

Worlds of Wonder

Analysing Historical Scientific Illustrations on Zooniverse

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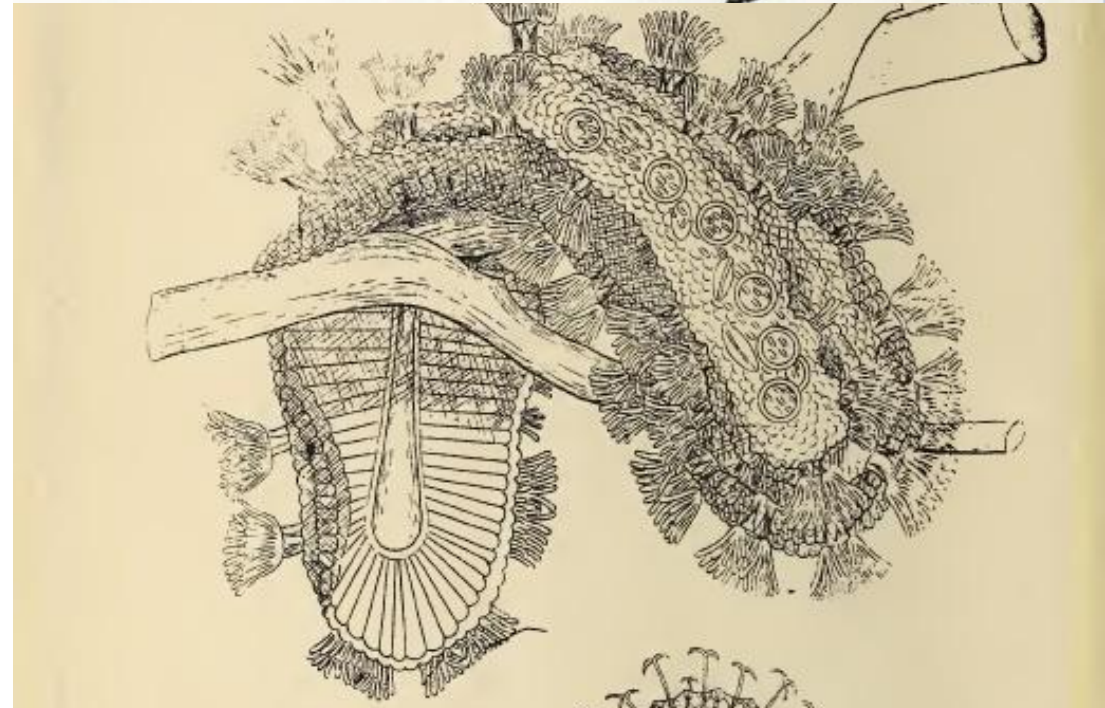
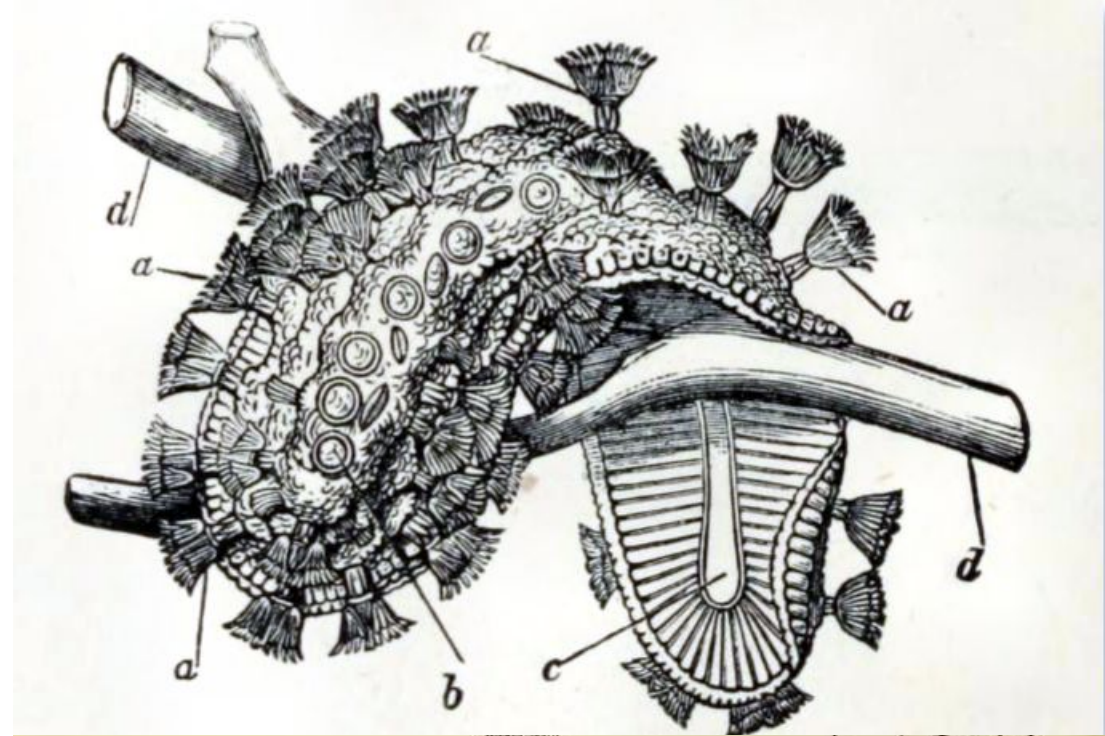
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Illustrating Science in the Nineteenth Century

