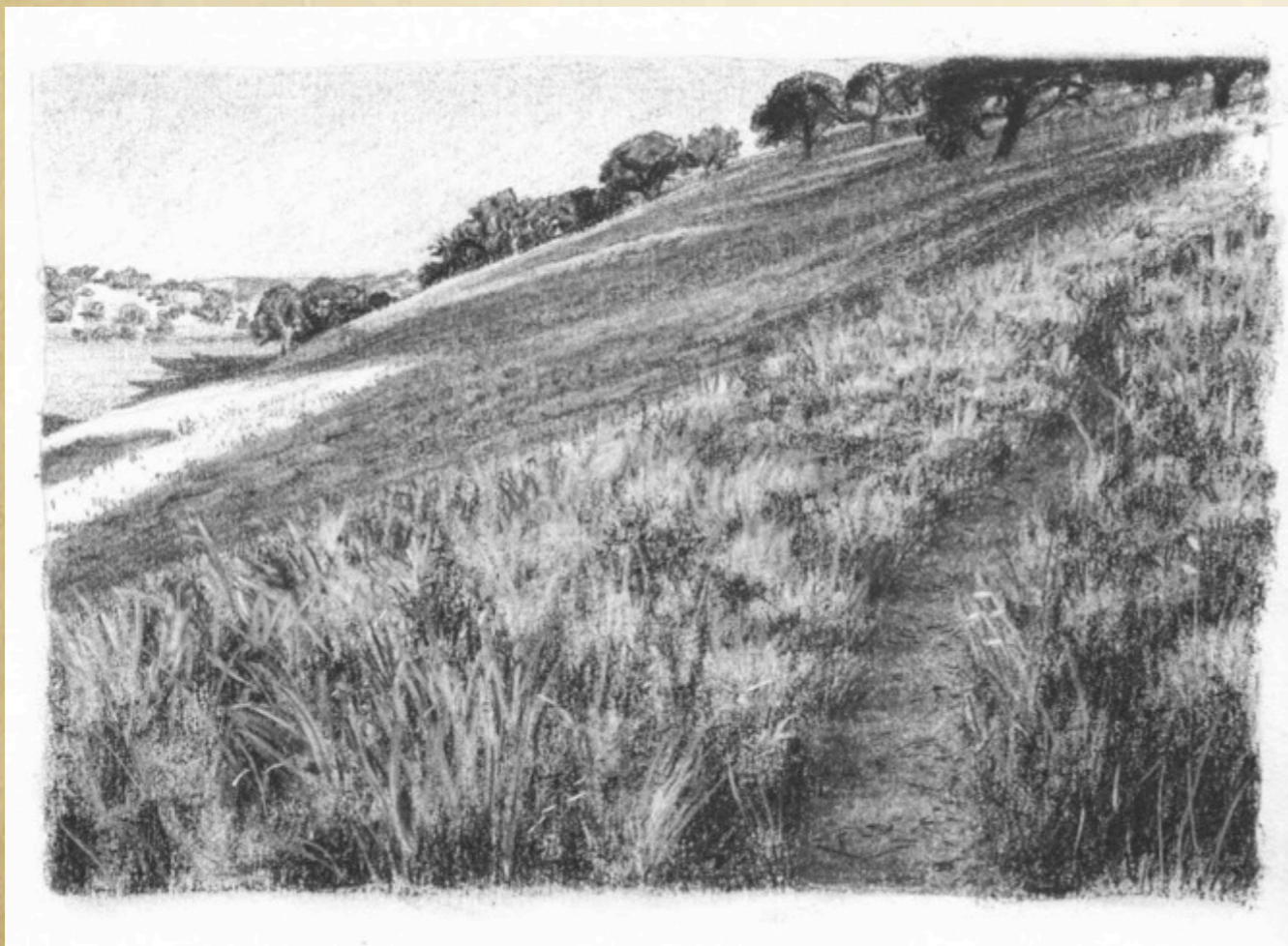




A State of Change
Forgotten Landscapes of California

What was the Past Like?

