



Figure 7.1 Fur seal population trends and history of climatic stressors in the North Pacific/Bering Sea in the 20<sup>th</sup> century. Shaded bars indicate ENSO events rated as strong or very strong, with width of bar corresponding to the duration of the ENSO event (DeLong *et al.* 1998; Quinn *et al.* 1987); dashed vertical lines indicate PDO events (Mantua *et al.* 1997), open circles indicate trends in fur seal population index in the Pribilof Islands based on counts of bull males, in thousands (Lander and Kajimura 1982; Sinclair 1993; Sinclair and Robson 1999), closed circles indicate trends in fur seal population index on San Miguel Island based on pup counts, in thousands (Barlow *et al.* 1995; DeLong *et al.* 1996).

	Chaluka	Oglodax'	Three Saints	Rolling Bay	Kiavak	Neah Bay	Tatoosh	Sooes	Ozette
AD 1900									Unit I
AD 1800		sod level				historic	historic	historic	Unit III
AD 1700									Unit IV
AD 1600				RB	Kiavak	prehistoric			House 2/VtV
AD 1500		Level 2				↓ ?? ↓			
AD 1400		Level 4					prehistoric	prehistoric	House 5/VtVII
AD 1300									
AD 1200	Chaluka Unit I								Unit VII
AD 1100									
AD 1000									
AD 900									
AD 800									
AD 700									
AD 600		Level 5							
AD 500									
AD 400			3SB						
AD 300									
AD 200									
AD 100									
AD 0									
200 BC									
400 BC		Levels 7/8							
600 BC									
800 BC									
1000 BC	Chaluka Unit II								
1200 BC									
1400 BC	Chaluka Unit III								
1600 BC									
1800 BC									
2000 BC	Chaluka Unit IV								

} Little Ice Age

} Medieval Warm Period

Figure 7.2 Approximate relationship between climatic events (Little Ice Age and Medieval Warm Period) and major stratigraphic units analyzed in Chapters 5 and 6. See Chapter 4 for full stratigraphic details.