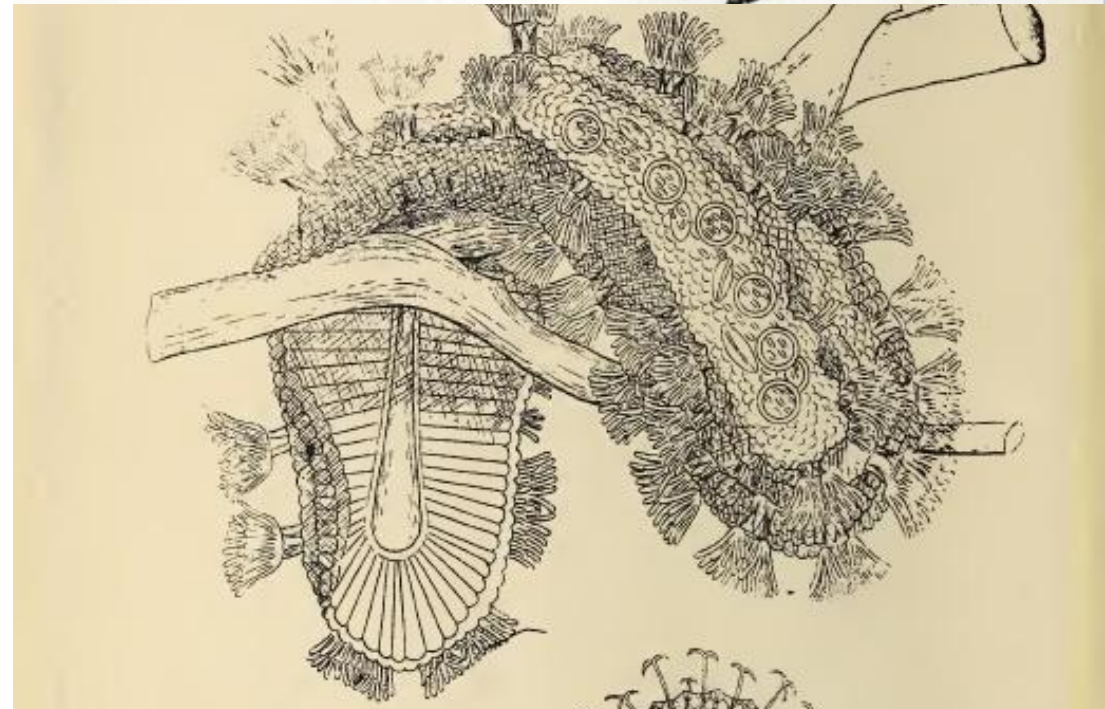
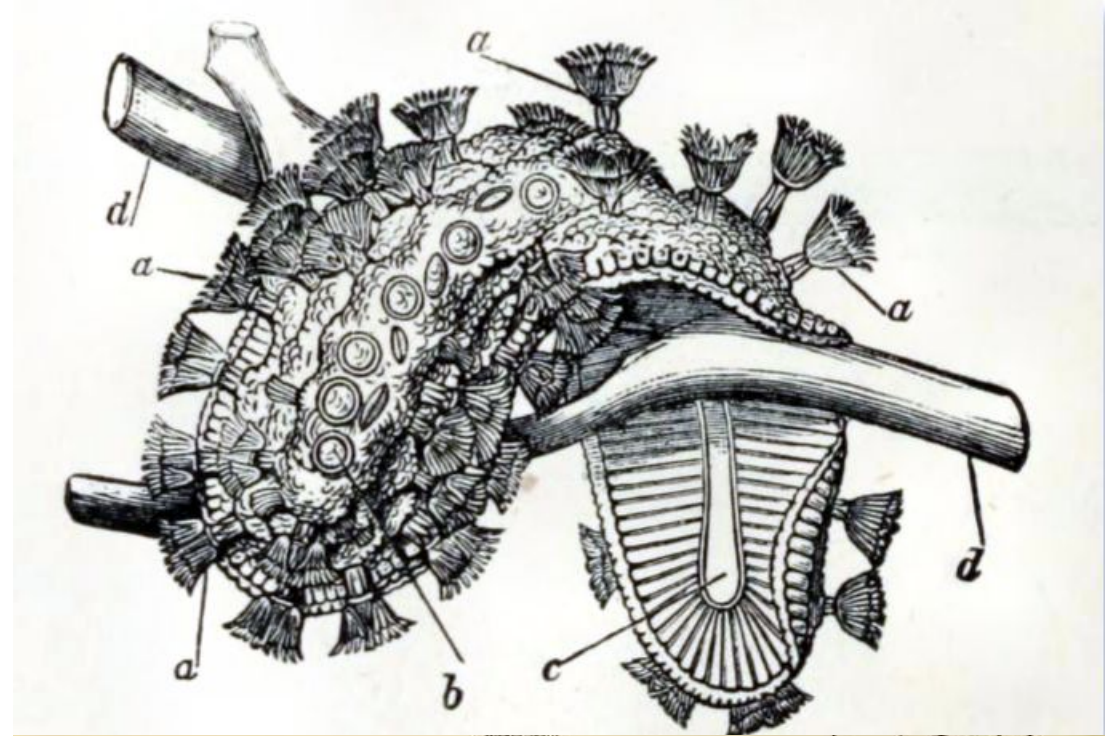
- Increase in illustrated scientific publications: cheaper printing techniques, higher literacy rates (Lightman, 2016)
- Illustrations result of collaboration between amateur/professional scientists, illustrators, engravers, editors, printers (Belknap, 2018)
- Illustrators: scientists, artists, women (some of them scientists' wives)
- Copyright laws not internationally enforced, texts/illustrations often copied and adapted to target different readerships (Pigeon, 2017)



