Enhancement suggestion on the design of the 辶 and 廴 components in Source Han Sans 2.0

2024/10/14

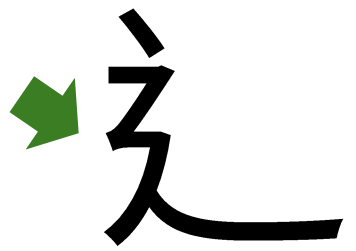
Terminology

Source: https://www.printmag.com/type-tuesday/monotype-neurons-culture-typography-report/

Background

- The author suggested to redesign the 辶 component after the release of Source Han Sans 1.0 in 2014.
- The redesign was accomplished with the release of Source Han Sans 2.0 in 2018.
- This proposal is an enhancement suggestion which stems from prolonged usage and observation, with the font's widespread use.
- I believe that tweaking the current design can be beneficial to users and make the font more appealing in a variety of usage.

Goal



- This goal of this proposal is to suggest an alternative design that plays down, or actually eliminates the “spiky” decoration in the 辶 (shared by HK and TW) and 辶 (shared by CN, HK and TW) components, which I’ll refer to as the “kissing fish” effect.
- Bring a modern feeling to HK/TW/CN glyphs that use the components, and hope that this will benefit future extensions.
- It is a progressive instead of a revolutionary change.

Affected Regions

- The request is to tweak the design of the 礻 component used in TW and HK glyphs, and the 礻 component used in CN, TW, and HK glyphs.
- There aren’t too much frequently used characters with the 礻 component, so characters with 礻, i.e. fonts for HK and TW, are mostly affected.
- JP and KR glyphs are not affected.

Scope of Changes

	CN	TW	HK	Others
辶	N/A	236 (Big5)	34 (Big5) 84 (HKSCS)	1 (U+329C ㊜)
辶	49 (Big5) 15 (HKSCS) 26 (Others)	27 (Big5)	0 (Big5) 13 (HKSCS)	
	90	263	130	1

Totally 485 glyphs affected.

- (The hope is that modifications in the proposed design can be achieved by updating the master components in the component library software developed by Adobe.)

Affected Areas

- The change will be mostly noticeable in printed materials, such as books and magazines.
- It will also be noticeable on screen in larger texts, like video subtitles.
- The change is less obvious on handheld devices in body texts, but I still believe there are benefits, especially when heavier weights are used.

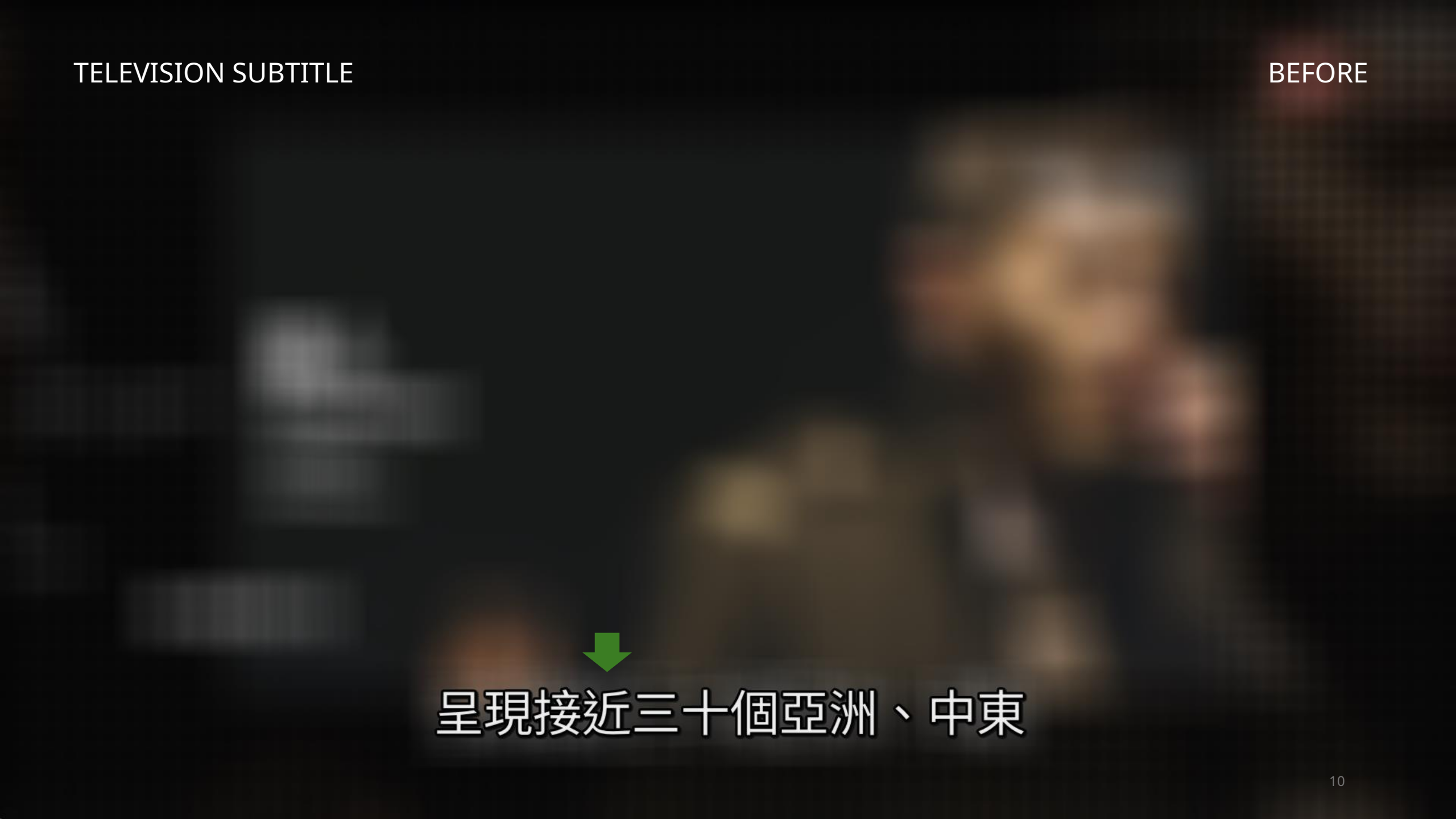
Comparison

About the comparison images

- I have implemented the proposed modifications in Chiron Hei HK, a font derived from Source Han Sans Hong Kong. The font will be used for comparisons in this document.
  - Chiron Hei HK has a different preferences to certain stroke forms, so in some codepoints you may find other visual differences in addition to the design of the 犭 or 犭 component. Please ignore those differences. Sorry for that, I don’t have the resources to prepare a version dedicated for this presentation.

TELEVISION SUBTITLE

BEFORE



TELEVISION SUBTITLE

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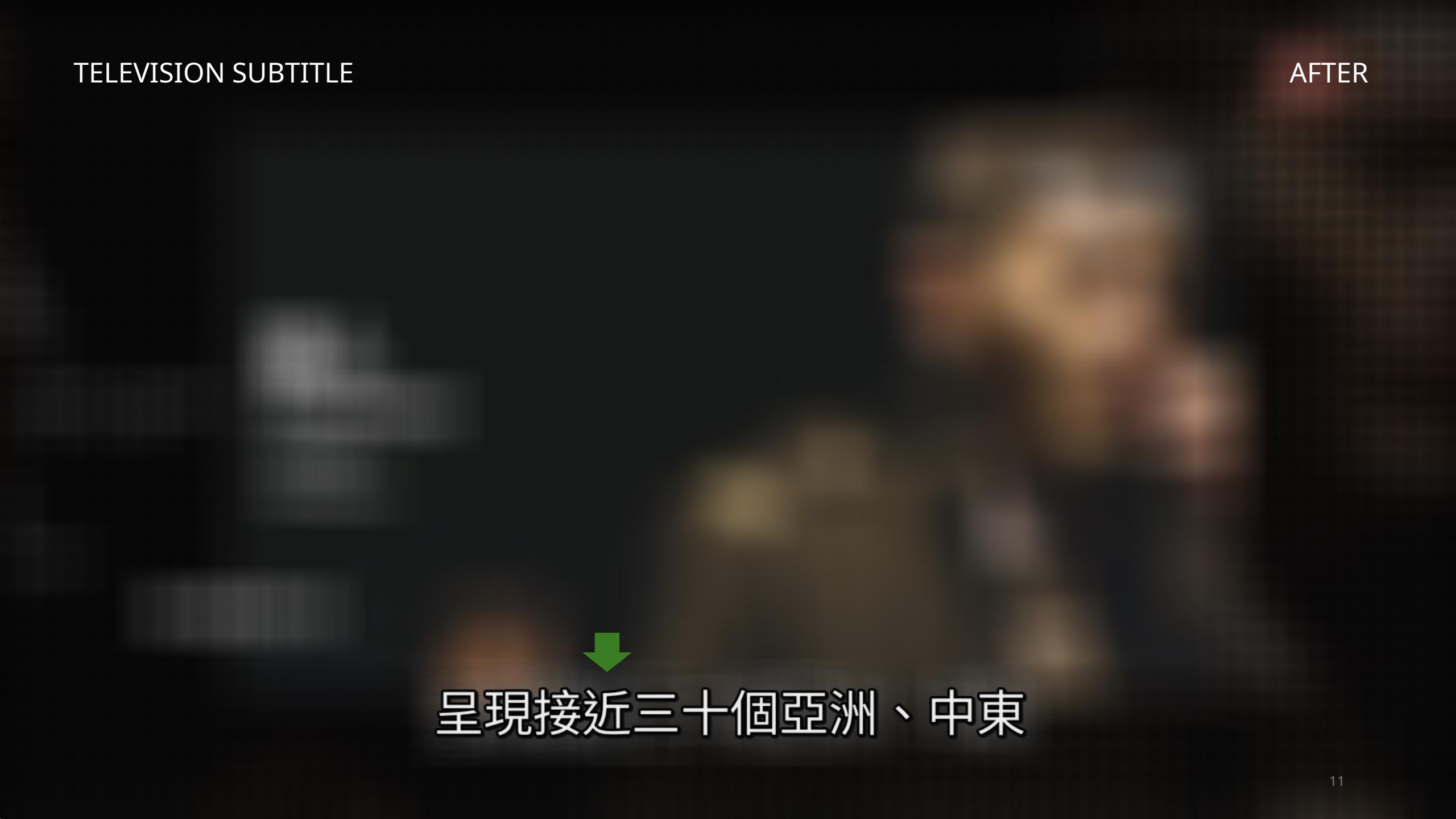

FACEBOOK AD

BEFORE

AFTER

FACEBOOK AD

BEFORE

AFTER

FACEBOOK POST

BEFORE

AFTER

FACEBOOK POST (OS FONT; FAUX BOLD)

BEFORE

AFTER

I don’t like faux bold, but they’re in Android.

追逐　遊子　健康　迷途

遙遠　蓮花　蓬萊　隨時

逼迫　老撾　連續　迴蕩

蜻蜓　雷霆　鍵盤　踢毽

追逐　遊子　健康　迷途

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逼迫　老撾　連續　迴蕩

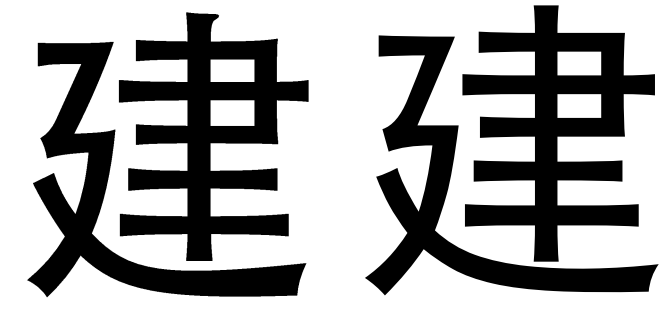
蜻蜓　雷霆　鍵盤　踢毽

Why?

#1

- Aligns better with Source Han Sans' design philosophy. Source Han Sans is a font without flared terminals in Kanjis, whereas the current design is more suited to typefaces that have one.

Source Han Sans (current)



Adobe 黑体 Std R　　Simsun

Source Han Sans (proposed)

微軟正黑體

#2

- The revised design is simpler and more elegant. It is a more stable and modern form.
- The more geometric shape harmonizes better with other current Source Han Sans components compared to the existing script-alike style.

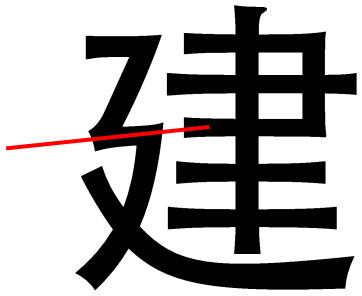
JP

Current HK

Proposed HK

#3

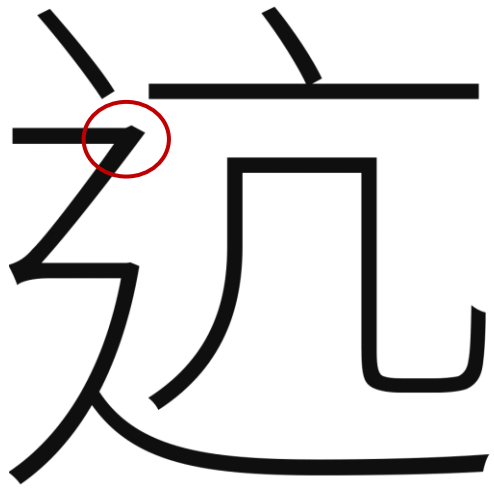
- The refined design prevents the horizontal middle stroke from appearing slanted in certain weights (which is also a feature typical on typefaces with flared terminals).

