

Phoenix Library

AGENTS OF CHANGE



Group D



January 2004

Where We Began

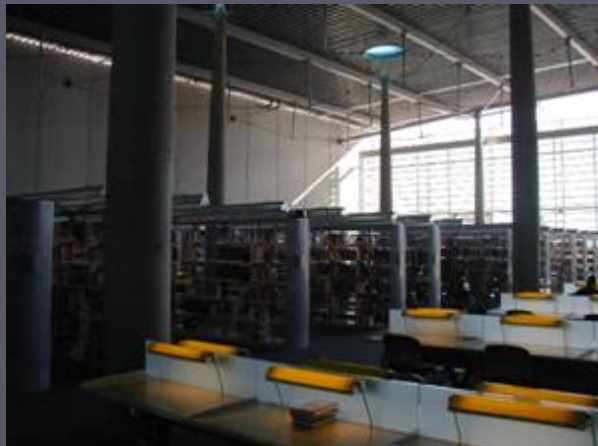
The 5th Floor as a Landscape

The different climates on the floor

The Metaphor of The Mesa

The 5th Floor is a Landscape. Books, Desks & Chairs act like topography to create Micro-Climates.

Where We Began



Hypothesis

**There are Micro Climates in the
5th Floor Reading Room**



The Content: What to Measure?

