

Sidelighting: To provide task lighting...



Age-Old Adages

1. Openings high in the space distribute light deeply



Phoenix Central Library
Bruder



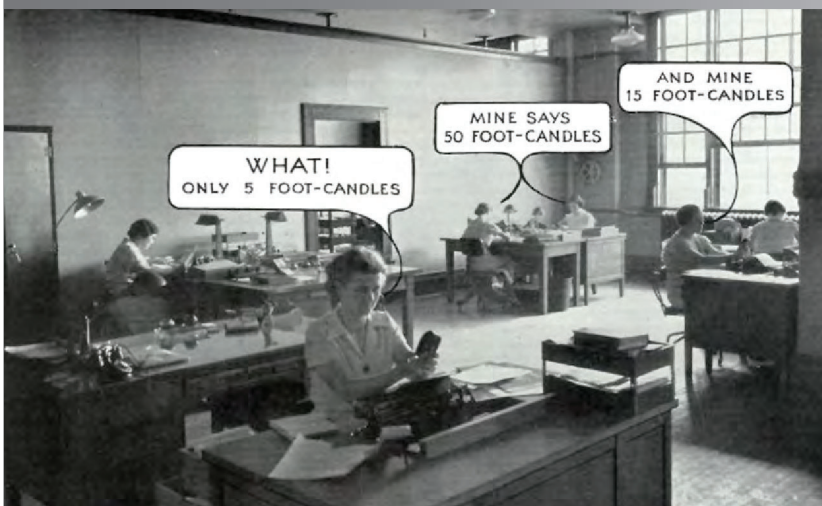
**Admin Building CalPoly Pomona
Predock**



**Windows for light over
windows for view**

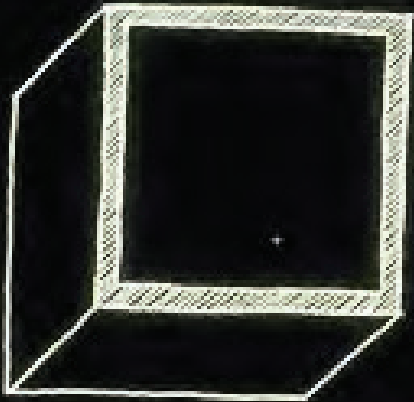
Age-Old Adages

2. Workplaces should be close to windows



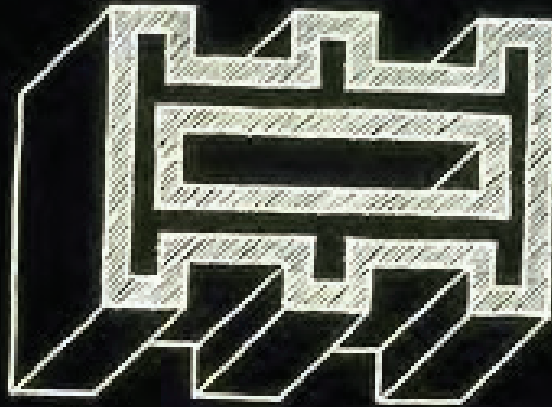
Expanded perimeter for good sidelighting...