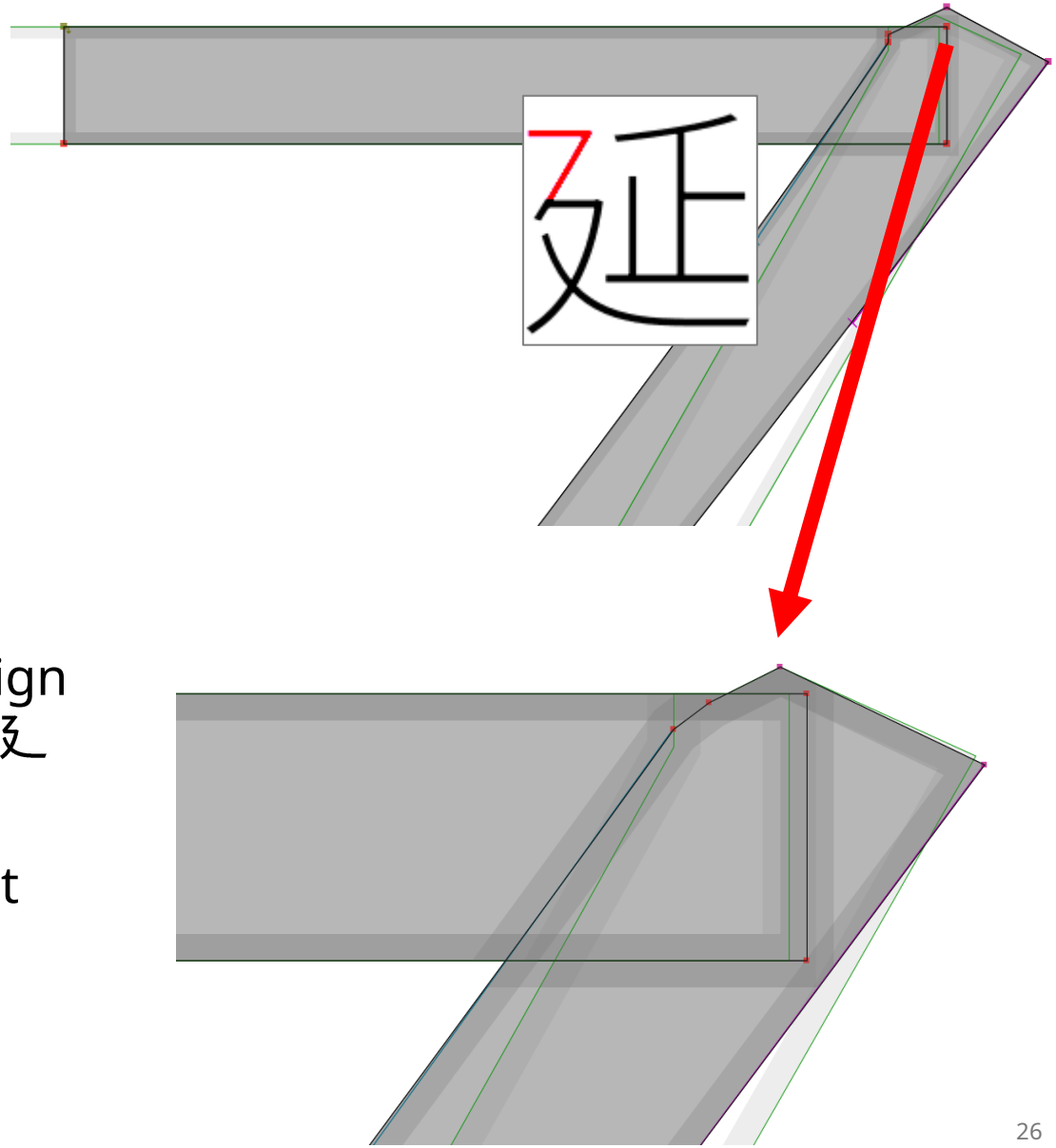


Adobe 黑体 Std R

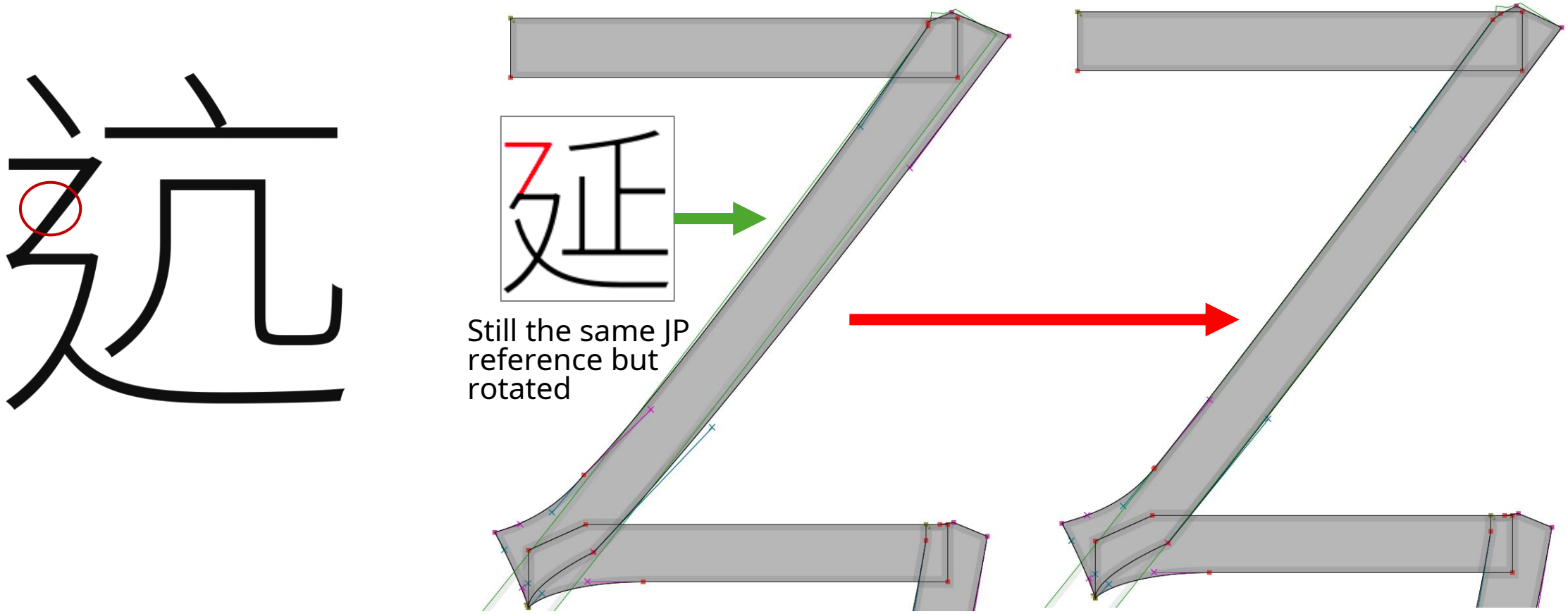
The Design

- Changes will be applied to the upper part of the highlighted subcomponent.
- In Source Han Sans, the “ㄥ” shape of the ㄋ shape in 廴 and 辶 are composed with different elements. but structurally they are the same.
- Here 辶 will be used to illustrate the design update.



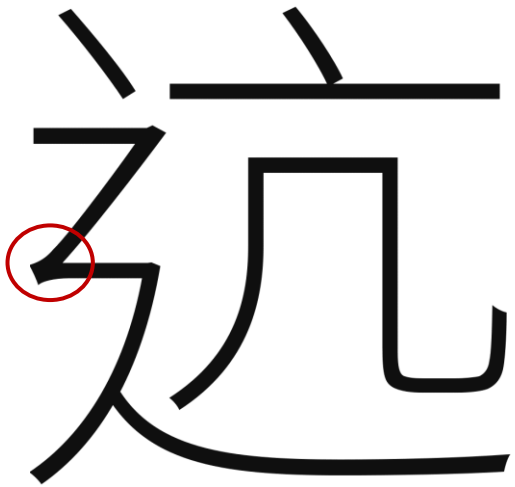


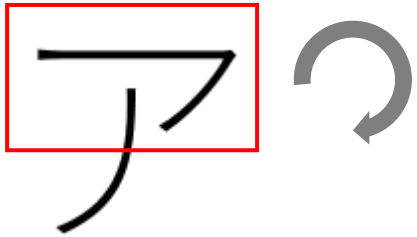
- Update the first slanted stroke using design reference taken from the JP glyph with a 廴 component (e.g. uni5EF6-JP).
- The JP glyph overlay (in green) shows that the existing design has a higher spike. Adjust it to follow the JP convention.

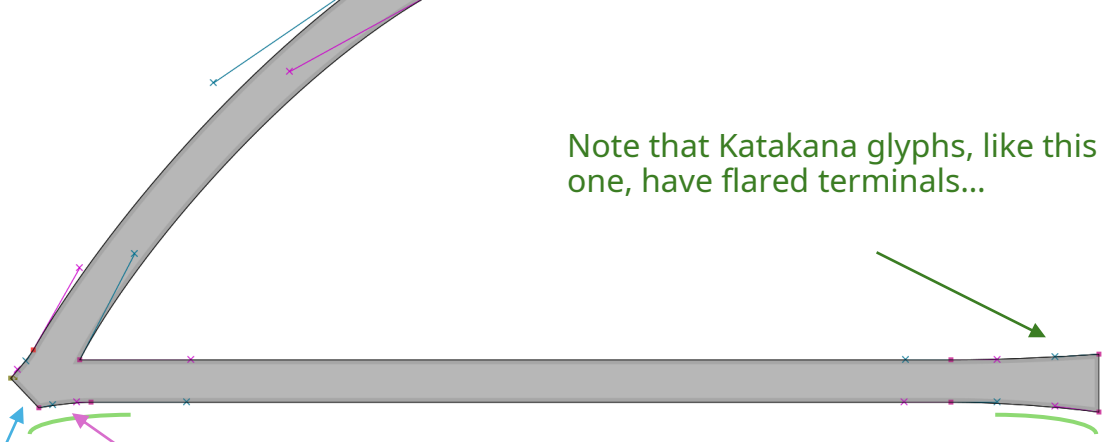


- Straighten the slanted stroke, maintaining width consistency at both the start and end.

- For the refinement of the “kissing fish” decoration, a Katakana glyph is used as the reference.





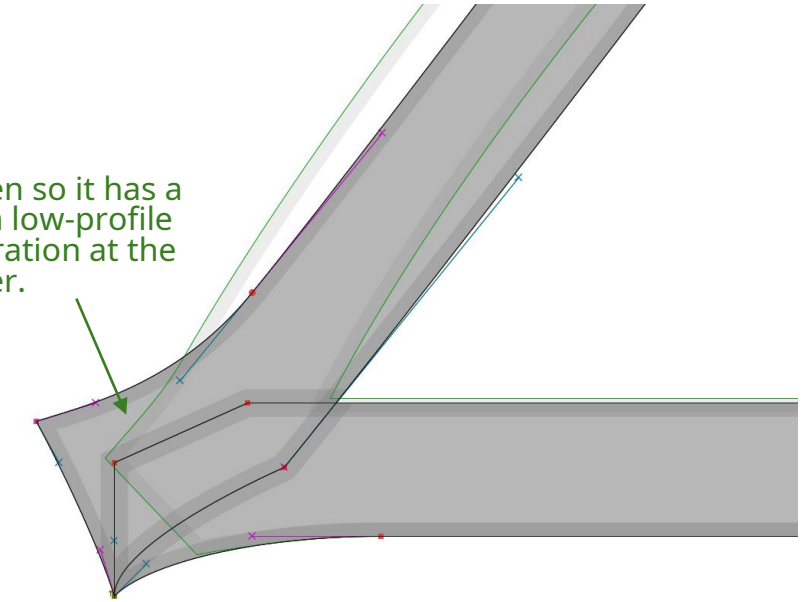


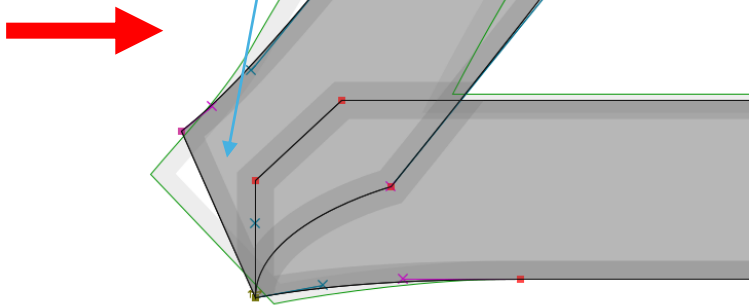
Note that Katakana glyphs, like this one, have flared terminals…

Straight instead of concave

Flared terminals exist but conservative

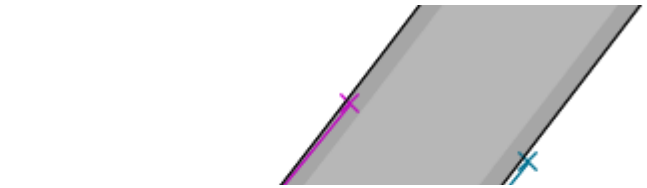
… Even so it has a much low-profile decoration at the corner.



