Author Hub.

Image Descriptions



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1 What Are Image Descriptions?

Image descriptions are pieces of text attached to an image to describe that image for those who cannot see it. It is often called 'alt-text' (alternative text) as it acts as a textual substitute for the image, although image descriptions actually come in two forms: alt-text and long description:

- Alt-text: this is a short description of the image only (maximum 250 characters).
- Long description: a longer description that is required in some cases. This must be provided in addition to alt-text. This is used for more complex images or images that require more explanation. Not all images need this. There is no character limit but brevity is likely to be more useful for the reader. Very long descriptions can make it difficult to visualise the image.

If you have a long description, your alt-text must end with the wording 'See long description.' to alert the user to its existence. This is included in the 250-character limit. Our supporting form provides further information on when a long description should be provided.

2 How Are Image Descriptions Used?

Users of our digital products who are visually impaired or have a print disability can use a screen reader. When the screen reader comes to an image, it reads the alt-text, which describes the image for the user. You may also hear this called 'text-to-speech'.

Image descriptions are used in digital formats only and are not generally visible to users. The alt-text will, however, appear if the image cannot be displayed, for example due to low bandwidth.

Alt-text is usually always read by the screen reader, whereas users can choose to skip long description. This allows the reader to hear the alt-text and then decide whether to listen to the full long description or not.

When writing image descriptions, please note that alt-text is only available in 'plain text'. This means that structured elements such as

bullet points, lists and tables, and elements with special characters, such as complex equations, cannot be used. They can, however, be used in the long description.

3 Why Is This Required?

Authors are required to submit alt-text for each image in your work to increase the accessibility of the digital product (see exceptions below). This allows fair and equal access to your work, widens the number of people able to engage with it and ensures it complies with accessibility laws. This includes anything captured as an image, e.g. diagrams, graphs, photos, illustrations, and maps, including in-line images (such as characters that cannot be captured in Unicode so need to be presented as an image).

As the author, you are best placed to describe the images and non-text content in the context of the discussion. Writing the descriptions yourself also allows you to keep control over your content. When a third party writes image descriptions, there is a chance that they may misunderstand or misconstrue your work. As the subject matter expert, you are the best person to provide image descriptions.

For contributory titles, the editor is responsible for ensuring all contributors provide suitable image descriptions. Contributors are responsible for the accuracy of the descriptions.

Providing image descriptions is a requirement for final submission. We cannot proceed without this. Authors are responsible for the accuracy of their image descriptions.

4 Why Is It Important?

New legislation mandates that newly published content needs to comply with these regulations. This applies to the digital versions of your work.

Image descriptions enable a non-sighted reader to access the same information and understanding as a sighted reader.

5 Do All Images Require Descriptions?

All images require alt-text. This includes anything captured as an image, e.g. diagrams, graphs, photos, illustrations, and maps, including in-line images (such as characters that cannot be captured in Unicode so need to be presented as an image), plus other media like video and audio. The exceptions are:

- An image that is purely decorative. This means it does not further the text in any way and the reader would not miss anything without it. (Note: consider removing images if they are not necessary.)
- The image, or its content, is clearly described in the surrounding text or caption and any alt-text would simply be repeating this information (please note that the description must be effective for a non-sighted person). In some disciplines, such as STM subjects like medicine, detailed captions are common and may mean that it is not necessary to provide alt-text for many images.

You will need to indicate when these scenarios apply when supplying your alt-text in the form. Boilerplate alt-text will be added to these images to indicate that they are decorative or already described.

Consider making your captions more detailed so that they fully describe the image. You then will not need to create a separate image description.

NOTE: Cover images do not require image descriptions.

6 How to Submit Your Image Descriptions

You must provide your descriptions as part of your final submission alongside your manuscript.

Word submissions

You should provide your image descriptions in the Image Descriptions Submission Form on Author Hub (note there are two forms, one for Word titles and one for LaTeX titles).

You should use the form to choose the type of description each image needs, and indicate those that do not need a description added (because they are decorative only or already described in the text). You should then add your alt-text (and long description where needed) in the relevant columns. If the long description for an image cannot be displayed properly in the form, or is very long, you can write it in a Word document instead and state the name of the document in the form. More detailed instructions can be found in the form.

If an image has a data source (e.g. the data for a graph) this should be indicated (and linked out to where appropriate) in your manuscript as usual – this does not need to be included in your image description.

