Cold Climate Region	*Includes areas with extremely long and cold winters and limited hours of sunlight in winter*	*Alaska, North Dakota, Minnesota, Wisconsin, Maine,*
Climate Inventory	*Analysis & Design Considerations*	
• Extreme winter cold • Deep snow • Strong winds • High wind-chill factor • Deep frost • Scrub forest cover • Short hours of sunlight on winter days • Long & severe winters • Ground remains frozen for extended periods • Alternating freeze and thaw • Rapid spring melt	• Orientation to sun and maximize solar radiation • Plan for extensive plowing and storage of snow until spring • Align traffic-ways for crosswinds & build long-linear building clusters with the short side facing the wind • Reduce floor area to minimize excavation and exterior surface area • Build clusters of community facilities and dwellings and add protected skyways to connect buildings • Avoid low ground and flood planes • *Preserve vegetation & ground covers which act as natural wind screens.*	• Create enclosed sun courts and maximize daylight orientation with windows away from strong winds • Group entries, and use raised and covered walks and platforms • Use Post & Beam & platform construction to avoid extensive excavation and foundations • Massive low-profile, well-insulated structures, with limited glass areas, maximum sun exposure, minimum wind exposure & protected entries • Steep roof pitch to protect from snow loads & deep overhangs and exaggerated storm drainage gradients to facilitate rapid runoff

Temperate Climate Region	*Variables temperatures, from warm to hot in the summer, cold in the winter and moderate in the spring and fall*	*Washington State, Oregon, Iowa, Ohio, Pennsylvania, New York*
Climate Inventory	*Analysis & Design Considerations*	
• Four distinct seasons with variable temperatures ranging from hot in the summer to cold in the winter and moderate in spring & fall • Changing wind directions and velocities with violent storms • Alternating periods of drought with light to heavy rains and flooding • Soils are generally well drained and fertile but are susceptible to erosion due to freeze-thaw cycle • Abundance of prime regional forests and agricultural lands • Water catchment and storage is not a prime consideration	• Design spaces for winter, spring, summer, and fall activities • Design in response to prevailing wind and breeze patterns, align streets and open spaces to block cold winter winds and capture summer breezes • Construction to withstand the worst of the storms and provision for all-weather durability and maintenance • Community plan should integrate with natural surroundings and utilize recreation values of site • Design streets to protect utility lines to withstand extreme conditions	• Minimize need for cooling, heating and ventilation by orienting building to minimize summer heat gain, maximize summer breezes and protect from winter winds. • Design to protect from shrinkage, swelling, condensation, freezing, and snow loading • Design structures to withstand severe conditions • Floor plans can spread out and make use of excavation, basement and foundation construction • Buildings do not need to be clustered for protection from weather conditions

Hot-Arid Climate Region	*Categorized by consistently high temperatures and low humidity*	*Arizona, New Mexico, Nevada, Death Valley, Southern California*
Climate Inventory	*Analysis & Design Considerations*	
• Extreme heat in the day alternating with extreme cold at night • Expanses are vast • Sunlight and glare are penetrating • Drying winds are prevalent and raise devastating dust storms • Annual rainfall is minimal and water supply is extremely limited • Sudden and forceful spring rains • Prone to flash floods • Vegetation is sparse • Limited agricultural productivity requires irrigation and the importation of food and other goods	• *Lack of water is a major concern. Provide catchment of spring rainfall from roofs, courts and paved areas.* • *Minimize irrigation needs by compact planning & ranch style patterns* • *Orient to respond to the position of the sun throughout the day* • *Protect all natural growth* • *Avoid flood prone areas* • *Recycle wastewater* • Protect against dust and wind • *Move group activities indoors and provide protection from the sun using shaded paths and coverings*	• *Thick walls, high ceilings, wide overhangs, with limited windows, light colored exterior materials and cool compact dim interior spaces* • Utilize passive solar design and mass storage to store warmth of the day for night heating and cool of the night for daytime cooling • Insulate to protect from heat loss & gain, make use of radiant heat and seal against dust and wind • Insulate against cold nights • *Low ranch type spreads with rooms grouped around planted irrigated courts and patios to take advantage of cooling effect of evaporation and increase humidity*

Hot-Humid Climate Region	*Categorized by consistently high temperatures and high humidity*	*Florida, Georgia, Mississippi, Alabama, South Carolina*
Inventory	*Analysis & Design Considerations*	
• Temperatures high and relatively constant with high humidity • The sun's heat is debilitating • Often daily Torrential & Sudden Rain • Storm winds of typhoon and hurricane force • Breeze almost constant in the daylight hours • Vegetative covers from sparse to luxuriant and sometimes jungle-like • Sky glare and sea glare can be distressing • Climatic conditions breed insects • Fungi are a persistent problem	• Elevation of use areas and walkways by deck and platform construction to open to breeze and reduce insects • Use of stone, concrete, metals and treated wood in contact with ground • Spacing of habitation in a dispersed manner to channel favorable breezes • Settlements located on protective land masses, above level of storm-driven tides • Heat-of-day gathering places should be roofed or shaded • Reduce or eliminate glare through orientation or well placed plantings • *Provide open, well-ventilated storage and use fungus resistant materials*	• *Cool by all feasible means; open building plans, high ceilings, broad overhangs, louvered openings, and natural ventilation* • *Use of colonnade, arcade, pavilion, covered walkways and breezeways. Orientation of entrance and windows away from storm track* • *Elevate structures above the ground, facing into the breeze, and insect-proof critical areas* • *Orient windows and entry away from storm track and construct wind-resistant structures* • *Utilization, indoors and out, of indigenous plant materials for the cooling effect of their foliage*