➤ Sign of Grizzlies



Cycles of Change



SEPTEMBER 1918



SEPTEMBER 1924 - DROUGHT



JANUARY 1924



JANUARY 1927









San Francisco Today



O'Farrell Street, San Francisco



200 years ago



Oakland Today

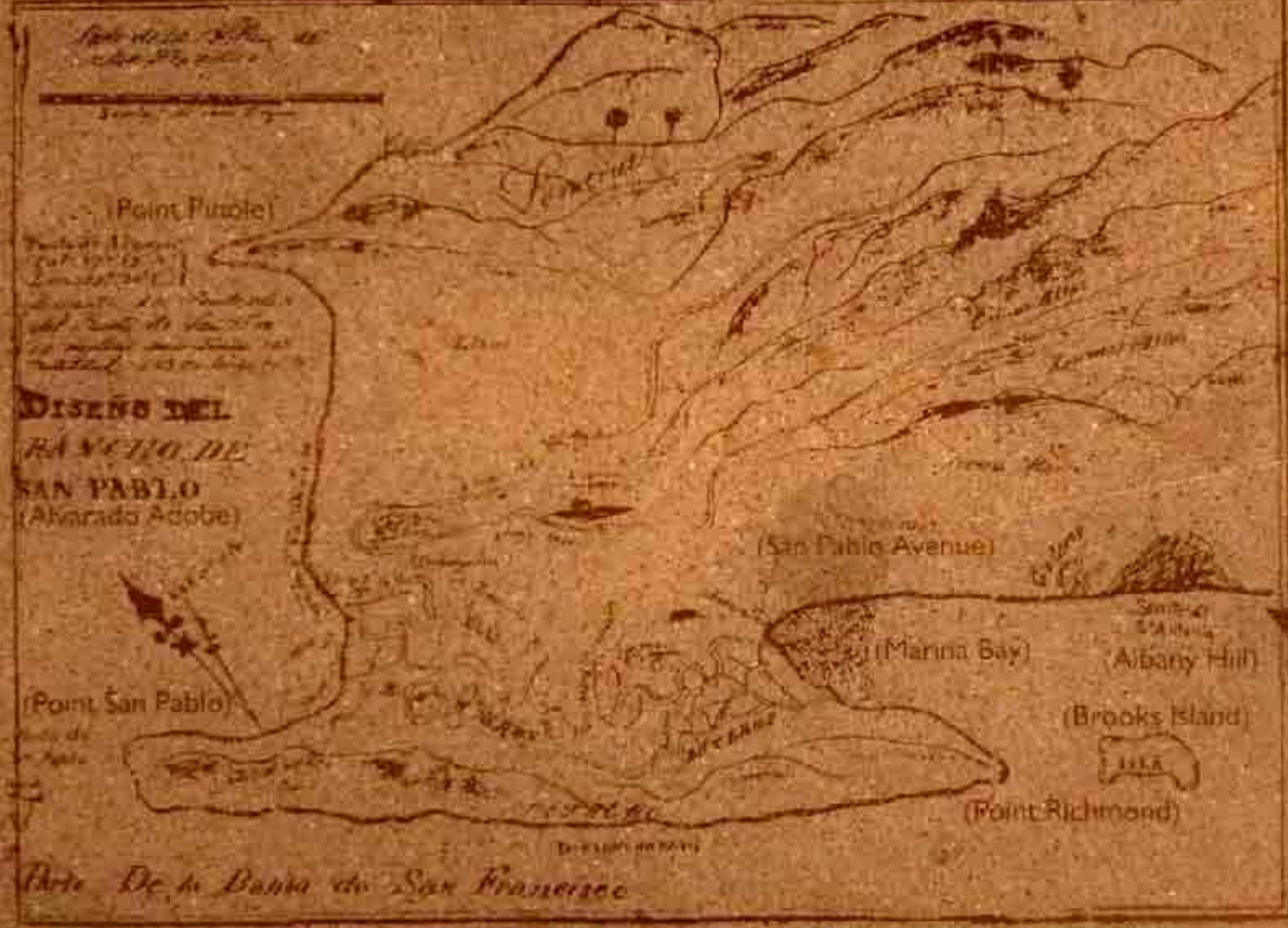


500 years ago



El Cerrito Plaza





The Forbes Map 1830. Present day names are in parentheses.