We will not be able to start production until all files are received.

LaTeX submissions

You should provide your descriptions as part of your final submission alongside your manuscript. You should use the form on Author Hub titled 'Image Descriptions Submission Form – LaTeX titles' to choose the type of description each image needs, and indicate those that do not need a description added (because they are decorative only or already described in the text). This is required to ensure the final file is properly tagged. Instead of writing your descriptions into the form, you should write them directly into your LaTeX code (please see our 'Image Descriptions – LaTeX Titles' guide for instructions).

Please note that your image descriptions will be checked and edited during production to ensure they are suitable. The final copy will be provided to you with your proofs for you to check. Please note that this is to correct factual errors and typos only. The accuracy of image descriptions is the author's responsibility so please ensure you check them carefully.

Image descriptions are not included in your manuscript's word count.

7 Video and Audio

If your work includes video or audio, you must provide alt-text for these. This should just be a short description (no more than 250 characters) describing the video/audio. See our Video and Audio guidance on Author Hub for more information. This should be captured in the Image Descriptions Submission Form.

8 How to Write Good Image Descriptions

Image descriptions should be a clear description of the image and should not evaluate or interpret the image: this would be done in the figure caption and main text. The description **should not repeat the caption.** It should describe the image in the context of the surrounding text. It should contain only information that is in the image.

The description is heard, not seen. One tip is to imagine describing the image to someone over the phone. Image descriptions should allow a non-sighted reader to get the same value out of the image that a sighted person would.

It might be useful to ask yourself the following questions:

- What, where, and why? What is happening in the image, where is this happening, and why?
- What is the context of the image? Why was it included?
- What is the focus of the image?
- What information in the image is important?

Consider trying out a screen reader to see how your descriptions would sound. There are many available that can be downloaded for free.

GUIDELINES

Guideline	Comment
Limit alt-text to a maximum of 250 characters. Long description should be used when more information is required.	Image descriptions should be succinct and provide only the information required to describe the image and provide context where needed. If you need long description as well as alt-text, this should be indicated in your alt-text by finishing it with the sentence 'See long description'.
Be cautious when using characters or symbols that are not read accurately by all screen readers.	Please see the symbol guide below. Please also note that italics, bold, underlining, subscript and superscript will not be indicated by a screen reader.
Keep sentence structure simple and keep it brief.	For clarity, keep sentences and punctuation simple. Avoid parenthetical statements as the punctuation marks, such as brackets and dashes, can result in interruption or ambiguity.
Summarise first.	Start with a concise summary of the image, then add details as needed. When describing a graph or diagram, start by outlining its structure so the reader can picture it.
You do not need to start with "an image of …" or "a picture of…"	Screen readers announce images to their users, so there is no need to repeat this, unless it is useful to state the kind of image, e.g. graph, diagram, photograph, map.
For charts, graphs, and diagrams, include the type of diagram.	For example, 'A bar chart depicts…' or 'A flowchart of…'
Write out any relevant text in the image.	You can omit anything unnecessary.

Do not write words in capital letters.	If a word is comprised of uppercase letters then screen readers will read each capital letter separately, as if it were an acronym.
Context is important. Why did you include this image?	The same image may have a very different description in two different contexts. For example, the description of a photograph of a group of people may focus on very different things in a fashion book and a history book.
Don't interpret or analyse.	Describe what you see only.
When describing images of people, describe characteristics where relevant, e.g. gender, race.	This can be particularly important in medical titles.
Consider your audience.	For example, a title aimed at fellow researchers may require a different level of description of images than one for students.
Finish with a full stop (or question or exclamation mark).	This causes the screen reader to pause, indicating the end of the description, before moving on.
For groups of figures (with one caption), each individual image must have alt-text but you can decide whether they all need long description.	If long description is needed, you can either provide it separately for each image, or one description for the group.

9 Diagrams, Graphs and Maps

All diagrams and graphs require alt-text, and usually long description too. It's important that this conveys the same meaning that a sighted user can draw from the graphic. Alt-text is not required, however, if the data/information is fully described in the text, and the graph or diagram is just a visual representation. It may help to use a table or bullet points to describe a more complex image. Note that these can only be used in long description, not alt-text.

