

Anatomy of a block

Gutenberg design patterns

Tammie Lister: @karmatosed

0/1

Hello

1/1

Tammie Lister : @karmatosed

1/2

Not a technical talk or workshop

Questions at the end, this is going to be fast...

1/4

Link at the end of resources

0/2

The vision of Gutenberg

Everything is a block. Text, images, galleries, widgets, shortcodes, and even chunks of custom HTML, no matter if it's added by plugins or otherwise.

wordpress.org/gutenberg/handbook/reference/design-principles

You should only have to learn how the block works,
and then know how to do everything.

Design influence of Gutenberg

The collage illustrates the influence of the Gutenberg printing press on modern digital design through several key features:

- Ulysses:** Shows a clean, minimalist interface with a sidebar for navigation and a main content area for writing, similar to the layout of early printed books.
- Keynote:** Displays a presentation slide titled "Anatomy of a block" featuring a grid of blue cubes, emphasizing structured content and visual organization.
- Dropbox Paper:** Shows a task list with columns for Task, Who?, Deadline, Complete, and Notes, mirroring the tabular structures used in early printed documents.
- Slack:** Illustrates a threaded communication interface where messages are organized by channel, similar to the way early printed books were organized by topic.
- Sketch:** Shows a complex UI/UX prototype with a sidebar for components and a main canvas for design, demonstrating how the printing press influenced the way we organize and access visual information.
- Notion:** Displays a knowledge base with sections like "March 9th, Landing Page Brainstorm" and "Agenda", showing how the printing press influenced the way we structure and share information.
- Adobe Photoshop:** Shows a photo editing interface with a sidebar for tools and a main canvas for image manipulation, reflecting the way early printed books were visually organized.

The image displays four distinct user interface examples, each featuring a dropdown menu or search function:

- Slack Command Search:** A sidebar showing a list of commands with descriptions, such as /archive, /away, and /remind.
- Gutenberg Block Editor:** A "Search Content Blocks" interface with sections for BASIC, IMAGE LAYOUTS, GALLERY, and SUMMARY, each containing various block icons.
- WordPress Publish Modal:** A modal window for publishing a post, showing status (Published), visibility (Public), and publish date (Jun 4, 2018 @ 12:44). It includes sections for Categories (Uncategorized selected) and Tags.
- Mobile Contact Form:** A "New Contact" screen with a sidebar menu (Refresh, Settings, Send Feedback, Help, Signout) and fields for Name (Peter Carlsson), Phone Number (212-665-8945), and Label (Mobile).

Existing design patterns in Gutenberg

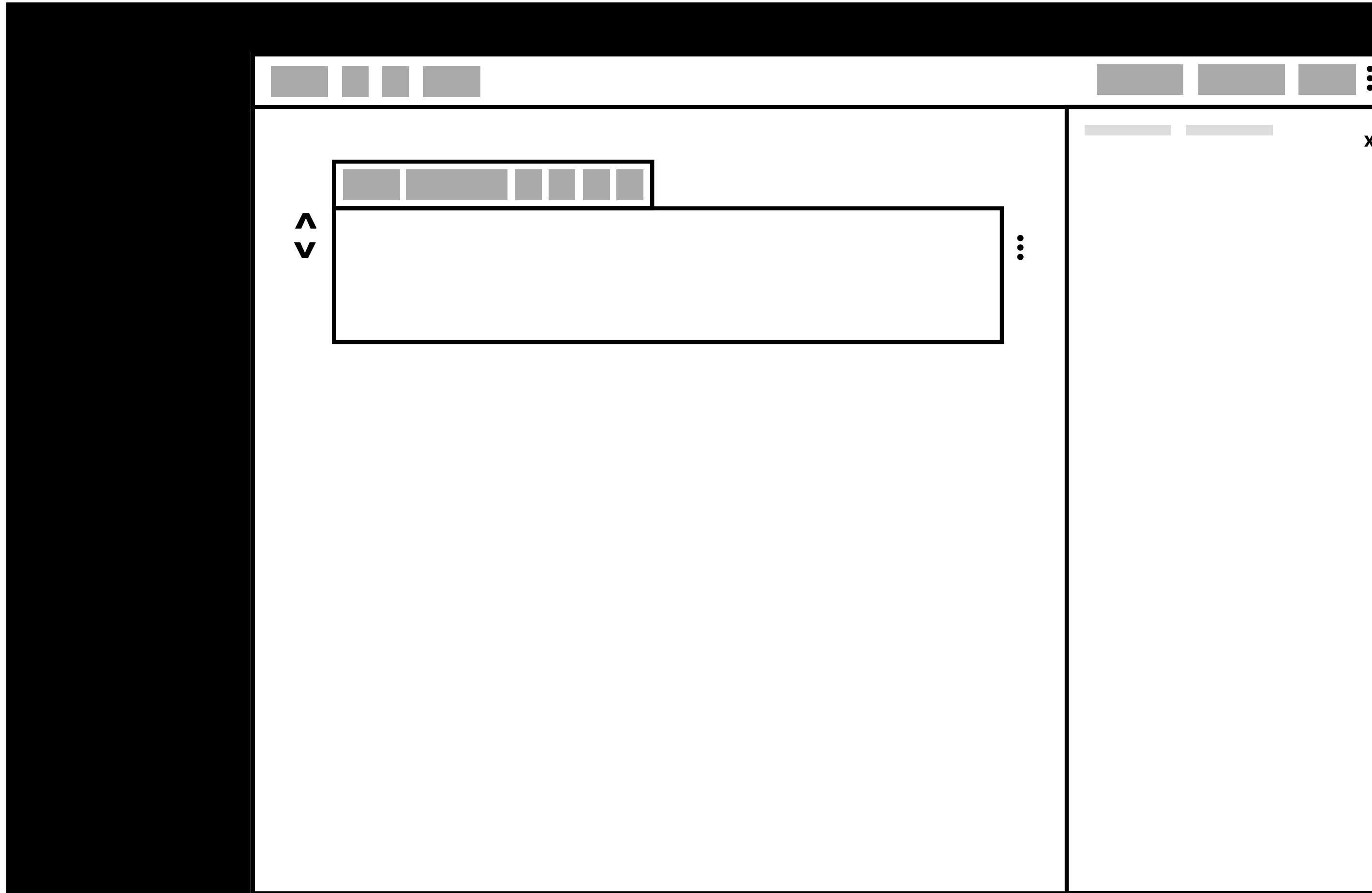
material.io/design/components/menus.html#dropdown-menu

0/3

The language of Gutenberg

3/1

Screen



Howdy, admin

Dashboard Posts All Posts Add New Categories Tags Media Pages Comments 3 Appearance Plugins 2 Users Tools Settings Gutenberg Collapse menu

Add title

Write your story

Document Block X

Status & Visibility

Visibility Public

Publish June 8, 2018 8:40 pm

Stick to the Front Page

Pending Review

Categories

Tags

Add New Tag

Featured Image

Set featured image

Excerpt

Write an excerpt (optional)

Learn more about manual excerpts ↗

Discussion

Allow Comments

Allow Pingbacks & Trackbacks

WordPress Gutenberg 5 3 + New Howdy, admin

Dashboard Posts All Posts Add New Categories Tags Media Pages Comments 3 Appearance Plugins 2 Users Tools Settings Gutenberg Collapse menu

Add title

Write your story

Preview Publish... ⚙️ ⋮

3/2

Action bar





✓ Saved

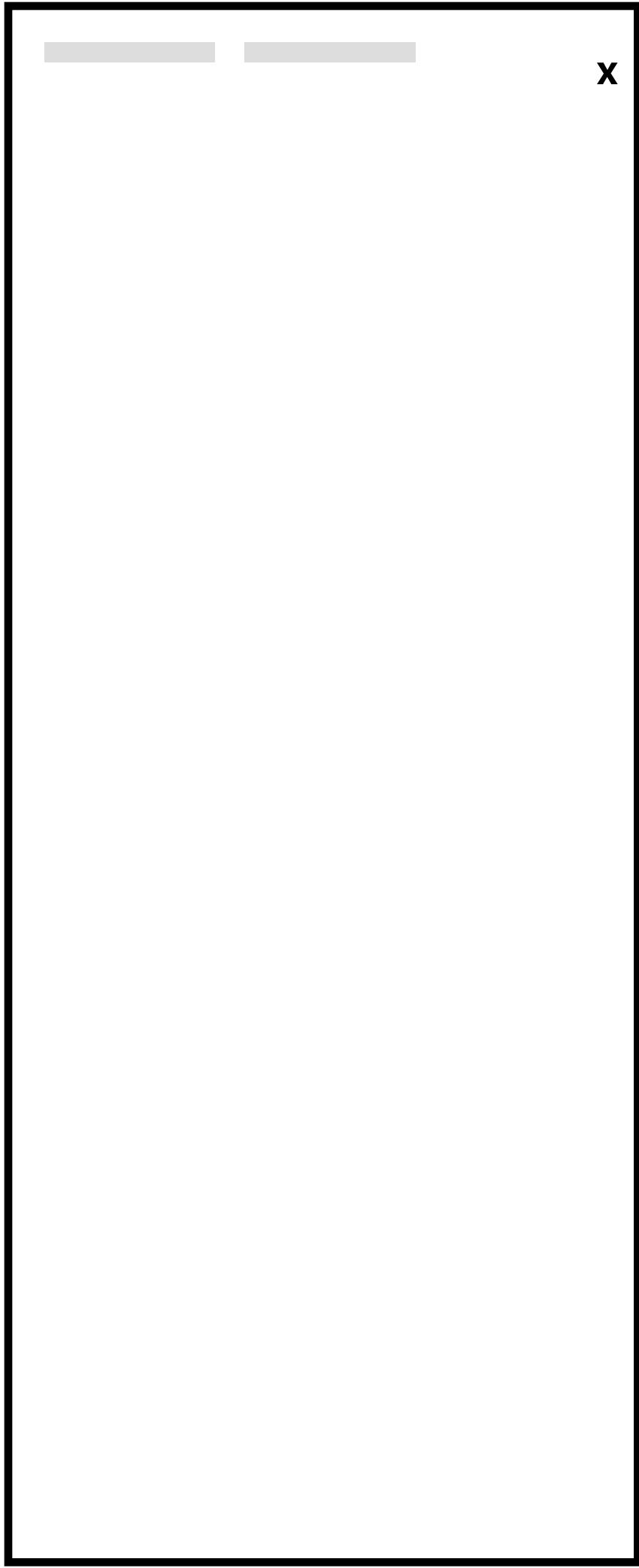
Preview

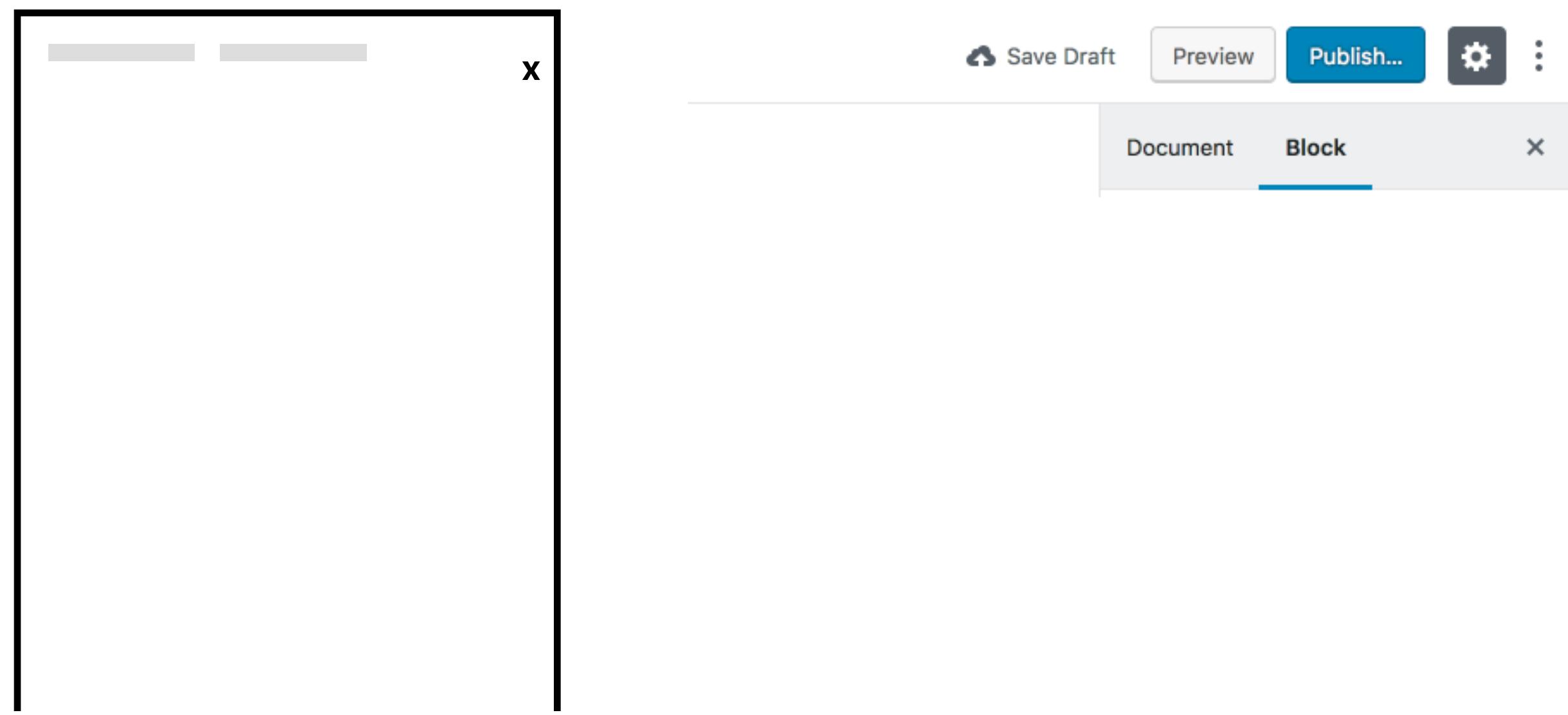
Publish...



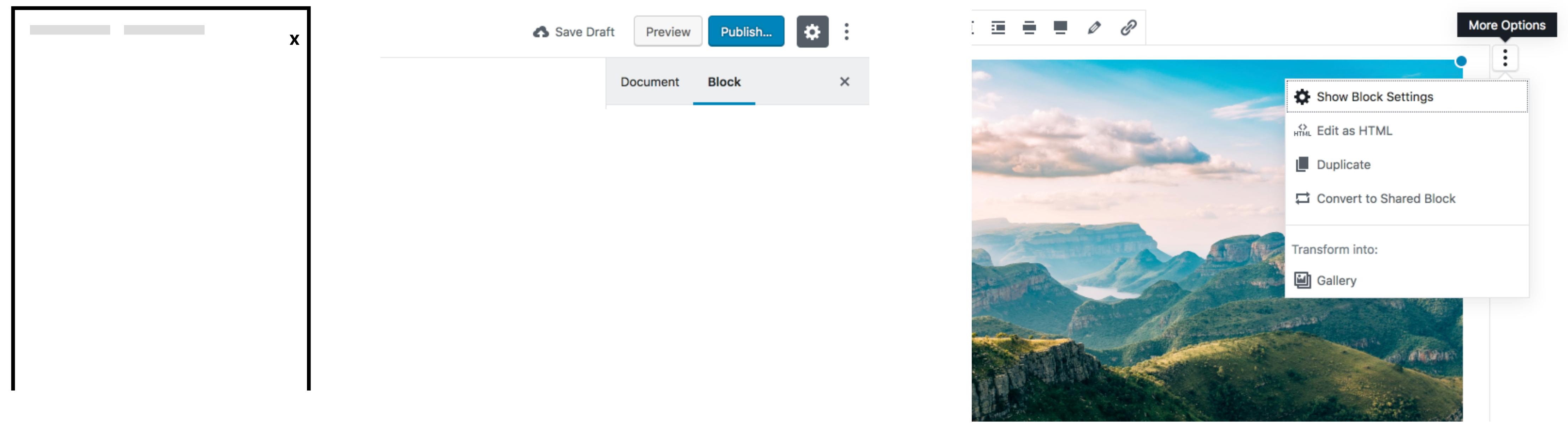
3/3

Sidebar

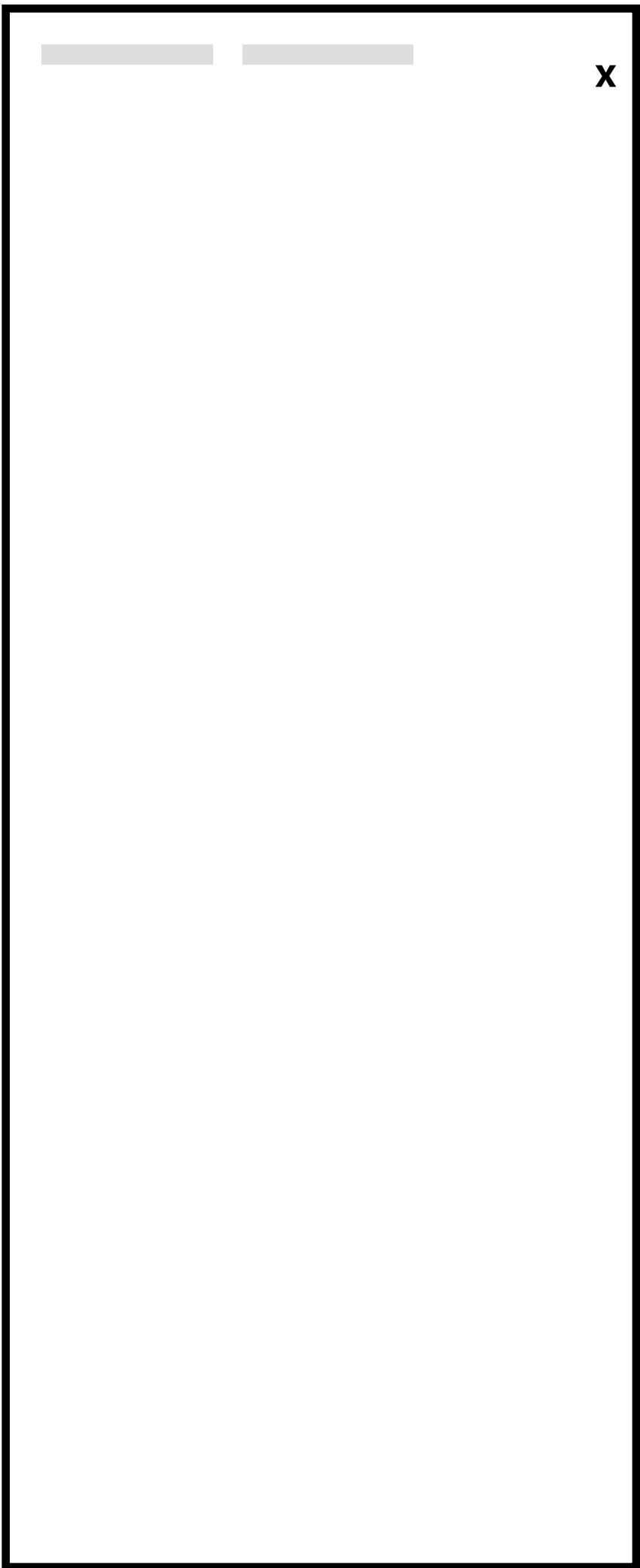


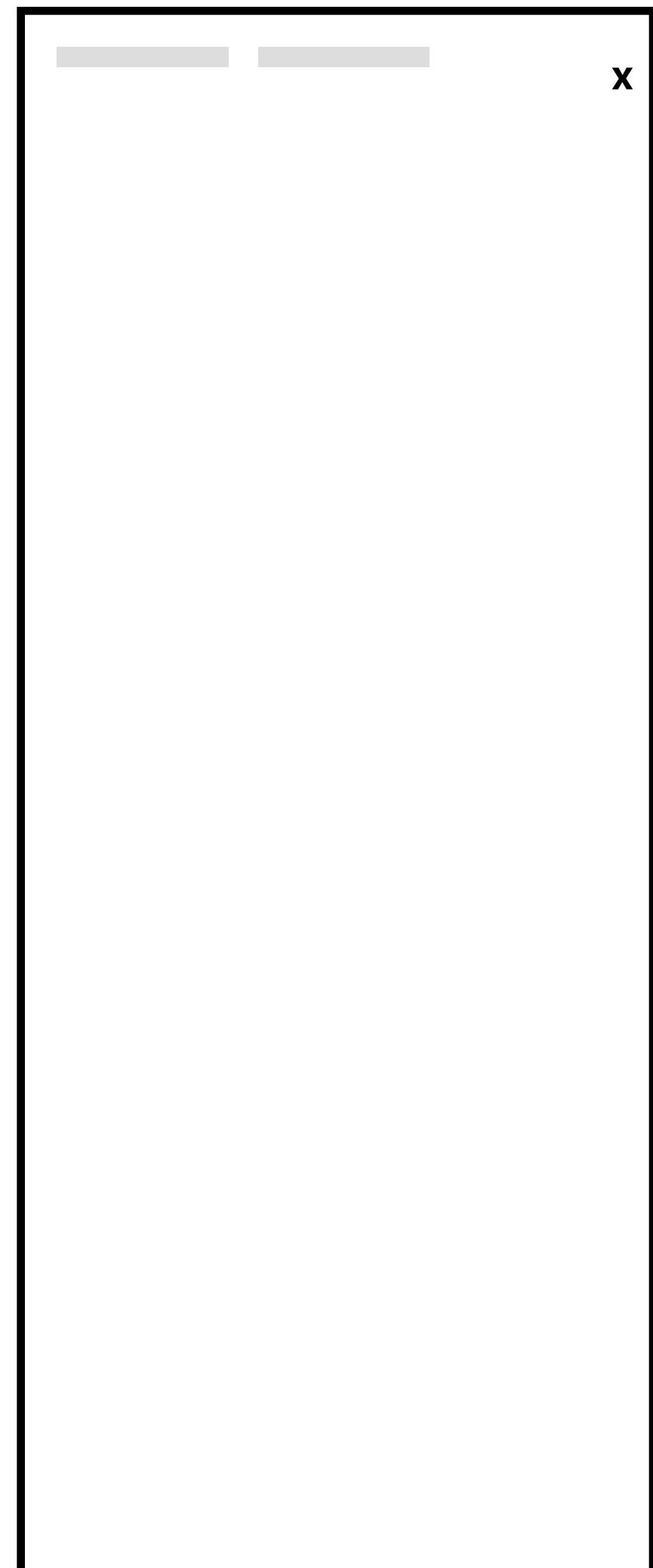


Getting to Advanced Settings



Getting to Advanced Settings





Document Block X

Status & Visibility ▲

Visibility [Public](#)

