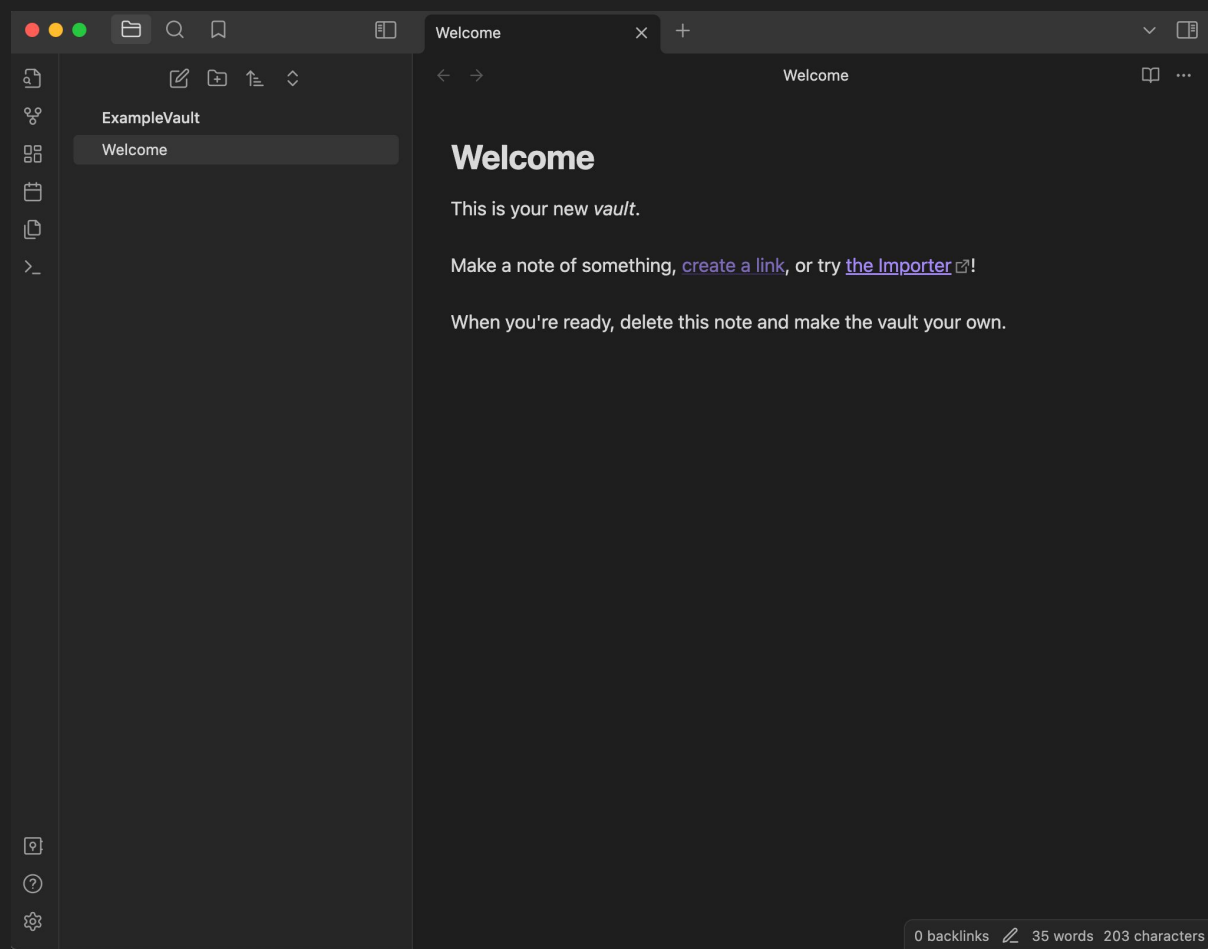# Using Obsidian for Research

March 29, 2024

Why Obsidian

- Research is non-linear, doesn't fit neatly into structures
  - Could you have made a gantt chart for your entire project from day 1?
- Accommodates a heterogeneous set of lists that may interlink
  - Task lists, questions, paper notes, goals, future project ideas
- Markdown is flexible and fast
  - Incorporates code blocks, latex, etc.
- Downsides
  - This is not google docs – syncing and publishing cost a fee unless you diy with