

Pixel-art fundamentals & dithering

ID	GP-010
Type	Art-style Guide
Category	K. Gaming and Pixel Art
Source	https://saint11.art/blog/pixel-art-tutorials/
Licence	Our teaching sheet: made by Design Library (sprite from Kenney Tiny Dungeon, CC0). Linked tutorials © their authors (Saint11 / Pedro Medeiros; Lospec): link only
Commercial use	Rules: yes
Attribution	Credit and link the tutorial authors
Redistribution	Don't republish the tutorial images
Delivery	Free web pages
Updated	2026-10-24

Notes

Our own one-page primer on the rules that make pixel art read well in UI (integer scaling, clean lines, limited palettes, dithering), linked to the best free tutorial series to learn more.

Our analysis

Our capture of Saint11's tutorial index: a simple cream blog column with a grid of 512×512 animated tutorials. Our own teaching sheet condenses the core rules shown across such series: whole-number scaling with nearest-neighbour, one-pixel lines without doubles, a fixed palette and dithering used on purpose. Strength: these rules fix most 'why does my pixel UI look blurry/messy' problems. Risk: rules are guides; style breaks them deliberately once learned.

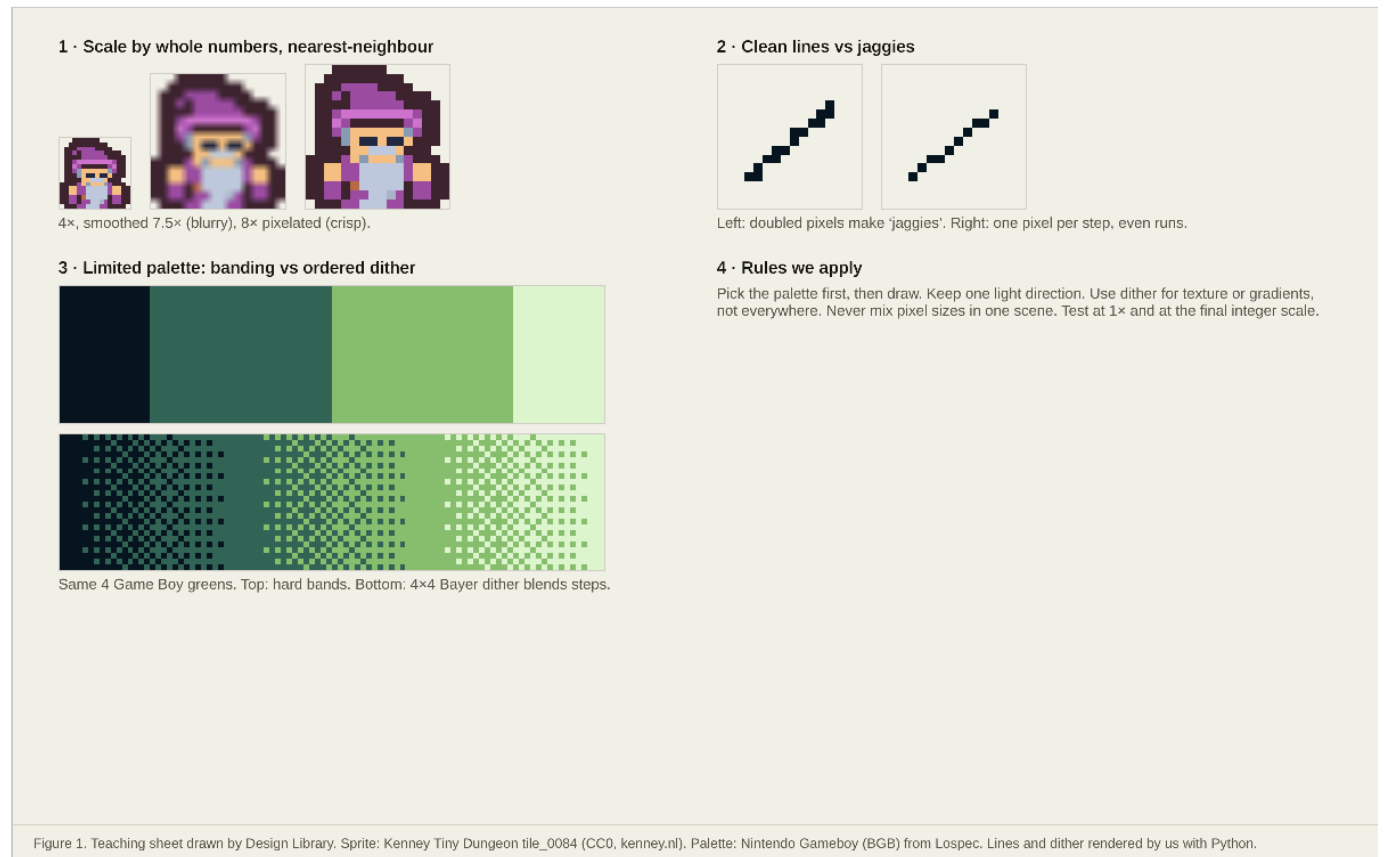
Best practices

- Scale pixel art only by whole numbers with nearest-neighbour (image-rendering:pixelated) (OURS, figure panel 1).
- Draw lines in even steps without doubled corner pixels ('jaggies') (OURS, panel 2).
- Use dithering to suggest gradients or texture inside a small palette, not as noise everywhere (OURS, panel 3).
- Never mix pixel sizes in one scene: a 2× sprite next to a 3× one looks broken (OURS).

How to use

```
CSS: img,canvas{image-rendering:pixelated} /* never smooth pixel art */  
Scale by 2×, 3×, 4×... only; set canvas width/height to the native size and enlarge with CSS.
```

Figures and reference captures



Teaching sheet drawn by Design Library. Sprite: Kenney Tiny Dungeon tile_0084 (CC0, kenney.nl). Palette: Nintendo Gameboy (BGB) from Lospec. Lines and dither rendered by us with Python. Source: <https://saint11.art/blog/pixel-art-tutorials/>. Our teaching sheet; sprite from Kenney Tiny Dungeon (CC0 1.0).

Pixel Art Tutorials

Jul 12, 2020

This is my series of tutorials created with the support of my [Patreons](#). Each tutorial is 512x512 pixels and was originally posted and focused on Twitter but eventually became its own standalone project. All these tutorials are free to access, but if you'd like to support me, you can do so on Patreon or purchase them as a convenient .zip file on Itch.io.