Publish [June 8, 2018 8:51 pm](#)

Stick to the Front Page

[Move to trash](#)

⌚ 2 Revisions

Categories ▼

Tags ▲

Add New Tag

Featured Image ▲

[Set featured image](#)

Excerpt ▲

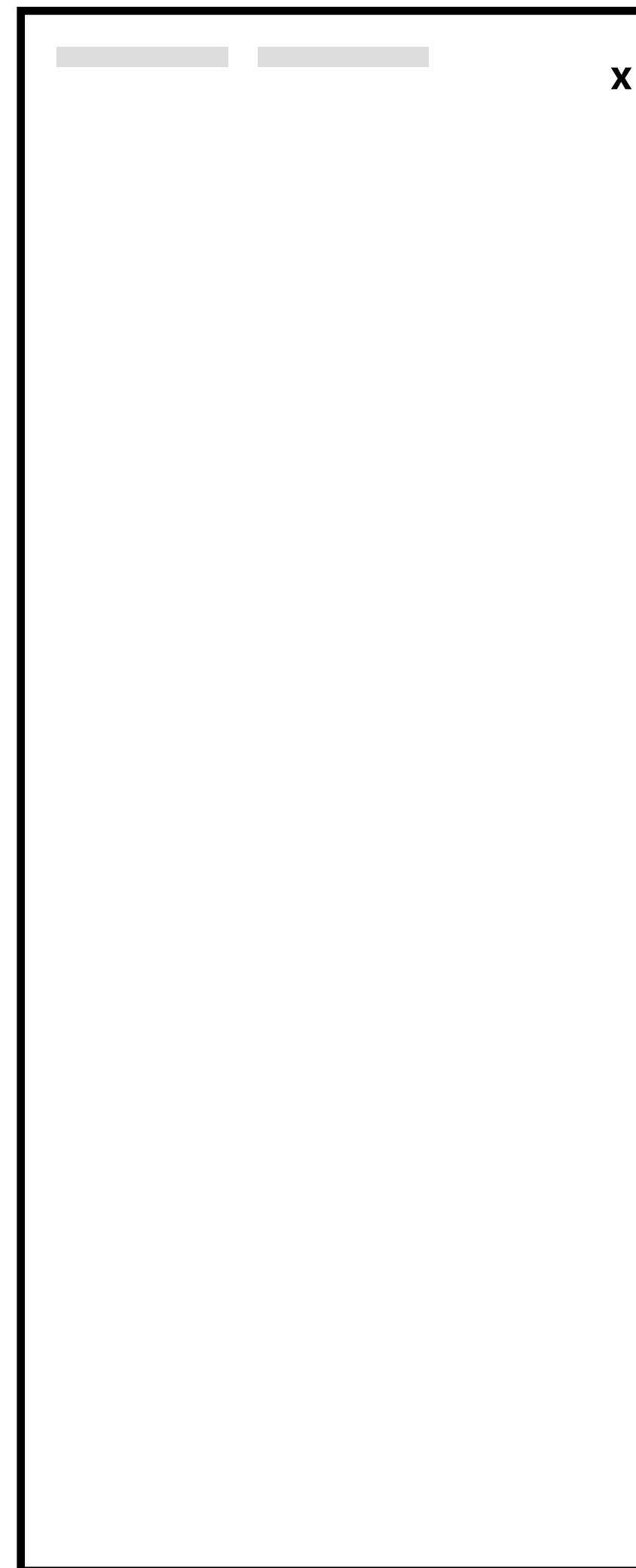
Write an excerpt (optional)

[Learn more about manual excerpts](#)

Discussion ▲

Allow Comments

Allow Pingbacks & Trackbacks



Document Block X

Status & Visibility ▲

Visibility Public

Publish June 8, 2018 8:51 pm

Stick to the Front Page

[Move to trash](#) trash

⌚ 2 Revisions

Categories ▼

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Add New Tag

Featured Image ▲

[Set featured image](#)

Excerpt ▲

Write an excerpt (optional)

[Learn more about manual excerpts](#) ↗

Discussion ▲

Allow Comments

Allow Pingbacks & Trackbacks

Document Block X

Status & Visibility ▲

Visibility Public

Publish June 8, 2018 8:51 pm

Stick to the Front Page

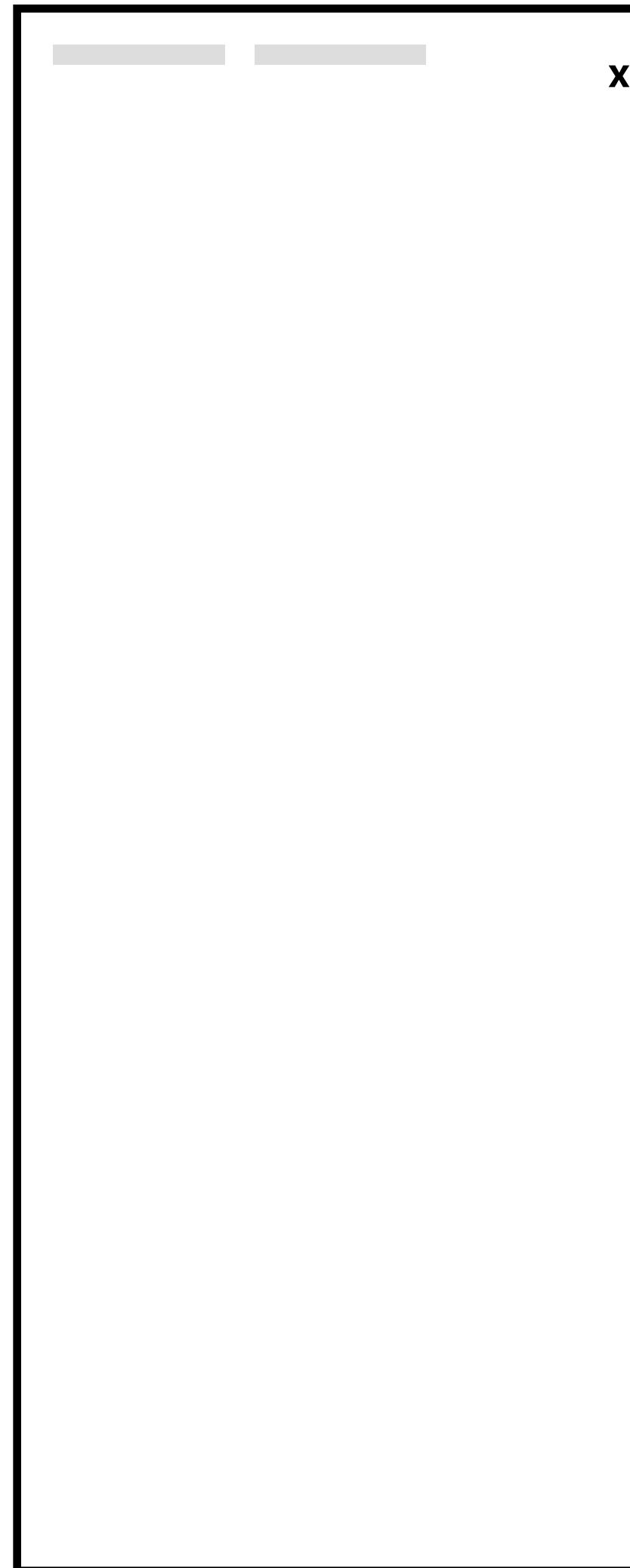
[Move to trash](#) trash

⌚ 2 Revisions

Categories ▼

Tags ▲

Add New Tag



Document Block X

Status & Visibility ▲

Visibility Public

Publish June 8, 2018 8:51 pm

Stick to the Front Page

[Move to trash](#) trash

⌚ [2 Revisions](#)

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Featured Image ▲

[Set featured image](#)

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[Move to trash](#) trash

⌚ [2 Revisions](#)

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Write an excerpt (optional)

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[Set featured image](#)

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[Set featured image](#)

Excerpt ▲

Write an excerpt (optional)

[Learn more about manual excerpts](#) ↗

Discussion ▲

Allow Comments

Allow Pingbacks & Trackbacks

3/4

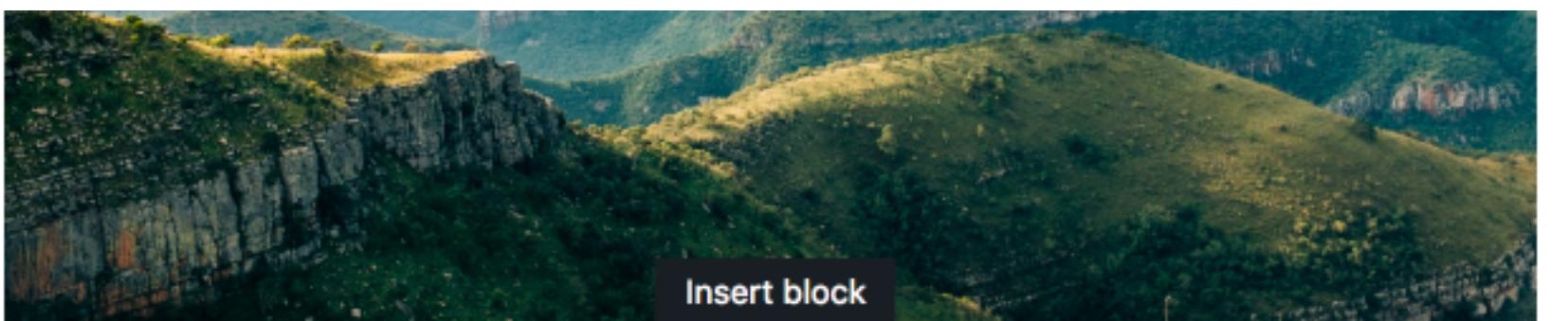
Adding a block

⊕ ↺ ↻ ⓘ

✓ Saved [Preview](#) [Publish...](#)  

Add title

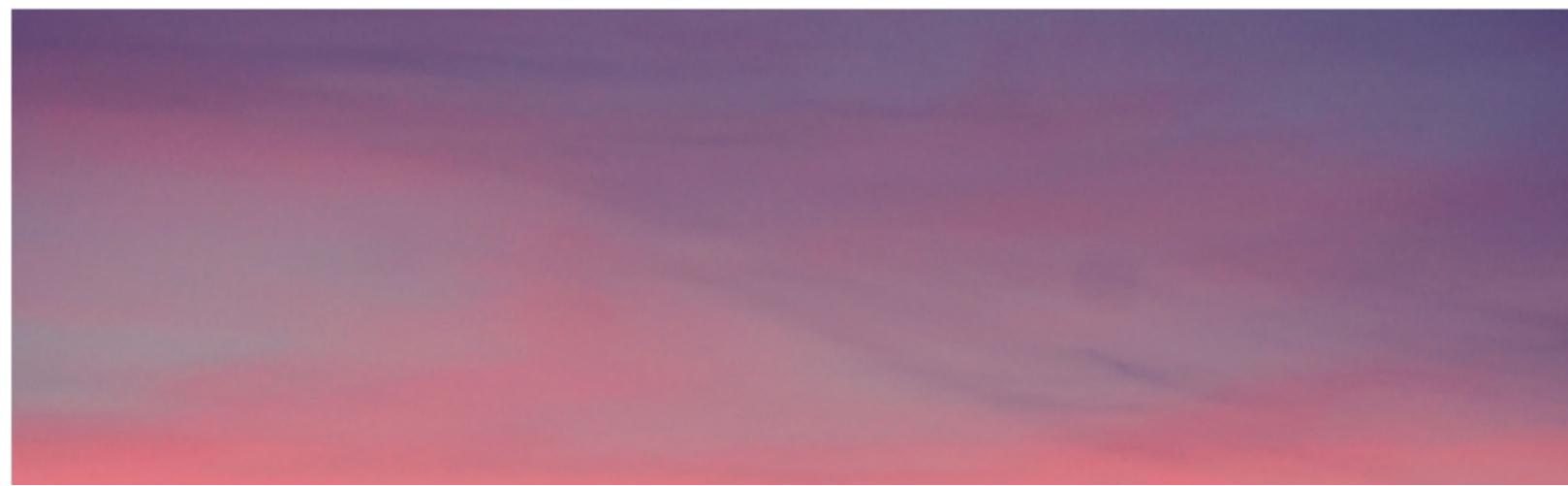
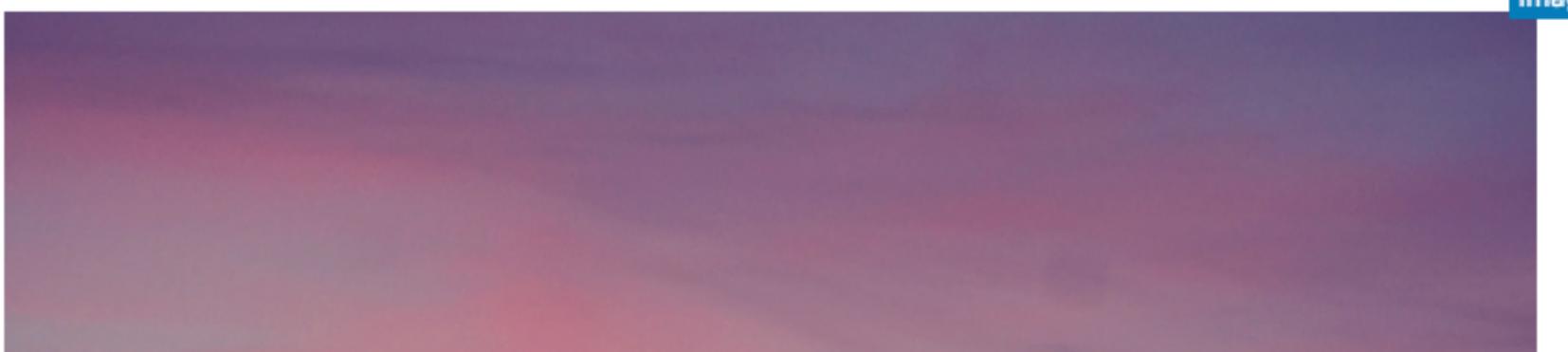
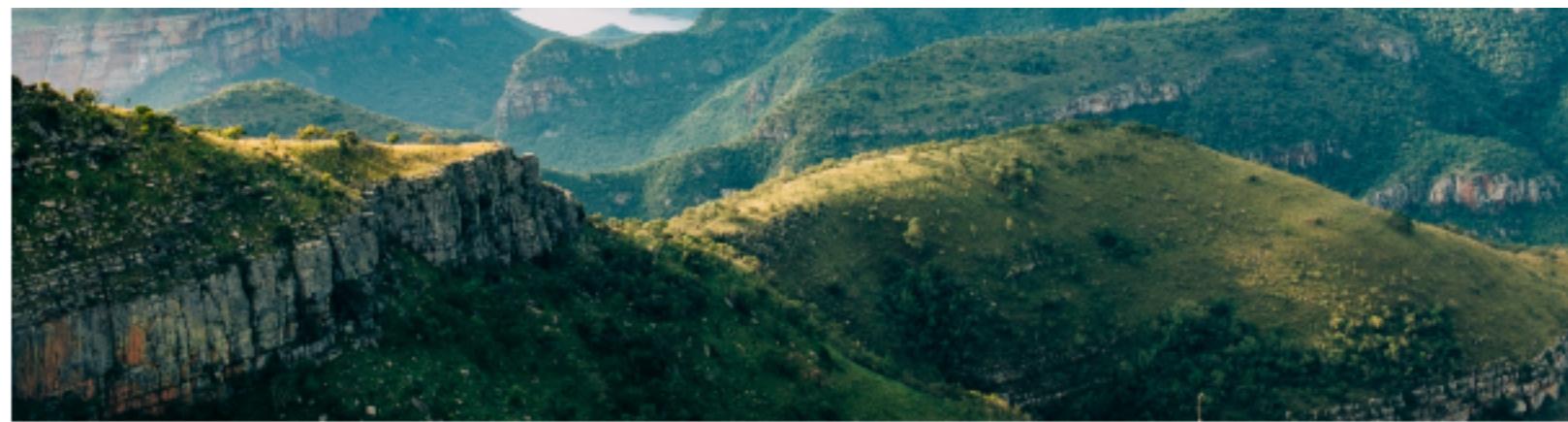