Diagrams

- State the kind of diagram, e.g. flowchart, lifecycle diagram, timeline. However, you don't need to describe the appearance of the diagram (e.g. blue boxes) unless relevant. Include colour where needed (e.g. if different colour lines represent different things).
- tart by describing the structure of the diagram, e.g. stating how many pathways there are.
- Approach tree and hierarchical diagrams in a logical, linear way, going from left to right, top to bottom. For example, 'the first level shows X, the second level shows Y'.
- Sometimes, just a summary of the diagram will do. Other times, each part of the diagram will need to be described. Ask yourself how much the reader needs to know to get the same information as a sighted reader.
- Flowcharts, linguistics trees and similar diagrams can be described using numbered or nested lists showing the different options, for example 'back to X', 'forward to Y', 'leads to Z'. Multiple lists may be needed if there are different starting points or pathways. See an example of this in a linguistics tree below.

Graphs

- State the kind of graph, e.g. bar chart, line graph.
- Start by giving an overview of the graph, e.g. the labels and scales of the x and y axes and the number of categories where appropriate (e.g. for a bar chart).

- Include relevant data points, trends and labels.
- Sometimes, just a summary of the data will do. Other times, the reader will require all of the data – this can be placed in a table or in bullet points in the long description.
- Sometimes, rather than going into detail on the data, it can be more helpful to describe the trends in the data in a graph – for example, for a scatterplot graph, you can explain where the points are highly concentrated and where they are not.

Maps

- You do not necessarily need to include all the information shown on the map. Include what is relevant only, considering the context.
- Do not include information already in the text.

For more guidance and a range of useful examples, please consult The DIAGRAM Center: http://diagramcenter.org

10 Character and symbol guide for screen

Not all screen readers are the same and the symbols they are able to read differ. Below we list symbols that are safe to use, and those that should be used with caution when writing your alt-text.

Symbol names	Symbols	Comments
You can use these symbols: they are treated consistently and they are safe to use		
Ampersand, at symbol, forward slash, major currency symbols, percentage sign, asterisk, degree symbol, basic fractions	& @ / £ € ¥ $ % * ° ½	These symbols are always safe to use.

Maths symbols: plus, minus, plus or minus, divided by, multiplied by, equals, not equals, approximately equals, less than, greater than, less than or equal to, greater than or equal to, sum	+ - ± ÷ × = ≠ ≈ < > ≤ ≥ ∑	These symbols are always safe to use. More complex equations may not display correctly and should be avoided in image descriptions.
You can use these symbols: they are not treated consistently, but they are safe to use		
Period, comma, colon, semicolon, question mark, exclamation mark	. , : ; ? !	These symbols could be read aloud, or they could be indicated by a pause. The latter treatment means their purpose may not always be explicit.
These symbols are treated inconsistently and they may cause ambiguity – use with caution		
Brackets, quotation marks, dashes, ellipses	() [] “” ‘’ - – …	These symbols could be read aloud, or they could be indicated by a pause. In some cases, they are ignored. The latter two treatments mean their purpose may be missed or may not always be explicit. Alternatives should be used where possible.

For further information on image descriptions, please see:

www.w3.org/WAI/WCAG21/Understanding/non-text-content.html
www.w3.org/WAI/tutorials/images
www.wcag.com/blog/good-alt-text-bad-alt-text-making-your-content-perceivable

11 Examples

1. Lithograph



Caption: Oliver Caswell and Laura Bridgman reading embossed letters from a book. Lithograph by W. Sharp, 1844, after A. Fisher.

Alt-text: Two young blind people in Victorian attire. They are holding a book. Laura's hand is guiding Oliver's, his finger touching the embossed letters on the page.

TIP: Note that this image does not require long description as the alt-text provides sufficient information.

Image credit: *W. Sharp after A. Fisher, Oliver Caswell and Laura Bridgman, lithograph (1844). Wellcome Library, London (ref. V0015876). Copyrighted work available under Creative Commons Attribution only licence CC BY 4.0.*

2. Diagram

Students were asked to come up with ideas to help combat the climate crises. Not all were technically possible (e.g., a machine that would take single-use plastic and, with some magic, would output clean water! See Figure 3.1) but we can dream big.

