Principles of Design

*Consider these principles when creating or evaluating publications.*

**Focus**
Where does the reader’s eye go first? Does it go to the most important element? Does it convey the ideas or messages you intend? Some media, like video, are linear. Others are viewed at a glance and are non-linear. It is especially important for non-linear media to clearly show the intended focus or starting point.

**Hierarchy**
Are the elements logically organized or visually grouped according to similar ideas or messages? The viewer should be able to clearly see, without additional explanation, primary ideas and supporting detail. Readers benefit from clear hierarchical presentations.

**Color**
Does the use of color enhance the message? Use color to set things apart or bring things together. For example, to create contrast use contrasting colors. To create harmony, use similar colors. Too many colors can be distracting. Note that an image on a computer screen may look quite different on a printed page without careful color management of the printing or imaging process.

**Images**
Does the cropping, placement, size, and composition of the graphics enhance the other elements in the media? Are the images compelling? Do you need to enhance or “Photoshop” the image to create focus and clarity? Images have different strengths in different media. In video, they have motion and sound. In waysides, their strength is the large-format presentation in combination with the landscape. In publications, they are presented in many varying sizes and alignments to enhance ideas conveyed in text. Consider all the principles of image composition (see following pages). Images convey content, meaning and emotion, and visual interest. Use photographs or illustrations to convey ideas, enhancing the text.

**Typography**
Is the typographic treatment of the text legible, clear, and developed according to the hierarchy and focus of the content? Is it appropriate for the message and the agency? Typographic style needs to reflect the content written and designed for the intended audience, media type, and associated graphics. For visual media, text is not intended to be read alone. It works in concert with images and is designed to help readers scan content for quick understanding.

**White Space**
Does the use of white space create visual focus on the primary elements? White space is the opposite of camouflage. It is the area between elements that defines edges, or shapes. It allows the eye to rest and focus. White space in a video is like the silence between sounds. Lack of white space, or poorly used white space, can make a layout look busy, dense, or confusing.
Alignment  Are the elements visually aligned to enhance focus, and hierarchy? Nothing should be placed arbitrarily. Every element should have a connection to, or separation from, something else. The purpose of alignment is to unify and organize. Elements like images, text, and other graphics can be visually connected, or separated, by a thoughtful use of alignment. The relationships of each element convey meaning. Alignment is closely related to the principle of proximity. Arbitrary alignments confuse readers.

Proximity  Are related elements shown in close, logical, and consistent proximity? The purpose of proximity is to organize associated elements. Group related elements together like a photograph and its caption. Related elements help visitors understand and navigate content.

Contrast  Does the contrast among elements (size, color, shape) enhance the message or idea? Contrast creates tension. Does the relationship of contrasting elements convey intended ideas?

Repetition  Are elements repeated to create patterns of recognition? Help visitors navigate through content by using repeating styles. Present similar elements with similar styles to help the visitor focus on content, not style. Readers benefit from the visual clues that repetitive techniques can provide.

Simplicity and Clarity  Do the elements work together to create a clear point of focus that visually conveys ideas? Is the publication free from decorative flourishes that distract readers?

Quantity  Are the number and complexity of images and the quantity of text appropriate for the medium and the audience? If one image clearly conveys an idea, avoid using multiple images. Quantity does not necessarily improve quality. Avoid overwhelming readers with dense text and too many images.
Principles of Typography

*Consider these principles for creating or evaluating typography.*

**Typeface**
Typefaces (e.g., NPS Rawlinson, Frutiger, Times) convey meanings. Is the typeface appropriate for the content, voice of the agency, and integrity of the message? Typefaces are designed to meet specific needs, or to be used in specific applications. Understanding the reason and original application of a typeface will help you choose appropriately.

**Font**
Does the font (e.g., bold, roman, italic) appropriately and visually reveal clues about the content and meaning of the text? Place emphasis where emphasis is needed, and avoid too many variations. Bold text can attract the eye, but it can also cause distracting detail. Use type styles consistently to help the viewer see relationships or patterns. Consider legibility issues associated with some fonts. For example, italics can be harder to read.

**Style**
Does the typographic style (e.g., all caps, extended letter spacing, outlining) help the reader? For example, all caps is not as legible as caps/lower case. Word shapes help with word recognition; all caps eliminates those recognizable shapes. When using all caps, use restraint. Extended letter spacing is often used on maps to show a label covering a large area. Avoid using extended letter spacing with caps/lower case in text. Outlining distorts letterforms, usually making it less legible, not more.

**Legibility**
Many variables affect legibility: typeface; font; point size; style; line length; word, letter, and line spacing; contrast with background color or image; distance from the viewer; and sharpness of the print. Consider how these factors affect one another, and how to use them to maximize legibility. For example, a common mistake is to set the line length too long, or too short. Six to ten words per line is a good target.

**Alignment**
Are the text and images aligned to enhance logical flow and clear connections between elements? Look at the visual lines or shapes in the layout and within images. Look for alignments that create focus on important elements. Keep text wrapping to a minimum. When overused, text wrapping can make a layout busy, dense, and hard to follow.

**Hierarchy**
Does the reader have clear visual typographic clues about the order or hierarchy of the content and ideas? Organize content into primary, secondary, and other supporting concepts.