Research Questions

- Who could contribute illustrations to nineteenth-century scientific publications?
- How many images were illustrations of specimens/construction manuals for building scientific instruments/...? Did this number change over time/vary across countries?
- Whose illustrations were copied and where did they travel? Did the reproduction of illustrations raise issues of ownership/authenticity?

Can this teach us anything about present-day science communication on online platforms?





Explore the worlds of wonder seen through the microscope. Help us identify and classify nineteenth-century microscopy illustrations.

Crowdsourcing Information About Historical Scientific Illustrations

Worlds of Wonder

- <https://www.zooniverse.org/projects/lbeiermann/worlds-of-wonder>, Zooniverse project, digitised publications hosted by BHL
- Invites citizen scientists to classify scientific illustrations, illustrators, manufacturers of scientific instruments, flag reproductions
- Concerned with moving images, reproductions/mash-ups of scientific illustrations

account of their large leaves and beautiful double-toothed peristome, the great distinction of the group. The leaves are margined, toothed, and composed of a loose reticulation of large rhomboidal cells; in the genus *Timmia* they clasp the stem at the base and spread widely at the tip. There are thirty-three British species of the genus *Bryum*, many of which with their abundant urns are extremely ornamental.

Workflow on Worlds of Wonder

1. Are there any illustrations on this page?
2. Choose the type (photograph/drawing/...) of illustration, then draw rectangles around each illustration of that type.
3. Mark any handwritten captions and contributors in the illustration(s). Also mark any names of manufacturers of technical equipment.
4. Add keywords to describe the illustration(s).

The tribe Splachnei contain many of the most singular and beautiful of the whole class of mosses. They

TASK

TUTOR

Add keywords to describe the illustration
Separate each term with a comma.