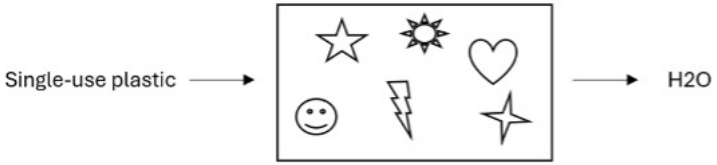
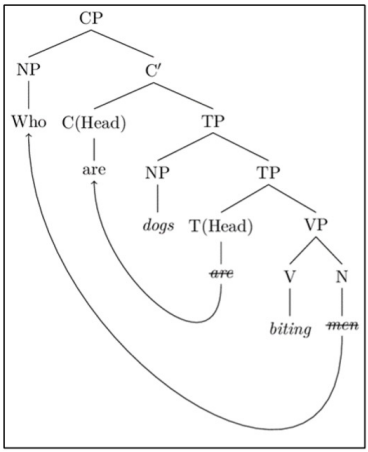


Figure 3.1. The recycling machine of the future!

TIP: This image is fully described in the text so doesn't require an image description. You would mark this as described in the text. When the screen reader comes to it, it will alert the reader that there's an image, but that it is already described. The depiction of the machine is for fun, not for comprehension.

3. Linguistics Tree



Caption: Move operation applied to generate wh question.

[**Context:** This image is used in an academic linguistics work that assumes a high level of linguistics knowledge from the reader.]

Alt-text: A linguistic tree diagram generating a W H question from the sentence, Dogs are biting men.

Long description:

The tree diagram features 6 interconnected pathways and includes 2 noun phrase pathways, 1 complementiser pathway, 1 tense phrase pathway, and 2 verb phrase pathways.

The root node is Spec C P. The 6 main pathways develop from north to south as follows.

Pathway 1. Noun phrase pathway A.

1. Spec C P branches to N P and C bar.
2. N P leads to the head. The word is, Who. The word has been moved and changed from the word, Men, from verb phrase pathway B. This is part of the movement to generate the W H question.

Pathway 2. Complementiser pathway.

1. Spec C P branches to N P and C bar.
2. C bar branches to Head C and T P.
3. Head C leads to the head. The word is, Are. The word has been moved from the tense phrase pathway. This is part of the movement to generate the W H question.

Pathway 3. Noun phrase pathway B.

1. C bar branches to Head C and T P.
2. T P branches to N P and T P.
3. N P leads to the head. The word is, Dogs.

Pathway 4. Tense phrase pathway.

1. T P branches to N P and T P.
2. T P branches to Head T and V P.
3. Head T leads to the head. The word, Are, has been deleted. It has moved to the complementiser pathway.

Pathway 5. Verb phrase pathway A.

1. T P branches to Head T and V P.
2. V P branches to V and N.
3. V leads to the head. The word is, Biting.

Pathway 6. Verb phrase pathway B.

1. V P branches to V and N.
2. N leads to the head. The word, Men, has been deleted. It has moved to noun phrase pathway A.

TIP: Long description is needed here to fully explain the linguistics tree. It starts with a summary of the diagram to help the user picture it before more detail is given. Each pathway is then clearly described. Placing a comma before words displayed in the tree creates a natural pause which helps with comprehension.

Thank you to Textbox Digital for their advice on image descriptions for linguistics trees.

Image credit: *K. Ramesh Kaushik, Modelling Compositionality and Structure Dependence in Natural Language. Master's thesis, Technical University of Munich (2020). Licensed under CC BY 4.0.*

4. Life Sciences



Caption: A common vampire bat in flight (Desmodus rotundus) carrying a Wireless Biologuing Network biologger on its back. Image credit: Sherry and Brock Fenton.

Alt-text: A bat has a rectangular plastic biologger on its back. It is around one-third of the length of the bat's torso. The bat's wings are fully extended, and its ears, legs and hairy body are clearly visible against the black background.

TIP: Note that this image does not require long description as the alt-text provides sufficient information. The caption already includes a lot of information so the alt-text only needs to give a visual description so the user can picture the device on the animal. If this is unnecessary for your reader, you may decide to mark this as an image already described in the text (in this case, the caption) and therefore not provide a description.

Image credit: *"Thinking small: Next-generation sensor networks close the size gap in vertebrate biologging." Image credit: Sherry and Brock Fenton. Licensed under a Creative Commons Attribution 4.0 International Licence.*

5. Photograph



Caption: Belgian soldiers posing for a group portrait in a casual manner. Photographic postcard, 1908. Source: Wellcome Collection.