1,000 years ago



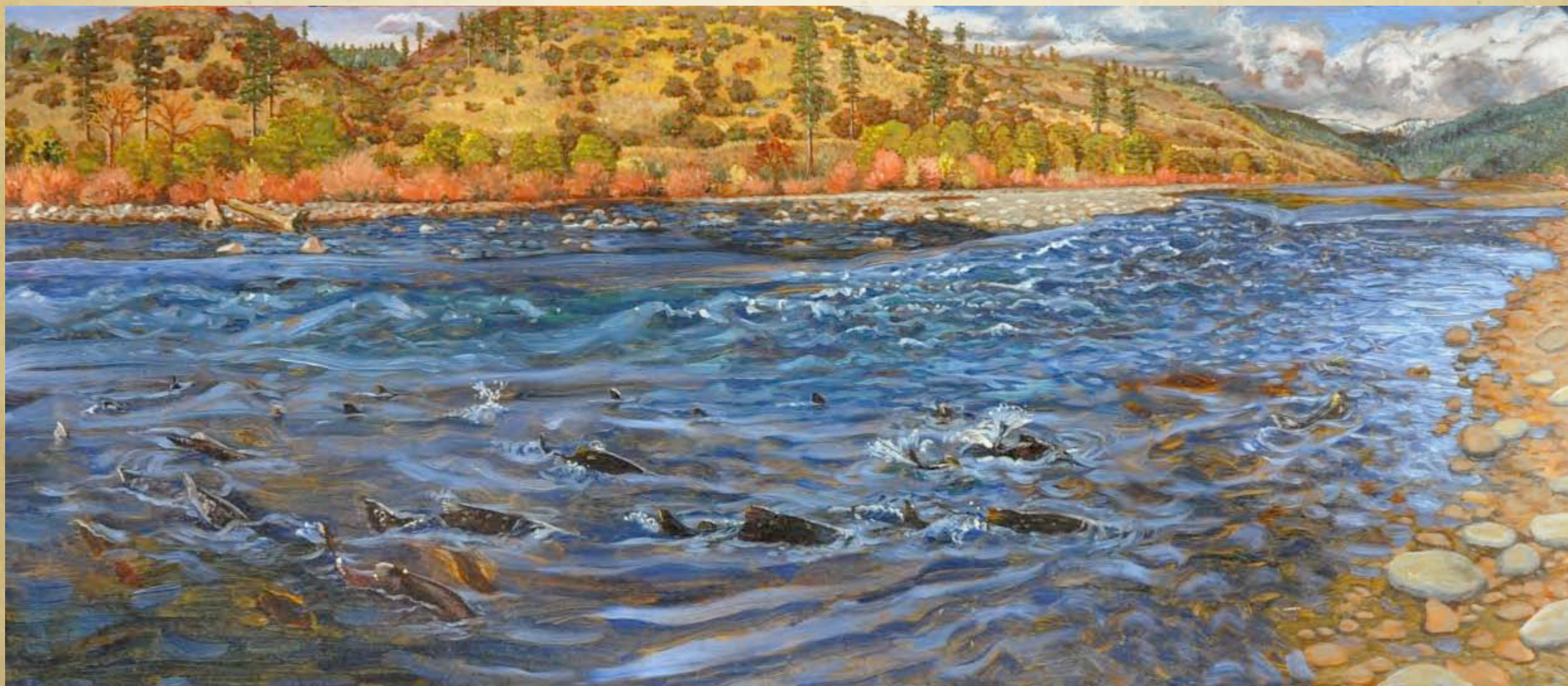
Santa Barbara long ago and today



San Joaquin River Today



Long ago

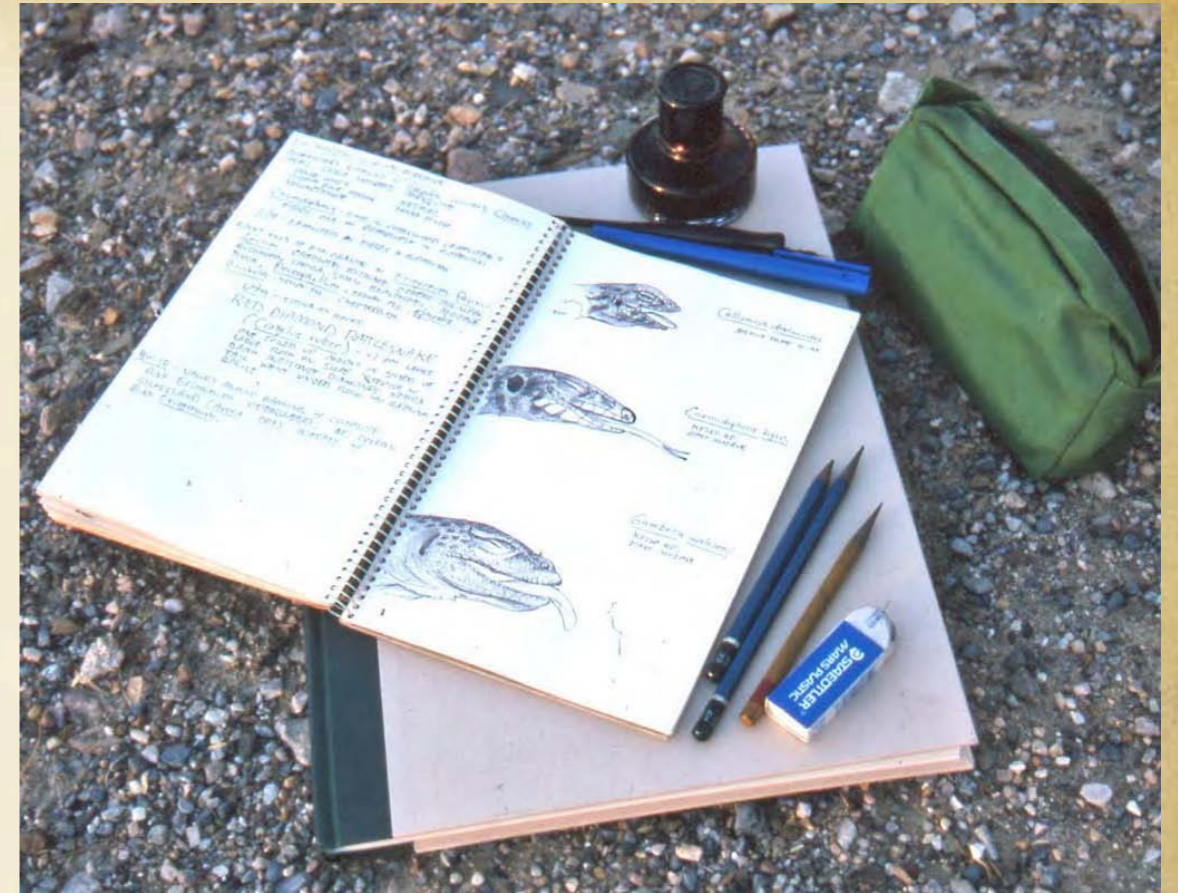


San Fernando Valley Today



Old California





‣ Fieldwork in natural areas

‣ Library research

‣ Old photos and paintings

‣ Historic maps



FIGURE 19 Maidu village on Sacramento River, ca. 1853, by Henry B. Brown.