Air Quality

Light Levels

Ambient Temperature

Air Flow

Surface Temperatures



The Equipment

CO₂ Meter

Light Meter

Anemometer

Raytek

Methodology

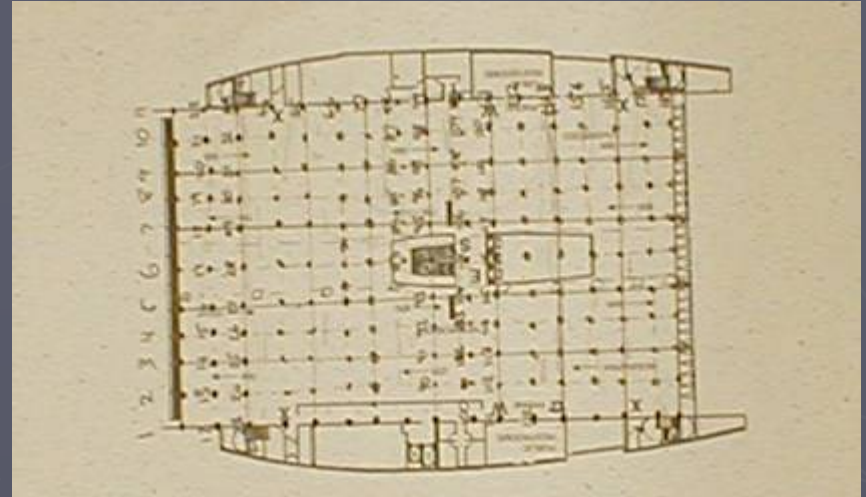
The Grid

Grid Size

Measurement Point

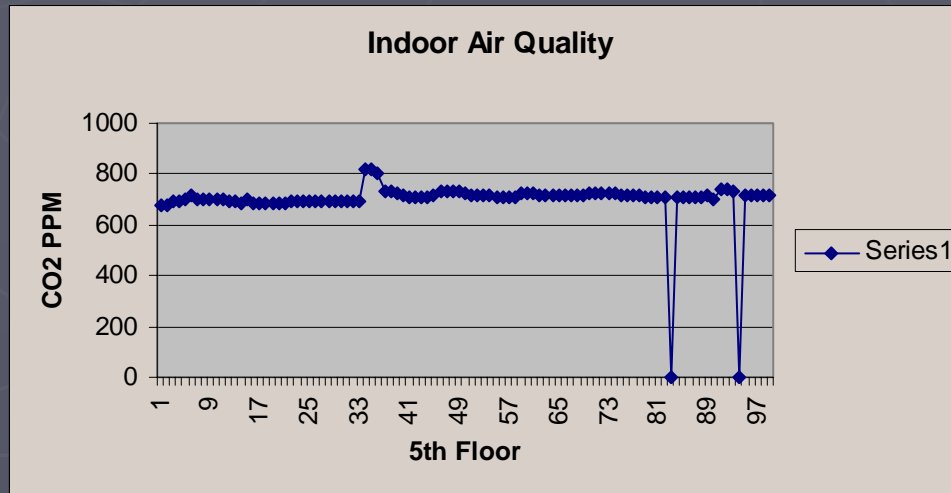
Location and Technique

Task Assignments



Results

Air Quality



Results

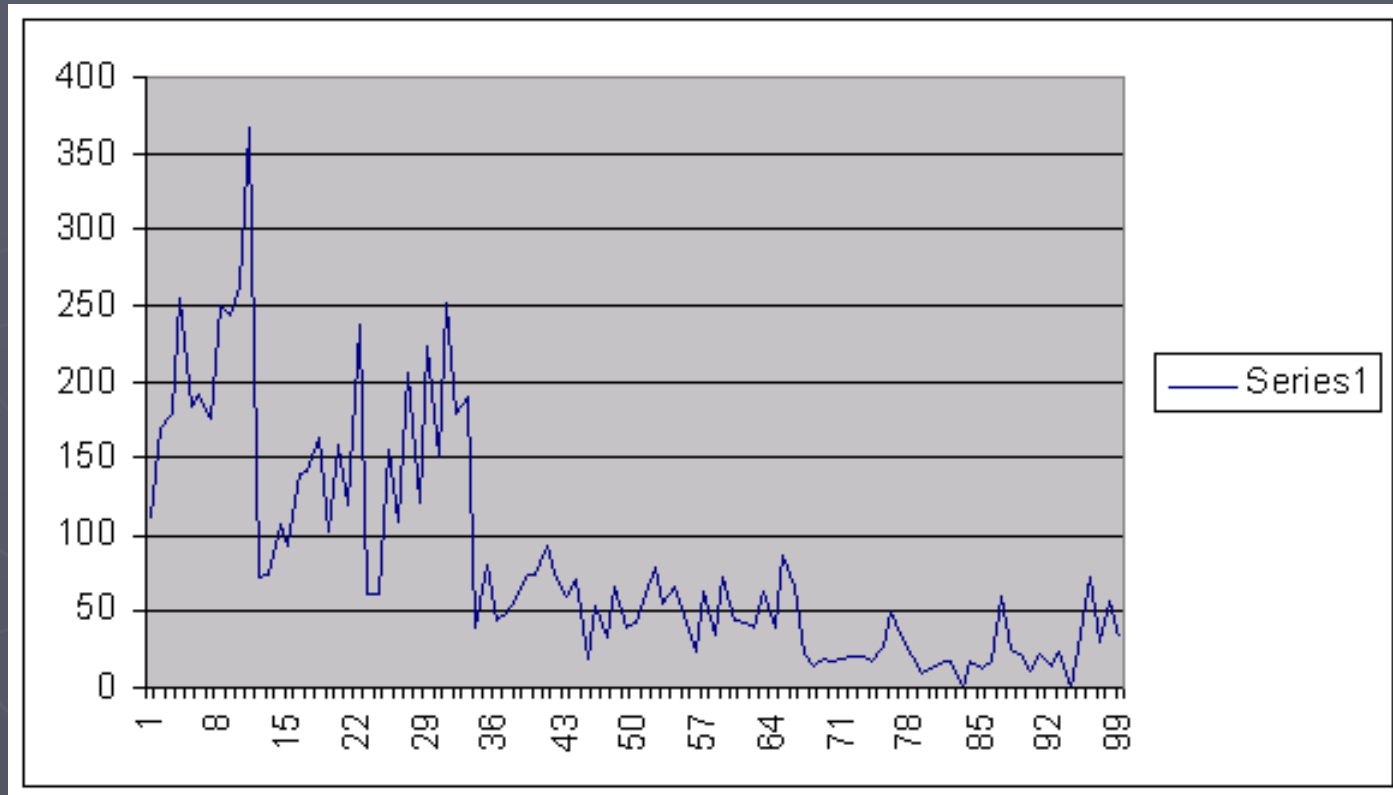
Light Levels

East Wall
had
consistently
lower light.

West Wall
had
consistently
higher light.