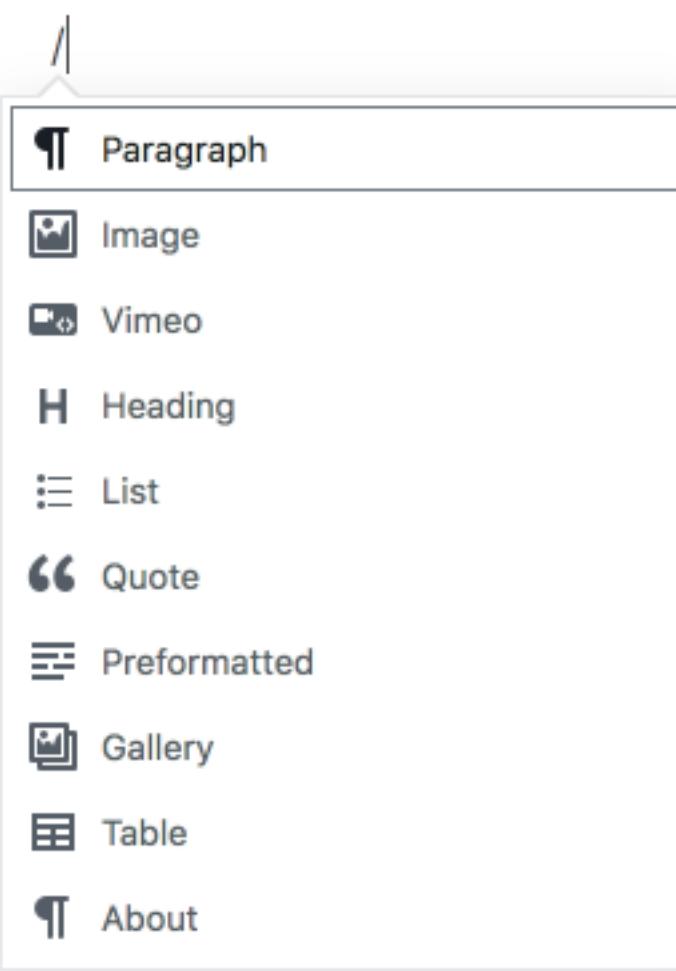


Insert block



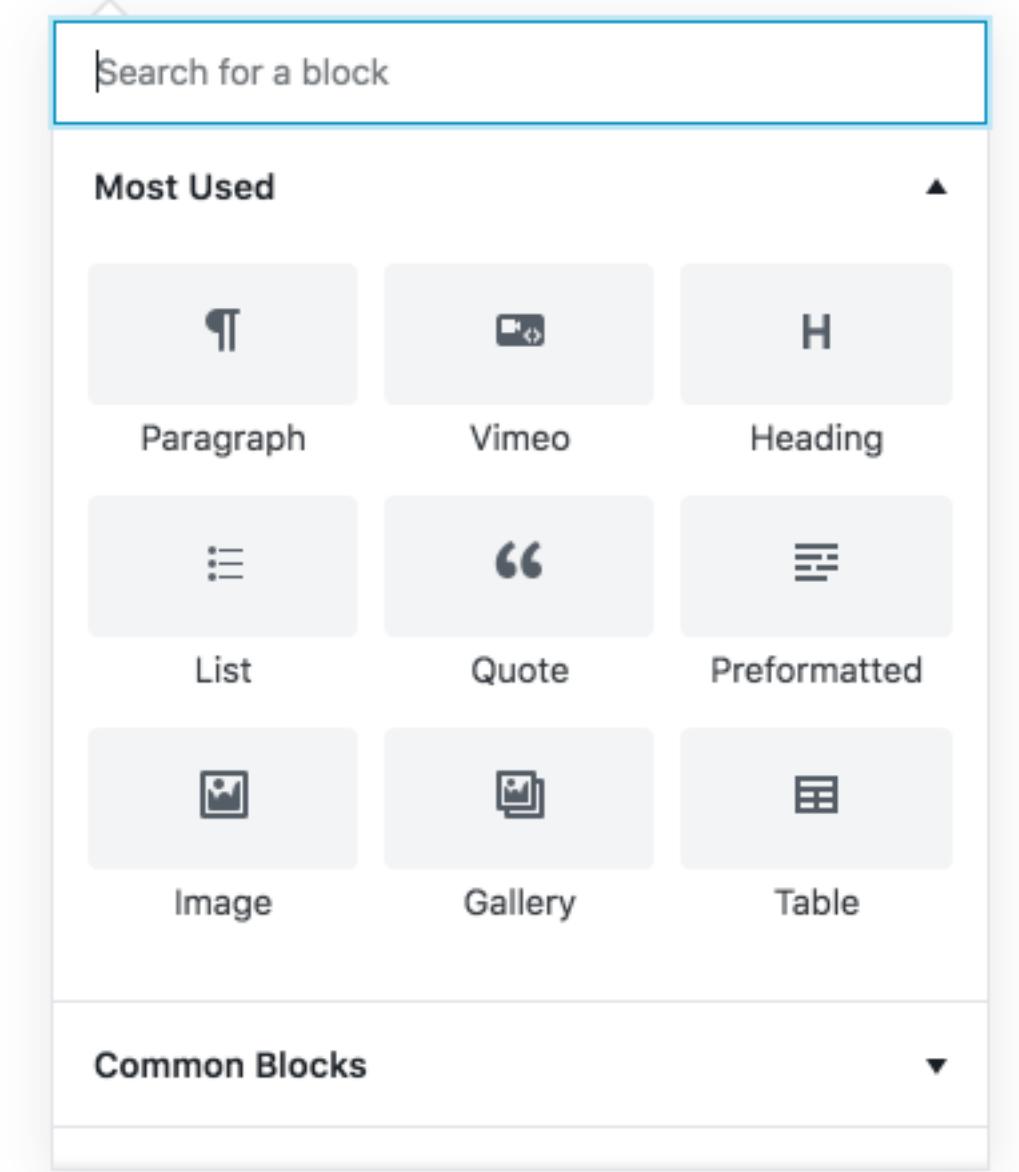
Image

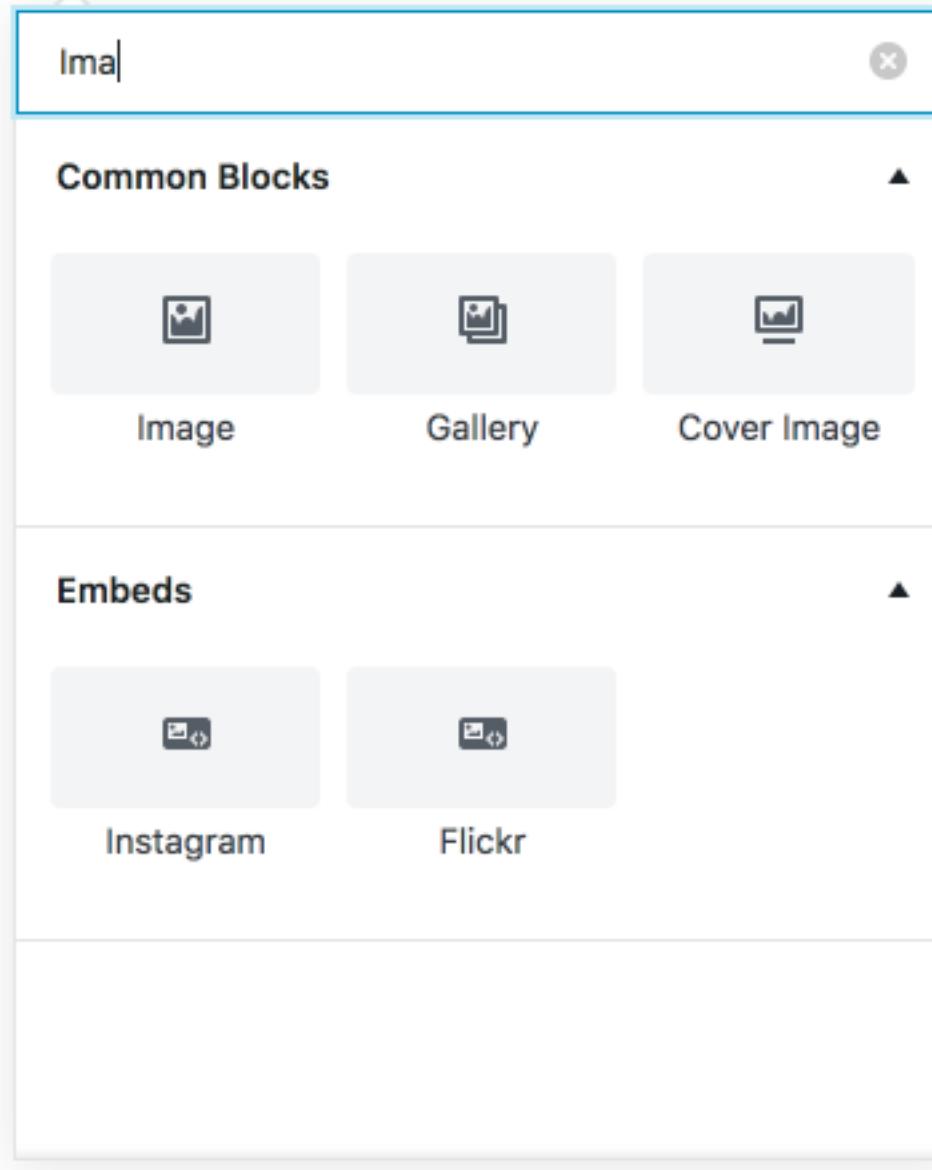
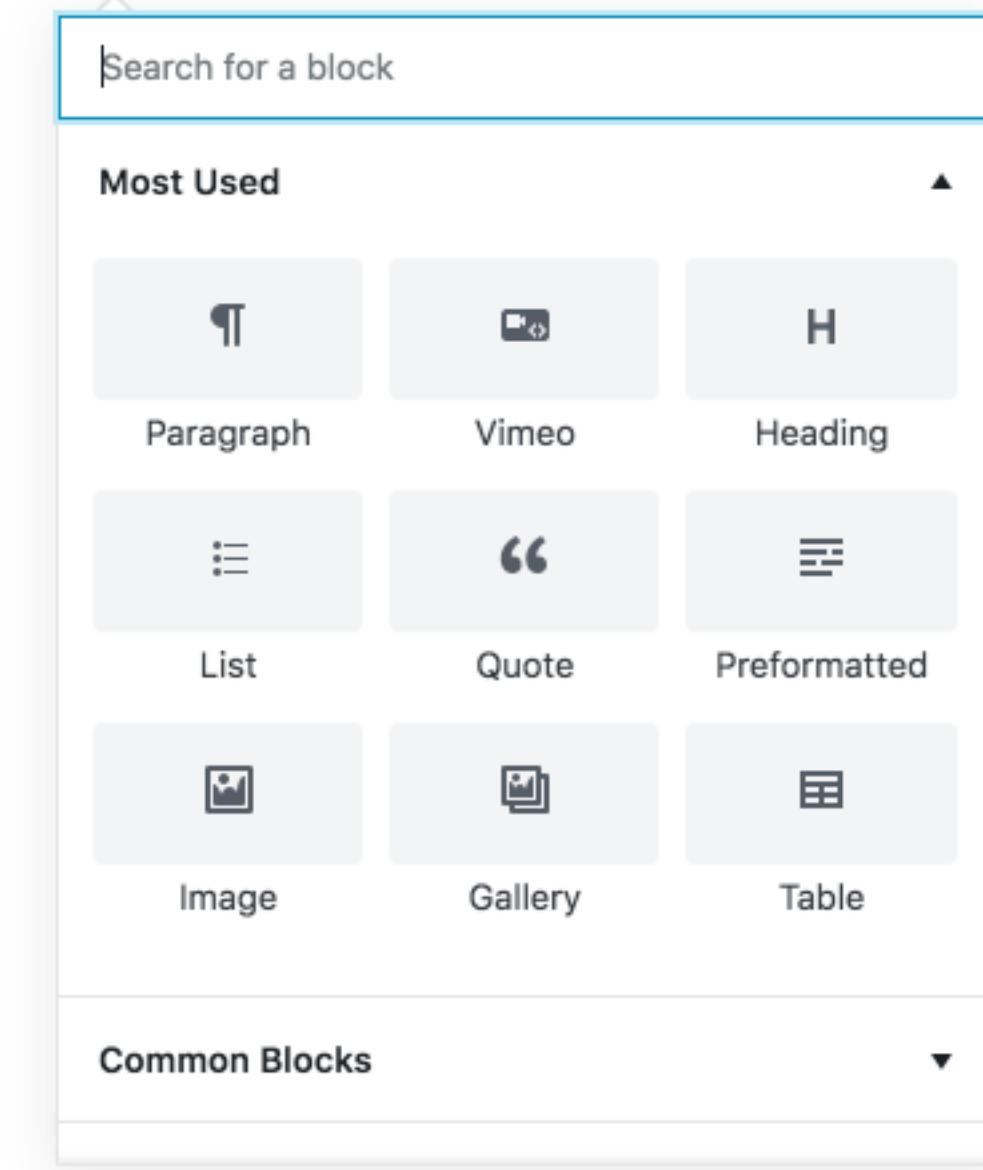


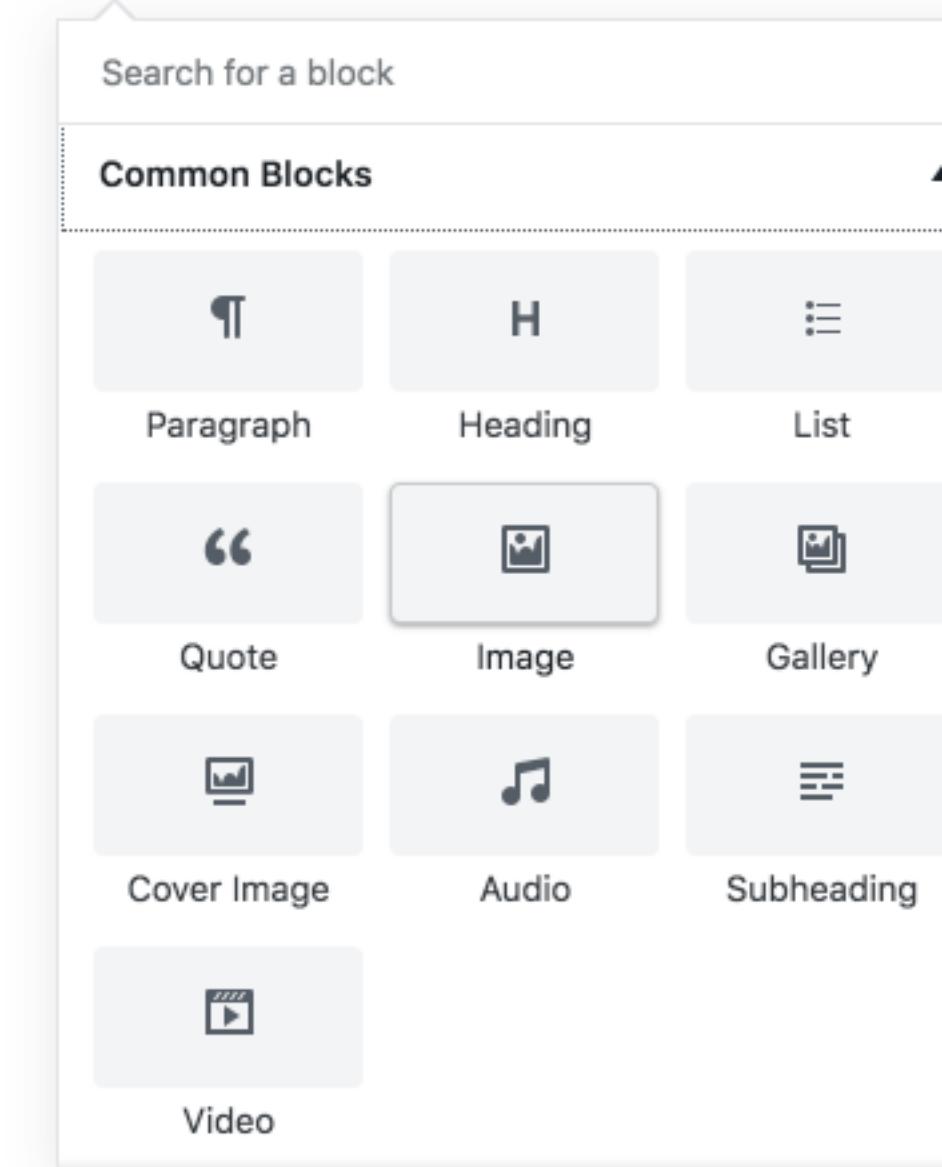
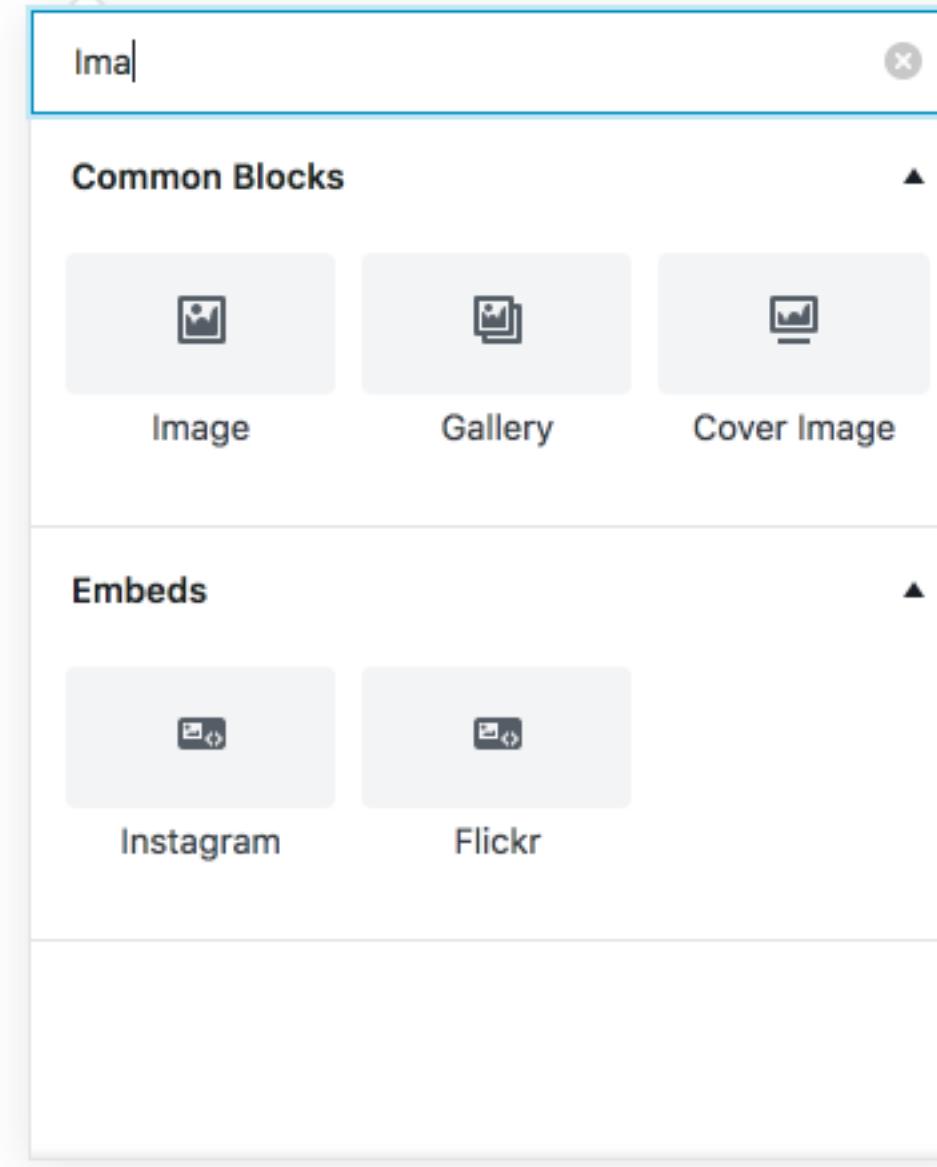
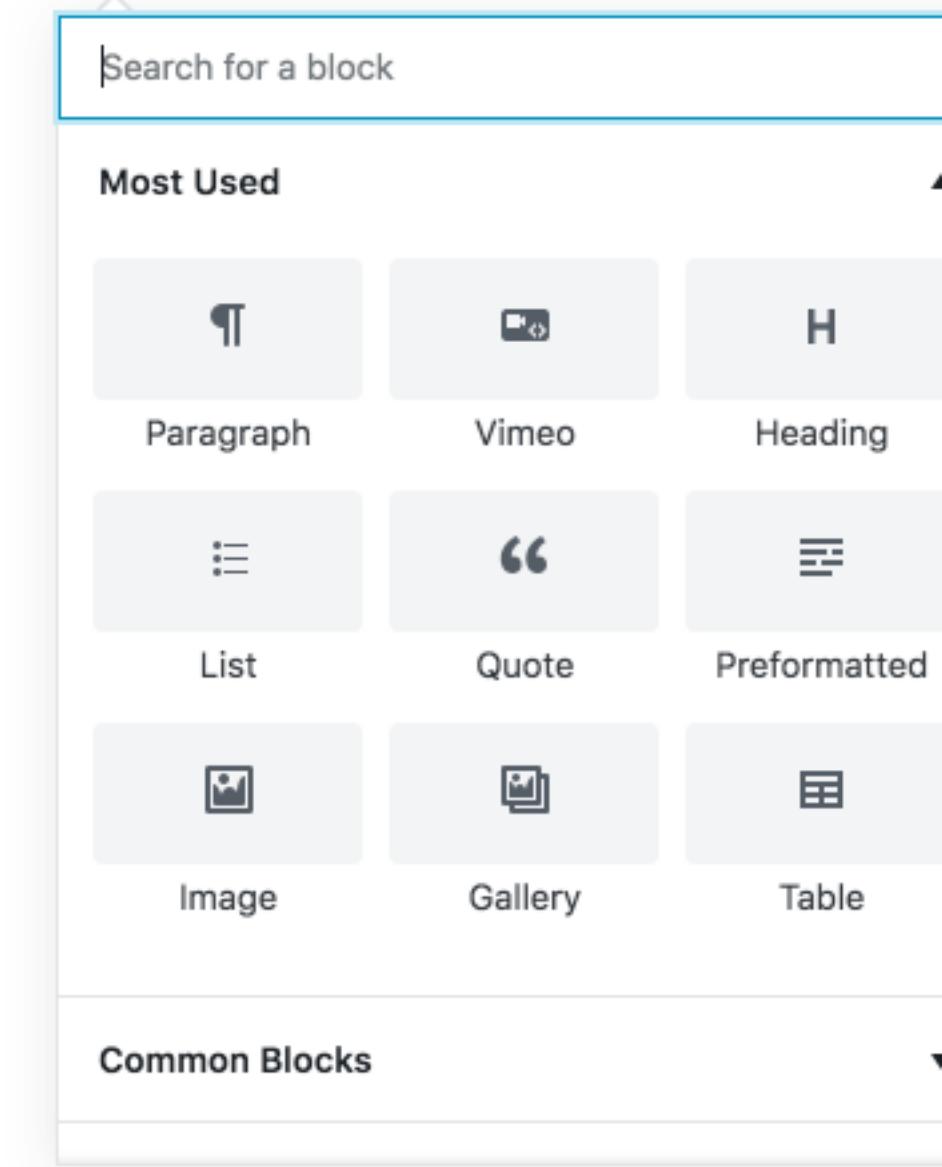