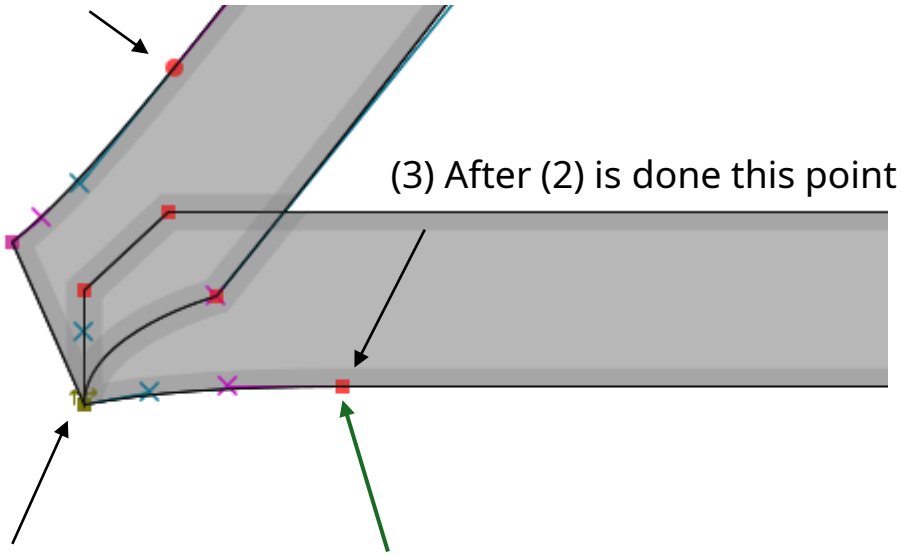


Result:

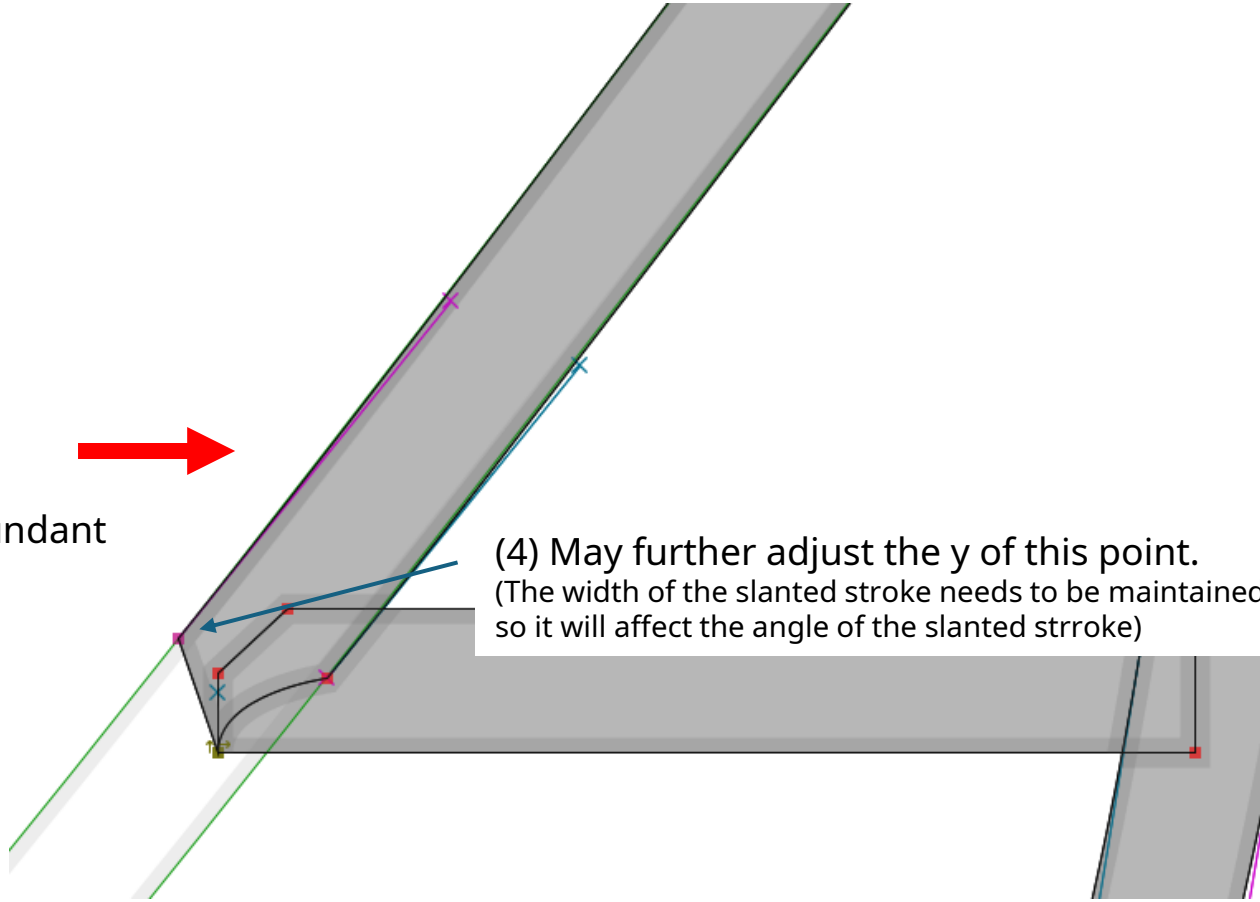
Further optimization



(1) Remove this point for easier manipulation (and less curvy)



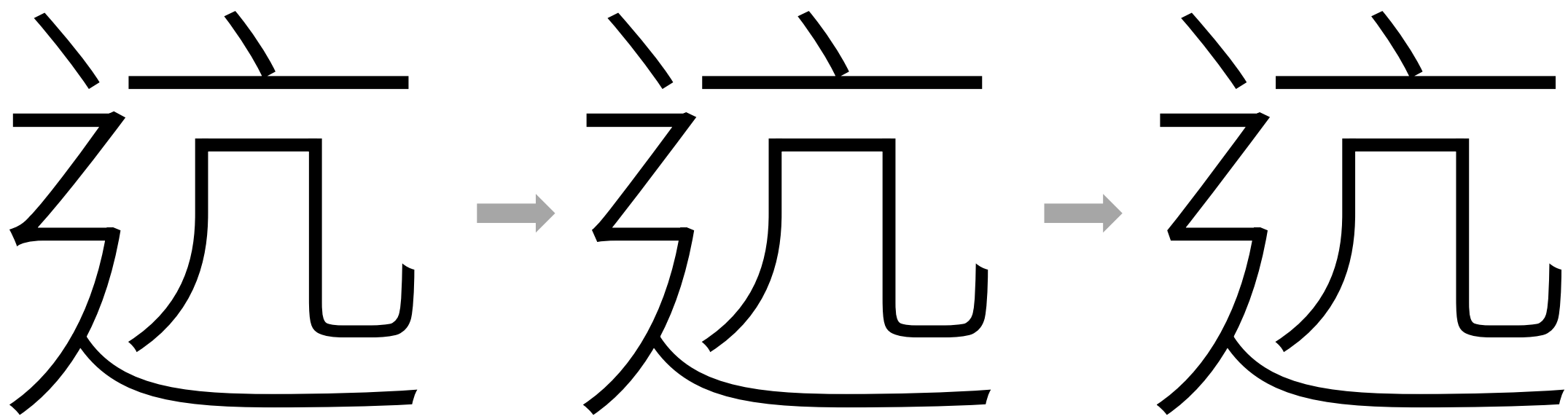
(3) After (2) is done this point is redundant



(4) May further adjust the y of this point.
(The width of the slanted stroke needs to be maintained so it will affect the angle of the slanted strroke)

(2) Align the y-position to this point to remove the downward spike, which is a flared terminal feature.
(Additionally, the subcomponent 彡 already has two ornate treatments at the top right of 厂.
Adding another one to 厶 would add complexity.)

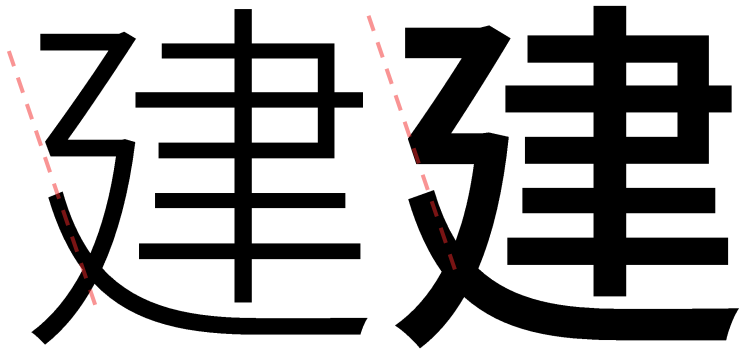
Result



Precedents

- Most modern, geometric Gothic fonts uses a sharp corner at the 廴 part:

Other Traditional Chinese Gothic fonts



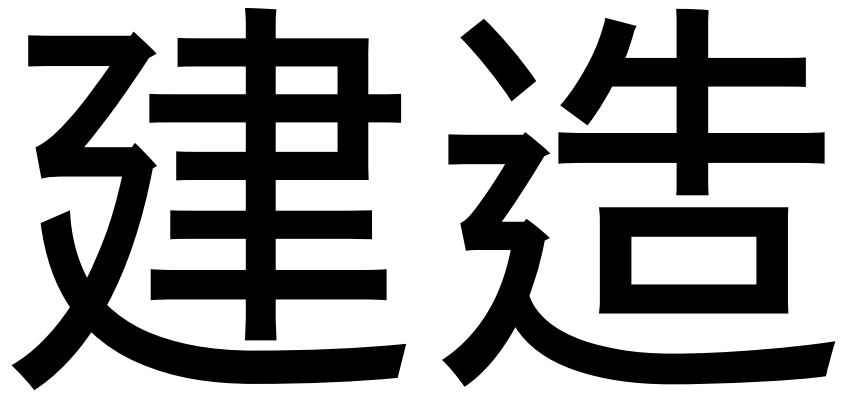
Proposed form

- Beveled corner designs are not very common. But it turns out the design isn’t without precedent.

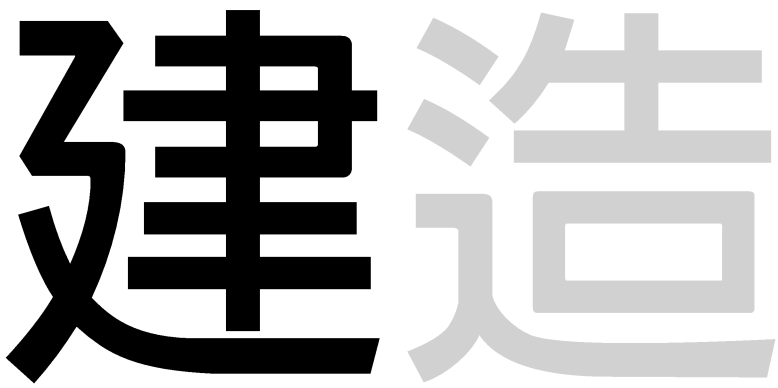
Precedents

- I found 2 typefaces that use a beveled corner design:

Monotype XiangHe Hei TC (2018)



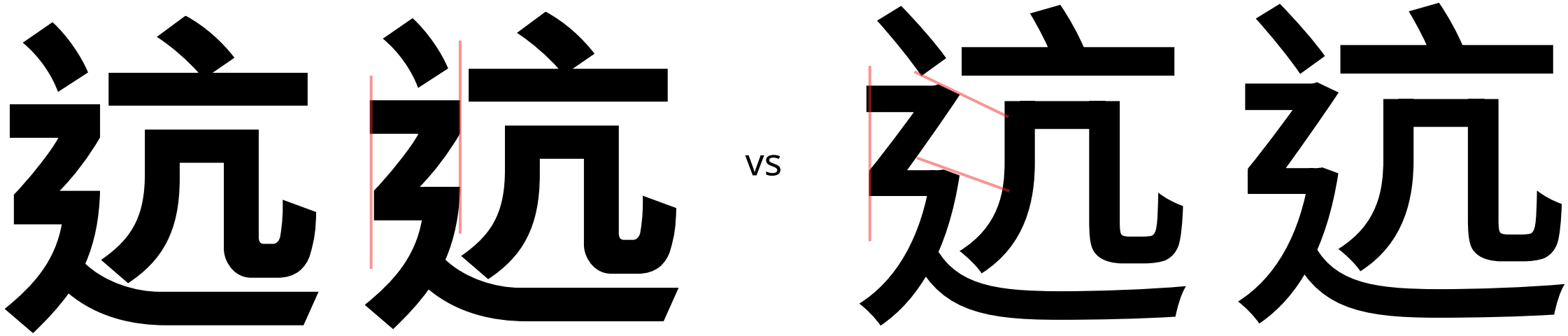
Adobe Fan Heiti Std B



- A potential advantage of this design is that it is almost compatible with the current contour. This may simplify the modification process.

Why not sharp corner?

- I actually tried toying the new 厶 with a sharp corner first, simply because it is the most common form.
- However, I felt the sharp corner didn’t fit well with Source Han Sans’ ornate treatments. So, I abandoned that approach and didn’t explore it further.



MHeiHK-Bold (Monotype)

Source Han Sans Mod

Why not sharp corner?

- I could be wrong though – later I found that Hiragano Sans is using exactly the design I considered “not suitable” in its heavier weights.