moss, splachnei, leaves, spores, ornamental

NEED SOME HELP WITH THIS TASK

Back

Done & Talk

Done

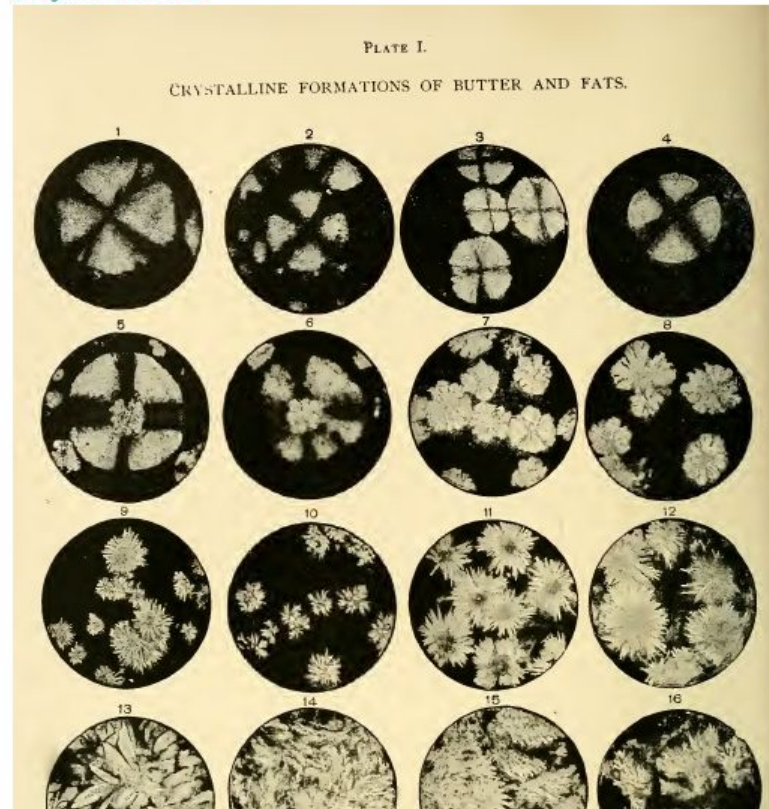
Worlds of Wonder 'Talk' Forum



Holly Pence
@Holly_Pence

April 13th 2019, 4:20 pm

[Subject 29996698](#)



Sources of the photos:

Dr. Thomas Taylor, in his official report as microscopist to the Commissioner of Agriculture, which has been recently submitted, presents a monograph upon butter and fats, containing 114 micro-photographic illustrations. The photographs, very handsomely executed, comprise 'primary,' 'secondary,' and 'tertiary' forms of the butter crystal, as well as beautiful types of lard, beef, oleomargarine, oleo, etc., and are the work of W. H. Walmsley and the late Dr. Bernard Persh, of Philadelphia.

...The Secretary announced the receipt, from Dr. Thomas Taylor, Microscopist of the Department of Agriculture, Washington, D. C, of the last annual report of that department, accompanied by a number of colored plates, photo-engravings and photomicrographs, illustrating the crystallography of butter and of other animal fats.

This issue of the journal is dated 1887, so the report must have been for 1886. And here it is, on [page 139 of the Report of the Commissioner of Agriculture](#), complete with plates. The motivation for the work was the [Oleomargarine Act of 1886](#).

This rabbit hole is getting deeper by the minute. Climbing out now while I still can.

Helpful (0)

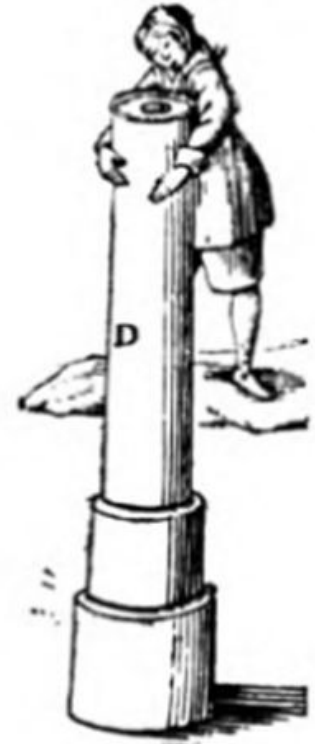
Reply

Link

Report

(Preliminary) Results and Outlook

- Illustrations triggered searches for information about (unpublished) illustrators
- Full-text search of BHL/Internet Archive useful for piecing together biographical information
- American publications seem to contain more illustrations of agricultural microscopy
- Many illustrations copied from German publications (reason to upload them)
- Citizen scientists interested in female illustrators
- Involving citizen scientists rewarding but time-consuming



"DIVINI'S" MICROSCOPE FROM SCHOTT'S
MAGIA UNIVERSALIS" (1657).



Thank you!

References

Belknap, G. (2018). Illustrating natural history: images, periodicals, and the making of nineteenth-century scientific communities. *The British Journal for the History of Science*, 51(3), 395-422.

Lightman, B. (2016). Popularizers, participation and the transformations of nineteenth-century publishing: From the 1860s to the 1880s. *Notes and Records: the Royal Society journal of the history of science*, 70(4), 343-359.

Pigeon, S. (2017). Steal it, Change it, Print it: Transatlantic Scissors-and-Paste Journalism in the Ladies' Treasury, 1857-1895. *Journal of Victorian Culture*, 22(1), 24-39.