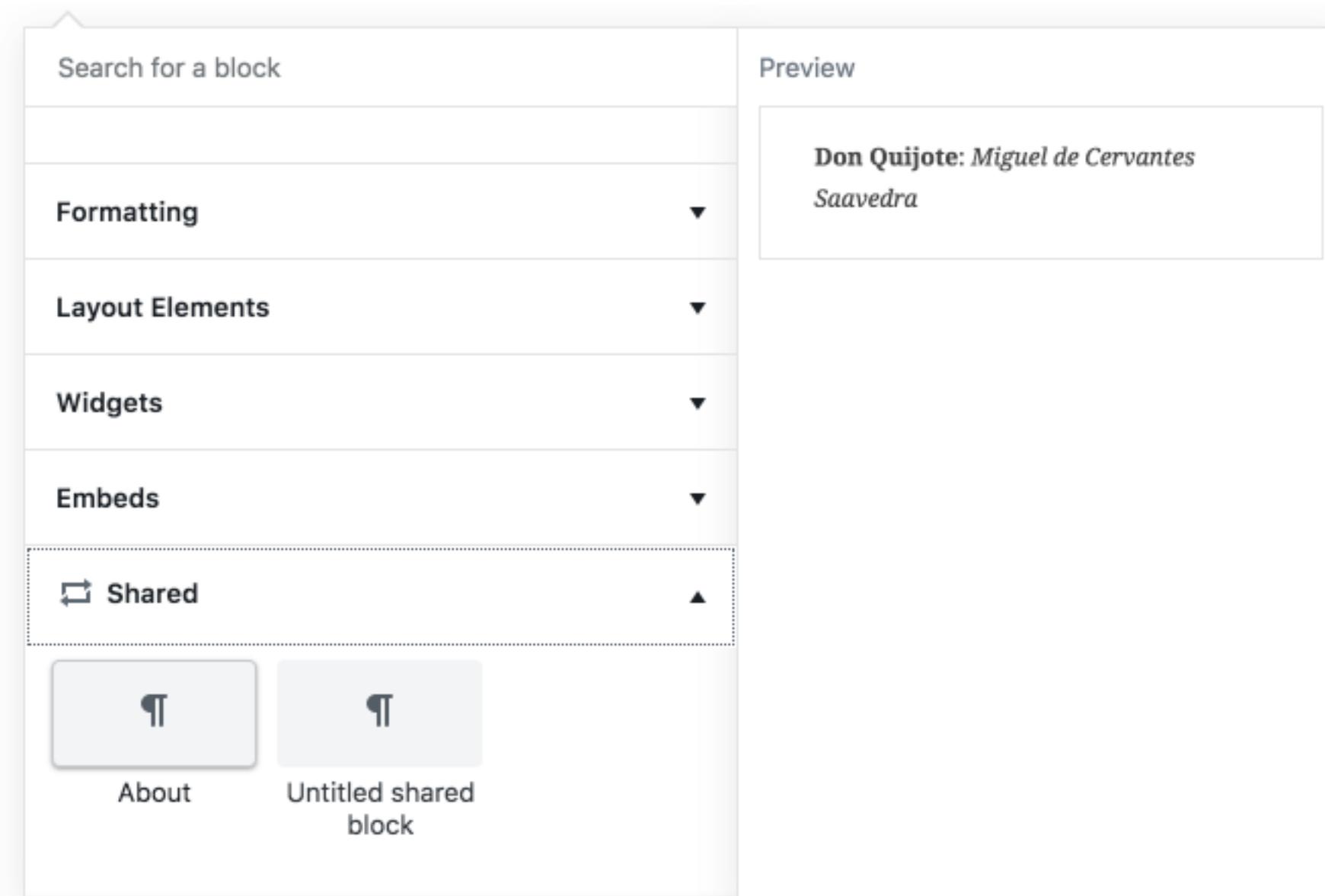
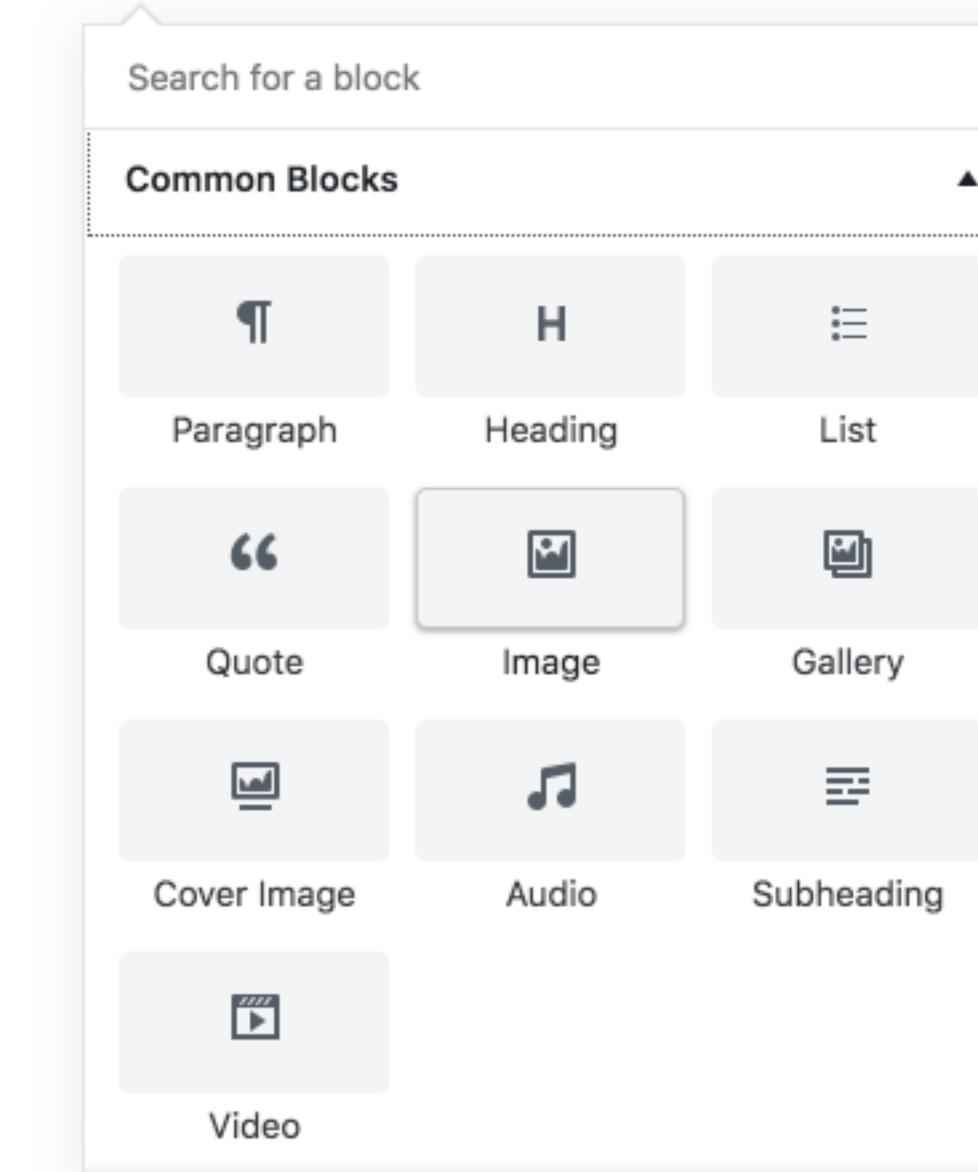
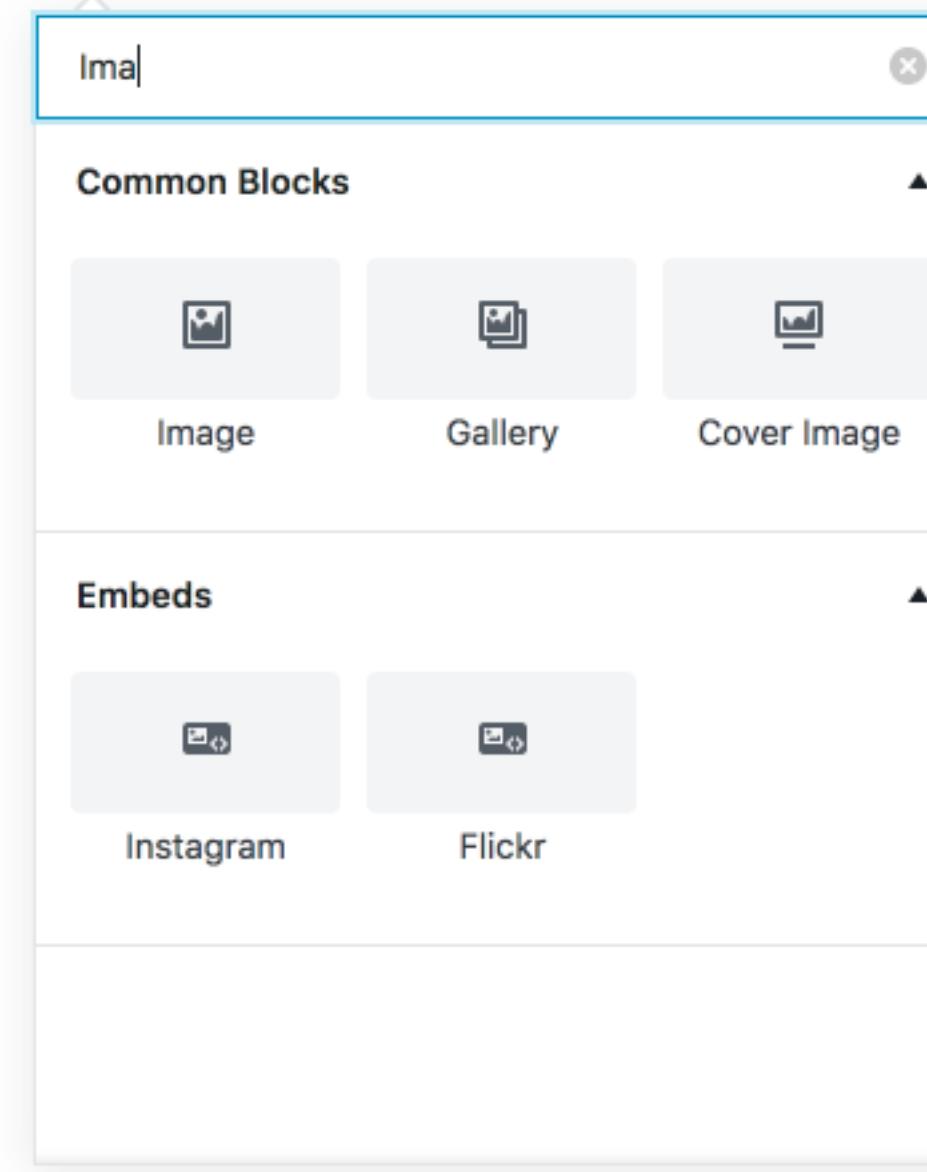
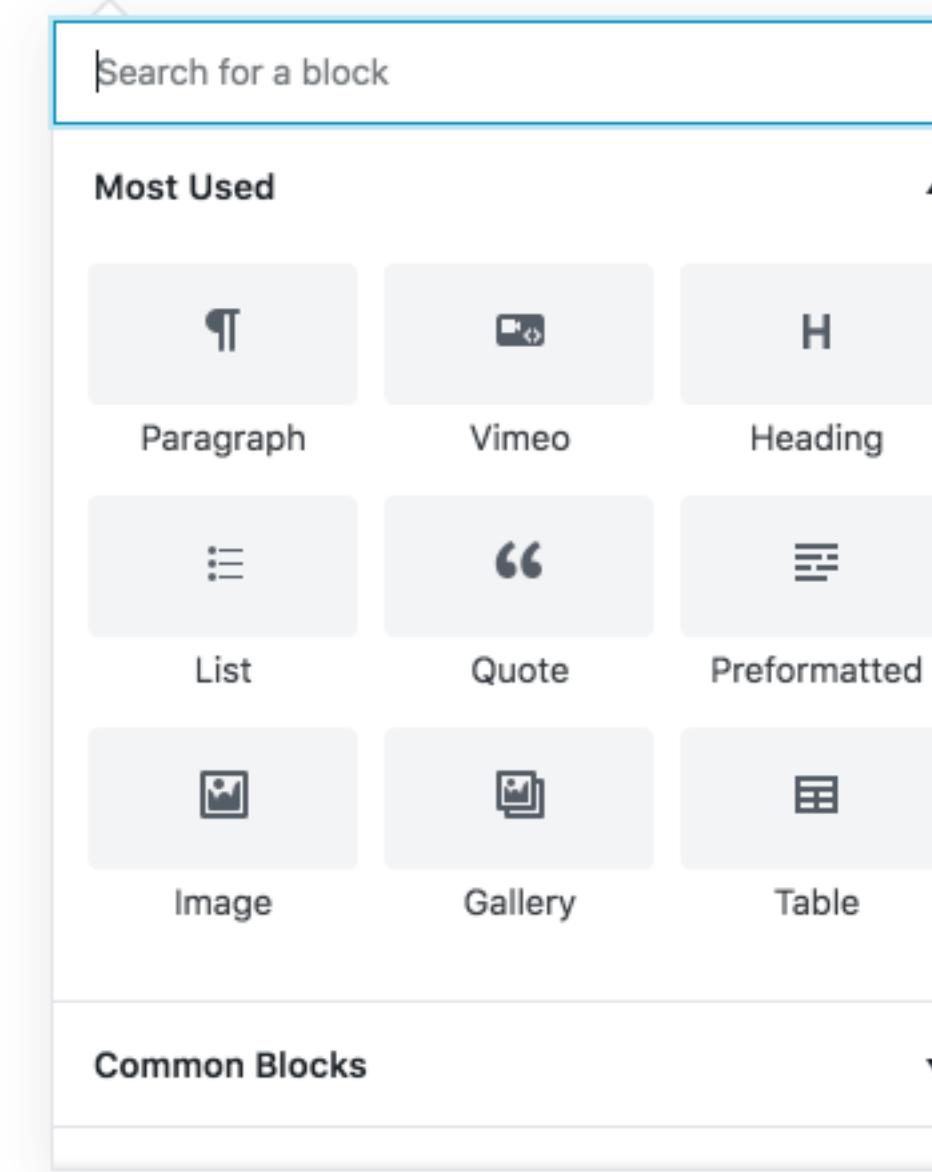
3/5

Block library

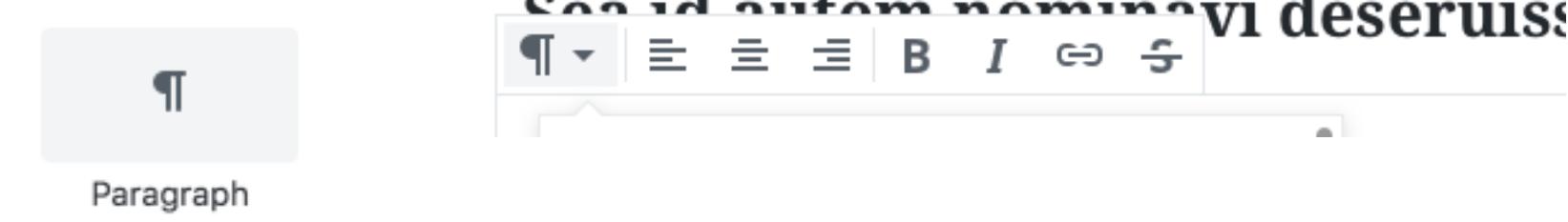






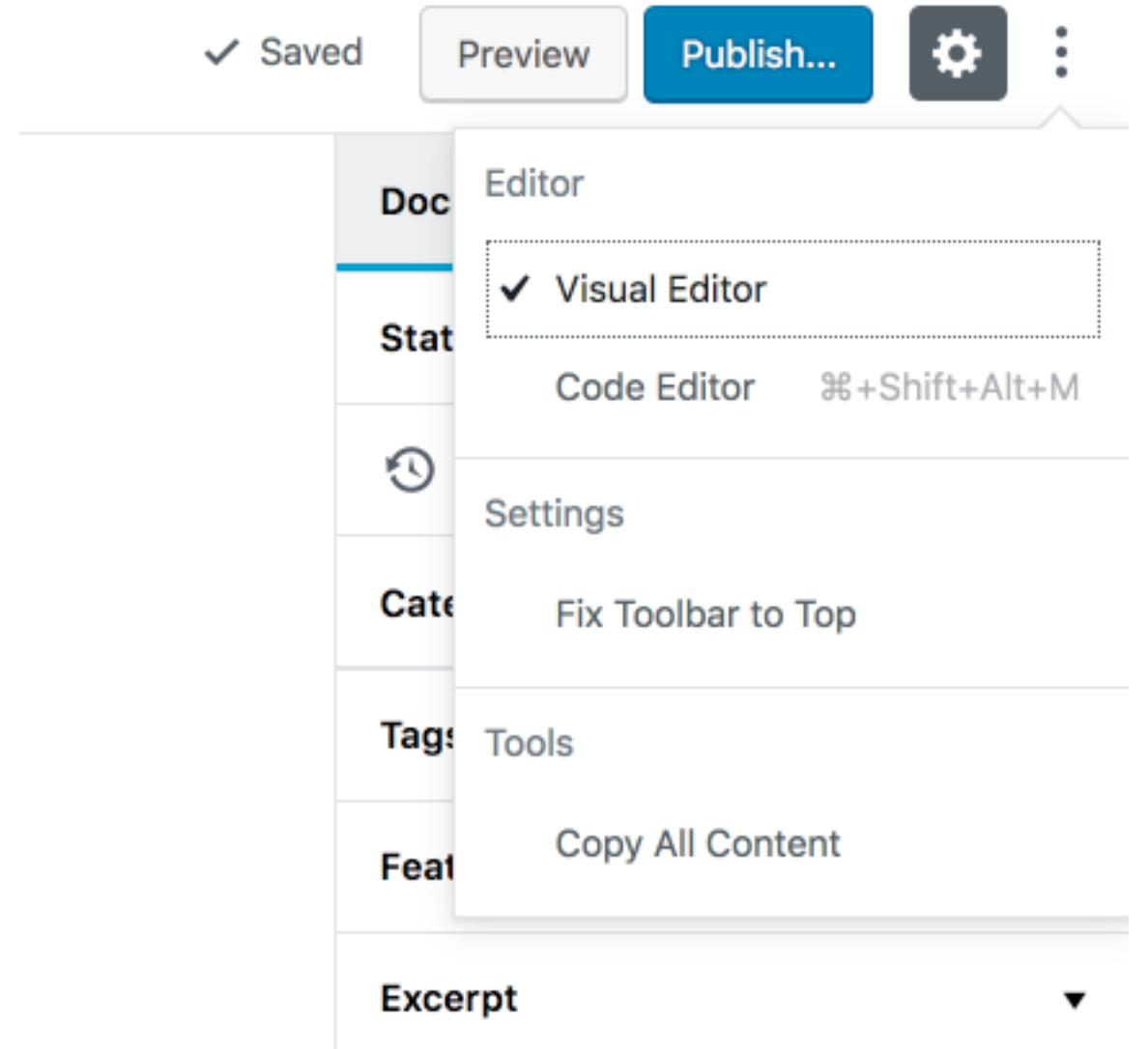


Block chip



3/6

More menu (ellipsis)



✓ Saved Preview Publish... ⚙️ :

Doc

Editor

✓ Visual Editor

Code Editor ⌘+Shift+Alt+M

Stat

Settings

Cate

Fix Toolbar to Top

Tags

Tools

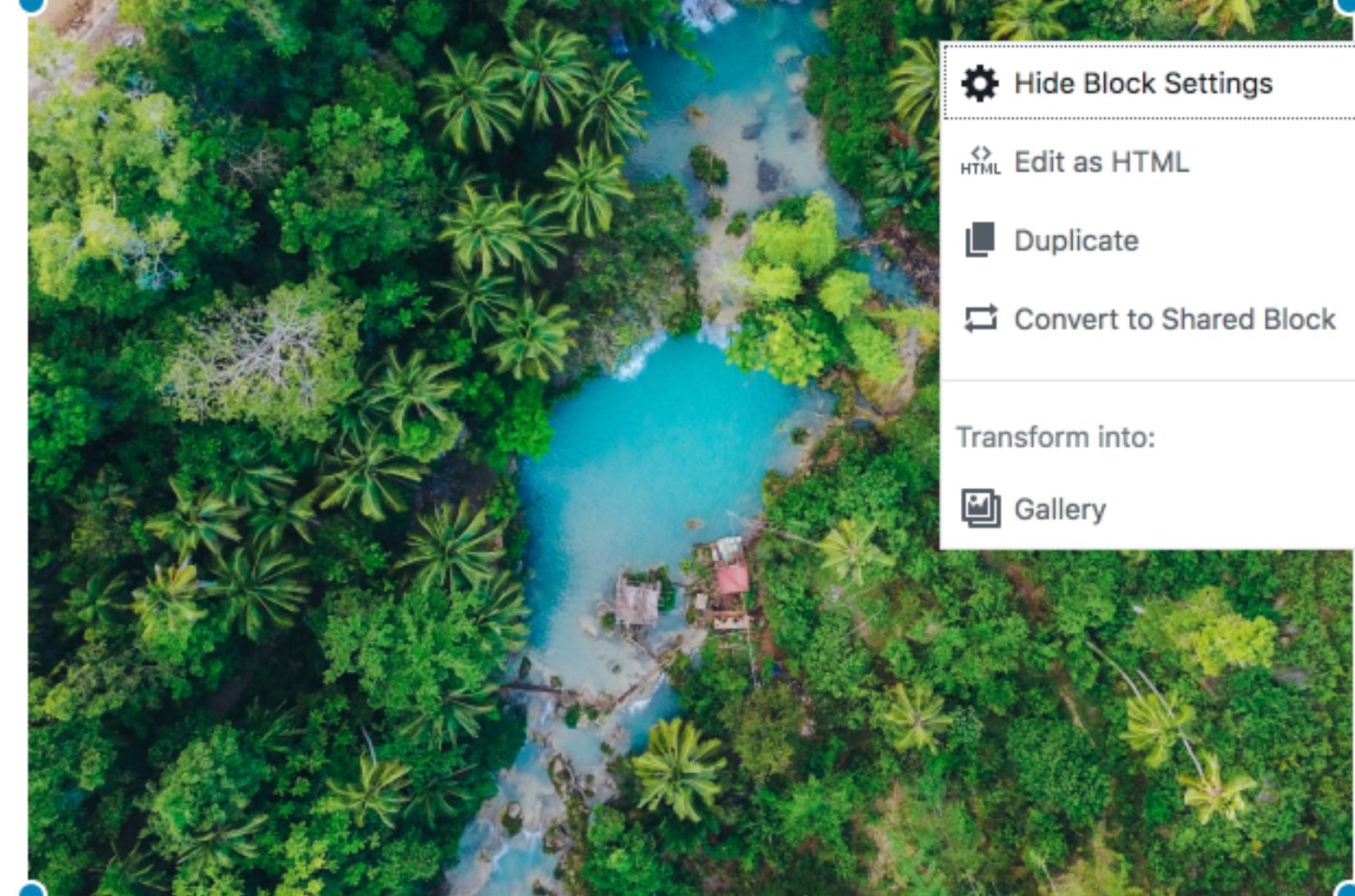
Feat

Copy All Content

Excerpt

Add title

Write caption...