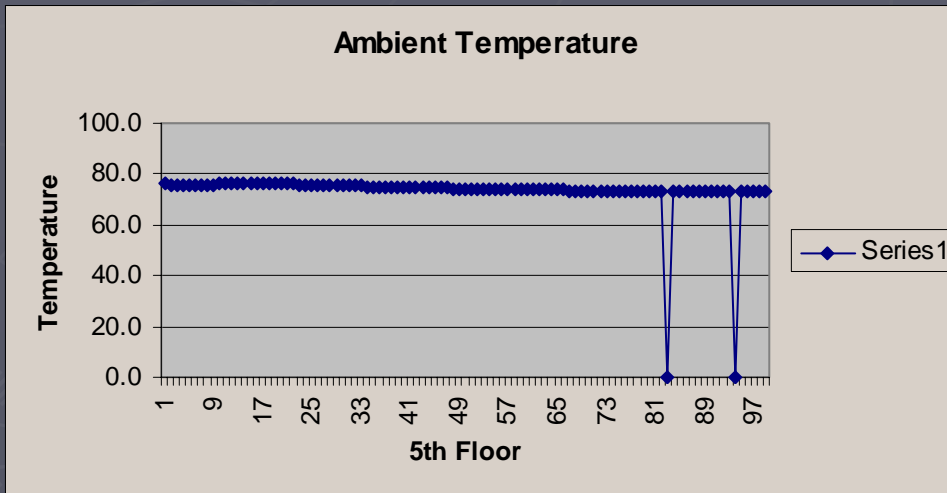
As we moved
away from

windows the electric light became a larger determining factor of light levels as opposed to where natural light was dominant at the windows. Time of day was an important factor as the East/West relationship would have mostly likely reversed.



Results

Ambient Temperature



Consistent throughout

Results

Air Flow Averages

In Bookshelves

8.1 f/s

IN Central Area

79.4 f/s

In Halls

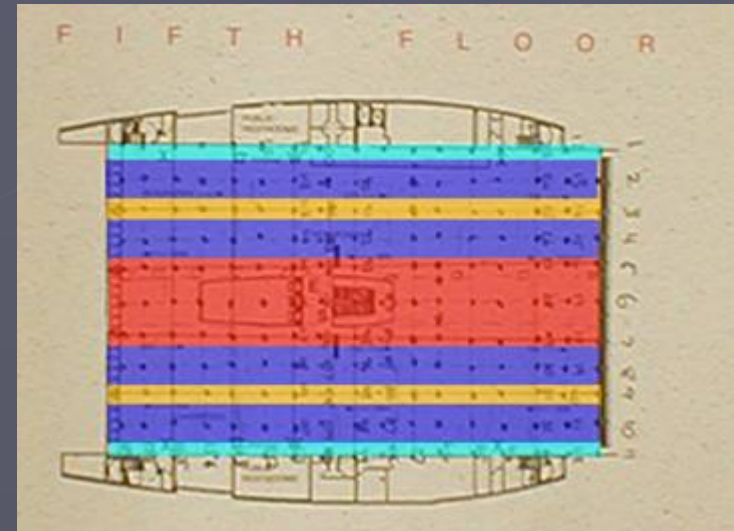
19.6 f/s

East Wall

9.33 f/s

West Wall

11.23 f/s



Air flow was lower in bookshelf areas. Air flows more freely in central desks and hallways.