Internal Load Dominated

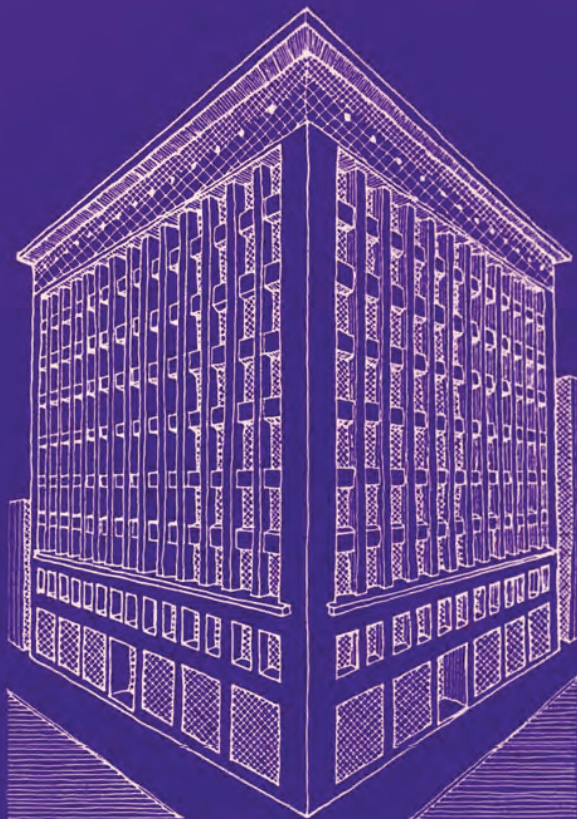


Perimeter	13,500 ϕ (23%)
Core	44,100 ϕ (77%)
Total	57,600 ϕ

Envelope Dominated

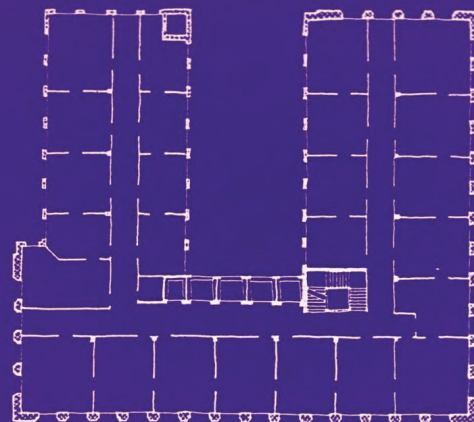


Perimeter	30,600 ϕ (53%)
Core	27,000 ϕ (47%)
Total	57,600 ϕ



Wainwright Building St. Louis, Missouri
Adler & Sullivan

...means lightwells and atria...



Wainwright Building
St. Louis, Missouri Adler & Sullivan



Age-Old Adages

3. Sidelighting is best for tasks



Woman Ironing
Edgar Degas, 1882

St. Jerome in his Study
Albert Dürer, 1514



Age-Old Adages

5. Daylight is cool, sunlight is warm



Winter & Summer
Farnsworth House
Johnson



Glare must be considered...



Contrast greater than 1:3, 1:10, 1:100



END GLARE



HOW?

