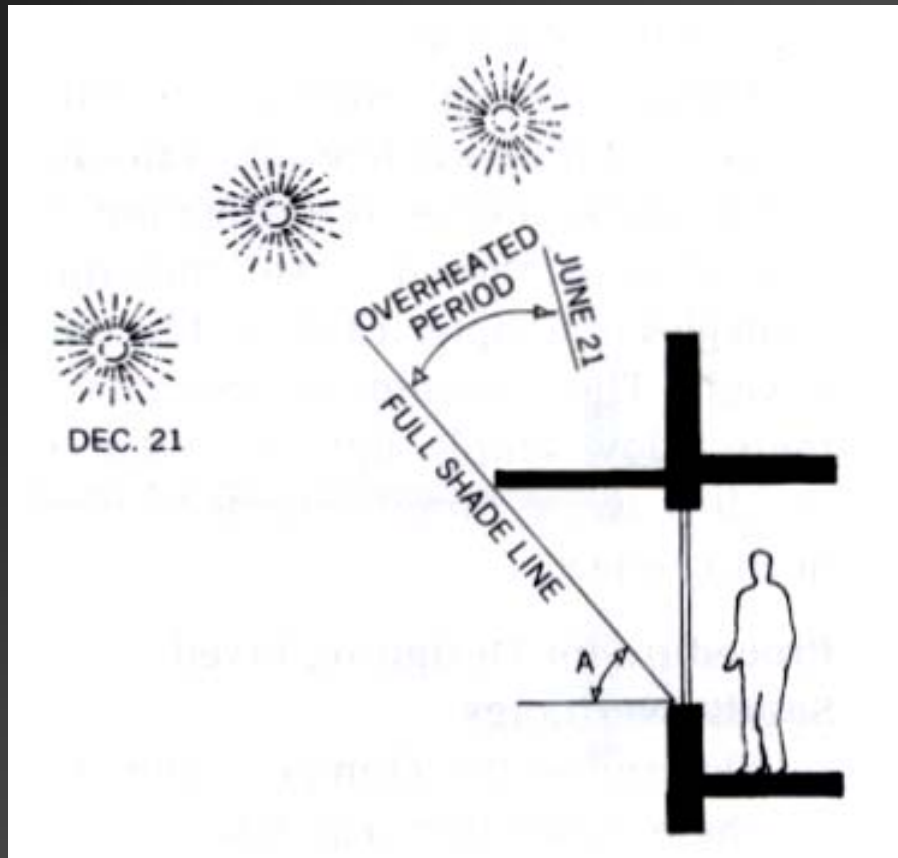


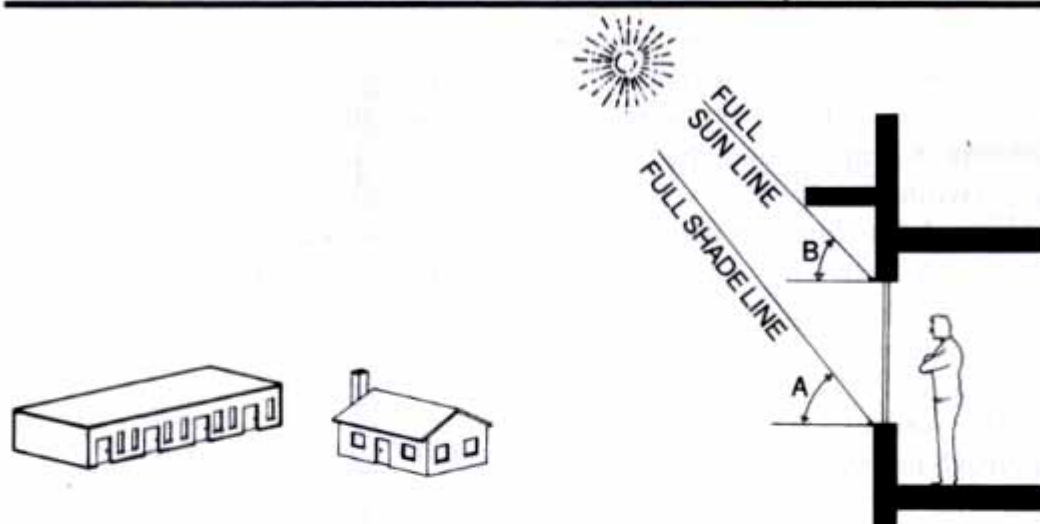
Shading for South Exposure

- Maximize south glazing
 - It is the only orientation that can be effectively shaded in the summer while preserving the view
 - It is also the orientation with the maximum harvest of solar radiation in the winter



The “full shade line” determines the length of overhang required for shade during the overheating period