Hiragino Sans (Kaku Gothic) StdN W7

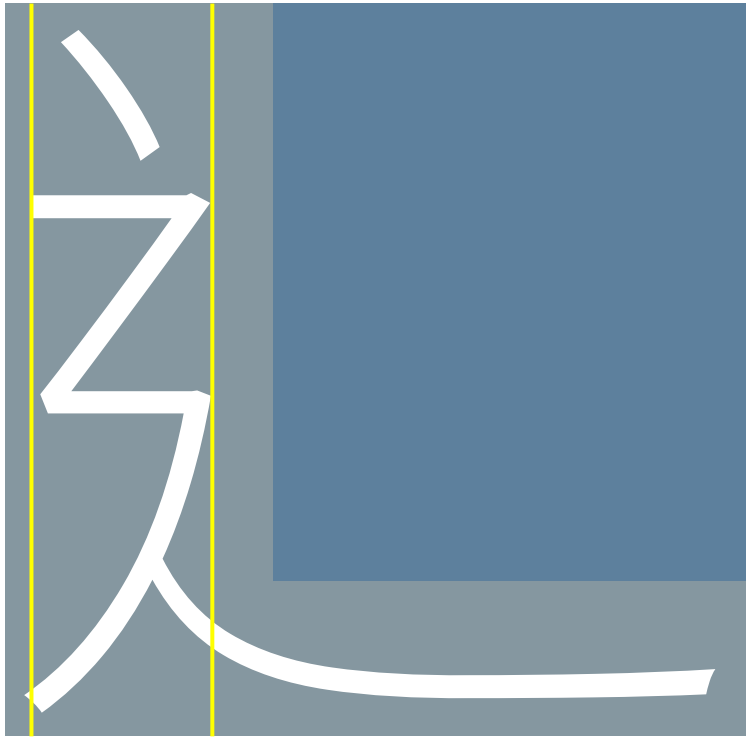
https://www.myfonts.com/collections/hiragino-sans-font-screen?queryId=2826762905f9f4361efa4184ed915eae&index=universal_search_data&objectIDs=5458031002

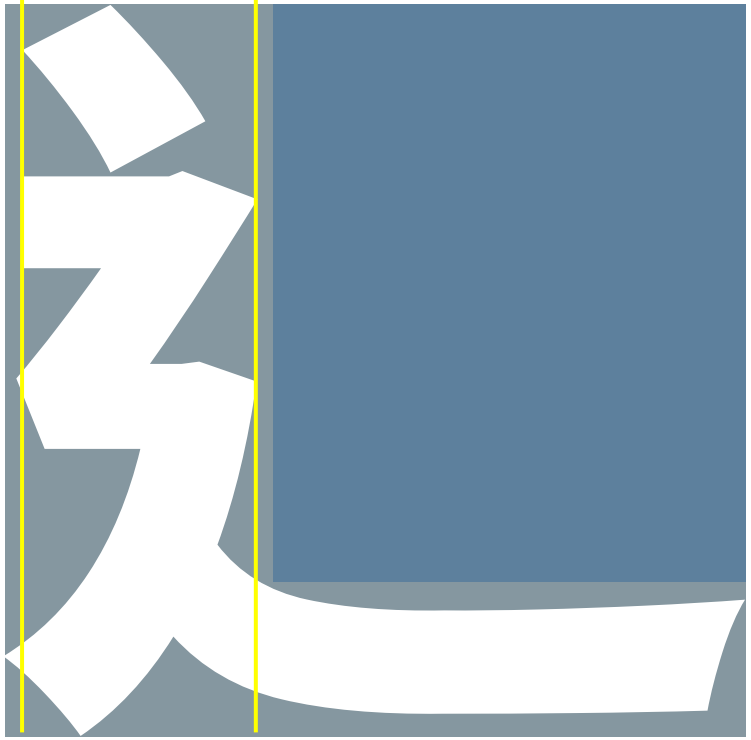
Design suggestions

Confessions

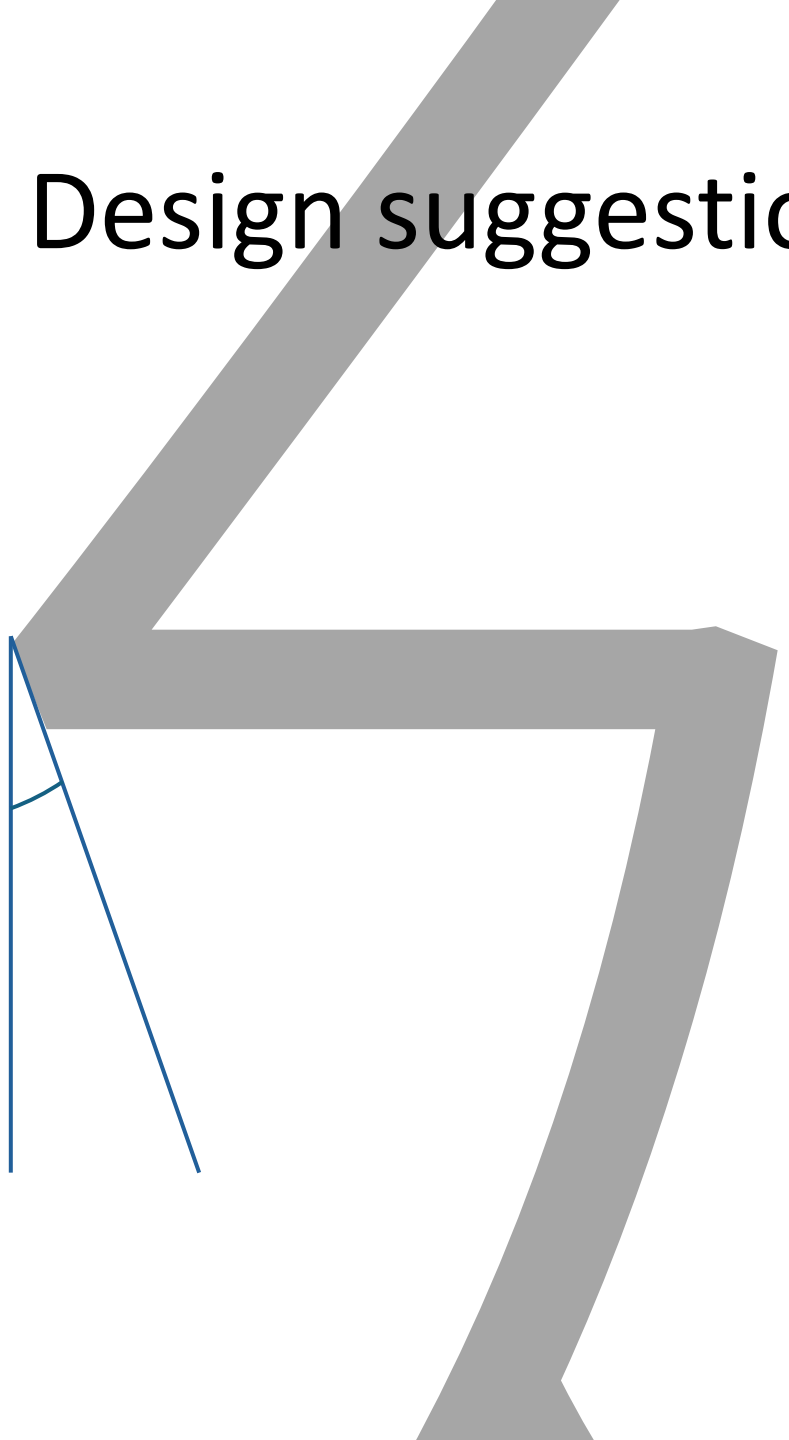
- This is not written from a professional typeface designer.
- The reasonings are mostly an afterthought and can be naive. But as the one who proposes the design, I feel obligated to provide some guidelines on how I think it should look like. Consider this a hint so that the real professionals can use it and come up with something better.
- As the design is realized in Chiron Hei HK, it may be used as a reference. However,
  - Admittedly less attention is paid towards less used characters. Therefore, what I mentioned here may not be fully implemented or followed in every glyphs in Chiron Hei HK.
  - I experienced with different approaches in Chiron Hei HK during the development, so some design features may not be consistent among some glyphs when inspected closely.

Design suggestions



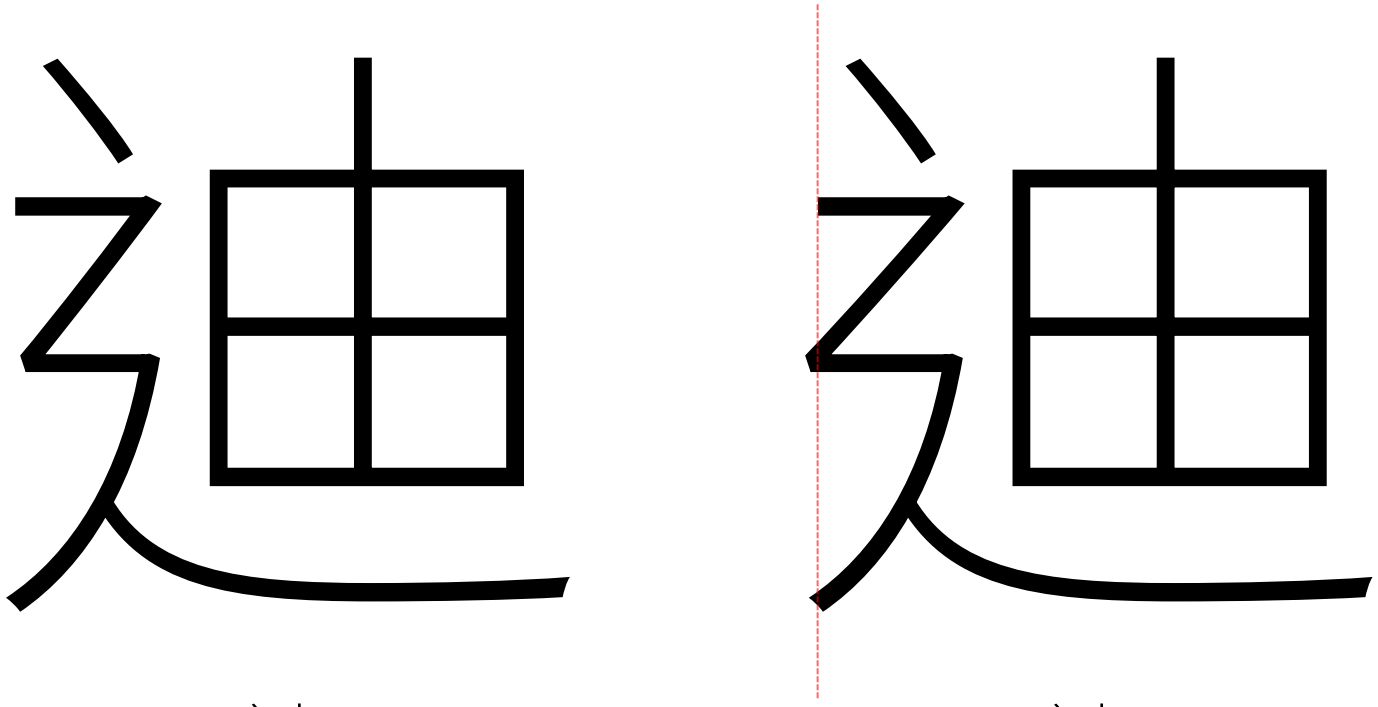


Design suggestions



- Not scientific, I think it looks nice at 60°-70°.

Design suggestions



迪

DO

迪

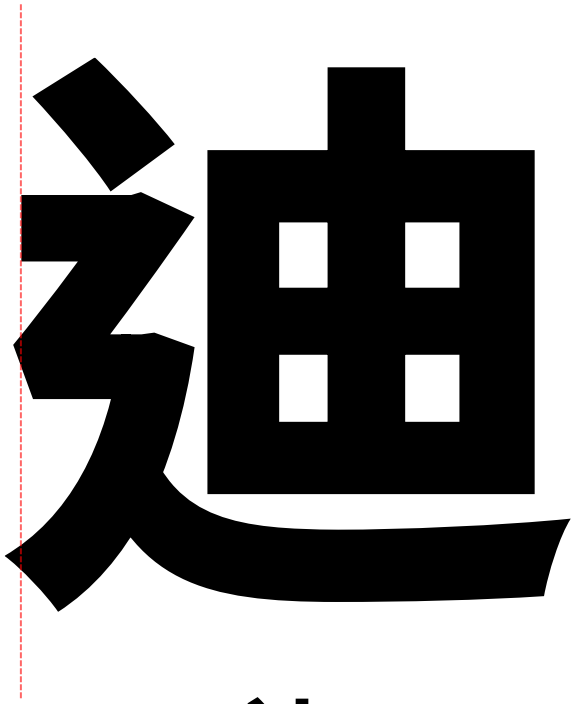
AVOID

- In ExtraLight, the corner of 𠂉 should not extend beyond the left of the upper 一.