[**Context:** This image is used in work relating to presentations and perceptions of masculinity and the military in twentieth-century Europe.]

Alt-text: A photographic postcard showing nine Belgian soldiers in partial uniform posing for a photograph against a brick wall. Four soldiers in the foreground sit or lounge casually, while the remaining five standing behind attempt to strike imposing poses.

Long description: The soldiers are organised into three rough lines. In the back of the black and white photograph, five soldiers stand. The first, third and fifth soldiers in the line have their arms folded, and the second and fourth soldiers are leaning on the soldiers beside them. Slightly in front of this line, two soldiers are seated on the floor; the soldier on the left is holding a pipe to his lips. Two more soldiers are reclining in front of these two, each with an elbow rested against the floor, and their hand supporting their head. The soldiers have stern or neutral expressions, and all appear to be wearing hats adorned with number '5' in the centre, above the peak, with the exception of the front two soldiers, on whose hats no number is visible.

TIP: The choice of whether or not to include long description for this image depends on the context. As this book relates to presentations and perceptions of masculinity and the military, it is useful to provide more information on the way the soldiers are presenting themselves.

Image credit: *"Belgian soldiers posing for a group portrait in a casual manner. Photographic postcard, 1908." Wellcome Collection. The image is licensed under a CC0 Public Domain Dedication.*

6. Artwork



Caption: Don Juan and the Commander's Statue (Last Scene of Mozart's Don Giovanni). Alexandre Evariste Fragonard, ca. 1825–30. Graphite, pen and brown ink, watercolor, heightened with gum arabic. Bequest of James David Draper, 2019.

[**Context:** this image features in an art book.]

Alt-text: The rectangular artwork is the artist's vision of the Commander's statue detaining a fleeing Don Juan in the moment before he is punished for his sins. Don Juan looks terrified. The Commander's body is sprawled on the ground.

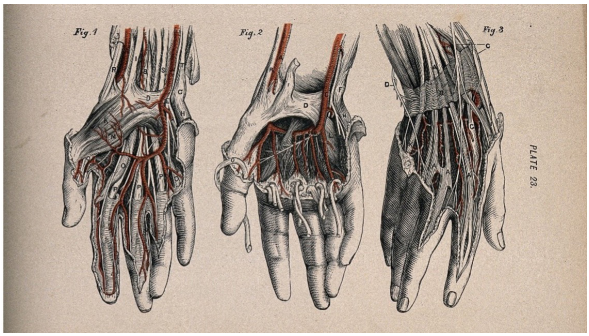
Long description: The painting features three figures. The Commander's statue physically dominates the painting, towering over Don Juan and the dead Commander sprawled face down on the ground. The Commander's hat has fallen off and is lying on the ground. Don Juan is in the act of fleeing, but is looking up at the statue over his shoulder with an expression of shock and fear.

The colours used by the artist add to the ominous image created by the position of the three characters. The statue is depicted in shades of grey. Don Juan is shown dressed in rich colours and lavish fabrics, appropriate for a nobleman. A small area of orange in the bottom-left of the artwork ominously hints at the fires of hell awaiting the unrepentant Don Juan.

TIP: In another context, the alt-text alone may have been sufficient. However, as this is an art book, it is helpful to give the reader a fuller description. Painters often include elements that may seem insignificant but that carry symbolism, so it is important to mention everything you see.

Image credit: *"Don Juan and the Commander's Statue" by Alexandre Evariste Fragonard. The Met. Bequest of James David Draper, 2019. The image is licensed under a CC0 Public Domain Dedication.*

7 Medicine



Caption: Dissection of the hand and fingers: three figures, showing the tendons and blood vessels. Colour wood engraving with letterpress, 1860/1900?

[**Context:** This image is used in a medical book. The text surrounding it explains in detail the inner workings of the hand.]

TIP: In this case, alt-text is not needed because the caption and surrounding text gives all the necessary information. This image would be marked as described in the text. Alternatively, you might decide the image is decorative only.

Image credit: *Dissection of the hand and fingers: three figures, showing the tendons and blood vessels. Colour wood engraving with letterpress, 1860/1900? Wellcome collection. The image is licensed under a CC0 Public Domain Dedication.*

8 Archaeology



Caption: A relief from the palace of the Assyrian king Ashurnasirpal II (r. ca. 883-859 B.C.), which depicts a king, probably Ashurnasirpal himself, and an attendant.

