

Samantha Aguilar
PennDesign | Arch 753
Fall 2016
"Dream Room" assignment

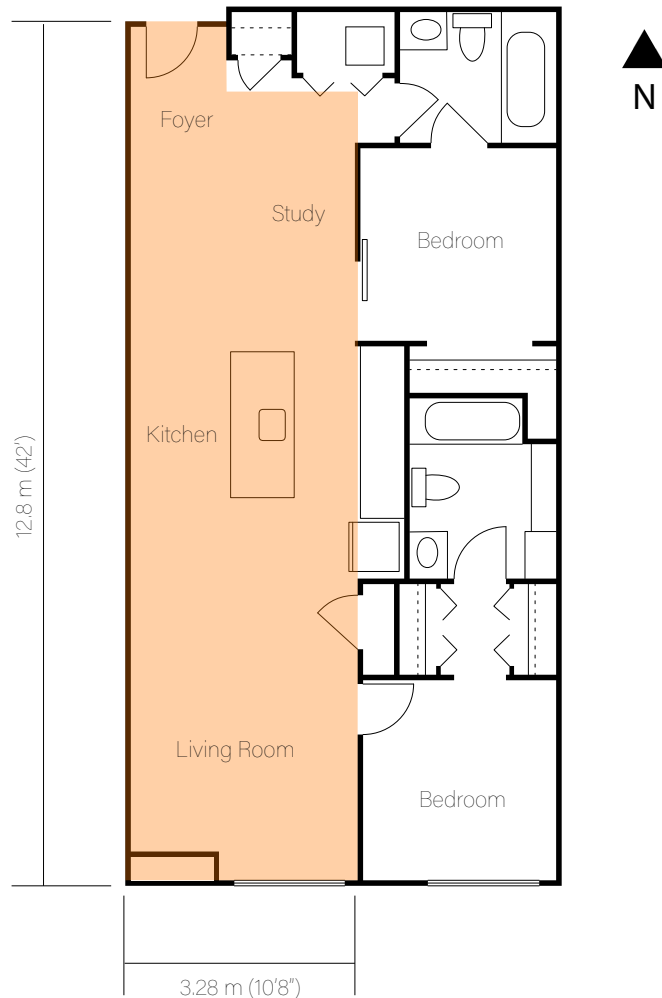
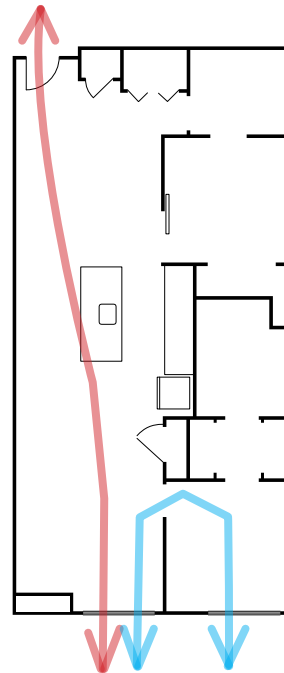


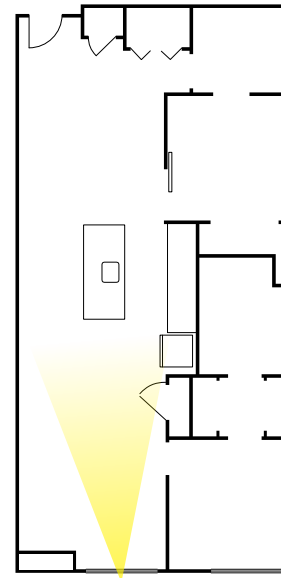
Fig. 1 My apartment. Room of focus is the living room/kitchen/study/entry

Problem 1: Air ventilation travels from the hallway to the window and vice-versa (red). There's no cross-room, fresh air ventilation (blue). This also lead to lots of smells from neighbors' cooking.



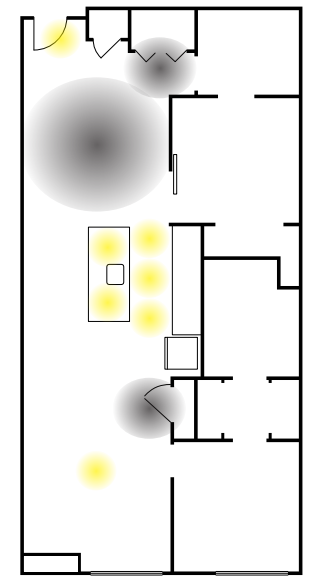
Possible solutions: Introduce a mechanical element, like a fan, to force air ventilation between windows on south facade. Decrease air infiltration from under door leading to hallway to promote cross ventilation between windows.

Problem 2: Adequate natural light only reaches a certain distance from the window. Foyer, study and partial kitchen are dark.



Possible solutions: Increase reflectivity of surfaces, walls, to increase room brightness with use of paint. Remove HVAC unit in left hand side of living room wall to increase window size (reconfigure unit to be smaller or place in bedroom).

Problem 3: Electric lighting is limited (yellow) and causes poorly lit spaces (grey). Concrete ceiling would make addition of ceiling lighting difficult.



Possible solutions: Add lamps to these areas to increase visibility. Change lighting fixtures to increase power of each lighting unit.