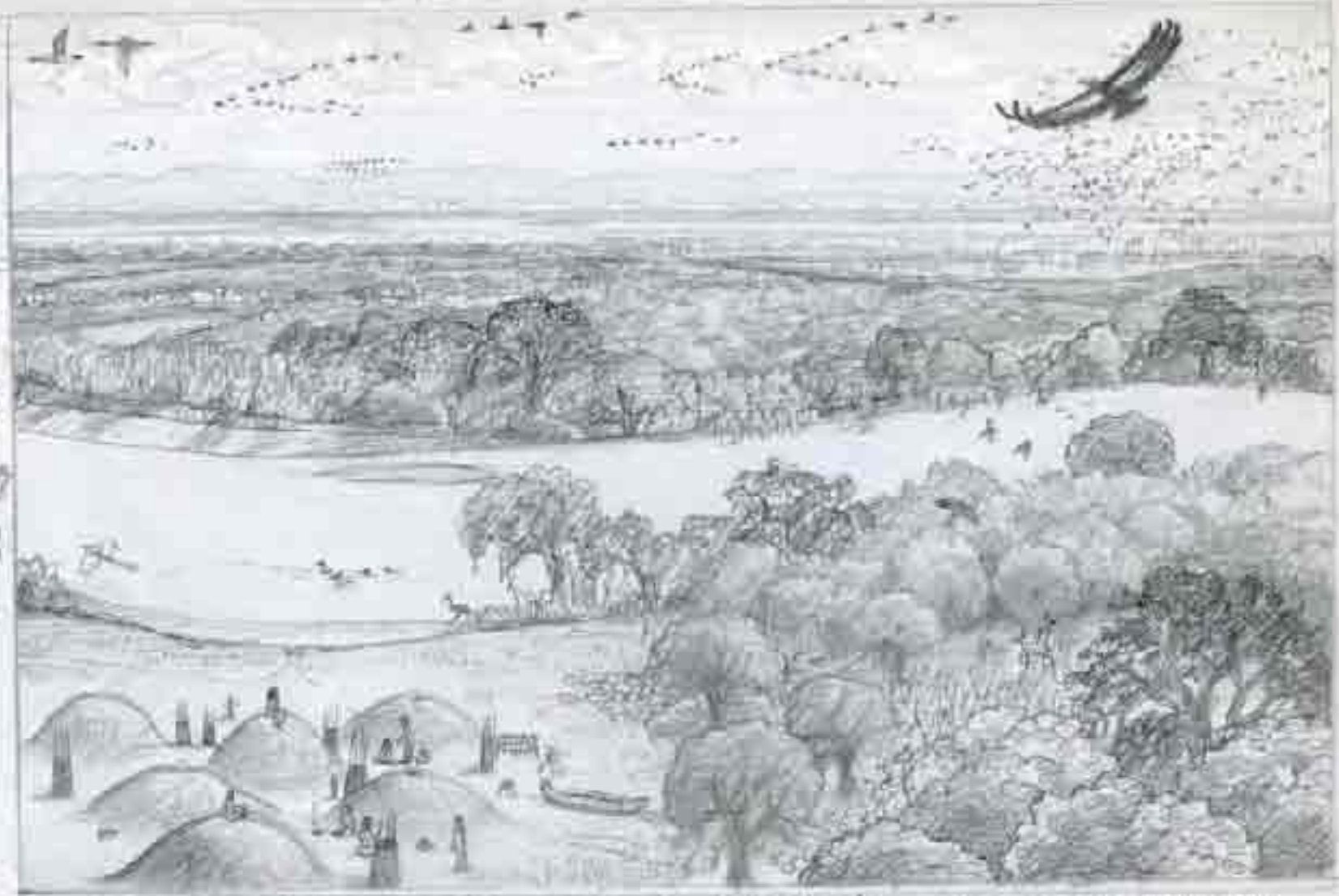
RETURNING
TO DRAW

#1 OLD BRIDGE 18715 18716



WING-POINTED GEESE, DUCKS

CRANE



RAILS
 GREAT
 GREAT
 GREAT

GRASSLAND
 THE NORTH
 LAKE
 TREE
 VALLEY
 RIVER
 VALLEY
 RIVER
 RIVER

SACRAMENTO RIVER DELTA - 1911 (1911) KATHA CUNNINGHAM 2010



WILSON'S PHOENIX

SWIFT -
DOWNS - PHOENIX, GEESE, DUCKS

DOWNY

MAINT
GARDENS

GRASS
EGGS
MOUNTAIN
MOUNTAINS

SWIFT
DOWNY
MAINT
GARDENS