Rules-of-Thumb

2. Avoid glare with apertures in two surfaces



AAS 308

Mark IV



Rules-of-Thumb

3. Avoid glare with splayed apertures



Memorial Gym



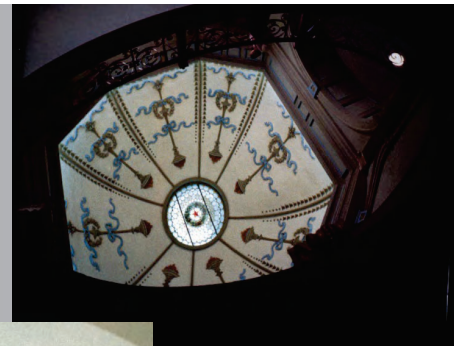
Mt. Angel Library, Aalto

Rules-of-Thumb

4. Avoid glare with high IRC



Hill House
Mackintosh



Texas Capitol



Rules-of-Thumb

5. Daylight is sufficient @ 2x window height



Lockheed Building Daley

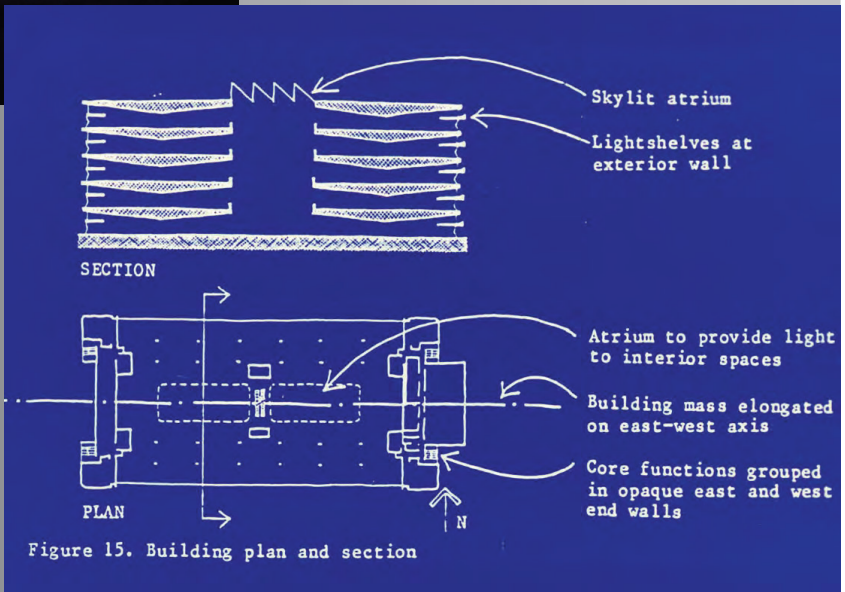


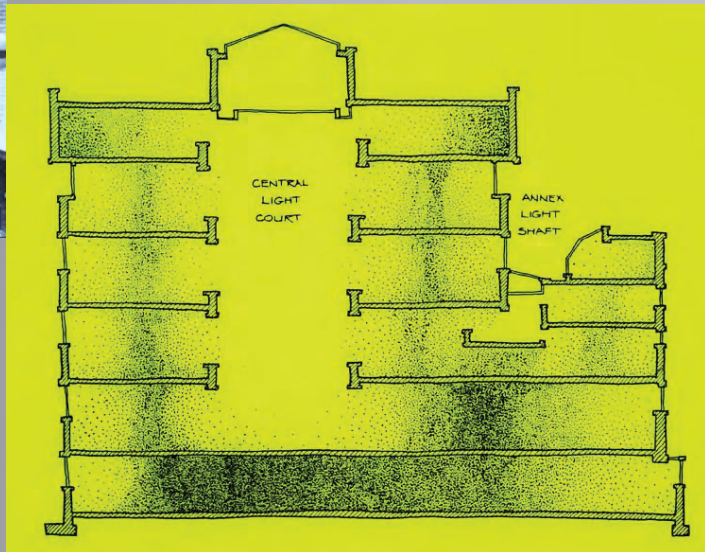
Figure 15. Building plan and section



**Phoenix Central Library
Bruder**



**Larkin Building
Wright**



**Bateson Building
Sacramento, CA**



**Shading South façade vs
shading North façade...**





East façade shading...
West is similar...







California Energy Commission Building Sacramento, CA



South and East facades...

