacket pocket.

Converter: a cylinder made of plastic and metal containing a piston, which is filled with ink and attached to the top of the section by gently pushing it. At Montegrappa, the converter is screwed on. A converter can be filled with any brand of ink.

Demonstrator: a transparent fountain pen, coloured or not, made of resin. It allows the owner of the fountain pen to admire the internal mechanism and appreciate the level of ink.

Ebonite: black or red vulcanised rubber to which 30% to 50% sulphur is added in the process.

Feeder: an inconspicuous but central part of the fountain pen for its proper functioning. Made of ebonite or plastic, it is attached to the lower part of the section and supports the nib. It allows a continuous flow of ink from the reservoir to the nib: as the ink flows by capillary action along the grooves, the volume it releases fills with an equal amount of air that enters through the nib and rises to the reservoir through the feeder. The balance between the quantity of air and the quantity of ink thus maintained allows a regular flow. The American Lewis Edson Waterman was the inventor.

Filigree: an ornament made of metal threads (often precious) that surrounds the fountain pen, while revealing the barrel and cap.

Finial: the decorative part at the top of the cap, usually displaying the brand's logo (Sailor's anchor, Pelikan's pelican) or the year of the firm creation (1912 at Montegrappa).

Flexible (or Soft) nib: a very flexible nib that allows the thickness of the line to be varied according to the variation in pressure. The two sides of the nib spread further apart than on a standard nib to allow a greater flow of ink. This nib can be used for calligraphy. It is sometimes cut on both sides of the nib to make it more flexible (Nakaya calls it an "elastic nib").

Hooded nib: a nib that is largely inserted into the section. Only a small part is visible (Esterbrook *Phaeton*, *Parker 51* by Parker). Ideal for quick note-taking as it dries more slowly and keeps the fingers clean.

Italic nib (IT): it has the same characteristics as the Stub, but its flattened tip and angular ends will provide less flexibility in writing. It is used in calligraphy, but is less convenient for everyday writing, as it is advisable not to write too quickly so as not to tear the paper. The "cursive italic" variant will have the edges of its point slightly rounded (not as much as the Stub, however) to avoid this pitfall.

Music nib (MS): Stub nib with two slots (except for Sailor), the parts of the tine of which open out sharply to allow a greater flow of ink. This increases fluidity and makes writing more humid. Its great flexibility makes it an ideal nib for calligraphy.

Nib: the noble part of the fountain pen made of stainless steel – gold/palladium plated or not – or gold (14, 18 or 21 carats, sometimes 24 carats). The latter can be rhodium or ruthenium plated. It is towards the nib that the ink will flow in order to allow writing.

Oblique nib (O): broad tip slanted to the right (right oblique) or to the left (left oblique) which is designed for people who tilt their wrist slightly when holding their fountain pen; the right oblique (also called LH – left-hander) is suitable for left-handed people; the left oblique will come in OM (oblique

medium), OB (oblique broad), OBB (oblique extra-broad) and O3B (oblique extra extra-broad). It is a rare nib today.

O-ring: a rubber seal on the thread of the section that prevents ink leakage.

Palladium: a precious metal of the platinum family.

Post: the action of putting the cap to the top of the fountain pen barrel. This not only allows a better grip if the model is small, but also affects the balance of the fountain pen.

Resin: a natural or synthetic polymer product that is a basic material for the manufacture of plastics (among others).

Retractable nib: located on capless fountain pens, it extends out of the body of the fountain pen and retracts into it by means of a push button (Pilot's *Capless*) located at the top of the body or a twist of the upper half of the body (Lamy's *Dialog*).

Ring: a decorative ring, of varying width, found in several places on the fountain pen, both on the barrel and on the cap.

Rhodium: a precious metal of the platinum family.

Screw-cap: a cap with a screw thread that allows the fountain pen to be opened/closed by unscrewing/screwing it.

Section: the part of the fountain pen that is held when writing. Its upper part is connected to the barrel by a thread. The nib is attached or set into the other end.

Shoulders: the two widest sides of the nib, between the body and the tine.

Slit: a very fine cut from the nib to the breather hole to allow the ink to flow from the feeder to the nib.

Snap-cap: a cap that is pulled off to open the fountain pen or pushed on to close it (a "click" is heard).

Stub nib: a nib with a wider than tall tip that allows you to make thick vertical strokes and thin horizontal strokes, more commonly known as full and loose. Compared to the Italic nib, its edges are rounded for smoother writing.

Tine (teeth): the front part of the nib to which the tip is soldered. On flexible nibs, the two parts of the tine spread further apart to allow more ink to flow through (these nibs are ideal for calligraphy).

Tip: the end of the nib to which a tiny amount of iridium (a platinum group metal) has been soldered, to ensure its longevity. After soldering, this small round tip is flattened and then hand-ground into its final shape. Some manufacturers prefer to use an alloy of osmium and iridium (osmiridium). Other brands use an alloy of precious metals whose composition remains confidential.

Trims: all parts of the fountain pen used for decoration (rings, clip, filigree). Usually made of stainless steel, they are sometimes plated with a precious metal (gold, platinum, etc.).

Urushi lacquer: a resin that comes from the (toxic) sap of the Lacquer tree (a tree that grows only in East Asian countries) and has been used for 2000 years as a protective coating once it has been applied to objects, dried and hardened. Resistant to corrosion, scratches and impacts, it gives fountain pens an incomparable shine and luster and extends their life.

Zoom nib (Z): a broad nib that allows the width of the line to be varied according to the angle at which the nib is tilted.

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Thank you to all the lovers and future lovers of this magnificent tool of expression of our personality that is the **fountain pen**.

And the writing that goes with it.

The Nibs Plus Ultra team

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