⋮

Hide Block Settings

Edit as HTML

Duplicate

Convert to Shared Block

Transform into:

Gallery



3/7

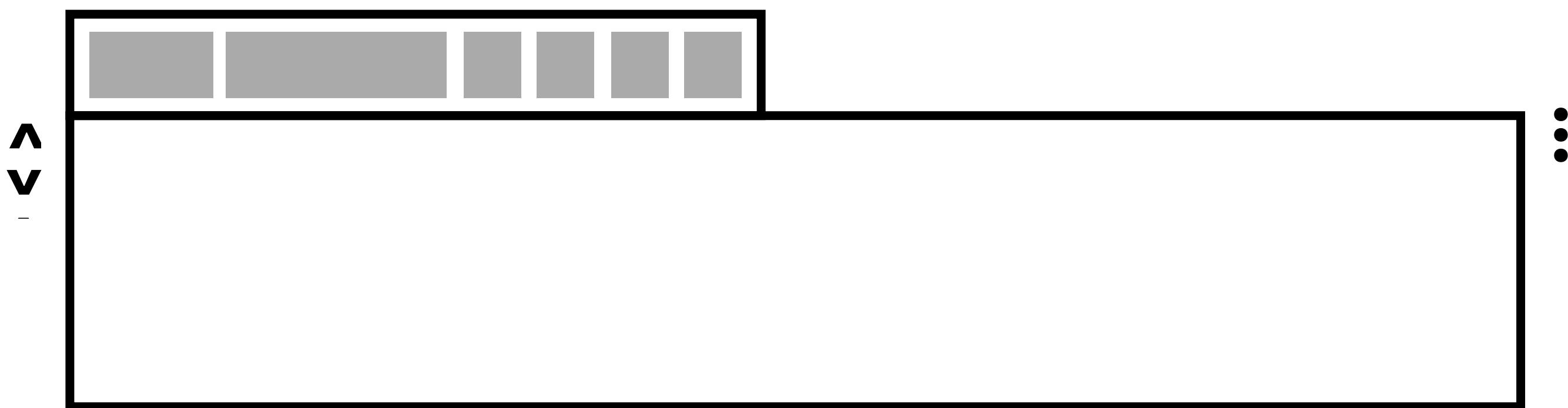
Placeholders



Placeholders can be outlines or have actions

0/4

Anatomy of blocks



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Block Toolbar

The image shows a Microsoft Word document window. A block of text is selected, indicated by a light gray background. Above this block, a toolbar contains several icons: a bold button (B), an italic button (I), a font size dropdown (Aa), a font color dropdown (A), and a link icon (link symbol).

There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it—all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too—but that may be just to make it look as if they had a fire—just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

The block toolbar can be above the block

The screenshot shows a rich text editor interface. At the top, there's a toolbar with icons for bold, italic, underline, and other styling options. Below this is a larger text area containing a paragraph of text. To the right of the text area, a vertical sidebar is open, showing settings like 'Visual Editor' (which is checked), 'Code Editor' (with a keyboard shortcut of $\text{⌘}+\text{Shift}+\text{Alt}+\text{M}$), 'Settings', and 'Tools'. At the very top of the screen, there's a navigation bar with buttons for 'Saved' (with a checkmark), 'Preview', 'Publish...', 'Settings', and a more options menu.

There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it—all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too—but that may be just to make it look as if they had a fire—just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

The block toolbar can be above the block, or it can be fixed to toolbar

The screenshot shows a rich text editor interface with a toolbar at the top. The toolbar includes icons for bold, italic, underline, and link, along with a block toolbar containing icons for text alignment, font size, and other styling options. Below the toolbar is a text block containing a passage from Alice's Adventures in Wonderland. To the right of the text block is a dropdown menu with sections for 'Editor' (Visual Editor, Code Editor), 'Text' (Settings, Fix Toolbar to Top), and 'Tools'. At the bottom right of the text block is a large, bold title 'Alice....'. The right side of the interface contains a sidebar with navigation links like 'Home', 'About', 'Contact', and 'Logout'.

✓ Saved Preview Publish...

Editor

✓ Visual Editor

Code Editor ⌘+Shift+Alt+M

Settings

✓ Fix Toolbar to Top

Text

Tools

Alice....

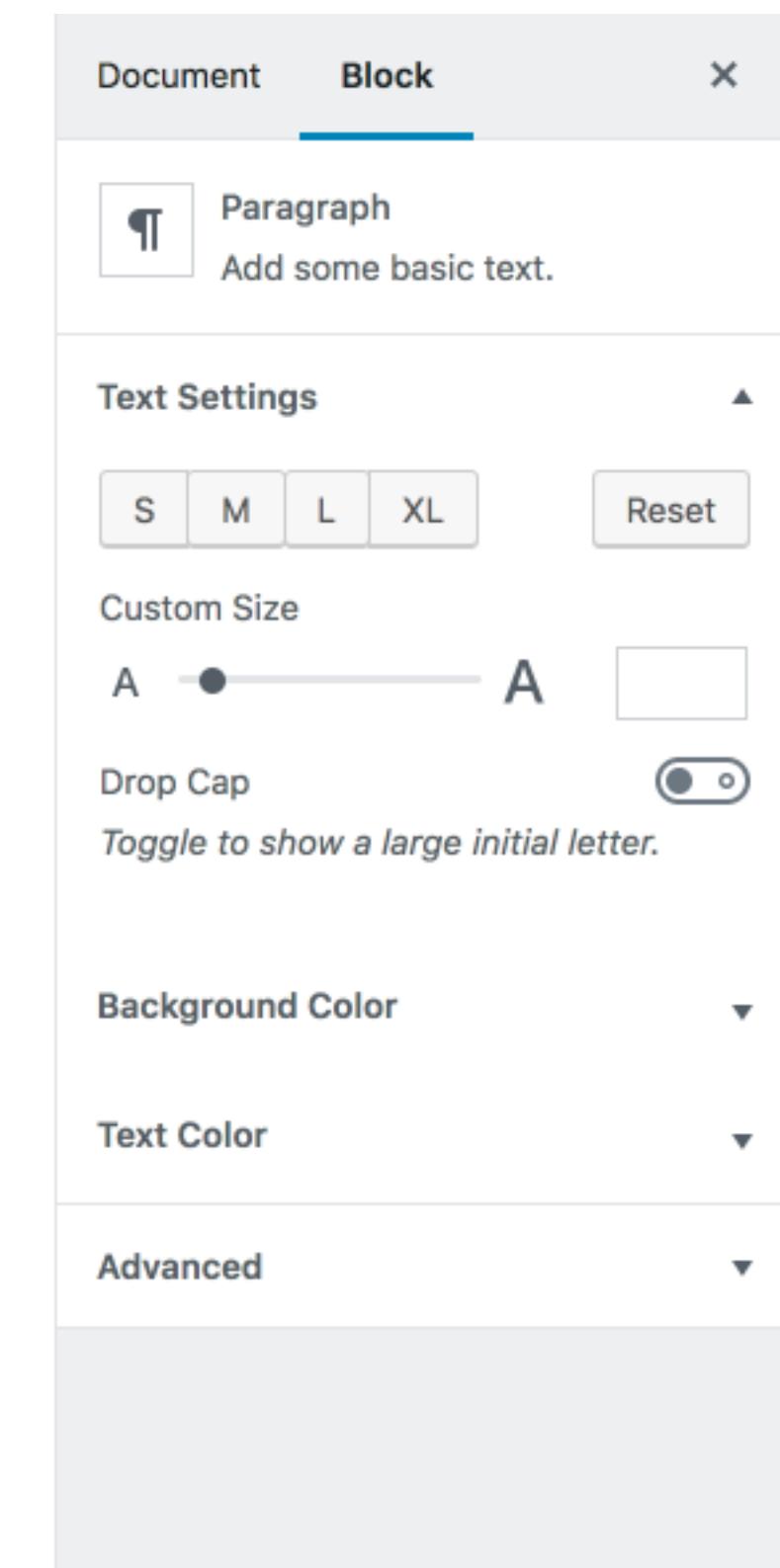
There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it—all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too—but that may be just to make it look as if they had a fire—just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

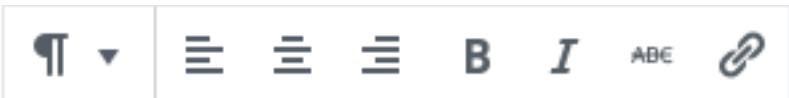
The block toolbar can be above the block, or it can be fixed to toolbar

4/2

Settings sidebar

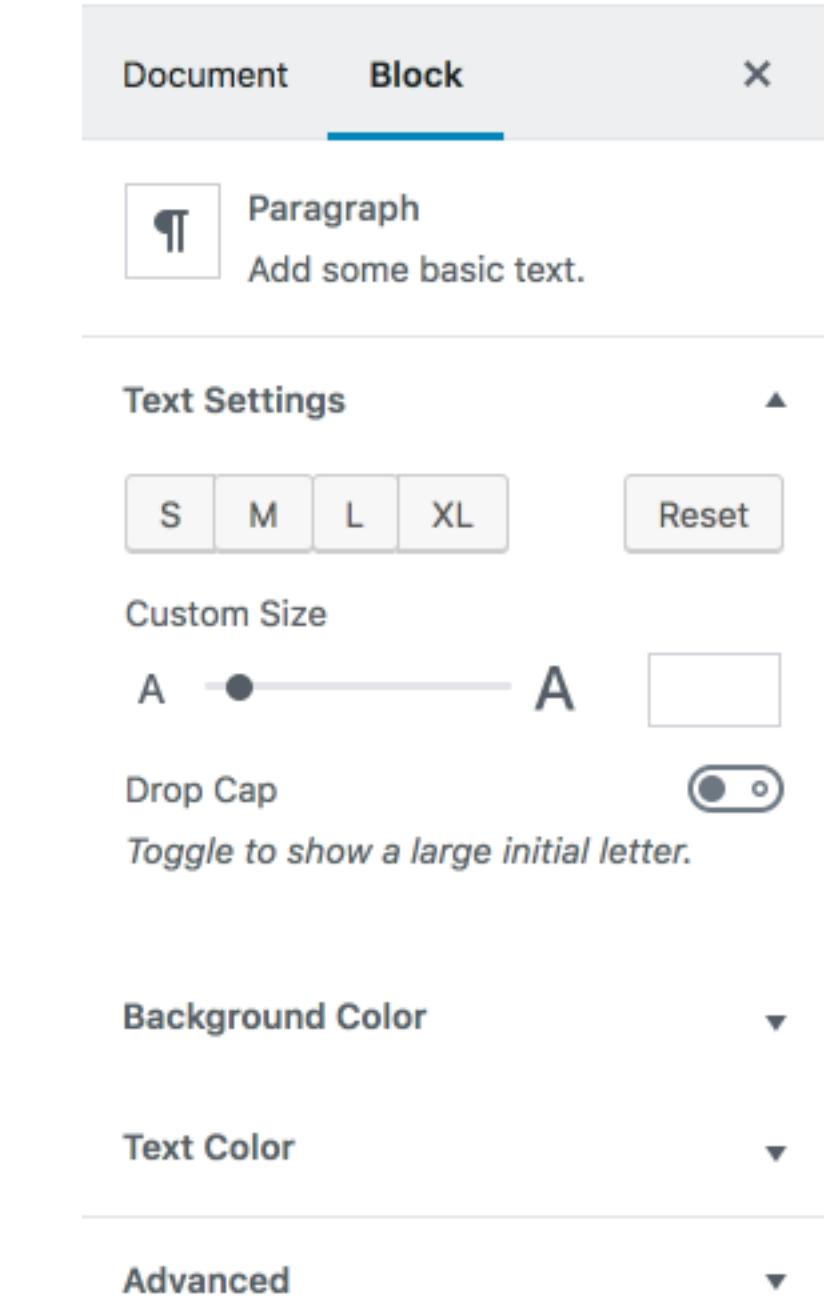
There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it—all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too—but that may be just to make it look as if they had a fire—just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?





There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it--all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too--but that may be just to make it look as if they had a fire--just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

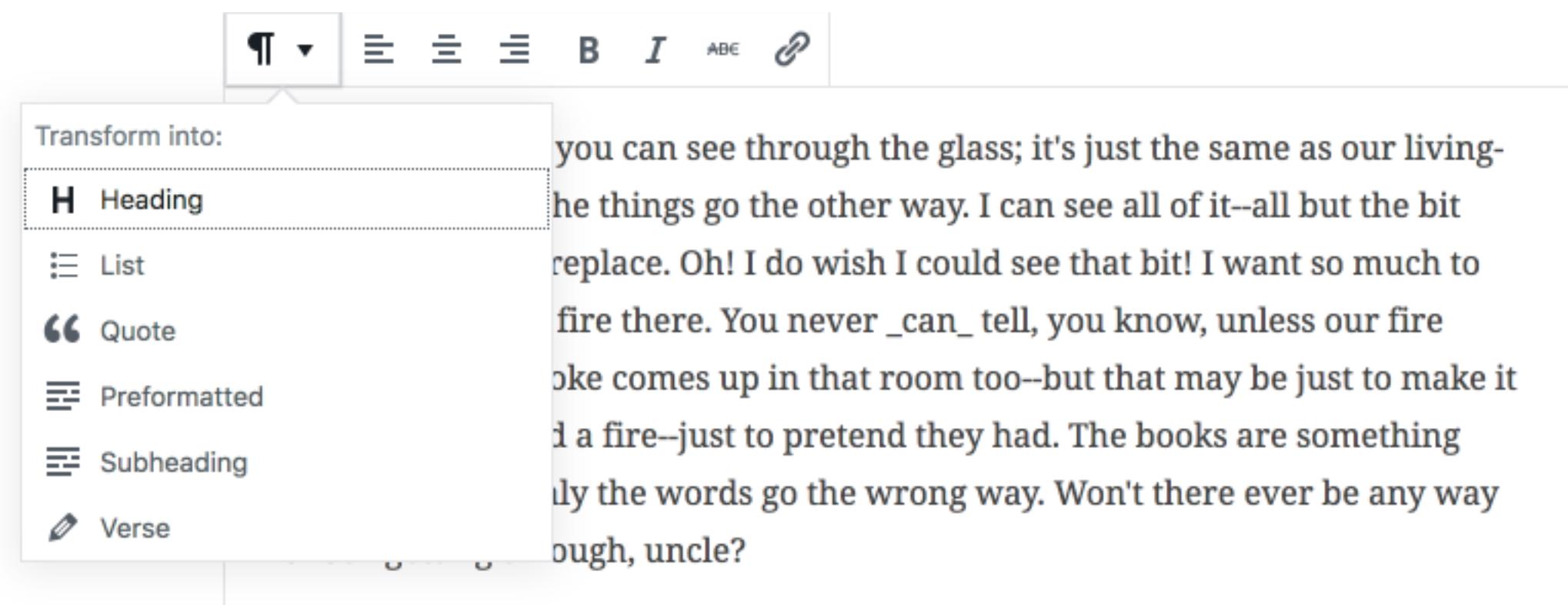
Primary actions: things that a block can't function without



Secondary actions: anything else

4/3

Block transforming



Drop down transform: turns a block into another block

T **B** **I** **A&E** **🔗**

Transform into:

- H** Heading
- List
- “ Quote
- Preformatted
- Subheading
- Verse

you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it--all but the bit just behind the fireplace. Oh! I do wish I could see that know if they've a fire there. You never _can_ tell, you know, unless our fire smokes. Then smoke comes up in that room too--but they look as if they had a fire--just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

T **B** **I** **A&E** **🔗**

There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see a just behind the fireplace. Oh! I do wish I could see that know if they've a fire there. You never _can_ tell, you know, unless our fire smokes. Then smoke comes up in that room too--but they look as if they had a fire--just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

⋮

⋮ Hide Block Settings

HTML Edit as HTML

Duplicate

Convert to Shared Block

Transform into:

- H** Heading
- List
- “ Quote
- Preformatted
- Subheading
- Verse

Drop down transform: turns a block into another block



~~Sed id autem nominavi deseruisse~~

T

Block transforms

H List “
Heading List Quote

≡ ≡
Preformatted Subheading Verse

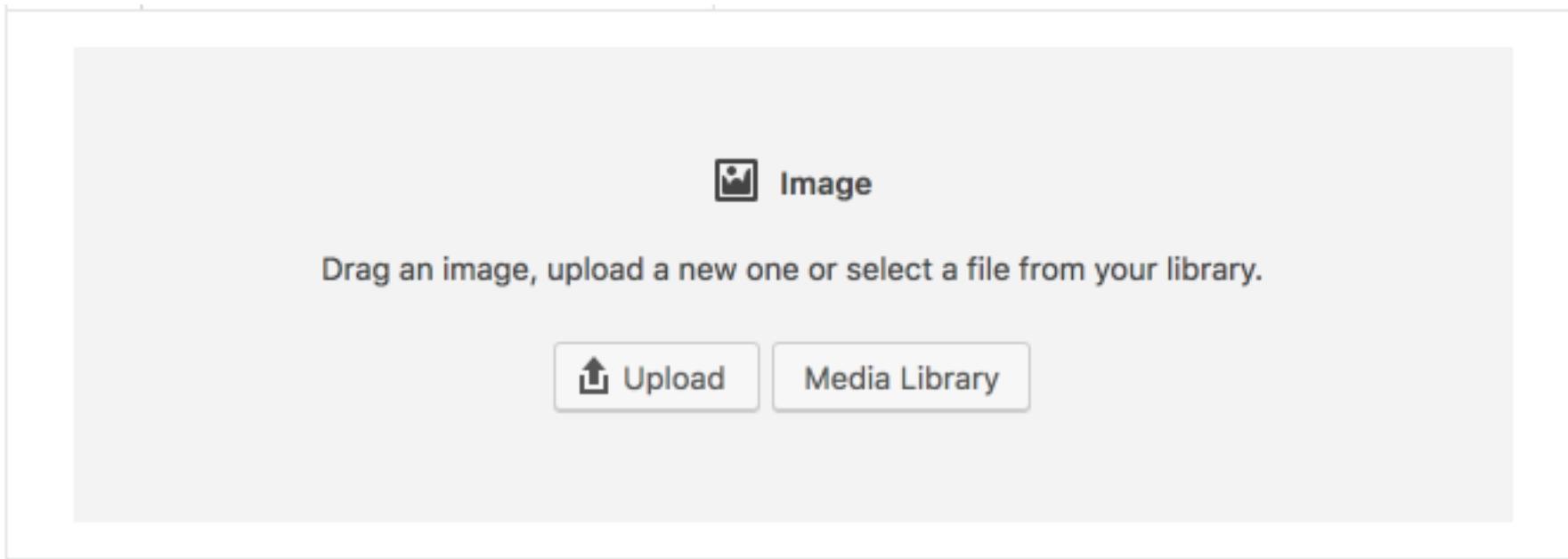
eu, ad nec copiosae
sea, ut vis omnium
interpretaris at, sea et
suis partem ea, ius sonet
Eum cu unum choro

is gubergren conceptam, ex
sed wis̄i nostrum occurreret. Esse veit omittantur ius te, alii dissentias ei vis.
At sed unum veritus fabellas. Te volutpat appellantur duo. Ad natum fuisse
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