Design suggestions

迪

DO

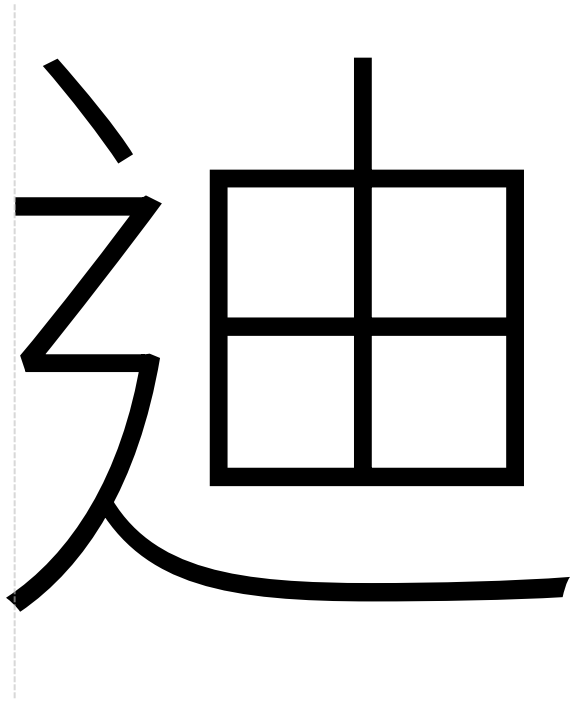


迪

NOT PREFERRED

- In Heavy, the leftmost corner of 辶 can extend a bit over the left of the upper 一 But not too much.

Design suggestions



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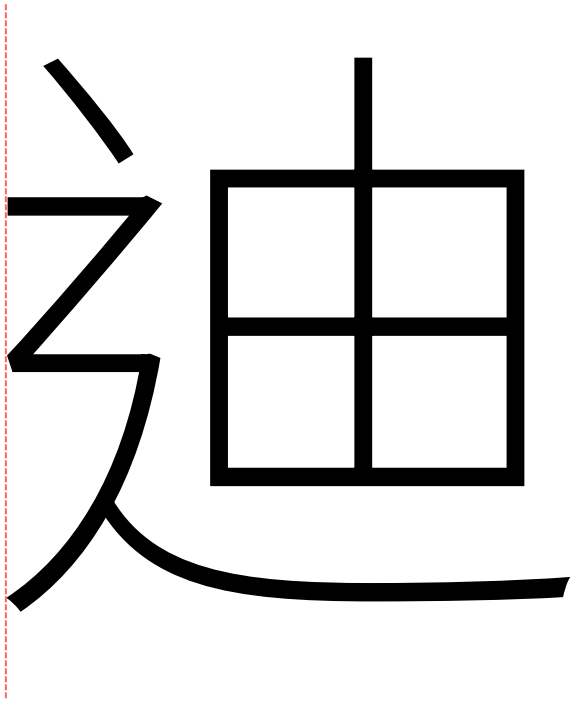
DO

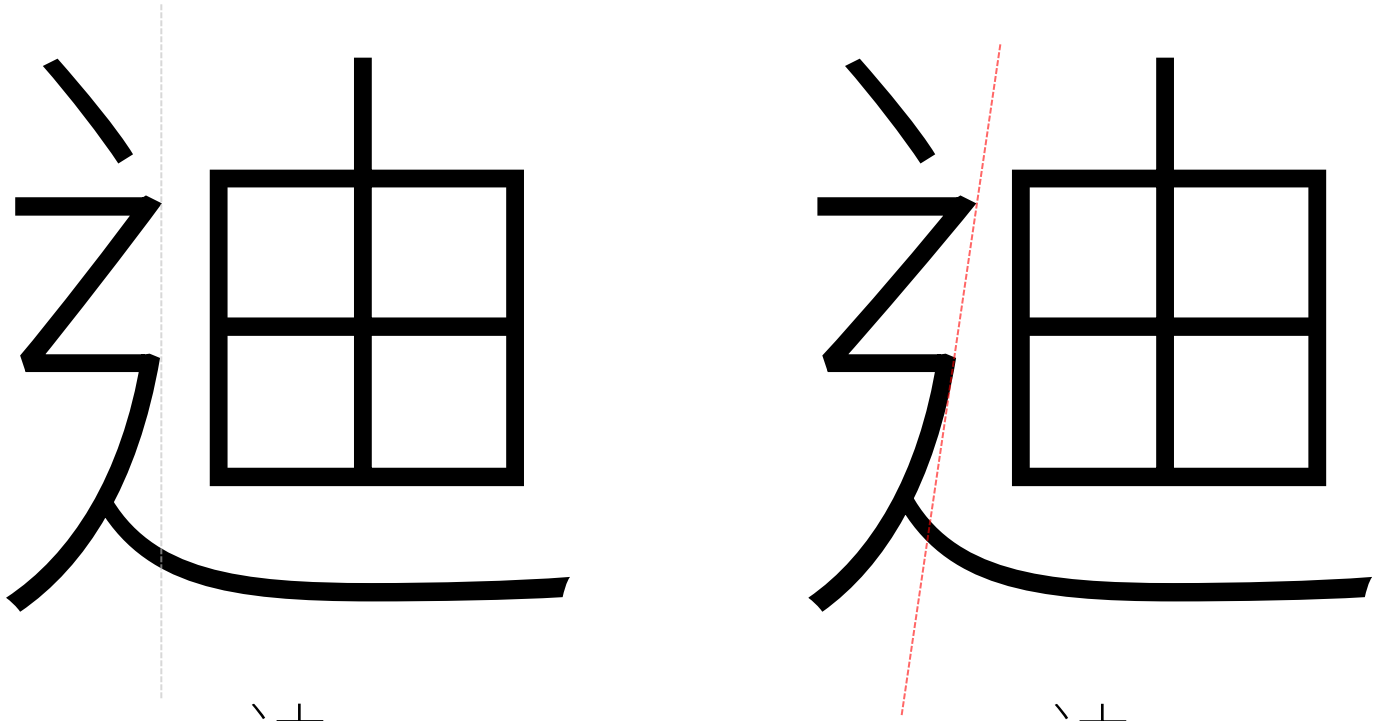


迪

AVOID

- If the left side of the 辶 component is perfectly aligned, I feel that the upper half appears a bit heavier than the lower half. The whole component looks larger, and in small text the 厶 may look as if it strokes before the left of the 一 stroke above it. Which is why the 厶 is padded a bit to the right.

Design suggestions



迪

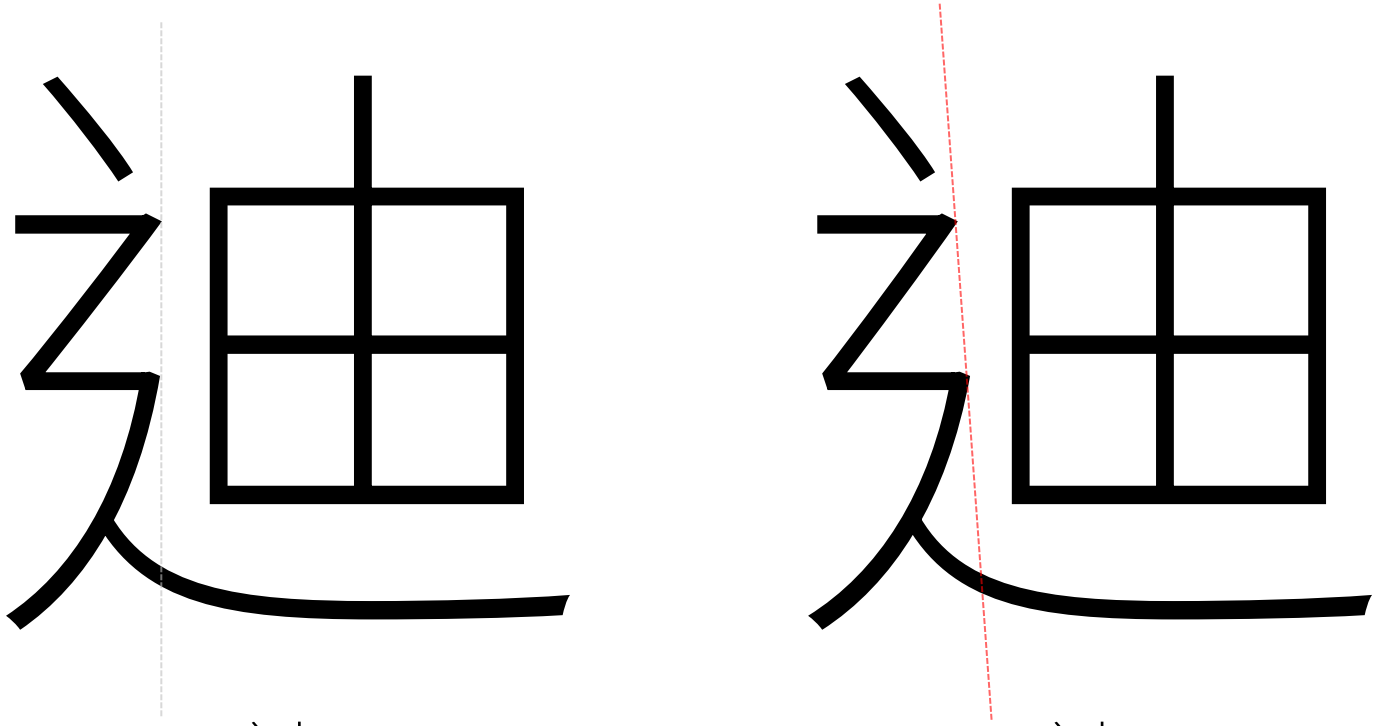
DO

迪

AVOID

- The right side of the first and second 彳 should be aligned.
- The lower part should never be “thinner” than the upper part.

Design suggestions



迪

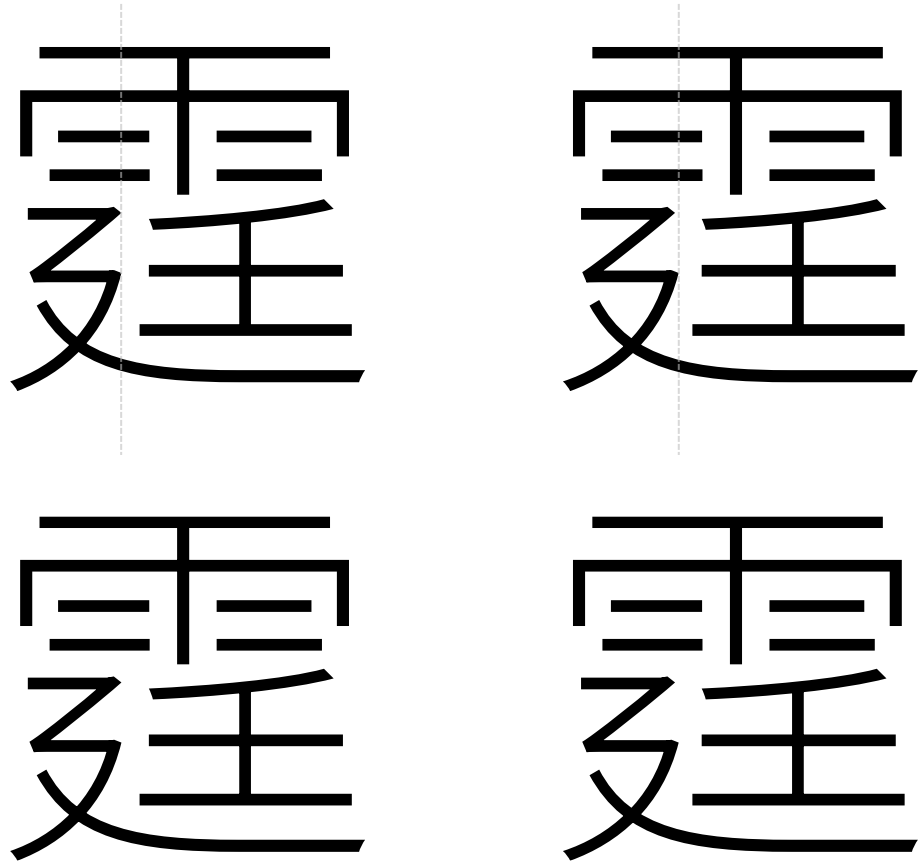
DO

迪

AVOID

- Also, don’t extend the lower part to the right - unless necessary.
- This should not be needed when the component is in full height.