South & East

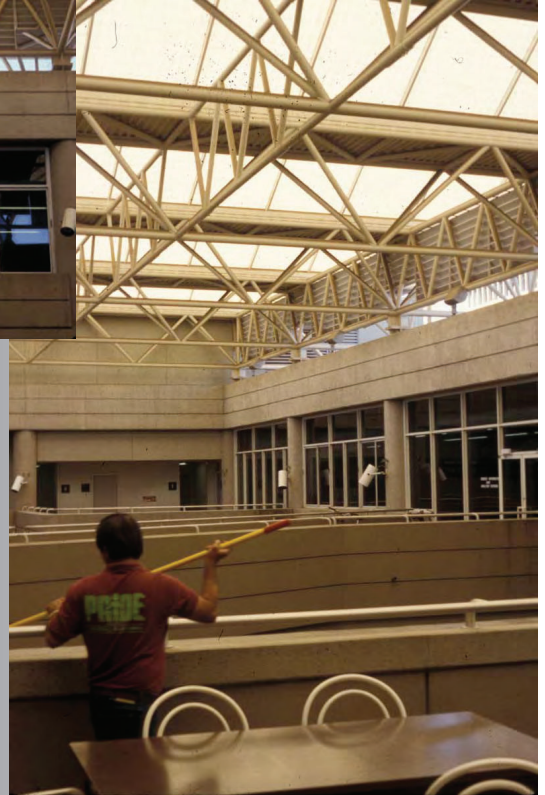


North & East



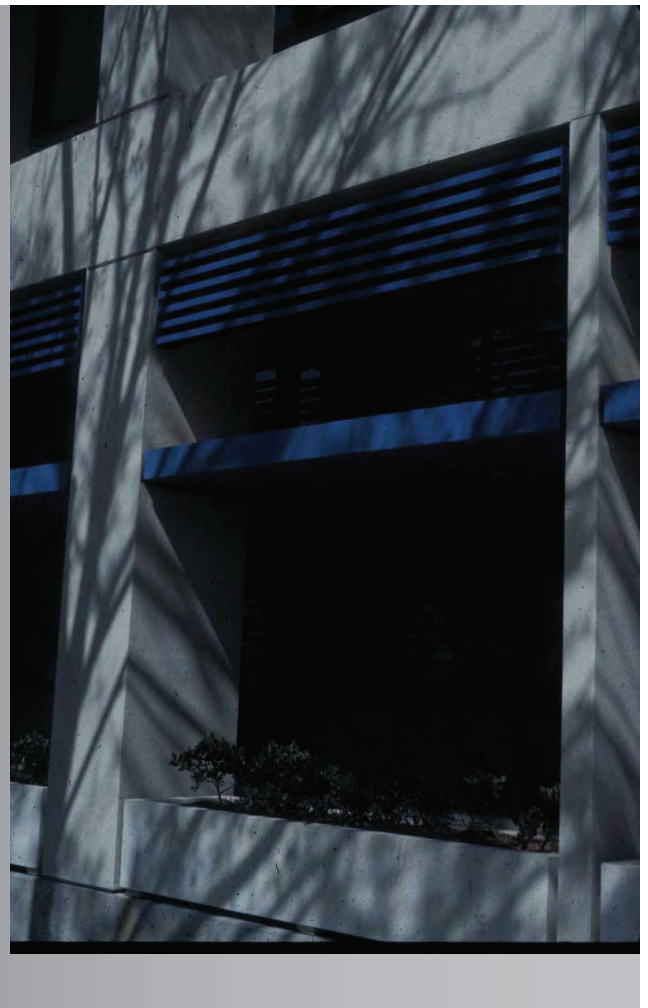
East & South

Atrium



Site C-1, Sacramento, CA





California State Office Bldg, San Jose, CA



West façade (3)



South façade (2)