WILSON'S PHOENIX
EGGS

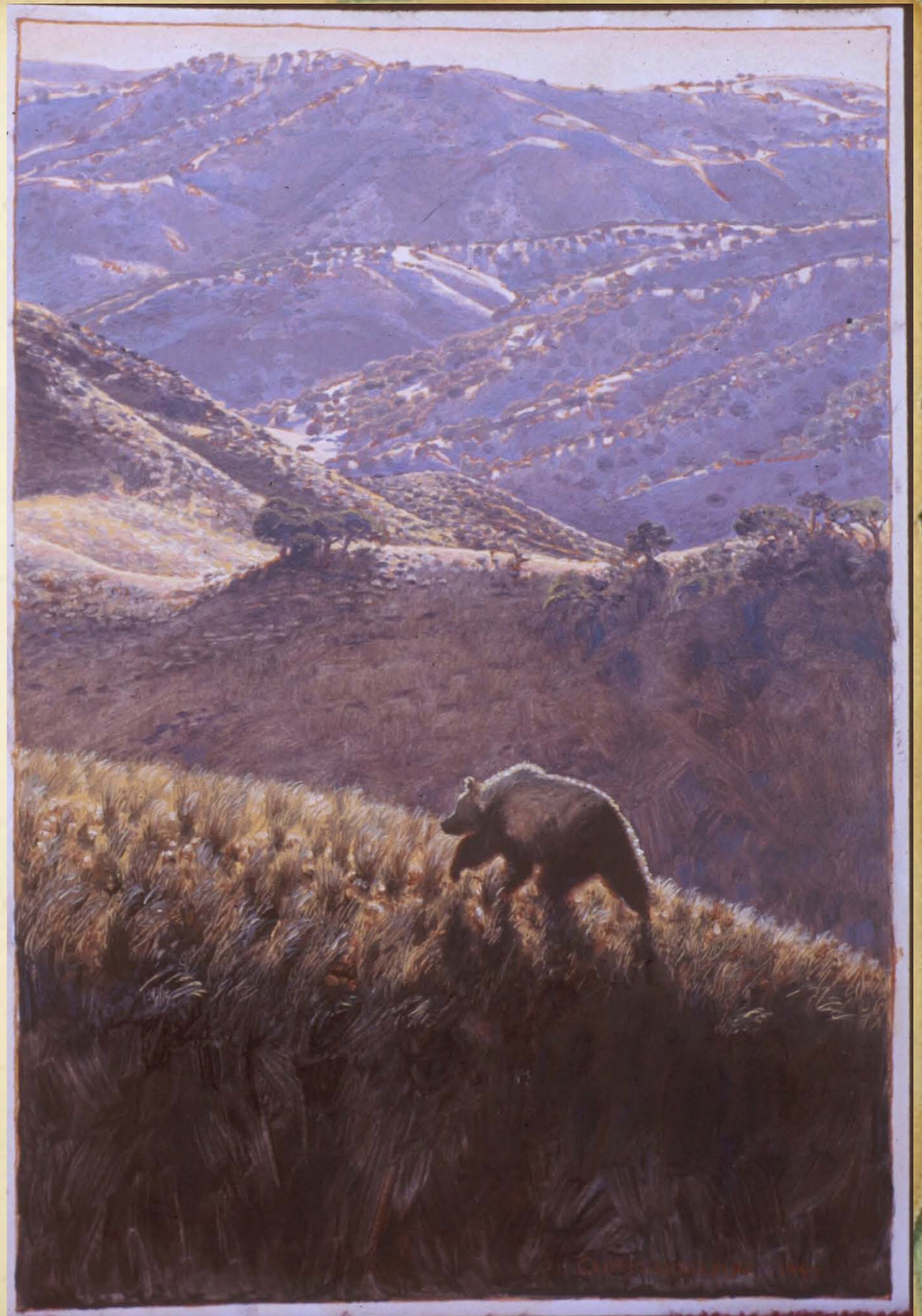
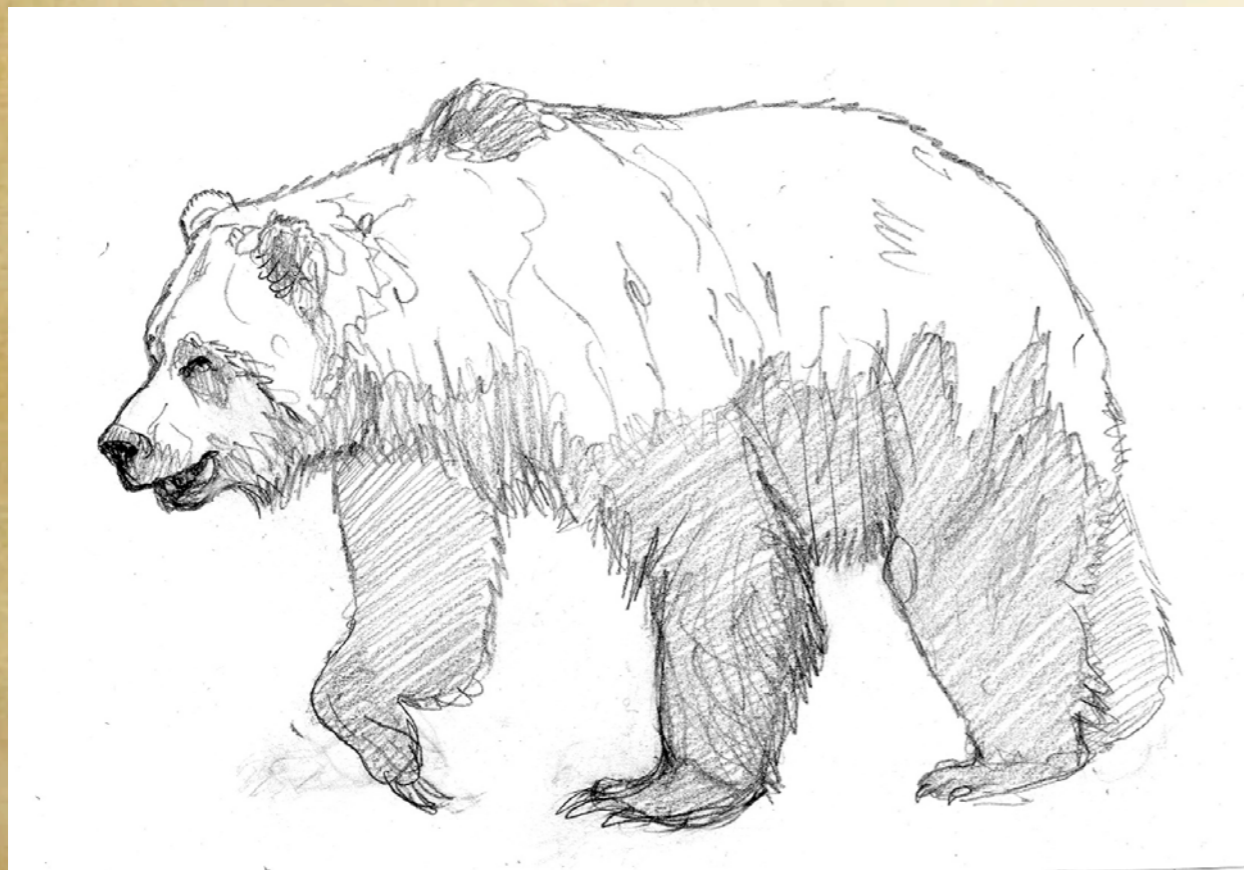
VALLEY OF
THE
MOUNTAINS

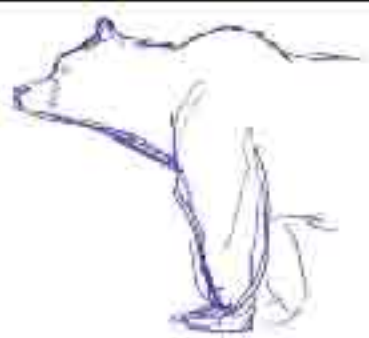
SACRAMENTO RIVER - (NATIVE NAME) (SACRAMENTO)

LAURA LUMBERMAN 1910

Golden Bear

California Grizzly

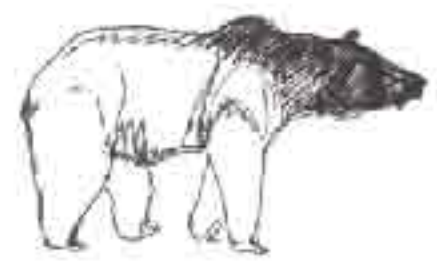




COYOTE FOLLOWED
GRIZZLY FAMILY FOR
1.5 MILES. ONCE MATTER
TOOK FOR STEEP TO
CHASSE COYOTE OFF. BUT
REMOVED IN 1924.