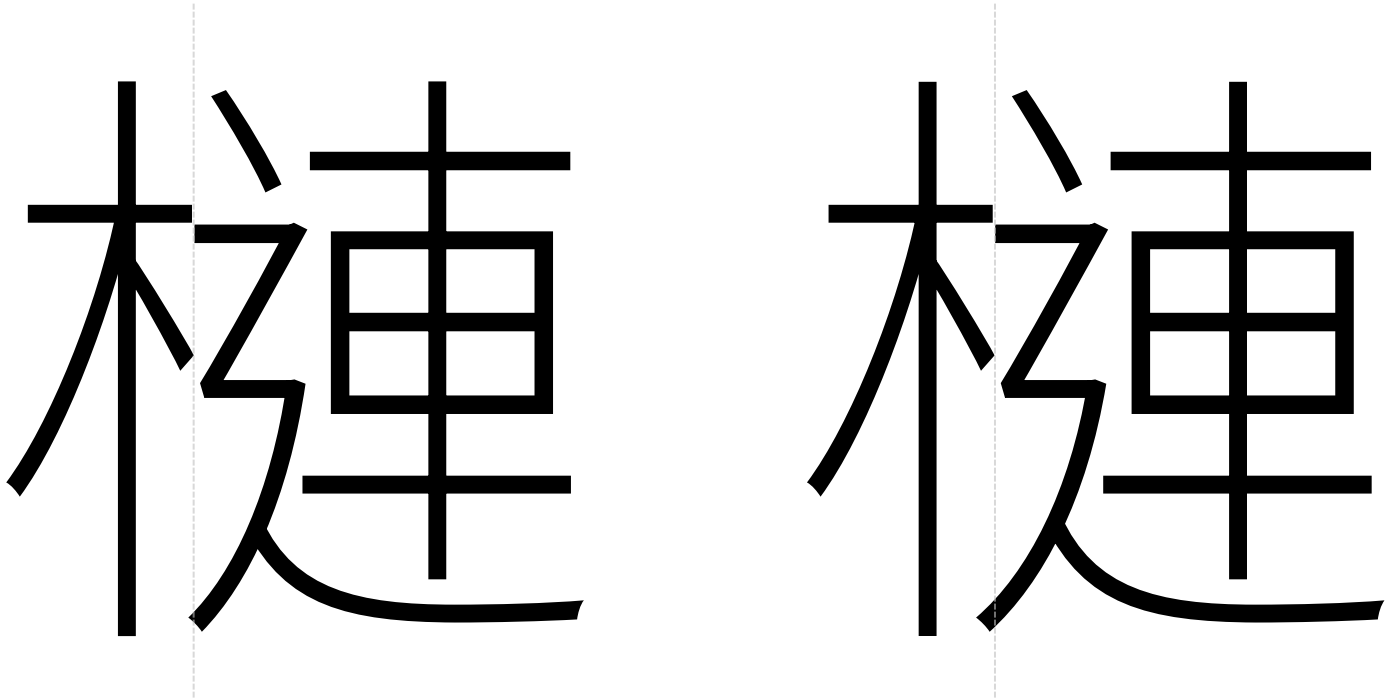
Design suggestions



Does 犭 look little bit left inclined?

- In certain occasions, extending the lower part to the right a bit can help balancing the whole component.
- So, the key is the balance of the component.
- Also, this is sometimes inevitable in the Heavy master.

Design suggestions



楗

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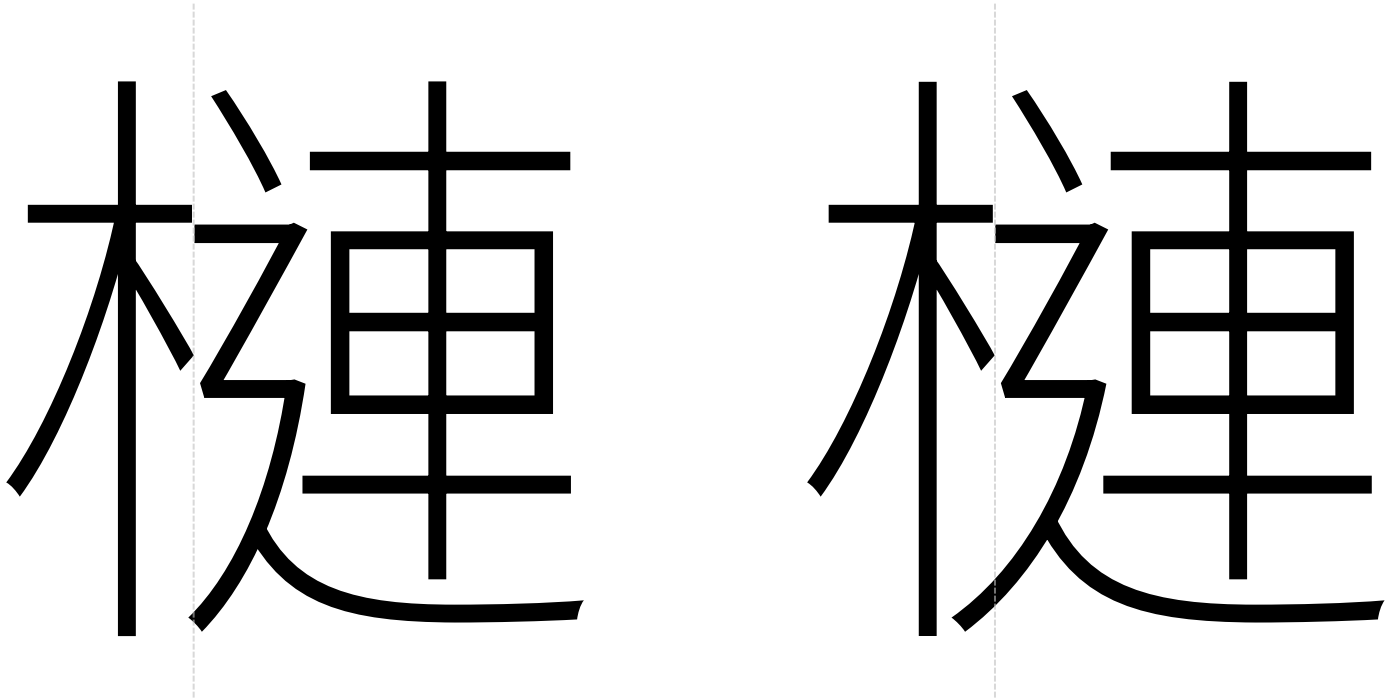
DO

- In narrow form, the component may look too thin that it can’t “stand firm”.
- Extend the last stroke to the left could be a way to solve this.

Design suggestions



楗

楗

AVOID

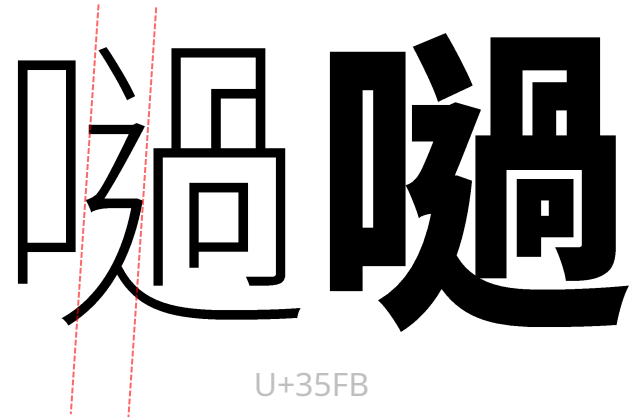
- Just note that this is not a way to fill the empty.

Design suggestions

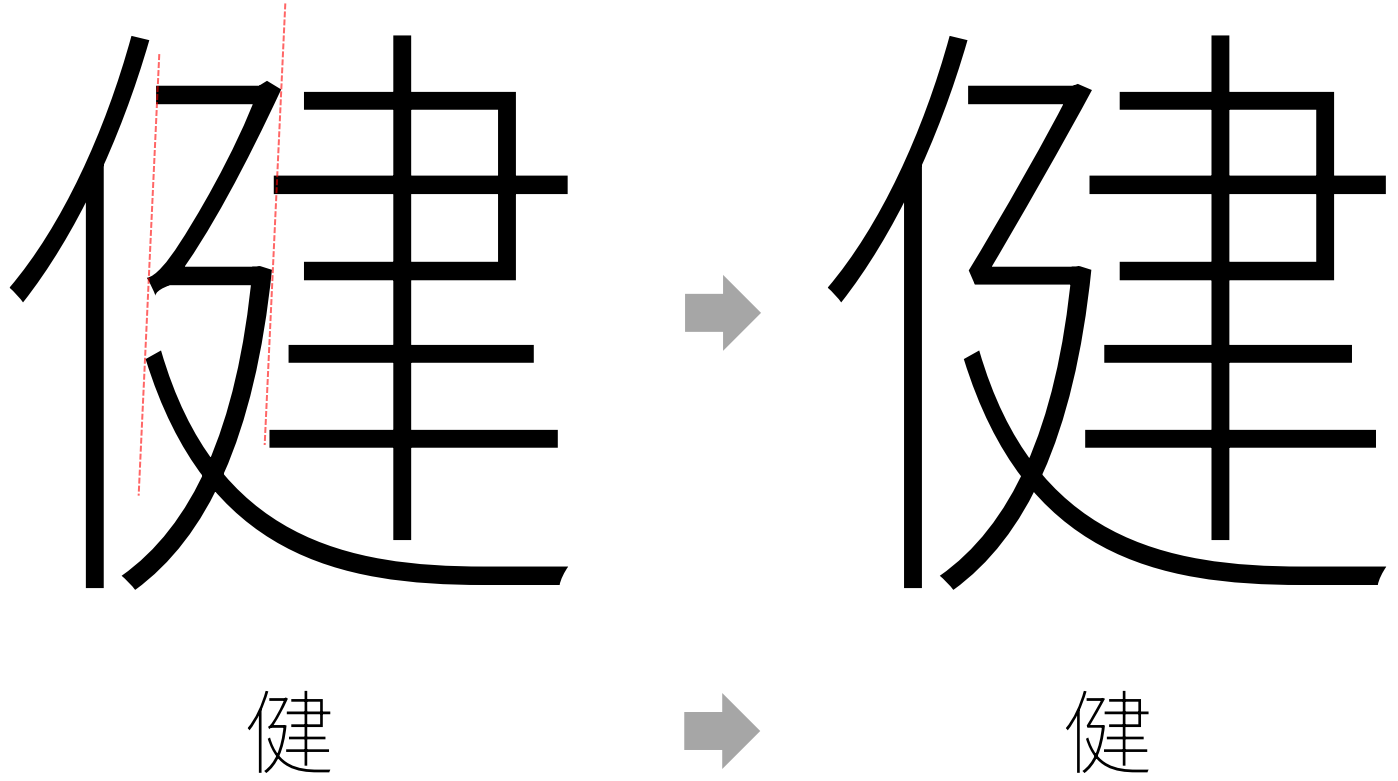
隨 → 隨

隨 → 隨

- I mention this because in narrow form, the current design tends to extend the 丿 stroke.
- Together with the stressed width difference on the slated stroke and the “kissing fish” decoration it creates a look and feel of script form.
- I don’t think this style fits Source Han Sans.