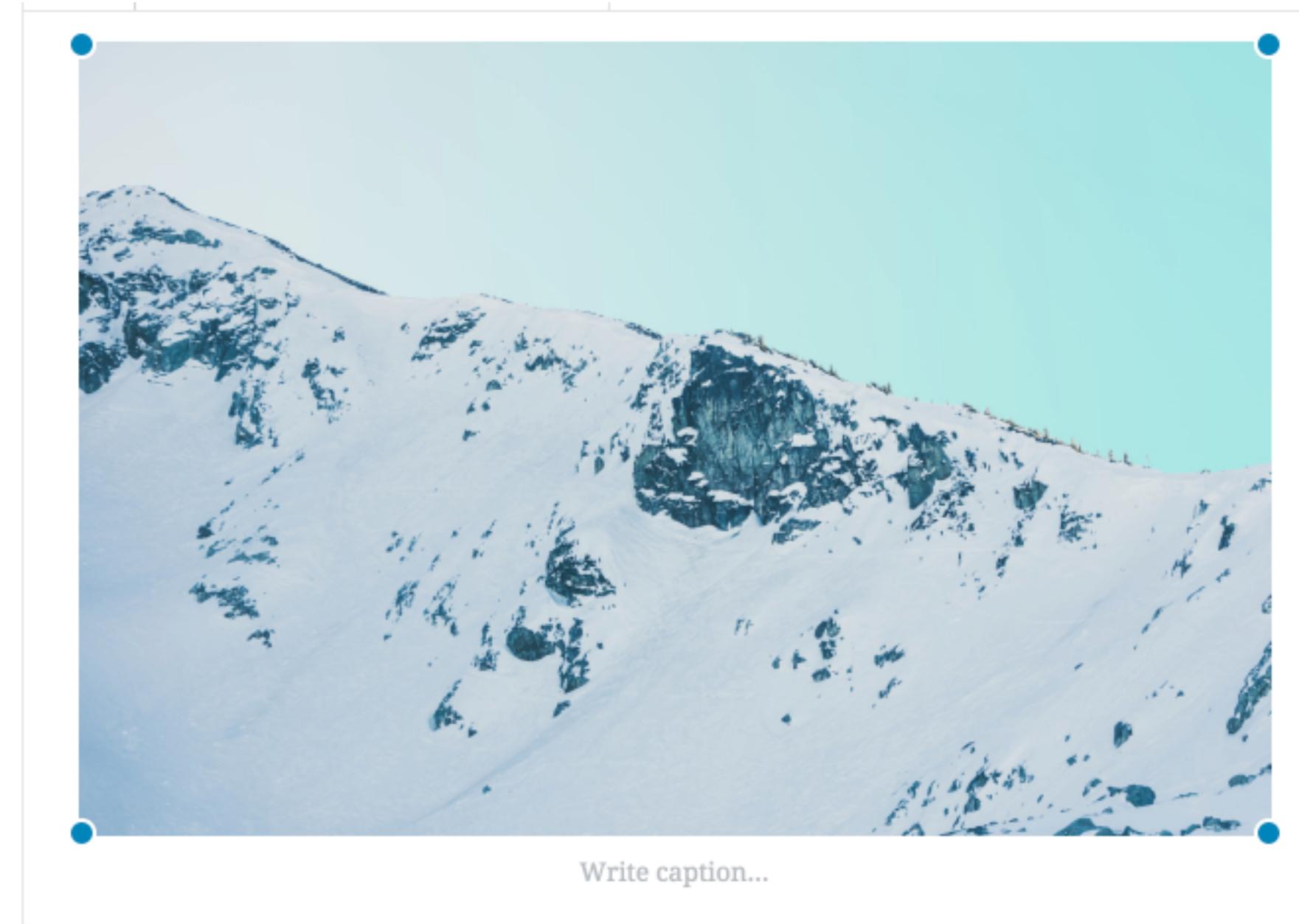
Potential design change to unify transforms

4/4

Block States



Unselected: shows when select block and no content



Selected: after you add content or select a block you get this state



Unselected but contains content: not a placeholder



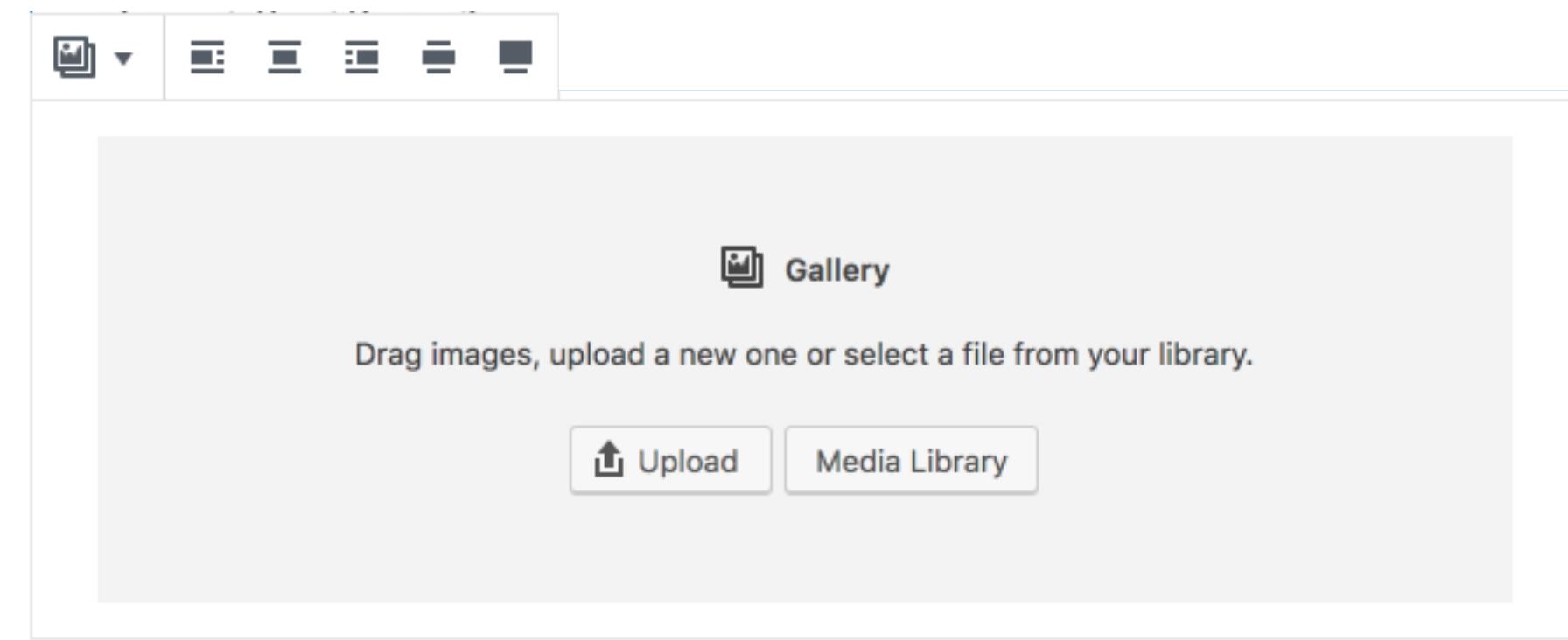
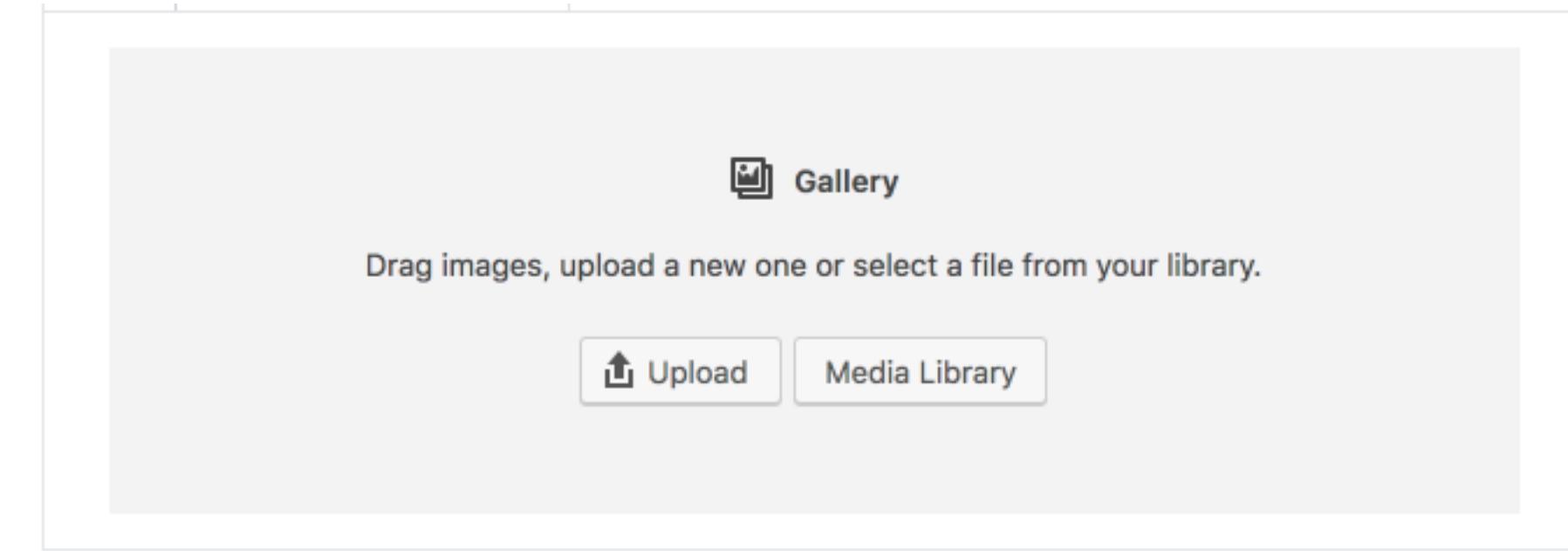
Hover state