[**Context:** This image is used in a work about the origin and history of the Neo-Assyrian stone sculpture tradition under Ashurnasirpal II. The Standard Inscription has already been explained in the main text.]

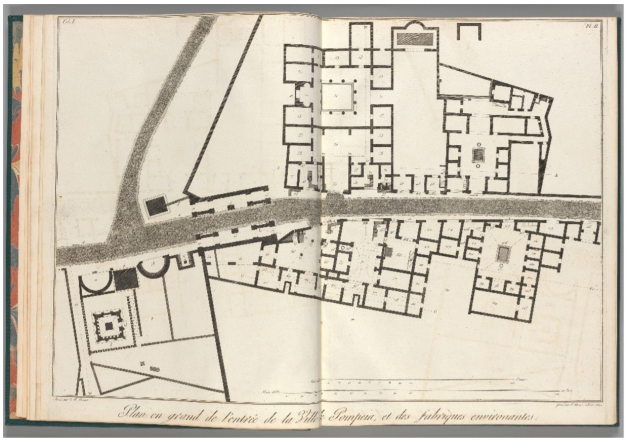
Alt-text: The stone relief depicts an extravagantly dressed king on the left seemingly being served wine by the attendant on the right who is also dressed richly, though to a lesser extent. The Standard Inscription runs across the lower portion of the image.

Long description: On the left side of the relief, the extravagantly dressed king faces the attendant, balancing a bowl on the fingertips of his right hand, and holding in his left hand the top of a bow, the other end of which is planted on the floor. The king's beard is intricately braided, and he wears a crown on his head, a necklace of beads, and intricately decorated jewellery on his wrists and biceps. The beardless attendant on the right side of the image mirrors the king's pose, holding in his right hand a fly-whisk, and in his left hand what appears to be either an oil lamp, or a ladle, which would be used to refill the king's bowl with wine. The attendant is also wearing a necklace of beads and some simpler jewellery on his wrists and forearms. The Standard Inscription runs across the lower part of the sculpture, spanning from the ankles to the hips of the figures.

TIP: The long description here paints a richer image so that non-sighted users can get the same level of detail as a sighted user. Note that the alt-text does not repeat the information given in the caption.

Image credit: *"Relief panel." The Met. Gift of John D. Rockefeller Jr., 1932. The image is licensed under a CC0 Public Domain Dedication.*

9 Plan



Caption: Large plan of the entrance of the town of Pompeii, and its surrounding buildings

[**Context:** This image is used in a historiographical work relating to the early publications on the excavations of Pompeii, looking at how archaeologists depicted and presented the floorplans of the site.]

Alt-text: A photograph of a double-page spread of a floorplan depicting the gates of Pompeii, the cobbled road that runs from it through the centre of the image, and the surrounding structures either side of the road.

Long description: The central road runs horizontally through the middle of the image, from left to right. The artist has captured three building complexes, one below the central road on the left side of the image, and two in the centre of the drawing, one above the road, and the other below. The artist has numbered each of the structures within these complexes from 8 to 113, with some numbers repeated across similar structures. Two buildings have visible central atria with pools (impluvia) and one has a peristylum. Two straight lines representing scales are located at the bottom of the plan; the shorter top line reads 'palm' on one end and 'Romaines' on the other (that is, Roman palms, a unit of measurement), and is around one-third of the page width,

and the longer bottom line says ‘Pieds… de Paris’ (meaning ‘feet’) and takes up around half the total width. Both scales go up to 200. A title is given which, in French, reads ‘Large plan of the entrance of the town of Pompeii and the surrounding buildings’. Text reads ‘Drawn by J. B. Piranesi’ and ‘Engraved by F. Piranesi, 1804’.

TIP: Long description is required to give more information here. This image is meant to show how plans of Pompeii were historically recorded so including the scales is particularly important.

Image credit: *“Large plan of the entrance of the town of Pompeii, and its surrounding buildings, from "Antiquités de Pompeïa, tome premier, Antiquités de la Grande Grèce…" (Antiquities of Pompeii, volume one, Antiquities of Great Greece…), volume 1, plate 2.” The Met. Rogers Fund, transferred from the Library. The image is licensed under a CC0 Public Domain Dedication.*

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