TABLE 9.8B SIZING SOUTH OVERHANGS ON ENVELOPE-DOMINATED BUILDINGS^{a,b,c}



Climate Region	Reference City	Angle "A" (Full Shade)	Angle "B" (Full Sun)
1	Hartford, CT	65	59
2	Madison, WI	64	55
3	Indianapolis, IN	63	55
4	Salt Lake City, UT	65	60
5	Ely, NE	72	69
6	Medford, OR	71	61
7	Fresno, CA	64	45
8	Charleston, SC	65	49
9	Little Rock, AK	63	52
10	Knoxville, TN	62	51
11	Phoenix, AZ	56	49
12	Midland, TX	63	50
13	Forth Worth, TX	61	54
14	New Orleans, LA	63	44
15	Houston, TX	60	42
16	Miami, FL	50	d
17	Los Angeles, CA	61	43

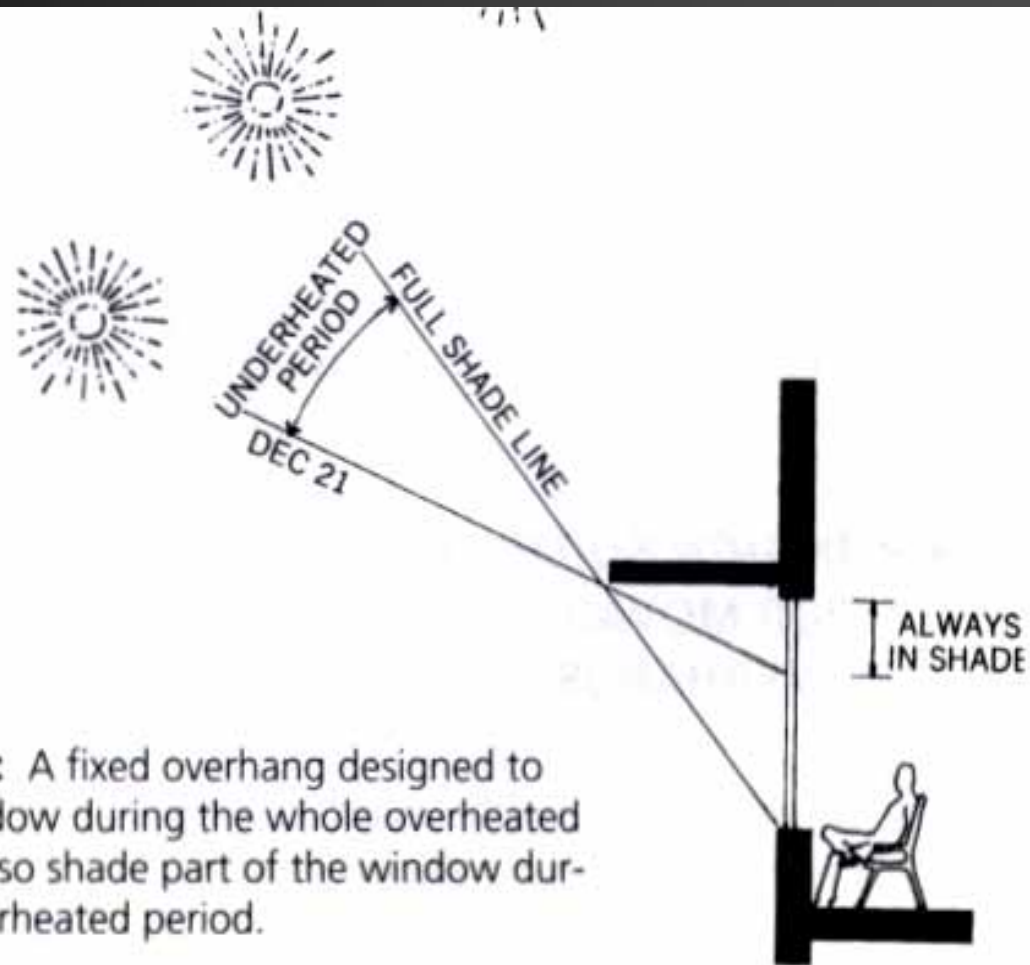


Figure 9.8c A fixed overhang designed to shade a window during the whole overheated period will also shade part of the window during the underheated period.



Protected South Exposure - Summer



Protected South Exposure - Winter



South Elevation in August



South Elevation in August
Swaback Residence



Louvered Overhangs - South Elevation on October 18
McDonnell House



Louvered Overhangs - South Elevation on October 18
McDonnell House



Louvered Overhangs - South Elevation on October 18
McDonnell House





South facade with operable louvers, Phoenix Central Library
Will Bruder Architects



South operable louvers
Phoenix Central Library
Will Bruder Architects



South facade
Arup Campus, Solihull, UK (Arup Associates, 2001)



South facade
Eastgate, Harare, Zimbabwe
(Pearce Partnership, 1996)



Chicago Building
July versus December



South facade
AZ Cardinals Training Facility
(Jones Studio, 1988)



Lycée Albert Camus, Fréjus, France
Foster and Partners



South Elevation with fixed louvers
Dodge Theater, Phoenix



South Elevation with fixed louvers
Scottsdale Shopping Center



Southwest corner with fixed louvers
Scottsdale Shopping Center



South facade
Burnette House
Wendell Burnette Architect





South Elevation in August



Shade Alcoves created by wing walls on south side of house



Shade Alcoves created by wing walls on south side of house



South Elevation in August