0/5

Block examples

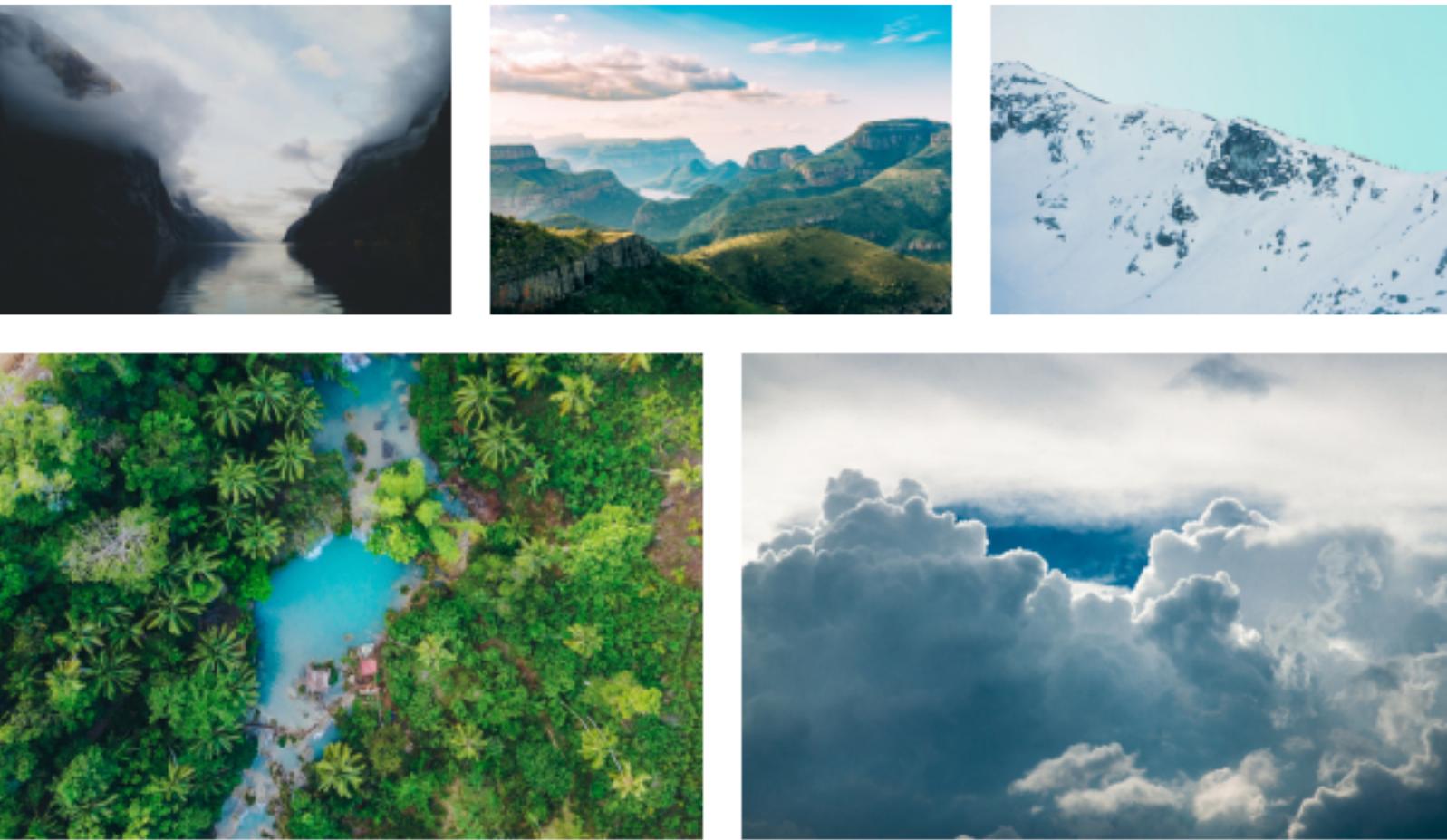
5/1

Example: Gallery block

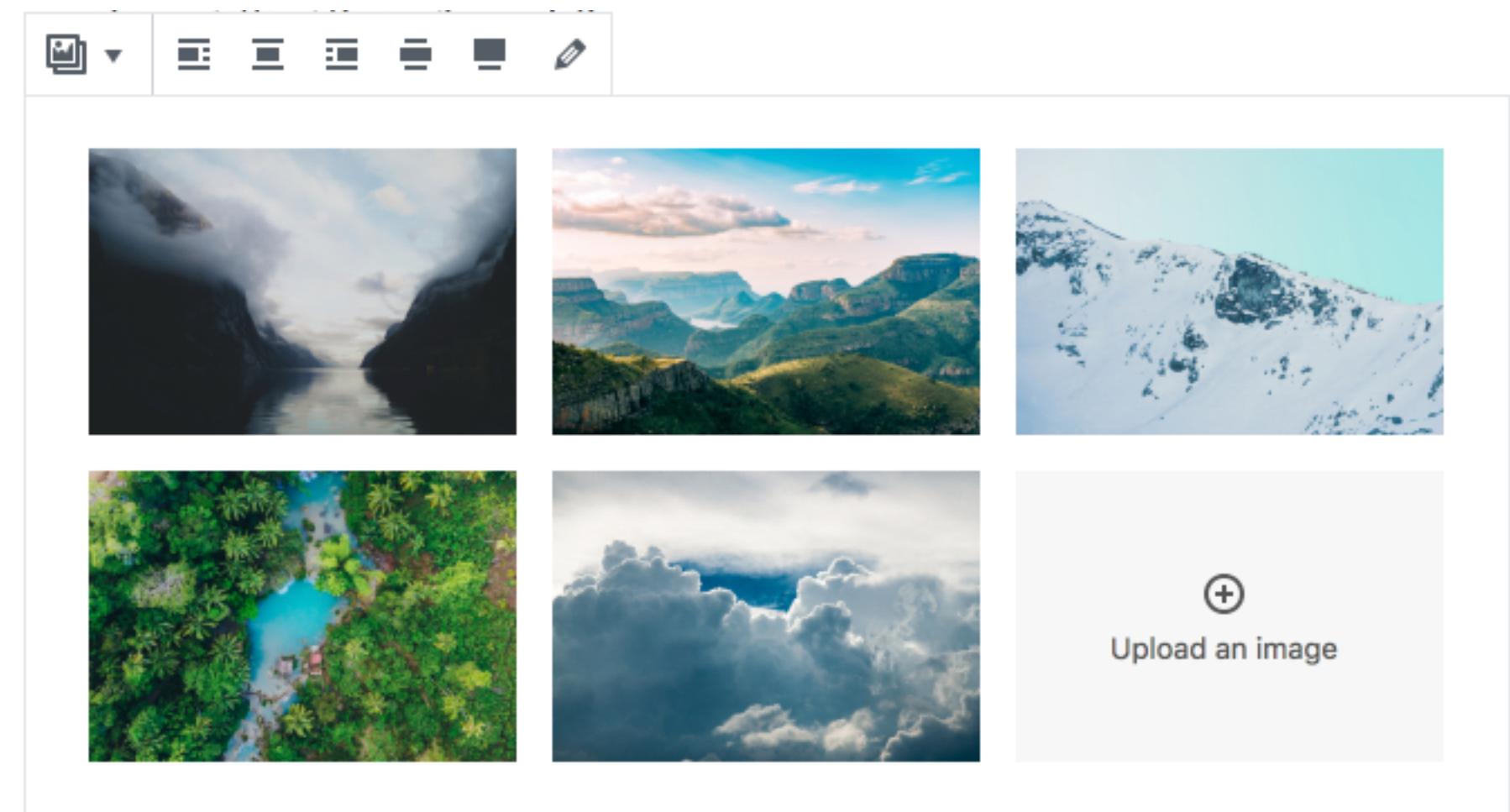


Placeholder states

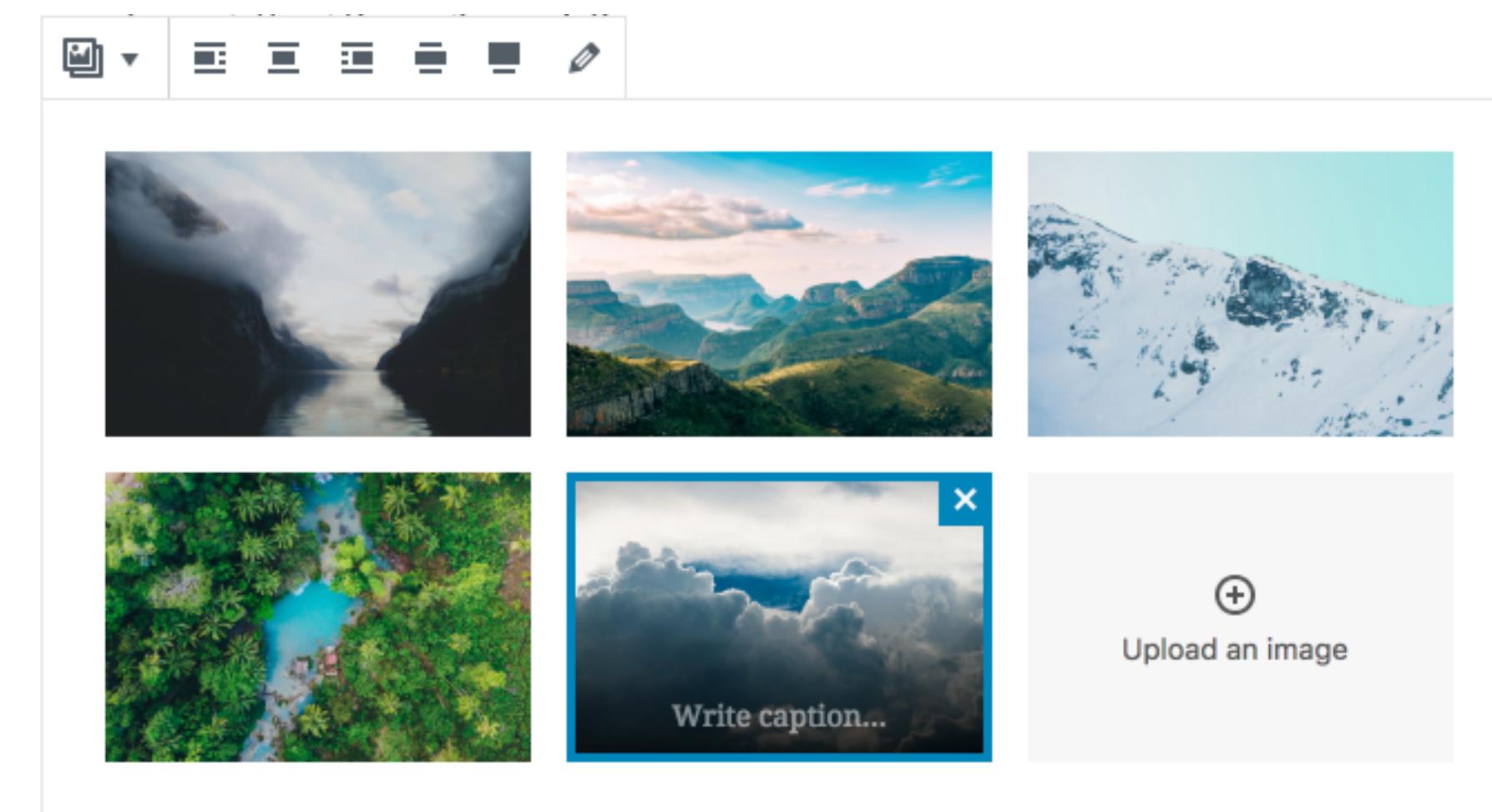
“



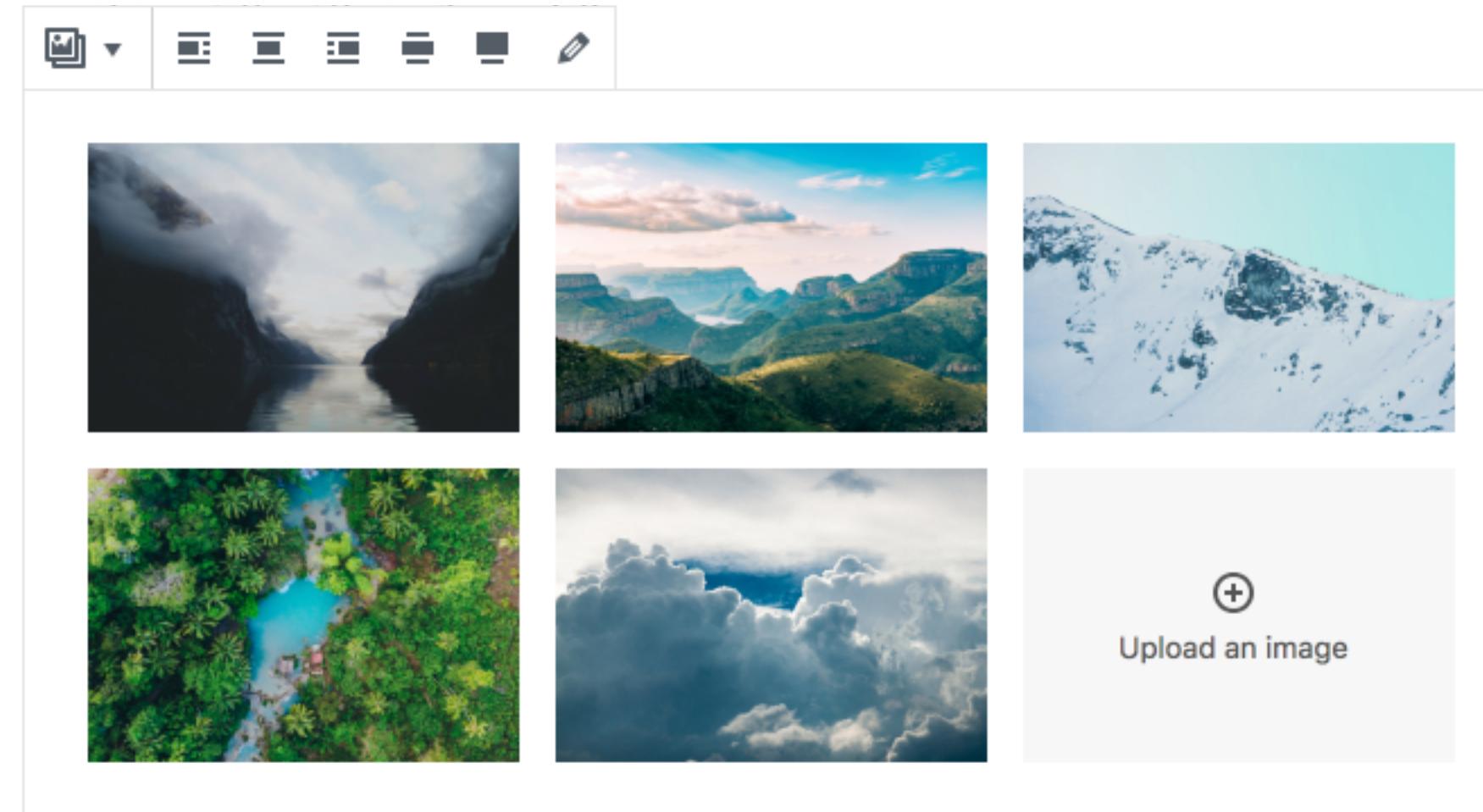
Unselected filled out state



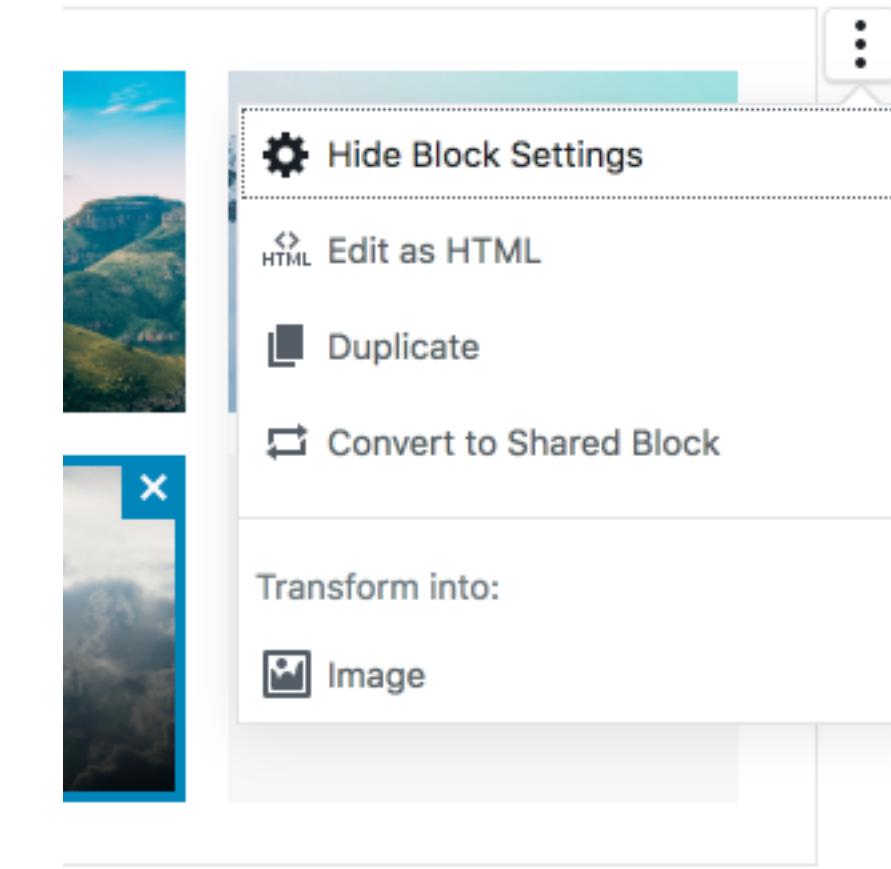
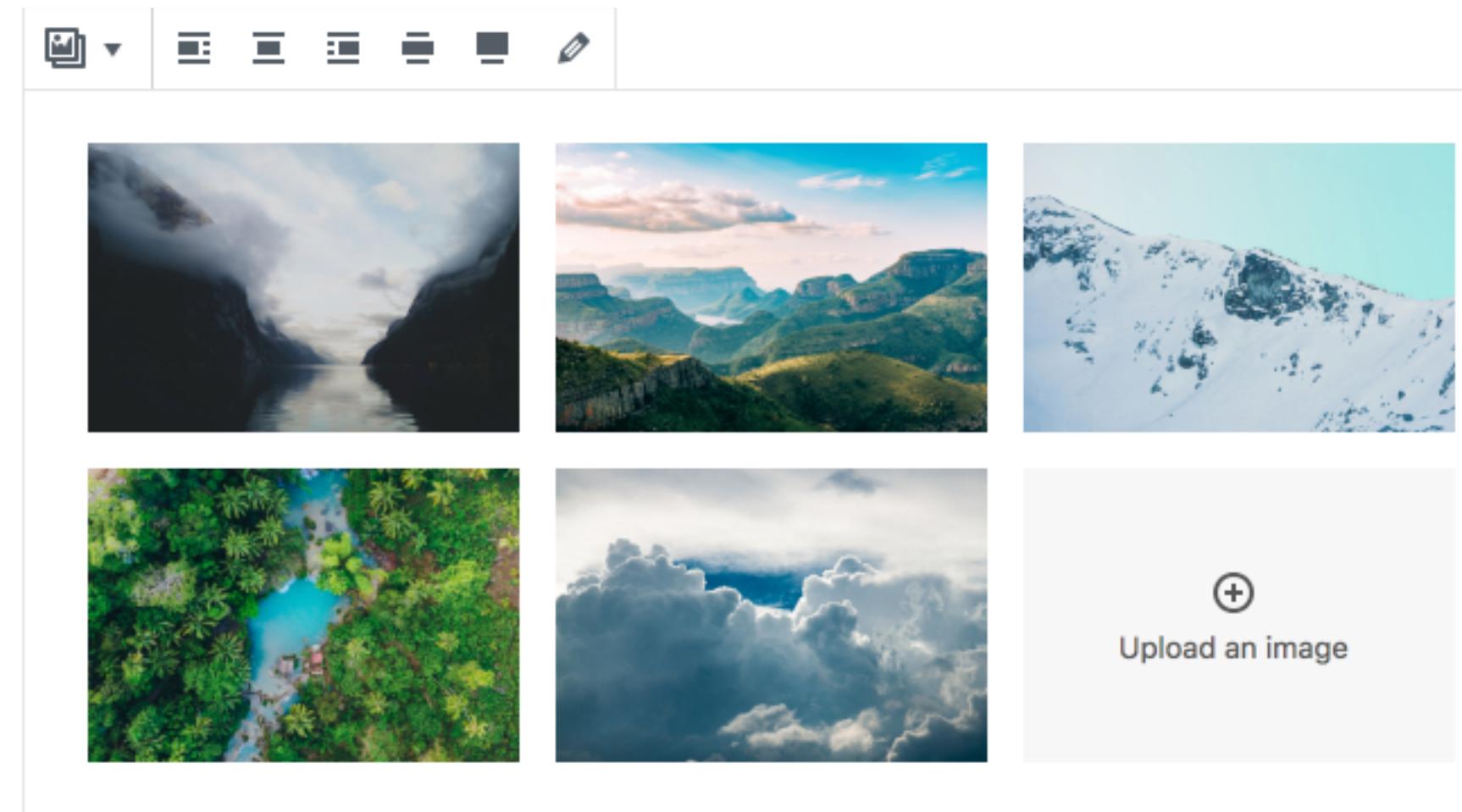
Selected state when filled out



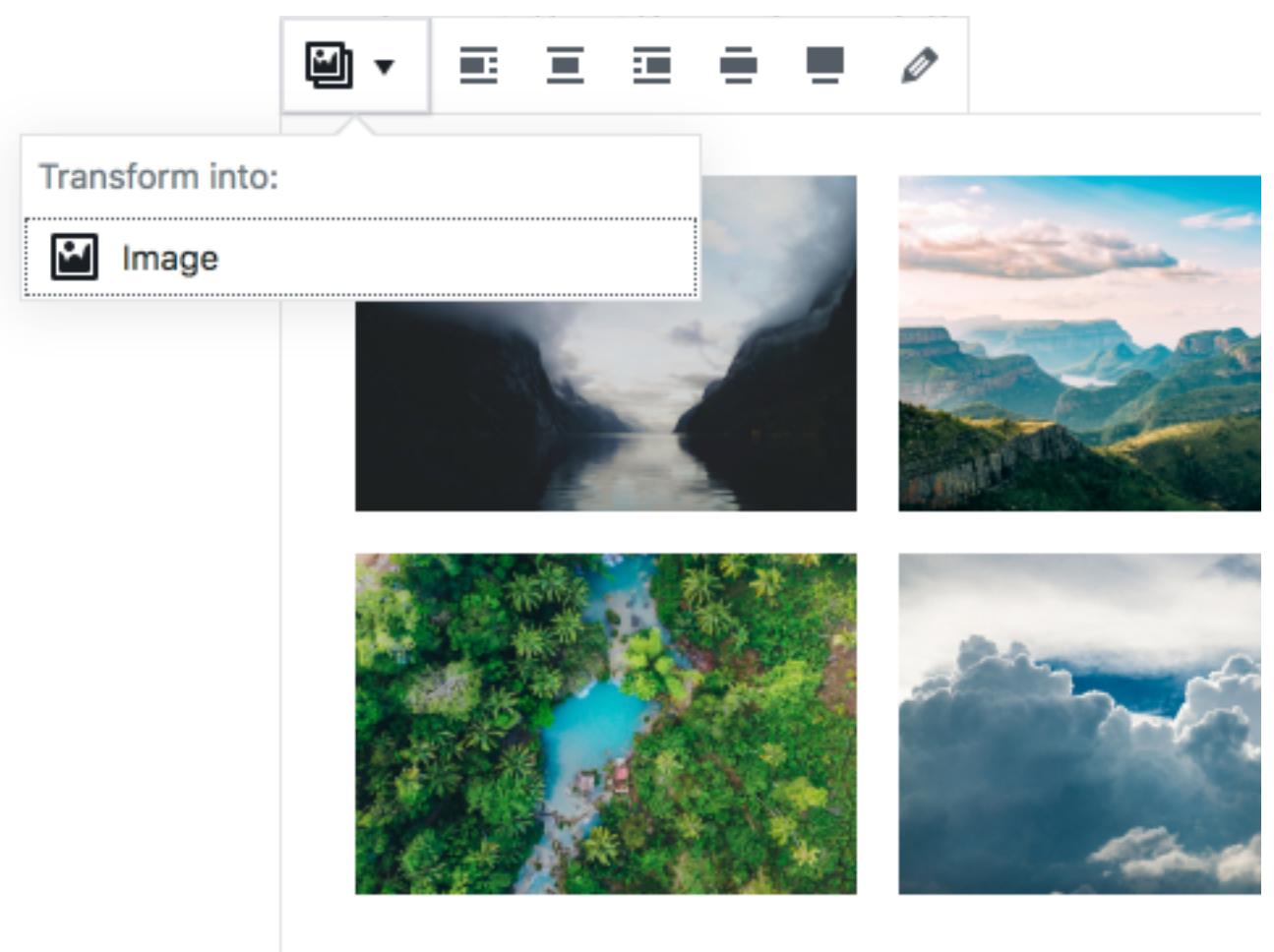
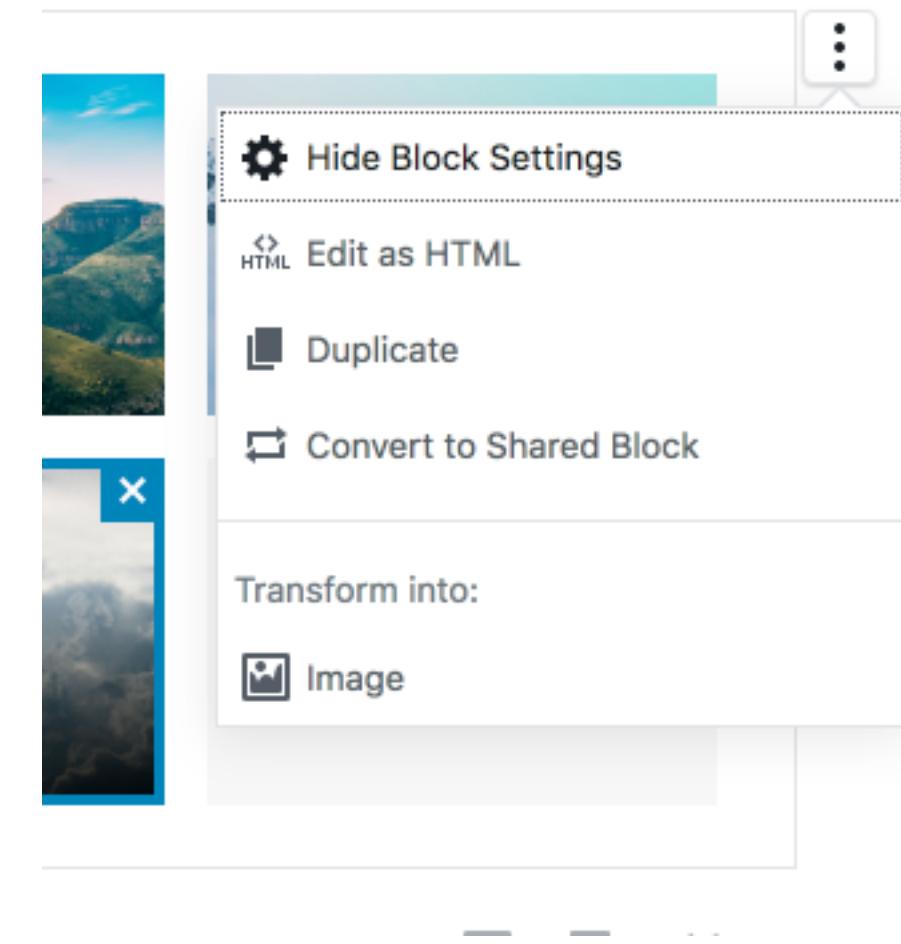
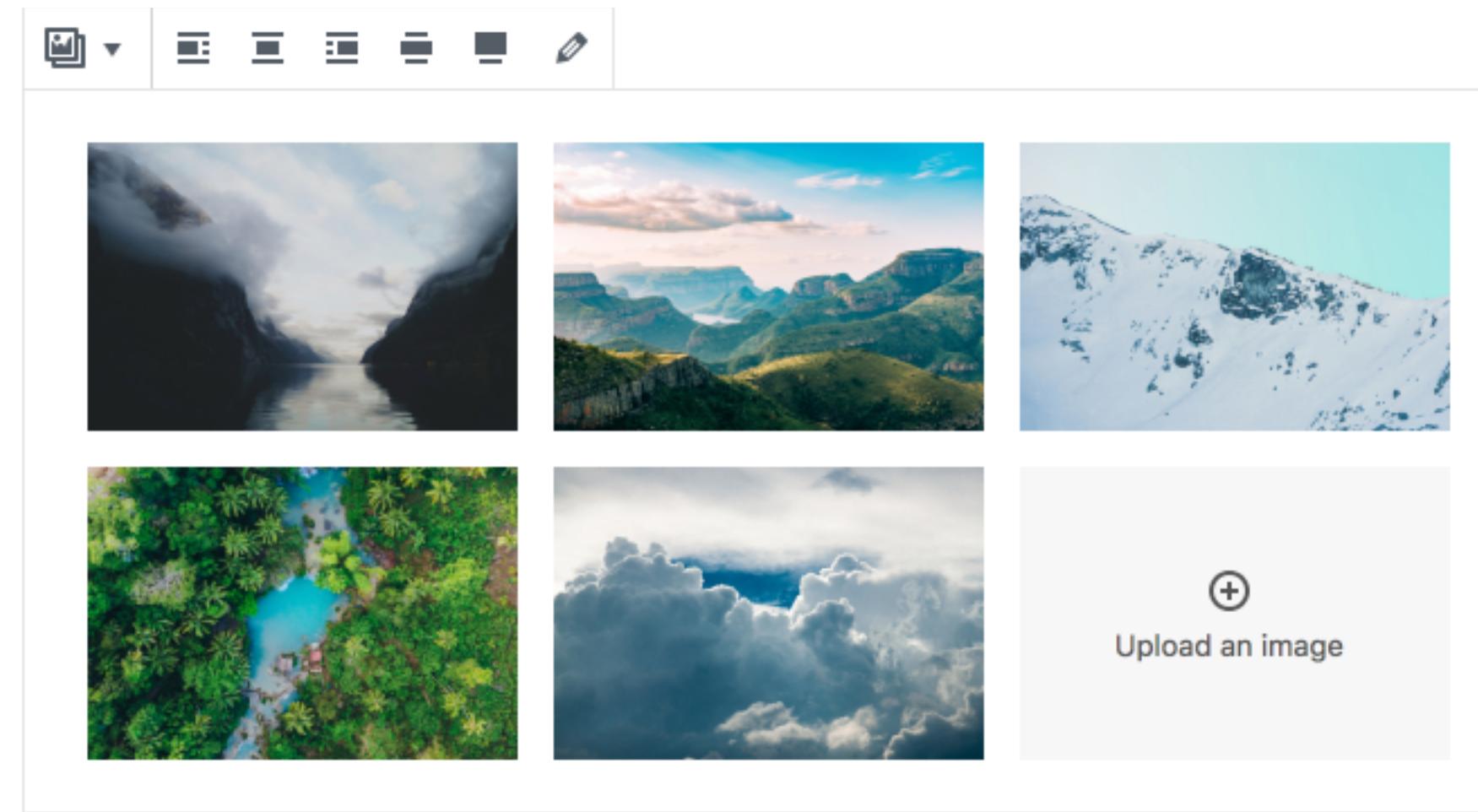
Selected state on individual image when filled out



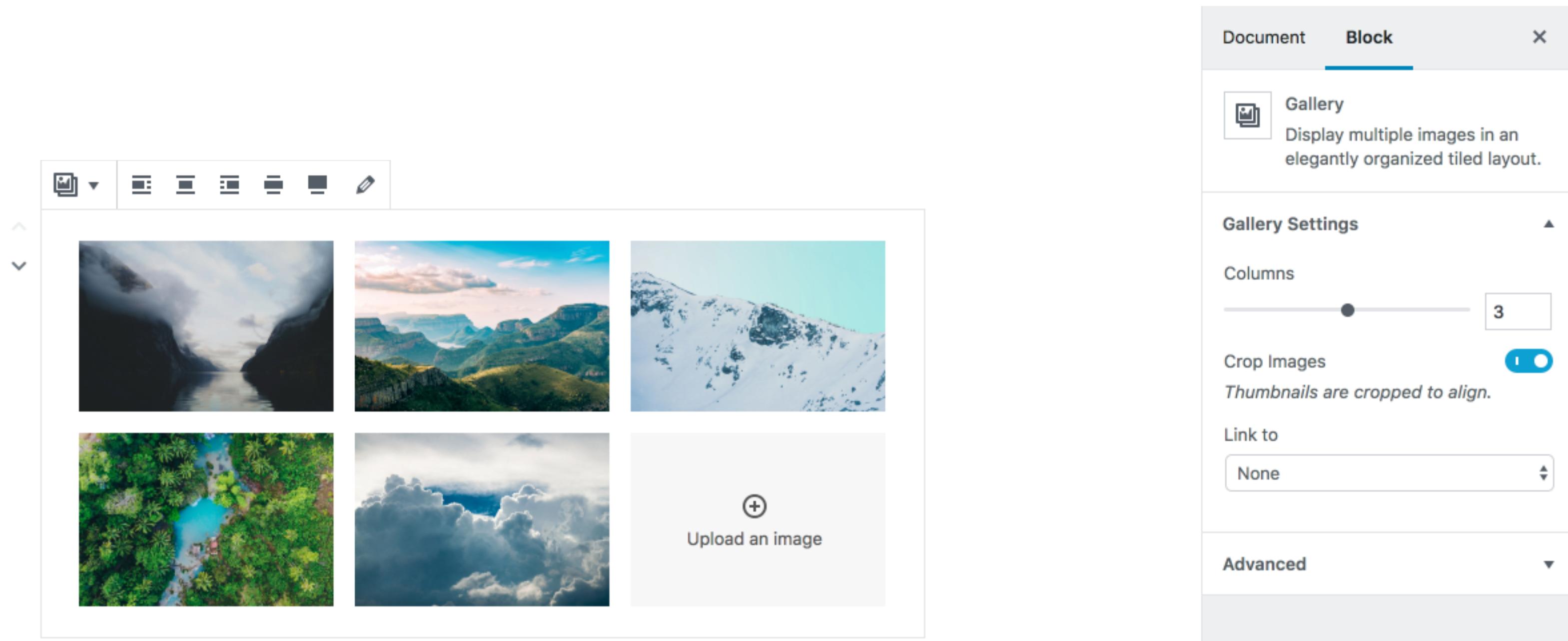
Toolbar: has all the ‘must have’ actions like editing and alignment