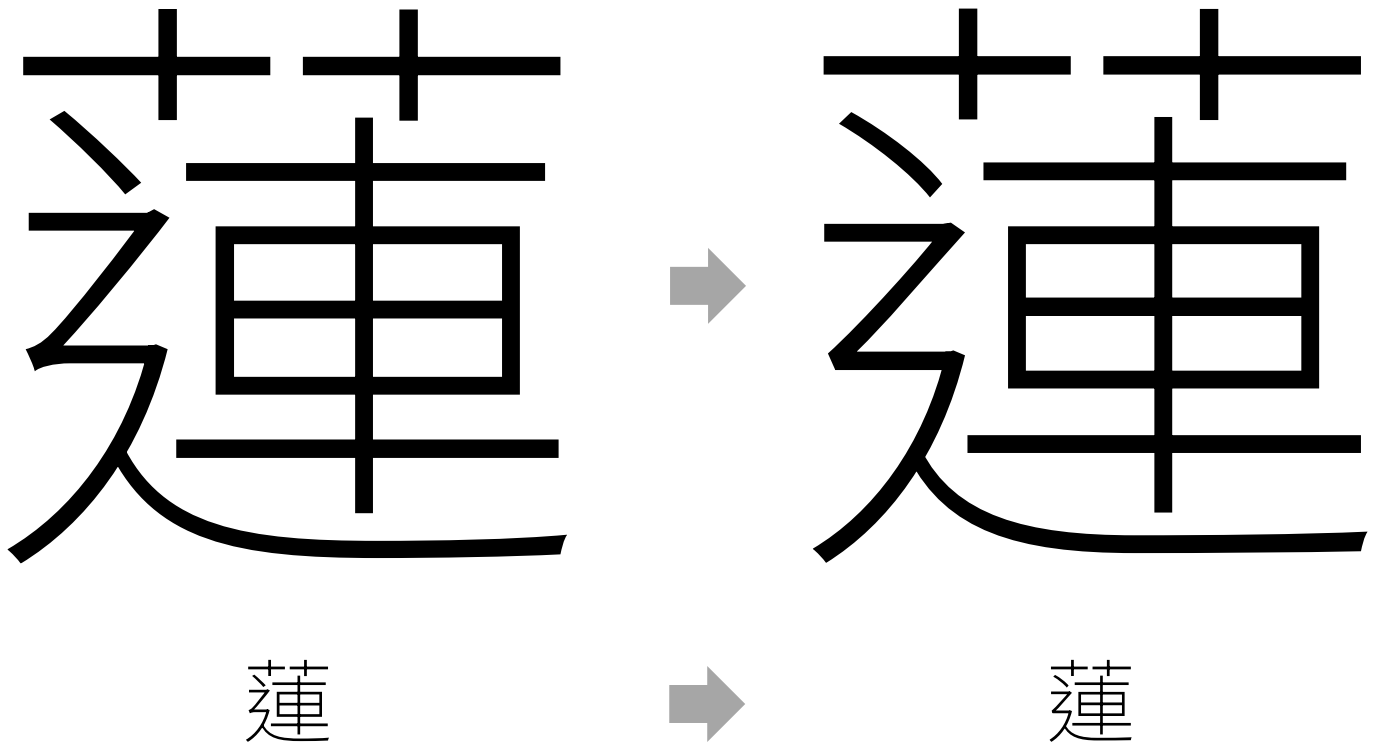
Design suggestions



健 健

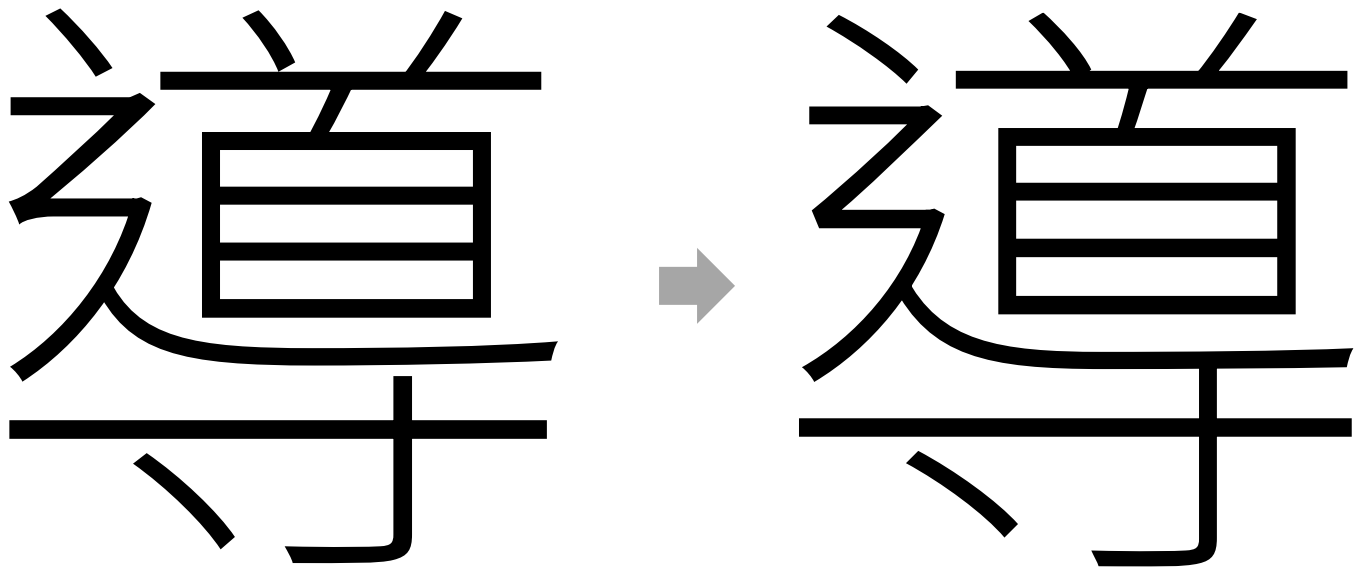
- Also applies to characters with the 廴 component.

Design suggestions



- When compressed vertically, leave enough space between the dot 丶 and the 彐 component below it
- Remember, the lower part is already denser than the design of other regions.

Design suggestions



導 導

導 導

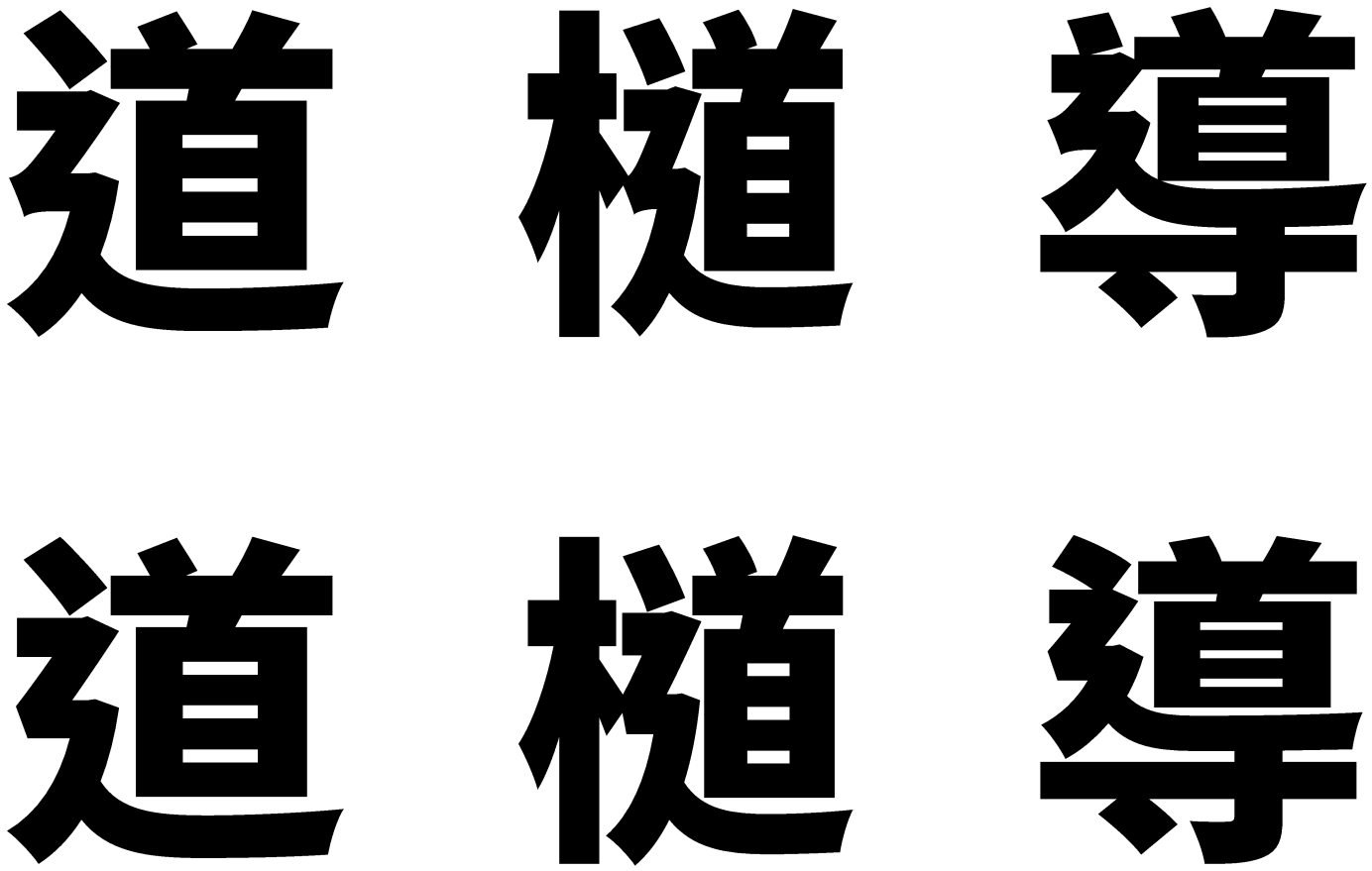
- The ratio of the upper (Z) and lower (フ) part is also important, especially when the form is vertically compressed.
- In this example the mid horizontal stroke should be lowered.

Other possible improvements?

Other possible improvements?

- This proposal focuses on winding down the “kissing fish” decoration, and the “script (hand-drawn)-like” formation of the 犭 component in 犭 and 犭.
- Other enhancement suggestions are out of scope, but still mentioned here for consideration.

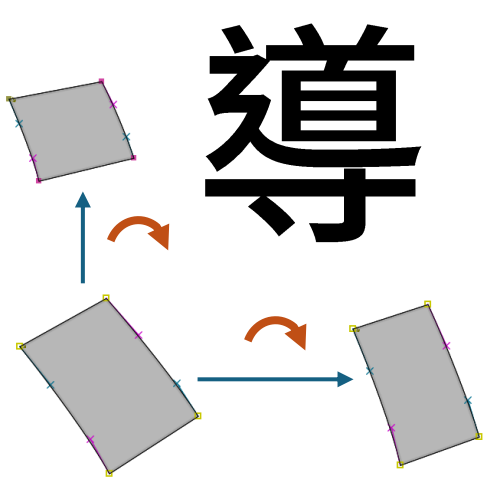
1. How the dot is compressed



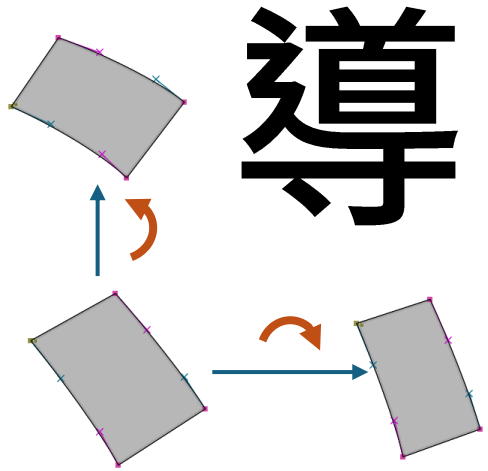
1. How the dot is compressed

- Currently, when the dot in TW/HK's 辶 is compressed in either direction it is always shortened vertically.
- I believe it's better to follow the behavior of other regions, i.e. when compressed vertically the dot is rotated contour clockwise, then with its width and height adjusted.

Current



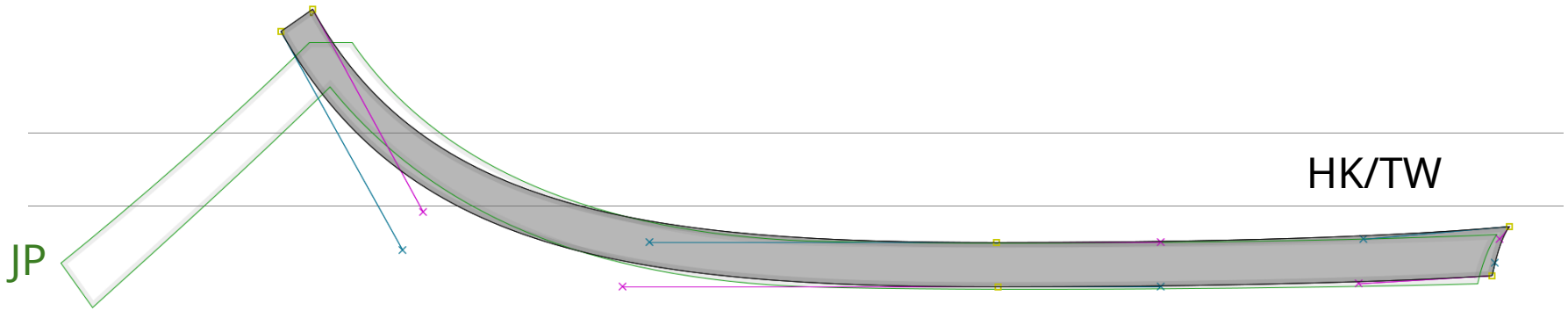
Proposed

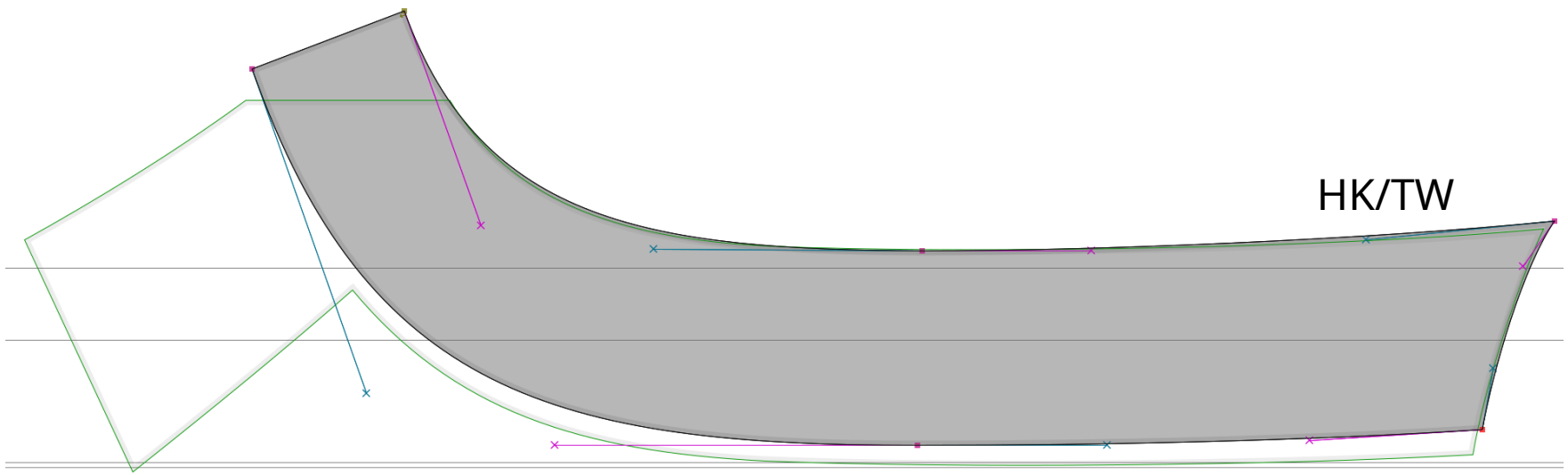


2. Design of the flattened press stroke

- This is for TW/HK's 𧾷 only. 𡈼 component is not affected.
- The last stroke of 𧾷 is a flattened press stroke (平捺). Unlike the JP form, the TW/HK form has its right end raised up a bit, creating a "bowl" effect.
- The actual contour difference isn't huge, but the effect is obvious on some characters, like this one (導). Personally I'd favor the JP/KR's design.