github or another cloud service. Use this to organize your brain, not other people's' brains
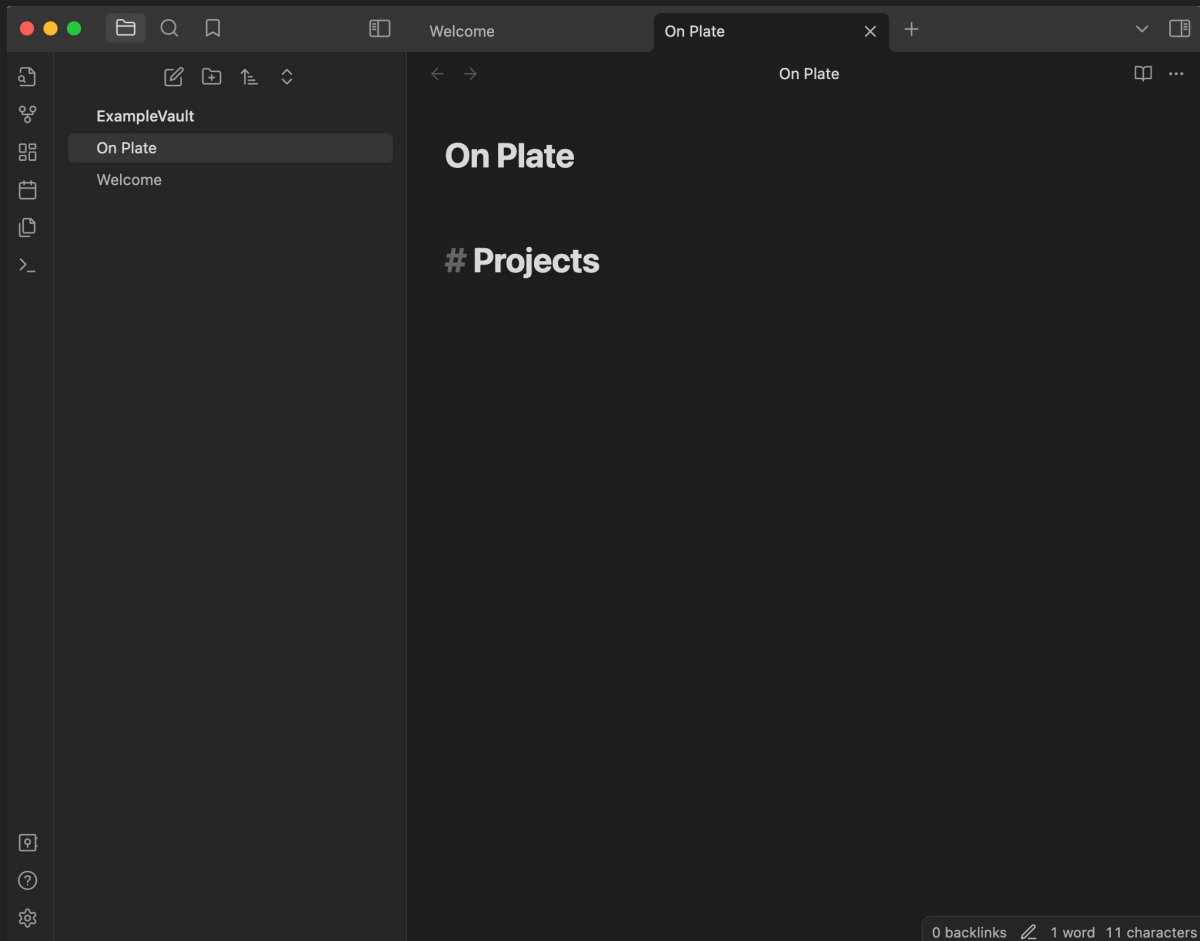
Getting Started

- Download obsidian:
  https://obsidian.md/
- Create a new vault
  - Optionally, put it in your dropbox on a folder you routinely back up
- Create a new note with cmd-N (mac) or ctrl-N

Welcome

ExampleVault

Welcome

Welcome

This is your new *vault*.

Make a note of something, create a link, or try the Importer!

When you're ready, delete this note and make the vault your own.