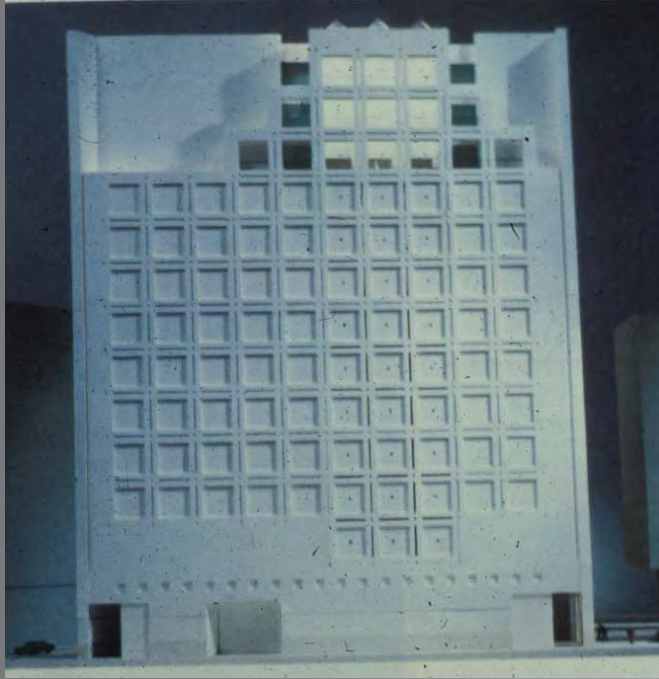


Courtyard

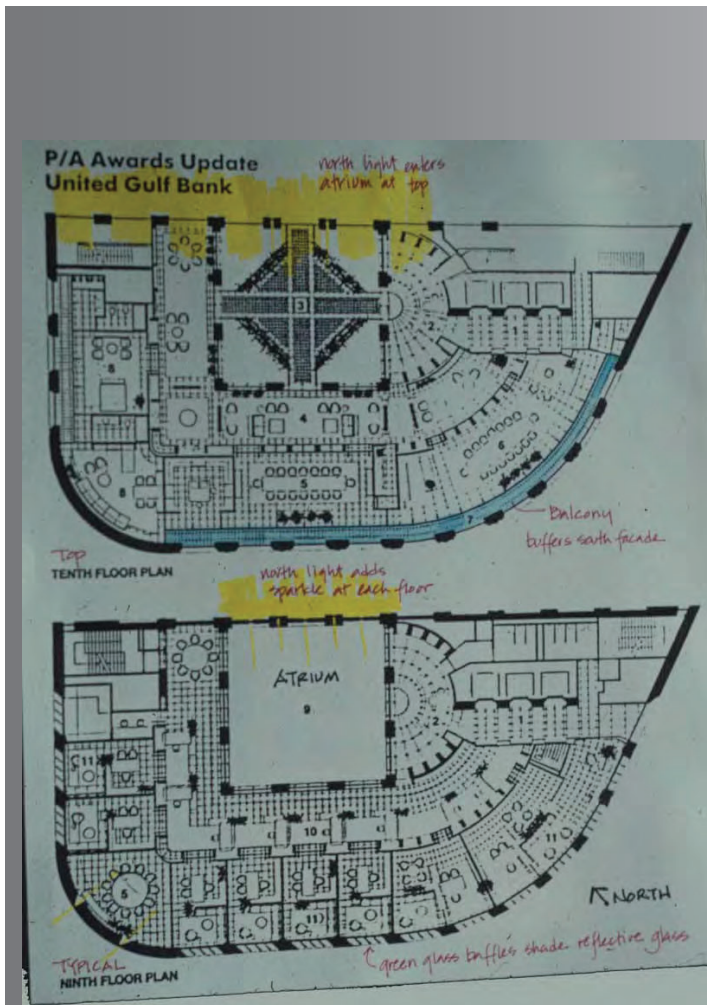


Toldos

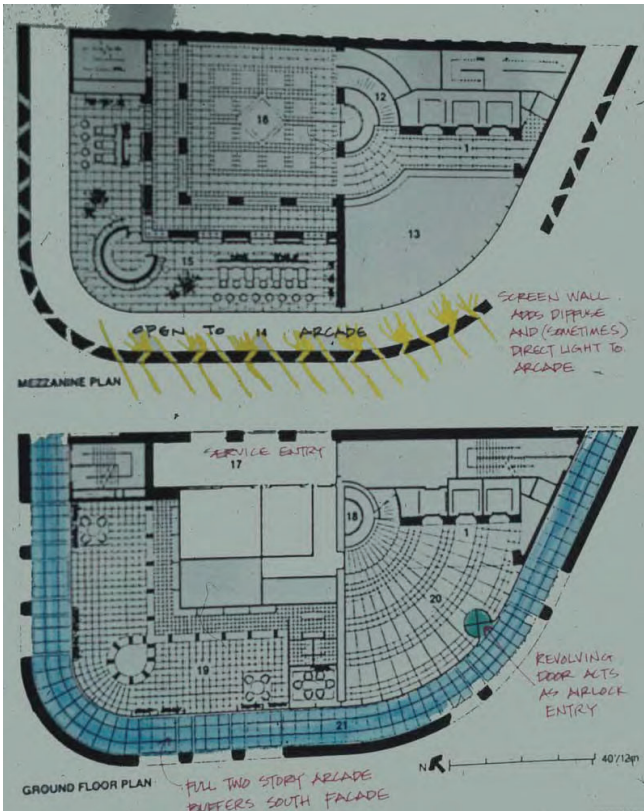
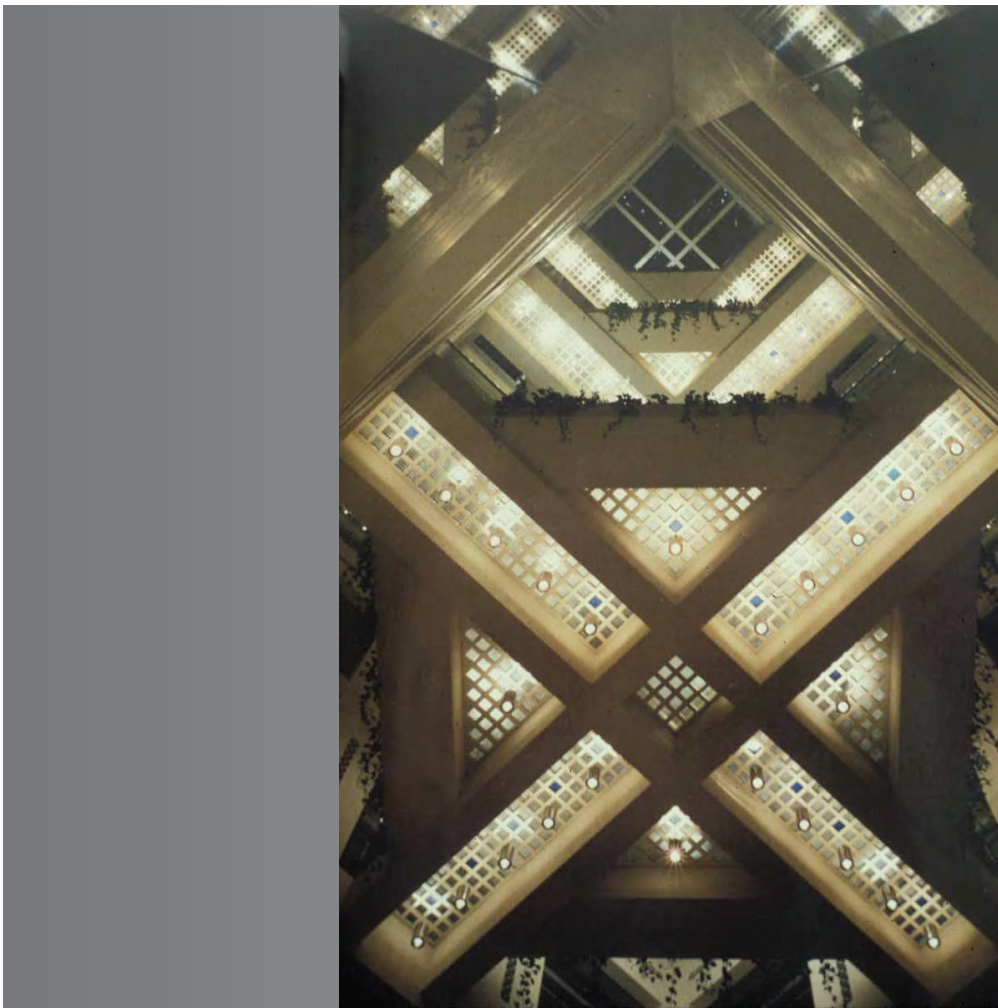
United Gulf Bank Bahrain SOM



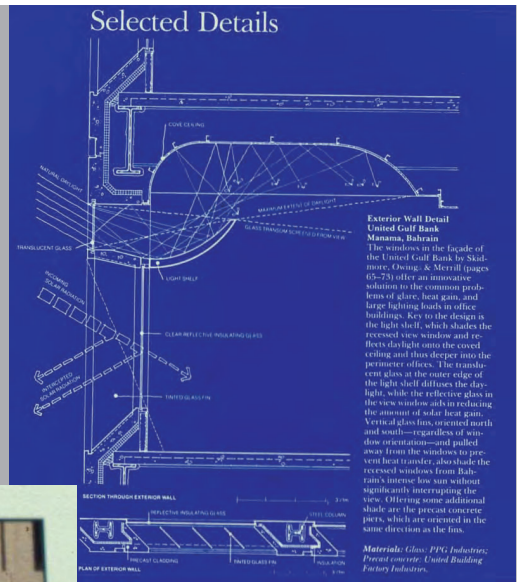
North Façade^ SE corner>



Upper Atrium view to North



Most elegant daylight fixture and shading devices...



Chiswick Park: An Ode to Shading Richard Rogers Ove Arup & Partners







2015 update