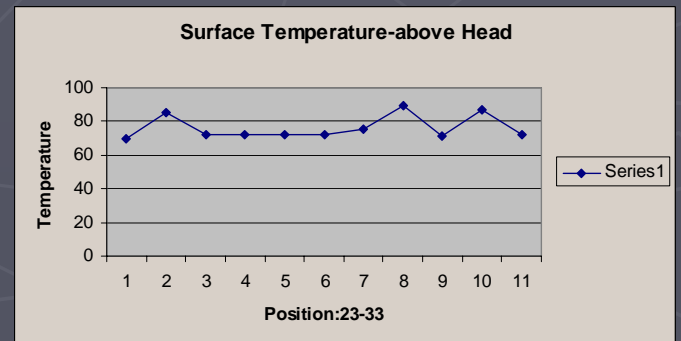
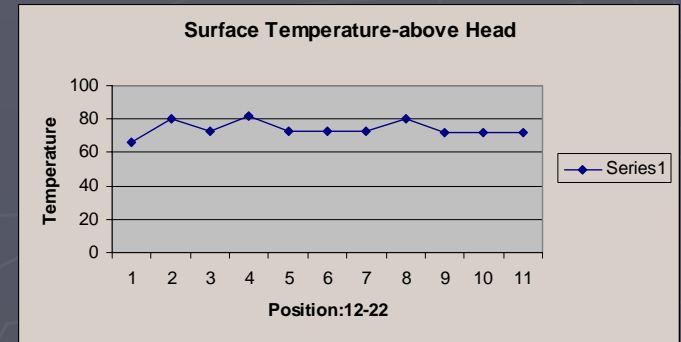
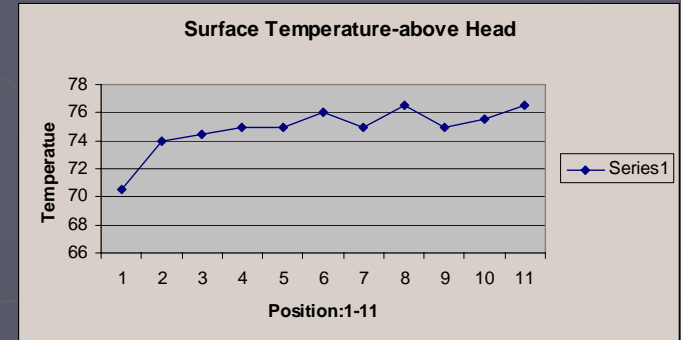
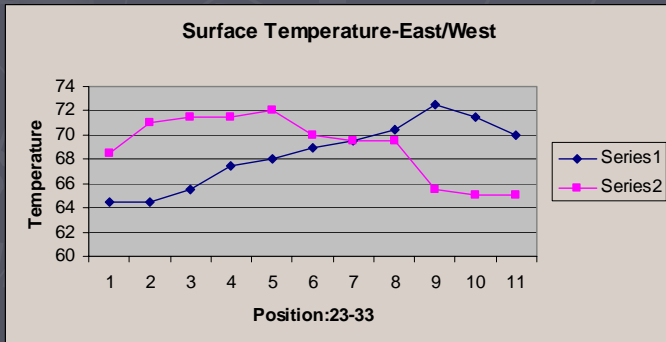
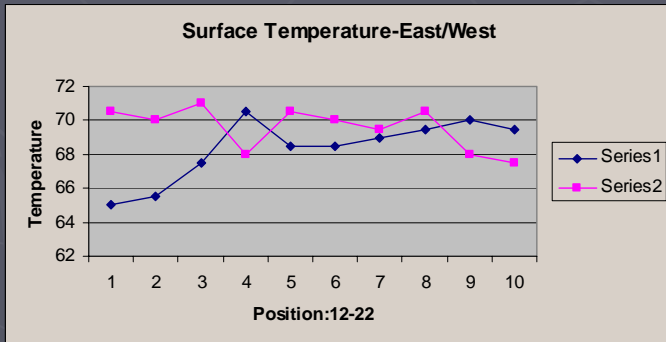
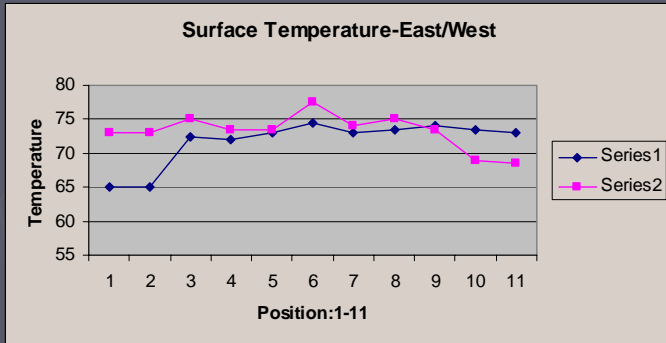
Air flow is restricted near walls

Results

Surface Temperatures

Ceiling

E/W



Conclusion

Overall with regards to Surface temperatures, Light, and Air Flow there were variations in hallways and bookshelves.

Ambient Temperature and Air Quality saw little variation with regard to location.

Thank You