**Repetition**
Are similar ideas represented in similar typographic styles? Within the hierarchy, are elements of equal importance shown with equal typographic treatments? Repetition of typographic styles helps the reader scan for understanding. Clear and simple patterns serve as navigational devices through the content.
Principles of Typography

**Color**
Is color used to enhance or highlight ideas conveyed by the text? Use color to harmonize or to create contrast with elements.

**Quantity**
Is the amount of text appropriate for the audience? How long does a reader spend with a given media product, and is the text appropriate for the reader? Review text by reading it aloud and timing yourself. Do your readers spend that amount of time with your publication? Consider the visual weight of the text. Long blocks of unbroken text require a commitment by the reader. Shorter segments with subtitles, lists, call-outs, or highlights, can help readers scan content more easily and make the text look more inviting. Use restraint; strike a balance between useful styles and distractions.

**Additional Tips**
NPS typographic style shows restraint, reflecting the authority and professionalism of our voice. Use decorative fonts and special effects (like drop shadows) sparingly. These effects can impact legibility. Avoid underlining.

The NPS standard format for body text is flush-left, rag-right. Justified text has inconsistent word spacing, making it harder to read. Centered text is used for both formal publications like wedding invitations, and very informal material like missing dog posters.

Does your park or agency have an editorial style guide? The Editorial Style Guide for the NPS is maintained on the Harpers Ferry Center website at http://www.nps.gov/hfc/.

Use one space after the period, not two.
Principles of Image Composition

Consider these principles when choosing, creating, or evaluating images for publications. Use this list to help identify why some images are compelling, and others are not. Not all principles apply to all images.

**Orientation**
Is the image vertical, horizontal, square, or another orientation? A horizontal image is generally more peaceful, tranquil, and stable. A vertical image has more dynamic energy and strength.

**Balance**
Is there visual tension among asymmetrical shapes, or are the elements visually equal? Asymmetrical elements create tension. An image with symmetrical elements is less dynamic. Consider the visual weight of objects, shapes, masses of color, and positive and negative space. Are they balanced symmetrically or asymmetrically?

**Rule of Thirds**
Does the focal point fall within the points of intersection of the rule of thirds, or the Golden Mean (1: 1.618 ratio)? In many great images, but certainly not all, the focal point sits at the intersection of two grid points when an image is divided into nine sections.

**Texture**
Does the lighting reveal surface texture? Surface texture helps to show detail and provide realism and character. The eye tends to focus on areas of greatest contrast and detail.

**Form**
Is the image lit from an oblique angle to reveal three-dimensional form? Landscape images lit from directly above at high-noon may appear flat, as compared to a landscape lit with early morning or late afternoon sunlight. The angle of light will reveal, or hide, form and depth.

**Line**
Are the dominant lines in the image vertical, horizontal, or diagonal? Lines can lead the eye to, or away from, a subject. Lines can be actual or implied by a series of repeating points. An image with horizontal lines will generally be more relaxed and calm. An image with vertical lines will suggest more power and strength. Diagonal or curving lines will have more dynamic energy.

**Color**
Are there warm or cool colors, or both? What is the value (lightness or darkness) of the color? Is it saturated or muted? Are the colors monochromatic, analogous (colors next to each other on the color wheel), or complementary (opposite on the color wheel)?

**Rhythm**
Do forms, shapes, or colors repeat? A rhythm can show movement or energy.
Principles of Image Composition

**Depth of Field**
Is the whole image in focus, or is a particular plane of focus within the field of view? Images typically have a foreground, middle ground, and background. A narrow depth of field will show only one area in focus. A long depth of field will have sharp focus on the foreground and all the way into the background.

**Contrast**
Are there strong highlights and shadows or two complementary colors? Are there large and small objects, shapes, or patterns? Contrast will create a tension between elements, whether light versus dark, color contrast, or size differences. Does the relationship of contrasting elements convey meaning?

**Figure/Ground**
What is the relationship between the figure or subject and the background? Which element is dominant? If the subject of an image is a positive element, the space around it becomes the negative element. The relationship between the two conveys meaning.

**Shape**
Do you see specific shapes in the use of positive and negative space? A shape is an area of color, texture, focus, and space. Shapes do not necessarily have to be actual objects or forms. How do the shapes enhance, or detract from, the focus and meaning of the image?

**Unity**
Do all the elements of an image contribute to an aesthetic whole? Look for shapes, textures, contrast, rhythm, line, color, form, and focus. Do all these elements work together to enhance the focus and meaning of an image?

**Simplicity/Complexity**
Is there a sense of chaos and busyness, or is the image simple or clear? An image can have many similar elements and appear simple and calm, while another image with many different elements of color, texture, size, and contrast may appear noisy and chaotic.

**Additional Tips**
Factor in the cost of use-rights within the project budget.

Ensure image quality is sufficient for reproduction.

Research for the accuracy and integrity of images.

Graphics placed behind text can interfere with legibility. Make sure text is legible over a background image.

Photographs should have a wide range of grayscale variation. Select black-and-white or color images that have a focused subject and uncomplicated surroundings, especially for printing on low-end printers. Line drawings should be clear with limited detail, lineweights, and tones.