07394







ATLANTIC
BUCK
JUMPING ON DEER
BACK WITH A
SILM, BOUNCING IT
DOWN WITH HIS
WEIGHT.



CALIFORNIA
BLACKBERRY
(*Rubus* virginicus)



DIGGING UP
GROUND SQUIRRELS



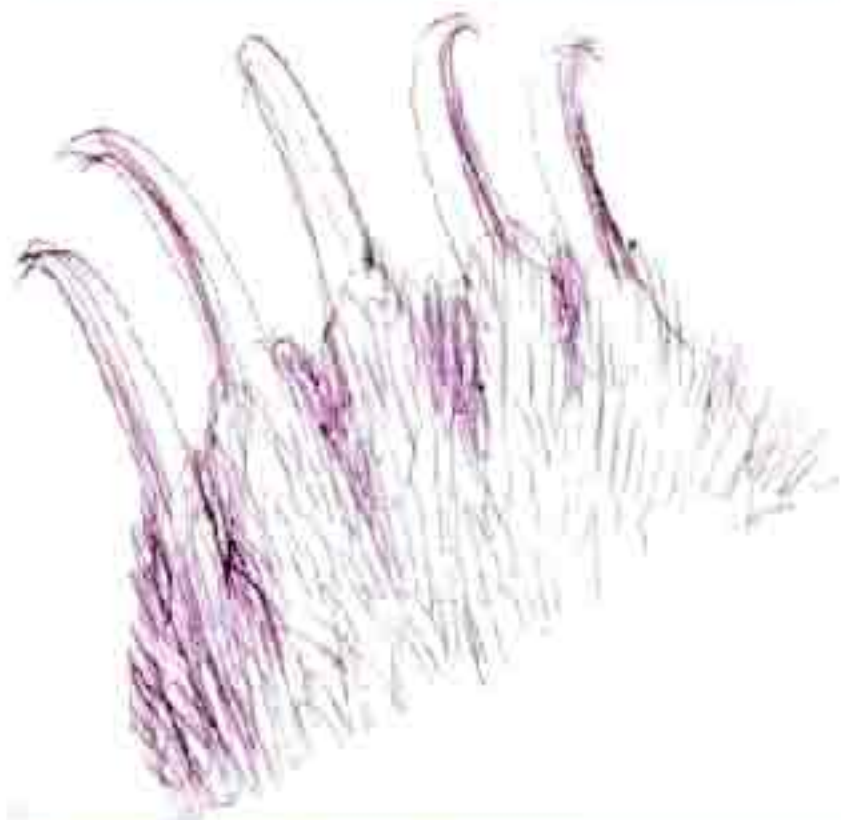
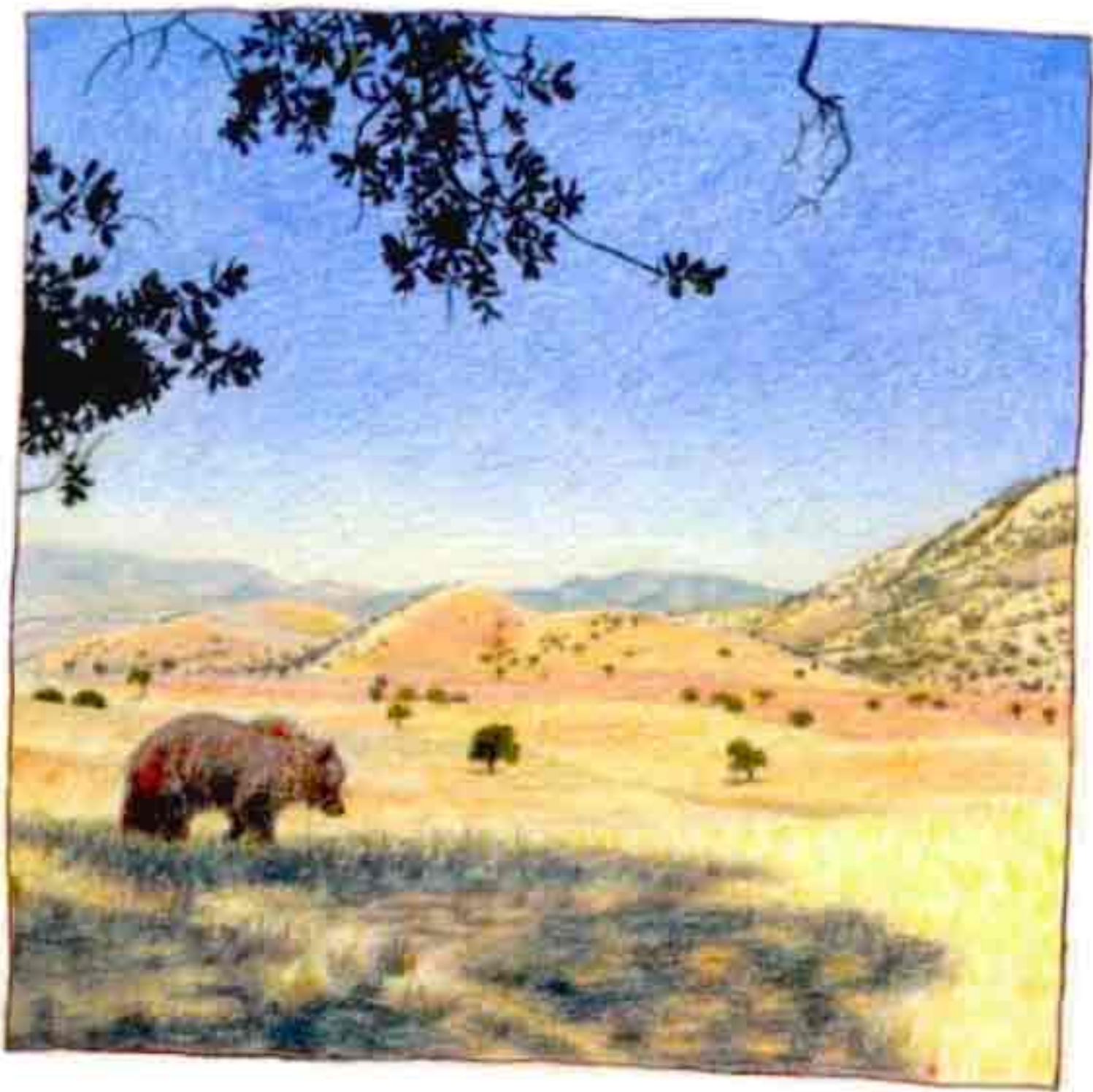
FALLEN
MANZANITA
BERRIES
(*Arctostaphylos*)

