

# ADAPTIVE ARCHITECTURE

ARCHITECTURE THAT RESPONDS TO CHANGING NEEDS

## Duluth Performing Arts Center

### Problem Statement

How can architecture adapt to changing users in order to keep relevant, while embracing traditions?

This thesis explores adaptable architecture and its ability to change to the needs of its users. This is in an effort to create architecture that pushes the limitations of a structure after the completion of 'initial' construction. By using flexible and kinetic components in the design of a performing arts center, it can expand the functions of the structure for the client, to provide for today's need and tomorrows.

With today's fast changing needs, architecture is too slow to keep up. Monumental construction techniques are too expensive to change the program. Out of date finishes, changing a rooms size, or space functions are difficult to alter. With the culture of replace anything outdated it has become expensive and unsustainable to continue replace buildings. Architecture that is capable of adapting to new needs extends the life cycle of the building. A wide range of opportunities to use a building keeps intact the historical, cultural, and visual fabric of a community.

The theatre provides to large and small performance groups, traveling and local. It is a place to display the adaptable architecture to the city of Duluth. Flexibility of architecture allows for adjustments to the program for a variety of uses and users. Performing art centers has varying programmatic needs that can change from day to day. With the ability to provide for a larger variety of users, it can create a larger appeal to the community. The infrastructure of the building is designed to provide longevity. Finishes and material are replaceable and mechanical systems are accessible.