If you are just starting out I also recommend checking out my [Pixel art beginner series!](#)

Hey, want to stay in the loop? [Subscribe to my newsletter](#) — it's free! You'll get updates whenever there's new content on my website.



Reference capture of <https://saint11.art/blog/pixel-art-tutorials/> (landing view), taken 2026-10-24 16:42 (UTC+8) by this library with a headless browser at 1440×900, reduced to 1200px. Fair-use reference for design analysis only; the page, its artwork and marks belong to Pedro Medeiros (Saint11). Asset files are not redistributed through this capture: get them from the source under its licence. Source: <https://saint11.art/blog/pixel-art-tutorials/>. Fair-use reference capture; content © Pedro Medeiros (Saint11). Entry license: Our teaching sheet: made by Design Library (sprite from Kenney Tiny Dungeon, CC0). Linked tutorials © their authors (Saint11 / Pedro Medeiros; Lospec): link only

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Pixel-art fundamentals & dithering: deep dive

Gaming & Pixel Art deep dive, checked 2026-10-24 (UTC+8). OFFICIAL = stated on the cited official page, README, licence or package file; ESTIMATED = measured by Design Library (file sizes, counts, contrast); OURS = our interpretation, not legal advice. Earlier pages hold notes, analysis, best practices and captioned figures with sources.

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Core rules (our sheet) OURS

- Integer scaling only, nearest-neighbour; one-pixel lines without doubles; pick a palette first; dither on purpose; one light direction; never mix pixel sizes.

Source: <https://saint11.art/blog/pixel-art-tutorials/>

Where to learn more OFFICIAL

- Saint11 (Pedro Medeiros): a tutorial series supported by Patreon backers; 'Each tutorial is 512x512 pixels'; 'All these tutorials are free to access'.
- Lospec's tutorial directory collects tutorials by topic (<https://lospec.com/pixel-art-tutorials>).

Source: <https://saint11.art/blog/pixel-art-tutorials/>

CSS for crisp pixels OURS

- `img,canvas{image-rendering:pixelated};` size canvases at native resolution and enlarge with CSS by whole numbers.

Source: <https://developer.mozilla.org/en-US/docs/Web/CSS/image-rendering>