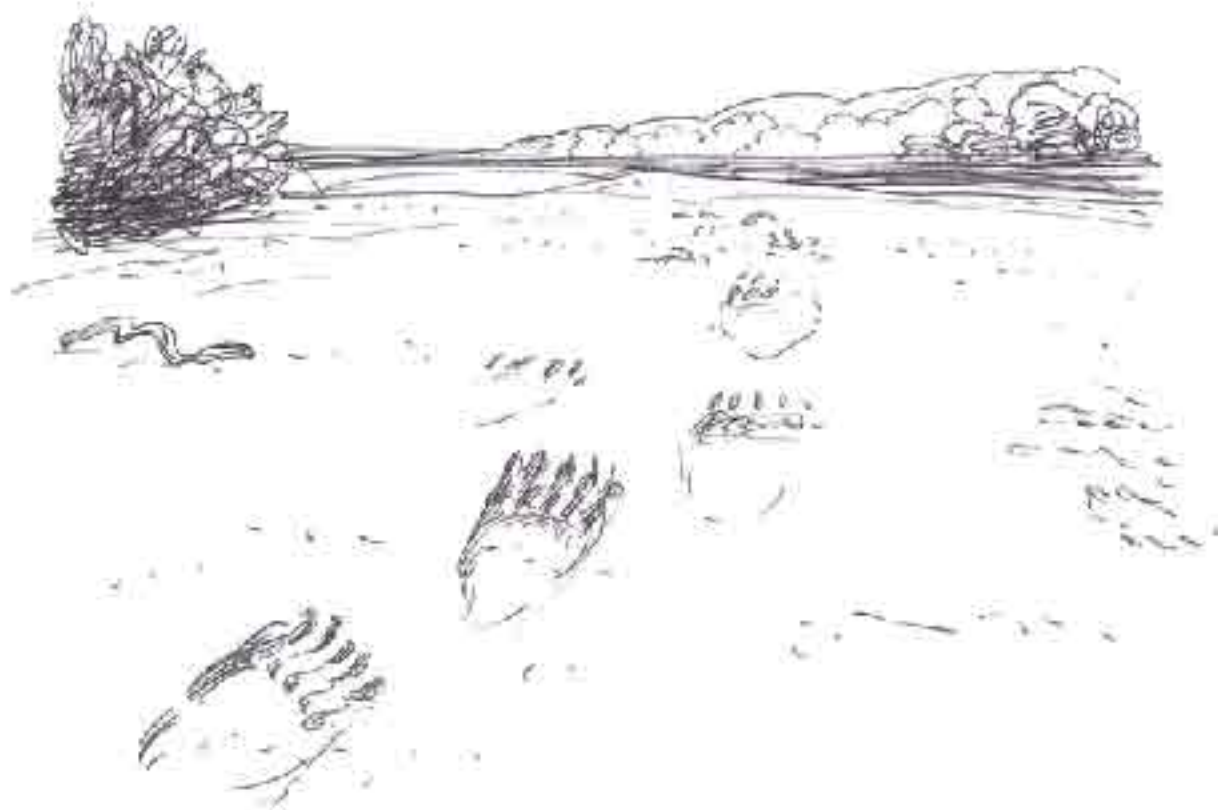


TOMENT CLOVER
(*Trifolium* wilderevii)









