

Outline of OP4 Passive Solar Panel

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This document is my 2nd draft - after advisor review

Goal for making this outline

- To refrain from diving into my OP until the “foundation” is built

Notes to Reviewer - (write after report)

Abstract and Summary (NTS - see *intro help* in temp folder for more tips)

Thesis Statement - Passive Solar, a renewable energy source that can heat and cool your house or building, can be a feasible and affordable DIY project..

• The problem and motivation for study

- A seasonal retreat/residential cabin that is too hot in summer and too cold in spring and fall
- Living in the cabin for three warm seasons, wanting to improve it for future inhabitants.
- Meeting my learning goal of increased knowledge in passive solar

• What is already known.

- Brief history of trombe walls and passive solar- wikipedia
- my discovery that it is known by many names and thus the information is widely spread/hidden

• Goals of my build project and studies

- To successfully build and instal a trombe wall
- To improve my carpentry skills
- To learn about site analysis for solar projects ‘azimuth - sun chart’
- To improve the living space of the cabin - ‘*to be seen in future*’

• Goals for OP

- To make and implement a clear outline and design
- To transmit my study/hands-on learning experience

- To inspire others to pursue passive solar as a DIY project
 - To show my use of Design Principles and Best Practices (as it has been a weak section in previous OPs)
 - To show my activity in Gaia U (groups and pushing for more feedback - advisor and peers)
 - To show my dissemination of knowledge/learning client (inclusion in the installation team) and world (blog - social networking)
- **Context for project and OP**
- My history in passive solar - few projects
 - Cynefin model between *knowable* and *known*. - Trombe walls are *known* as it is a technology that has been built since the late 1800s. Knowable because the project is site specific and variables can throw-off your design from reaching your goals.
 - Knowing I would not be able to test my projects effectiveness (winter and un-insulated floor ie. incomplete project) my learning goals/outcomes are focused on my experience of the build and the knowledge acquired through my studies.
 - Out of pocket learning is rewarding and is a type of social-capital investment
- **Give an overview of my project and un/learnings**
- Passive solar is an affordable DIY project that can supply 'free' heating and cooling
 - Prototyping a design to scale (sketchUp) is invaluable for precision projects.
 - The style of trombe wall you choose should be informed by the site/building.
 - Knowing your tools and materials before designing or implementation improves safety, and saves time and money
 - Reusing salvaged materials is rewarding yet not always your 'best' choice
 - By informing people and getting them involved you increase/strengthen your team.

Introduction:

What and how you've written this output. Outline your key talking points. Tell us how you went about designing both the project and the output packet. Tell us how you designed this output to convey a particular message.

Body: (outcomes)

- Show my process of design/building the passive solar panel (principles)
 - Detail my learning goals tied into LIPD outline of them

- Interventions
- Constraints and considerations
- Touch on other applications point to annotated resources
- Design methods (thinking in use)
- Site A&A
- Prototyping
- Permaculture principles
- Collaboration with client
- Cross-pollination - wiki update
- Time management and Project management

Conclusion:

- Revisit my Goals / unlearnings of project and OP
- OP process
- Articulate new longterm goals for P.S. in my learning pathway

Commentary:

- Annotated Resource Design
- Reference Videos, documents, websites used in design build of panel
- Provide more links and documents to research I have gathered
- Design methods (thinking in use)
- Site A&A
- Prototyping
- Permaculture principles
- Collaboration with client
- Cross-pollination - wiki update
- Time management and Project management?
- Timeline
- Schedule and travel
- build and OP design
- Daily tasking

- Gaia Interaction
- OP pro-review oversight and Advisor feedback
- Guild and advisor meetings
- New Guild Buddy Micah
- Group activity
- Activity Hub creation and further work/discussion on Metta group
- Mahara forum - html code iframe
- Getting feedback from associates I did peer reviews for
- Gaia Radio notes/reflection

Supporting Evidence

- Evidence of outcome
- Prototypes and design ideas
- Feedback from client
- photo gallery
- PDF's and images created that don't make the core report
- Un/Learning Journal extracts
- Journal extracts with un/learning detailed
- myths and research about the sun and our relationship with it