Current CN　Current HK/TW　Current JP/KR　Proposed HK/TW

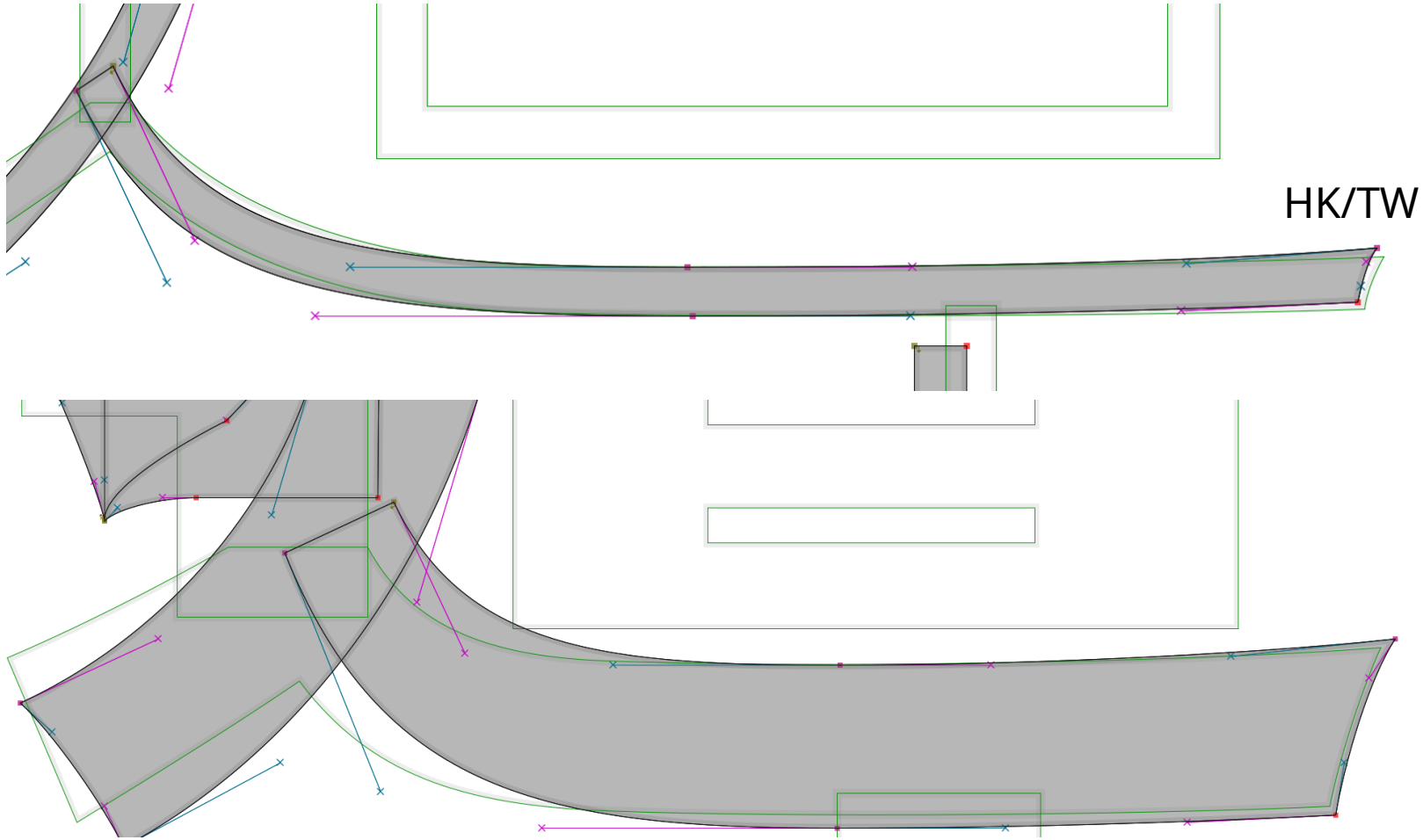

HK/TW
JP


HK/TW

導導導 **導導導**

JP

HK/TW



Possible Questions

Q1. How about the 及 component? Should it be updated too?

My Answer

- You can say that the 及 component in CN and HK is also composed with a 𠂇 in it.
- However, when taken as a whole, they can be regarded as different, and using the same stroke form isn’t necessary. It can be up to designer’s discretion.
- The current design for the two components in Source Han Sans are also different.
- IBM’s Plex Sans JP also takes a similar approach – 及 and 廴 are not using the same 𠂇:

- This should also answer whether the component in 东, 车 etc. should be updated accordingly. There is no hard rule.
- Personally, I would recommend to also consider revising the corner decorations from these ∠s. But I am not a Simplified Chinese user, I don’t know their custom and stroke form good enough, and I am not sure if the Simplified Chinese community will be happy with the beveled design in 东, 车, etc.

Small angle like “弟”, decoration might not be needed at all ↑

Q2. How about  and  ? Do they also need modifications?

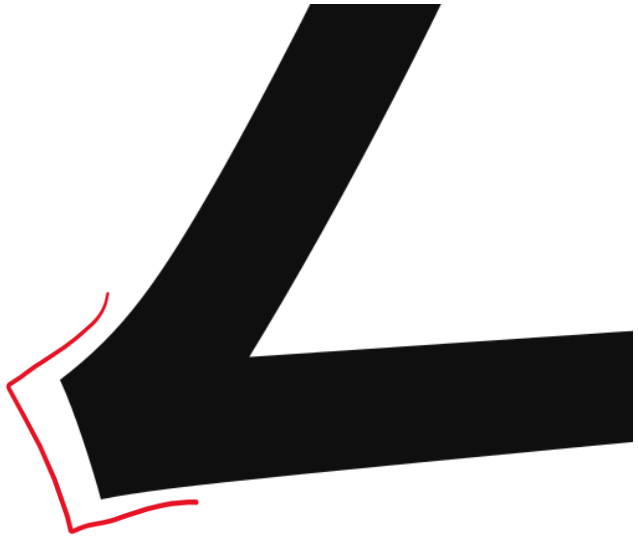
My Answer

- One may also ask about components like 𠂉 (where the last stroke is not horizontal) and 亅. This comprises two questions.

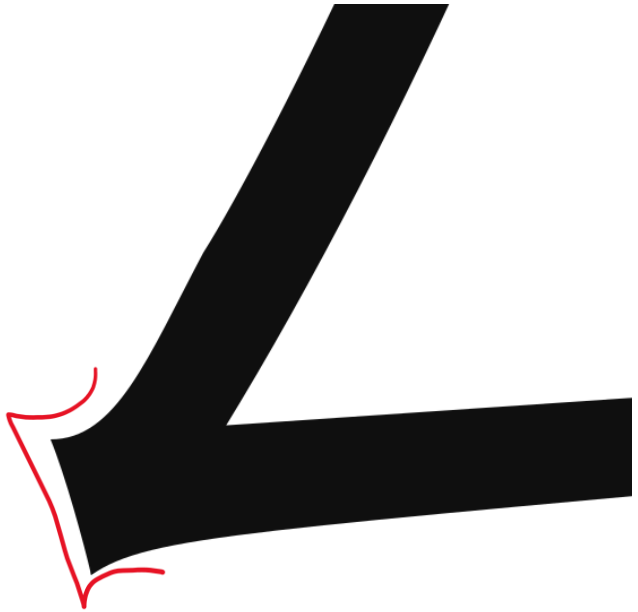
1. Do these components also have flared terminals?
2. If yes, shall these components be tweaked too?

- Here I explain how I see this from a layman’s perspective.

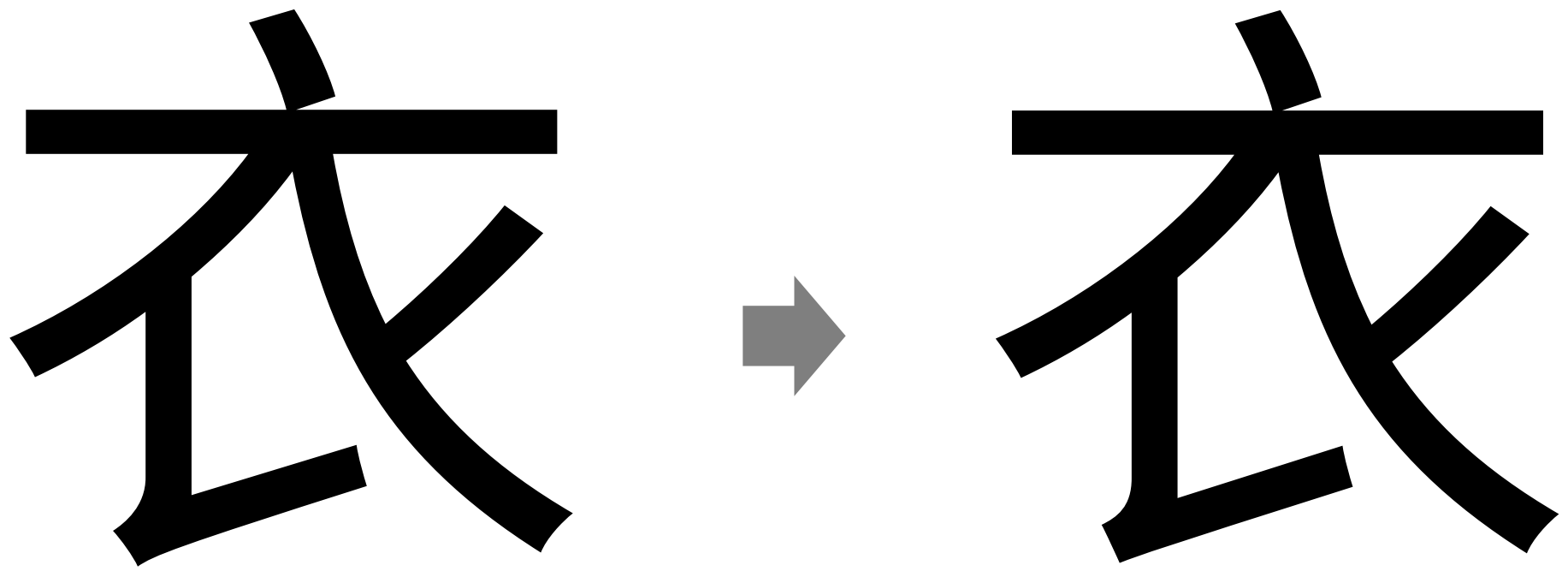
For connected stroke form, I won’t consider this design a flared terminal decoration:



But this one obviously is:



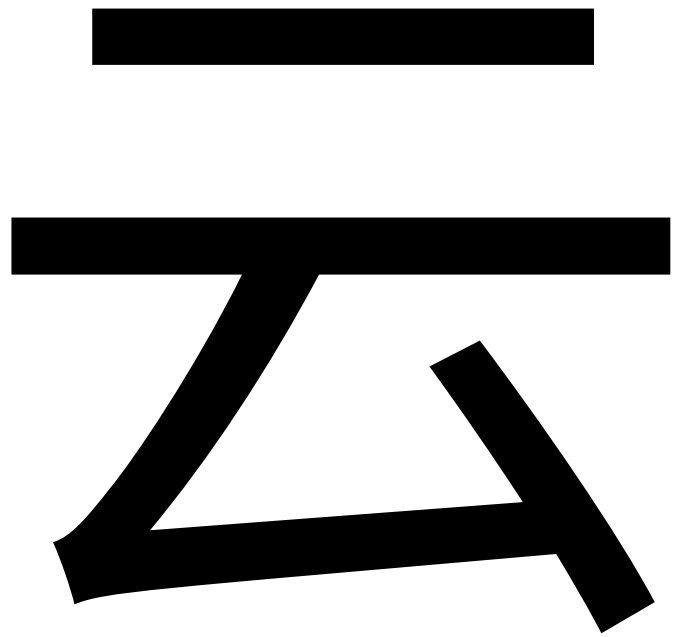
- So yes, I believe CN/TW/HK's 𠂉 and 𠂆 components in Source Han Sans were designed with flared terminals in mind.
- Removing the sharp decorations in the corners are welcome, but I'm not sure if this will happen.
- Also, the decorations in these terminals are less obvious than that are in the 𰀁 and 𰀂.
- But removing such decoration does have some effect. The following two slides are examples of removing the spiky decorations and the concaved corner, just for comparison. I feel that the character looks less contrast, and my eyes focus more on the whole character instead of the spiky part. What do you think?

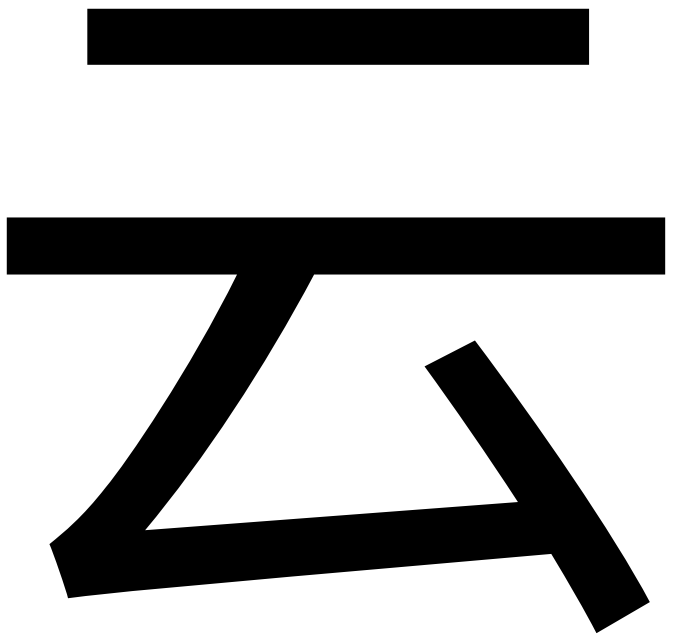


衣

衣 衣

JP





云

云 云

JP

The End