Ellipsis allows for further actions like advanced settings, converting



For gallery it can only be converted to separate images



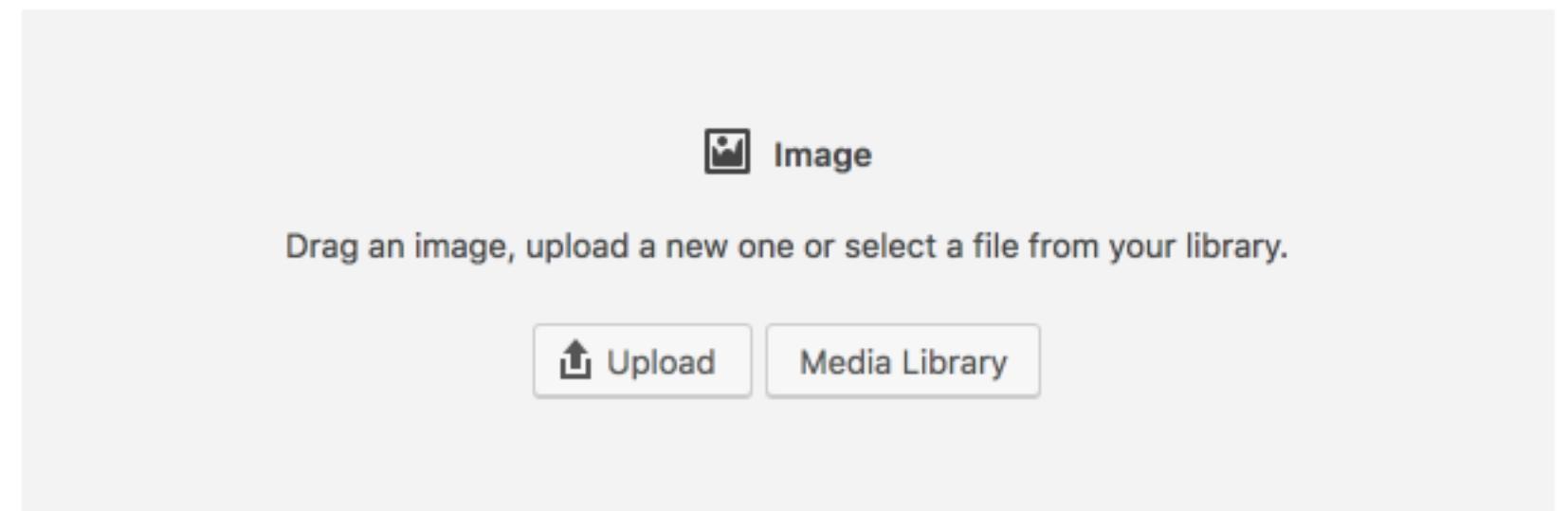
Settings sidebar shows ‘nice to have’ extras

0/6

Hints



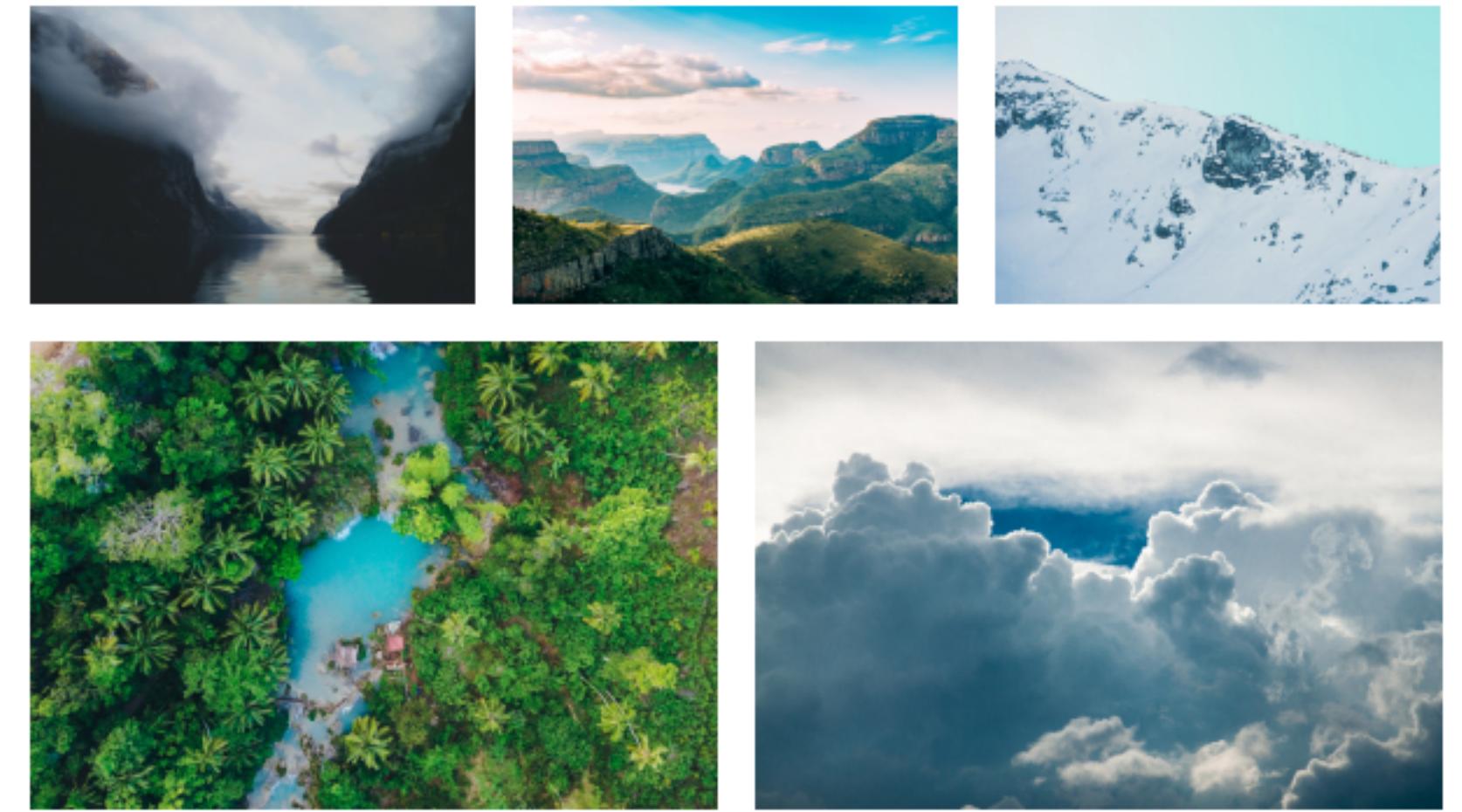
Keep icons simple and signify the block



Add text...

| Write quote...

Have good placeholder defaults, think of a page made up



When unselected show a preview of block



Cover Image

Add a full-width image, and layer text over it -- great for headers.



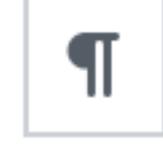
Heading

Insert a headline above your post or page content.



Quote

Maybe someone else said it better
-- add some quoted text.



Paragraph

Add some basic text.

Every block at a minimum should have a description of what it is

0/7

Thoughts

7/1

Blocks should adapt

Think what your block feels/looks like on all devices

7/2

Where should blocks live?

... it depends but likely plugins

7/3

Direct manipulation

Direct manipulation is an interaction style in which the objects of interest in the UI are visible and can be acted upon via physical, reversible, incremental actions that receive immediate feedback.

www.nngroup.com/articles/direct-manipulation/

Alice....

The screenshot shows a WYSIWYG editor interface with a "Block" tab selected. A "Gallery" block is active, displaying five images in a 2x3 grid. The top row contains a fjord, mountains, and a snowy peak. The bottom row contains a tropical forest and clouds, with a placeholder for another image. The sidebar on the right provides settings for the gallery: "Columns" set to 3, "Crop Images" turned on, and "Link to" set to "None".

There's the room you can see through the glass; it's just the same as our living-room here, only the things go the other way. I can see all of it—all but the bit just behind the fireplace. Oh! I do wish I could see that bit! I want so much to know if they've a fire there. You never can tell, you know, unless our fire smokes. Then smoke comes up in that room too—but that may be just to make it look as if they had a fire—just to pretend they had. The books are something like our books, only the words go the wrong way. Won't there ever be any way of our getting through, uncle?

Everything with blocks is direct manipulation and should be

7/4

Block styles

Sea id autem nominavi deseruisse

“ “ B I ↗ ↘

Preview

In quoting others, we cite ourselves.
Julio Cortázar

y lle
han Default
que Pullquote
Background
Written
Eu inter Centered
sed wisi nostrum occurreret. Esse veit omittantur ius te, am dissennuas ei vis.
At sed unum veritus fabellas. Te volutpat appellantur duo. Ad natum fuisset
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

Sea id autem nominavi deseruisse

Transform Block

Block variants:

- H1 Heading 1
- H2 Heading 2
- H3 Heading 3
- H4 Heading 4
- H5 Heading 5
- H6 Heading 6

Te volutpat

Other blocks:

- Paragraph
- Quote

loiosae
nnium
s at, sea et
n ea, ius sonet
m choro

Eu integre accusata
sed wisi nostrum o
At sed unum veritu
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

Sea id autem nominavi deseruisse

Transform Block

Block variants:

- The Quick Heading 1
- The Quick Br Heading 2
- The Quick Brow Heading 3
- The Quick Heading 4
- The Quick Br Heading 5
- The Quick Brow Heading 6

Te volutpat

Other blocks:

- Paragraph
- List

isae
um
; sea et
i, ius sonet
choro

Eu integre accusata
sed wisi nostrum o
At sed unum veritu
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

Sea id autem nominavi deseruisse

¶ “ “ B I ↗ ↘

Block styles

- The quick

Quote 1 Quote 2 Quote 3

Quote 4 Quote 5 Quote 6

Block transforms

u, ad nec copiosae
ea, ut vis omnium
interpretaris at, sea et
suas partem ea, ius sonet
Eum cu unum choro

s gubergren conceptam, ex
ir ius te, alii dissentias ei vis.
lantur duo. Ad natum fuisset
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

Sea id autem nominavi deseruisse

¶ “ “ B I ↗ ↘

Block styles

- The quick

Quote 1 Quote 2 Quote 3

Quote 4 Quote 5 Quote 6

Block transforms

The quick brown

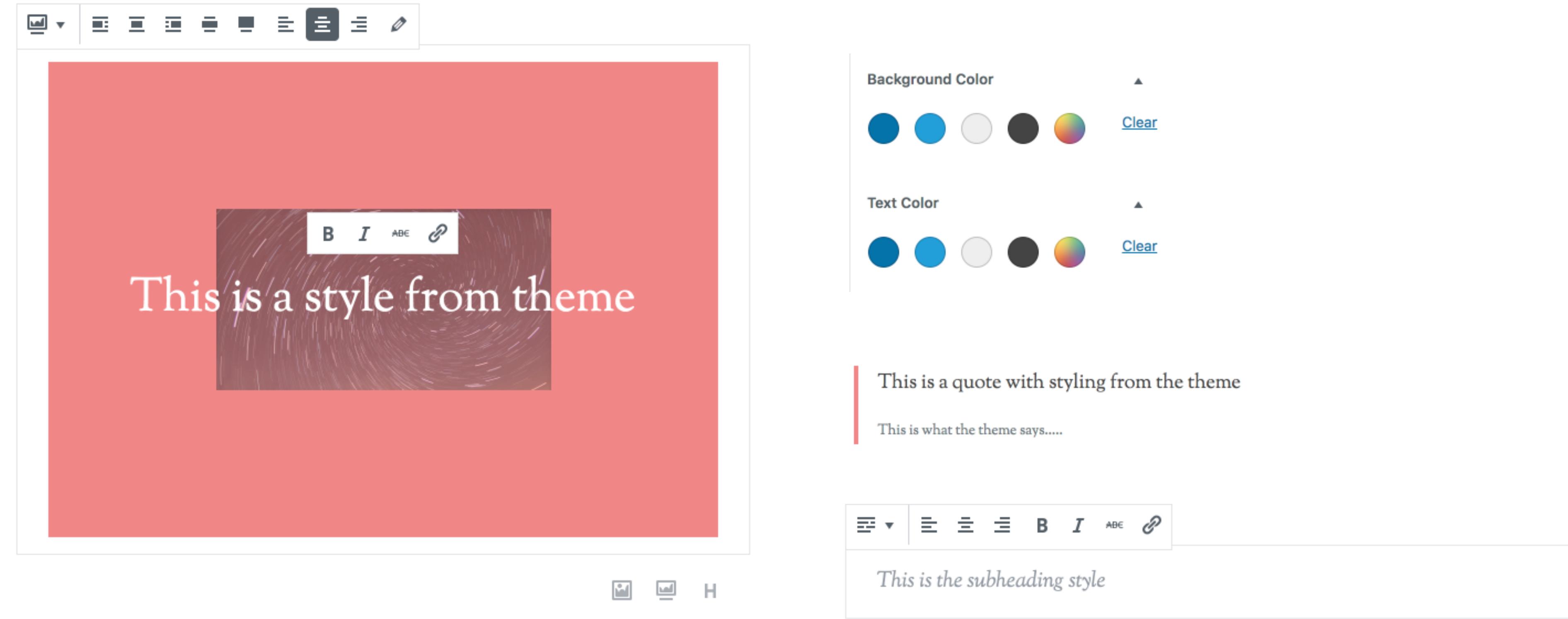
intellegebat eam, causae invidunt usu id, et vis impetus appetere.

Styles : formally variations

github.com/WordPress/gutenberg/issues/783

7/5

Editor block styles



Editor styling using Music theme: themeshaper.com/2018/06/04/designing-a-gutenberg-powered-theme-music/
wordpress.org/gutenberg/handbook/extensibility/theme-support/

0/9

Beyond blocks

Sea id autem nominavi deseruisse

Lorem ipsum dolor sit amet, ferri vidisse nam eu, ad nec copiosae mnesarchum vituperatoribus. Te brute dicunt sea, ut vis omnium menandri, ut sumo aliquam has. Eum aperiam interpretaris at, sea et recusabo expetenda, omnis tibique mea no. Pri suas partem ea, ius sonet numquam offendit cu, ad simul admodum pri. Eum cu unum chorus albucius.

Eu integre accusata prodesset est, sed te impetus gubergren conceptam, ex sed wisi nostrum occurreret. Esse velit omittantur ius te, alii dissentias ei vis. At sed unum veritus fabellas. Te volutpat appellantur duo. Ad natum fuisset intellegebat eam, causae invidunt usu id, et vis impetus appetere.

WolframAlpha X

 **WolframAlpha**

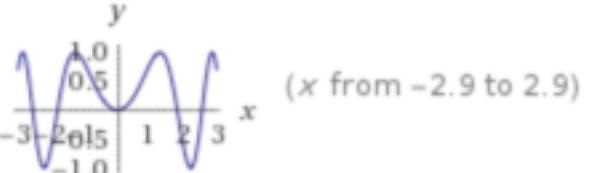
Enter what you want to calculate or know about:
 ≡

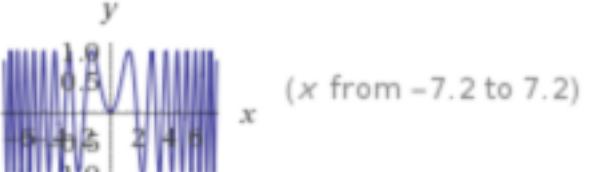
[Open full WolframAlpha for all results and options »](#)

Input

$\sin(x^2)$

Plots


(x from -2.9 to 2.9)


(x from -7.2 to 7.2)

Alternate form

Potential ideas

The screenshot shows two versions of the same Latin text in the Gutenberg editor. The left version has a tooltip for a long sentence, while the right version has a sidebar with readability analysis options.

Left Side (Tooltip Example):

Sea id autem nominavi deseruisse

...sumo aliquam has. Eum aperiam interpretaris at, sea et
recusabo expetenda, omnis tibique mea no. Pri suas partem ea, ius sonet
numquam offendit cu, ad simul admodum pri. Eum cu unum choro
albucius.

This sentence is too long.
Consider shortening it.

Right Side (Sidebar Example):

Sea id autem nominavi deseruisse

...sumo aliquam has. Eum aperiam interpretaris at, sea et
recusabo expetenda, omnis tibique mea no. Pri suas partem ea, ius sonet
numquam offendit cu, ad simul admodum pri. Eum cu unum choro
albucius.

The sidebar includes:

- Editor
- Visual Editor (selected)
- HTML Editor
- Plugins
 - Check Spelling Alt+Shift+n
 - Analyze Readability (selected)
 - Collaborate Alt+Shift+e
 - WolframAlpha
 - Publicize
- Help Alt+Shift+h

Readability

The screenshot shows the Gutenberg editor interface. On the left, there's a rich text editor with a toolbar for bold, italic, and other styling options. Below it is a list block containing two items, each with a timestamp (joen and gziolo) and some Latin text. To the right of the editor is a sidebar with various settings and a preview area.

Document **Block** Choose editor...

Status & Visibility

Status

Stick to the front page

Visibility

Plugins

Beaver Builder

Publish

Immediately

Move to trash

0 Revisions

Categories & Tags

Featured Image

Excerpt

Format

Discussion

Collaborative editing

github.com/WordPress/gutenberg/issues/1930

The screenshot shows the Gutenberg editor interface. At the top, there's a toolbar with various icons for document operations like saving, previewing, and publishing. Below the toolbar, the main content area has a title "Title" and a rich text block containing placeholder text from "Lorem ipsum" to "consectetur adipiscing elit". A comment section is visible on the right, showing a conversation between users Tim and Anton. Tim's first comment suggests making the text bold for impact, and Anton responds with a suggestion for a background color. Tim then marks his comment as resolved. To the right of the content area, a "Block" palette is open, showing options for styling a "Text" block, such as font size (L, XL), reset button, and a large initial letter "A" with a toggle switch. There are also dropdown menus for color and alignment.

Tim
5 minutes ago

I love this part! Maybe it should be bold for extra impact?

Anton
2 minutes ago

Good idea. Maybe add a nice-looking background color too?

Tim
Just now

Marked this comment as resolved.

Block

raph

a simple text only block

ding a single paragraph of

nt.

L XL Reset

A

w a large initial letter.

Color

ent

Commenting : work in progress...

The screenshot shows a content editor interface with the following components:

- Top Bar:** Includes standard navigation icons (back, forward, search, etc.) and a "Publish" button.
- Sidebar:** A vertical sidebar on the left contains a "Document" tab, a "Block" tab, and a "Status & Visibility" section. The "Status & Visibility" section includes fields for "Visibility" (set to "Public"), "Publish" (set to "November 24, 2017 10:07 am"), "Post Format" (set to "Standard"), "Stick to the Front Page" (disabled), "Pending Review" (disabled), and "Author" (set to "admin").
- Main Content Area:** The main area displays the title "Add title" and a placeholder text "Write your story". Below this is a modal dialog box with a "See next" link and a message: "Add blocks of different types by clicking '+' to open the library."
- Right Panel:** A panel on the right shows a preview of the content with the text "vituperatoribus. Te brute dicunt sea, ut vis omnium menandri, ut sumo aliquam has. Eum aperiam interpretaris at, sea et recusabo expetenda, omnis tibique mea no. Pri suas partem ea, ius sonet numquam offendit cu, ad simul admodum pri. Eum cu unum choro albucius." and a visual representation of a grid of blocks.

Tips

1/0

Anatomy of a block

9/1

Thanks for designing Gutenberg

9/2

karmatosed.github.io/talk-gutenberg-anatomyofablock

goo.gl/forms/GWVVbNtYBnrRjxGg2

9/3

Questions?

@karmatosed on all the things :)