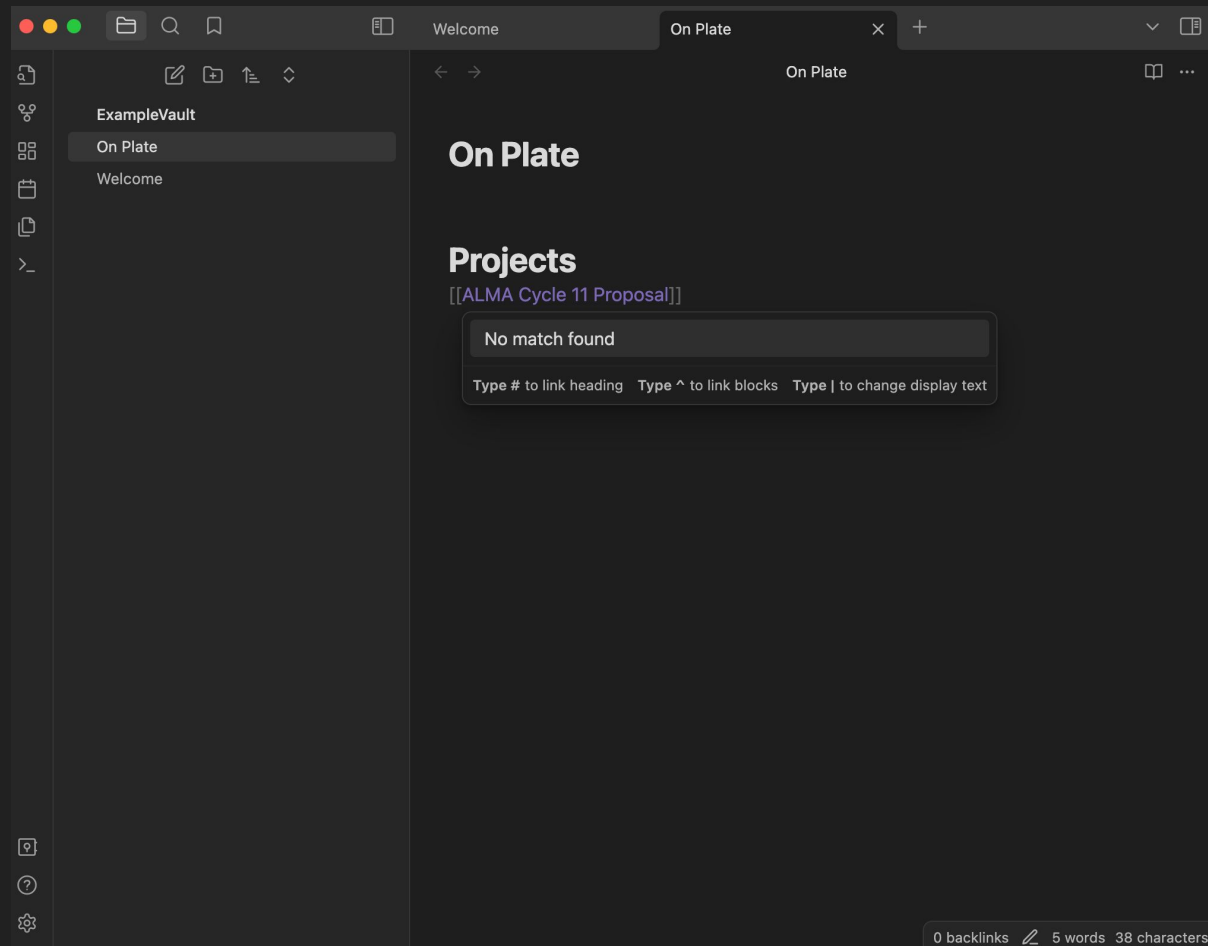0 backlinks · 35 words · 203 characters

Our First Note

- By default, obsidian will display markdown as you go – to switch views, click on the "book" in the top right
- Basic markdown reference: https://help.obsidian.md/Editing+and+formatting/Basic+formatting+syntax

Creating New Notes on the fly

- Another way to create new notes is to use double sets of square brackets around the title you'd like to use [[title]]
- Once you click on the grey-purple text, the new note will be created
- If the note already exists, you can link it this way
- To return to the previous note, use the back arrows
- To keep your "On Plate" note handy, right click and pin note

Checklists

Use - [ ] to start a checklist

ExampleVault

ALMA Cycle 11 Proposal
On Plate
Welcome

ALMA Cycle 11 Proposal

- [ ] Review cycle 10 feedback
  - [ ] Ask for 5 targets instead of 5000 this cycle
  - [ ] Better justify required spatial resolution
- [x] ~~Read new call for proposals~~
- [ ] Download new OT
- [ ] Make new overleaf

1 backlink   36 words   212 characters

How to Not Lose Notes into the Void

- Use a pinned page to collect what is metaphorically on your desk with links
- My recommendation is to have a weekly to-do, list of projects, upcoming deadlines, and semester goals

Notes on Papers

Multiple strategies

- Use markdown to include hyperlinks to ADS
- Create a note for each paper you read and link those
- Use zotero plugins

Figuring stuff out

Space for the extended notes that may become a single sentence or two in your paper

Lit - other voorwerps/EELRs/ENLRs in manga data?

- Searches for isolated H alpha blobs:
  - Bait+19 ⧉ (MaNGA DR14)
    - H alpha em w/o continuum emission -- kinematically distinct as part of selection criterion
    - 6 candidates after visual downselection
    - BPT diagnostic varies: SF/composite/Seyfert/LINER
  - M82 has H alpha "caps" due to the superwind: Devine & Bally 1999 ⧉ 11 kpc above the disk, Lehnert+99 ⧉, from bow shock of SB-driven superwind
  - Cheung+16 ⧉ H alpha isolated blob, ~8"/6.3 kpc away from a dusty SB galaxy, interpret this as accretion of recycled wind
  - Lin+2017 ⧉ H alpha isolated blob associated with a dry galaxy pair, 8 kpc away from the main target - blob consistent with "composite," "H i," and "LINER" regions when using the [N ii], [S ii], and [O i] diagnostics, respectively; cannot distinguish between ejected gas or low surface brightness "dark" galaxy (probably not stripped gas due to morphology, low gas content of hosts), so may be ionized by prev AGN activity or may not
    - Pan+20 say this is from cooling of inter-group medium
  - Ji+20 ⧉ another systematic look (MaNGA DR15)
    - find 13 H alpha blobs in MaNGA, some are ionized by shocks, others may be faint dwarf galaxies or extended spiral arms
    - find more than Bait+ bc they don't use a kinematic cut (the Lin_17 object is not kinematically offset)
    - only visual inspection
    - mix of lower mass SF galaxies and higher mass GV galaxies; mostly SF/composite on BPT diagrams
- Off-axis ionization
  - In CALIFA: Lopez-Coba+19 ⧉ searching califa for outflows based on off-axis ionization
  - vaguely biconical, but very wide angles implied, only found in 8% of highly inclined galaxies
- ENLRs
  - Chen+19 ⧉ extended narrow line regions (claim EELRs refers more commonly to SF-dominated) in AGN in MaNGA

All done   2 backlinks   2,112 words   11,805 char

Plugins

- Obsidian has plugins for literally anything (git, zotero, etc)
- I use a series of plugins for daily notes, based on this guide: https://dannb.org/blog/2022/obsidian-daily-note-template/
  - Daily notes (core plug in), templater, dataview, buttons and tomorrow's daily note
- Link to the daily note template I use: https://uofi.box.com/s/i3zkky1g55csjifemase78wnnvdnuqrd

Options

General

Editor

Files and links

Appearance

Hotkeys

Core plugins

Community plugins

Core plugins

Backlinks

Canvas

Command palette

Daily notes

File recovery

Note composer

Page preview

Quick switcher

Community plugins

Calendar

Dataview

Day Planner

Templater

Show a message with how long each plugin took to initialize when starting the app.

Search installed plugins
Filter installed plugins by name or description.

Search installed plugins

Installed plugins

Buttons
Version: 0.4.19
By shabegom
Create Buttons in your Obsidian notes to run commands, open links, and insert templates

Calendar
Version: 1.5.10
By Liam Cain
Calendar view of your daily notes

Dataview
Version: 0.5.64
By Michael Brenan <blacksmithgu@gmail.com>
Complex data views for the data-obsessed.

Day Planner
Version: 0.16.0
By James Lynch, continued by Ivan Lednev
A day planner with clean UI and readable syntax

Templater
Version: 1.18.3
By SilentVoid
Create and use templates

Tomorrow's Daily Note
Version: 1.0.2
By Will Olson
An obsidian plugin that creates tomorrow's daily note for preemtive planning.

Daily Notes

I use these as a daily scratch page to what I want to get done on each day and when.

I fill these out at the end of the day before, looking at my weekly to-do on the pinned list.

2024-03-29

Friday, March 29, 2024

<< Yesterday | Tomorrow >>

Make Tomorrow's Note

📅
8
9
10
11
12 Obsidian presentation
1
2
3
4
5

📝

☐ Hype up Obsidian Workshop

Notes created today

Questions?