Elk



Tule Elk
CUNNINGHAM
© 1998

Laura Cunningham Copyright 2007



Rocky Mountain Elk
CUNNINGHAM © 1998



Ovis montanus ORIGINAL RANGE.
 ● - SPECIMENS



HAREM BULL



LOWLAND FAWN

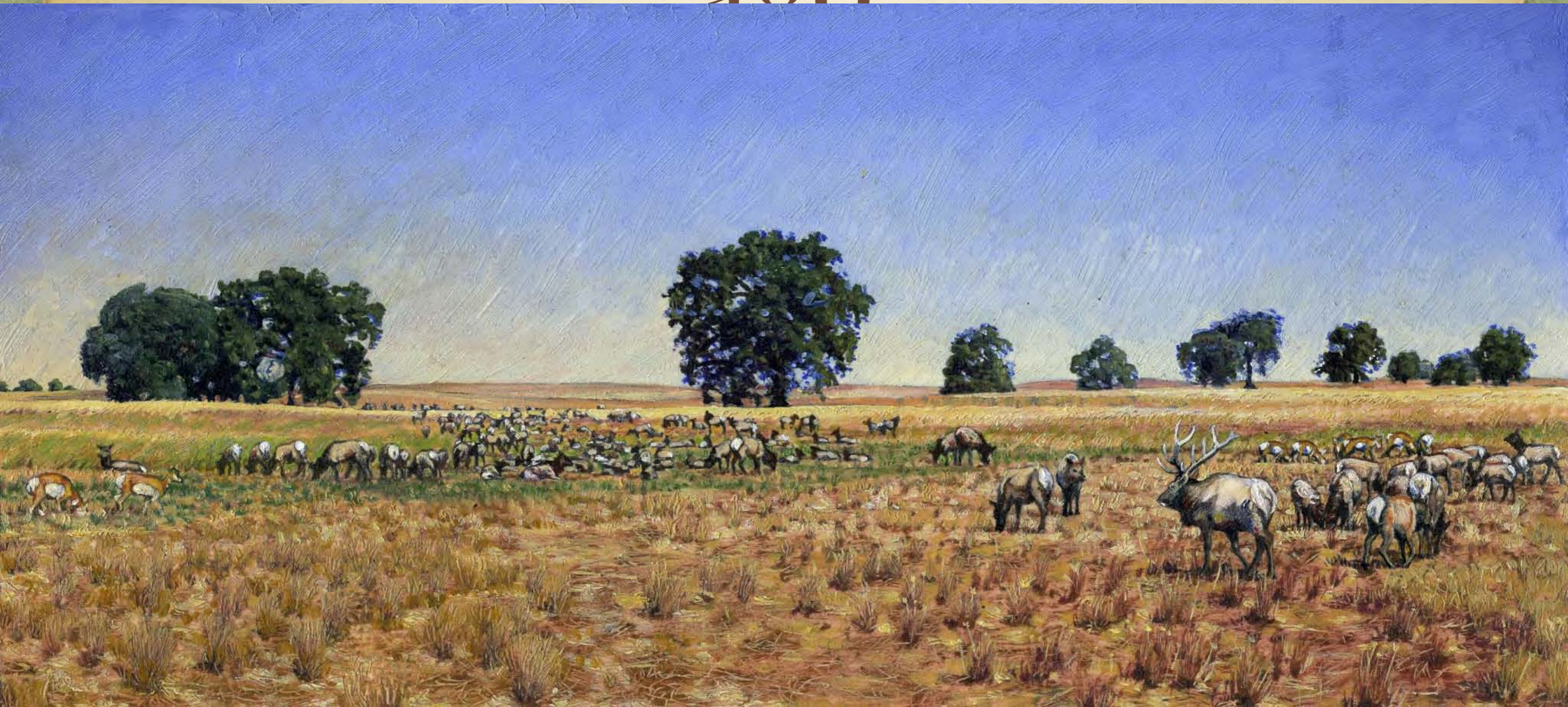


Sacramento



Hundreds of years

ago



Pronghorn Antelope





PRONGHORN BUCK
FACIAL PATTERN

- WHITE
- BLACK
- BURNT JAMBER
- BURNT ORANGE
- BURNT YELLOW ORANGE

(EYES
IN FULL SHADOW)





LYING DOWN

FOODS TAKEN
2-7 AMP GRAY
HOLE



TRAVELING DOWN HILLSIDE



EATING WOLF



EATING WOLF



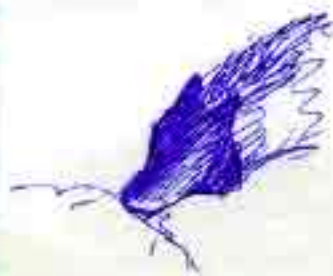
"WOLF DIRT" AFTER WOLF,
ONLY FOOT PRINTS REMAINING
GROUND



EATING WOLF



0900 -
BLACK WOLF
STILL LEFT
CARCASS &
RUBBAGE

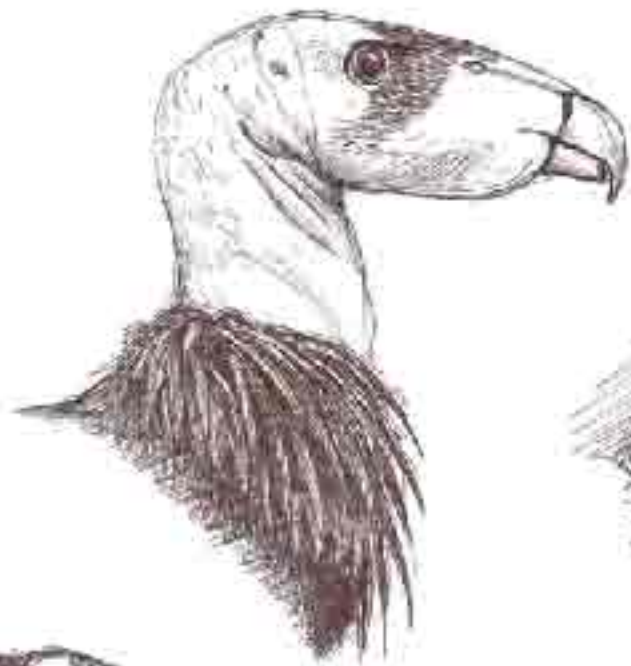
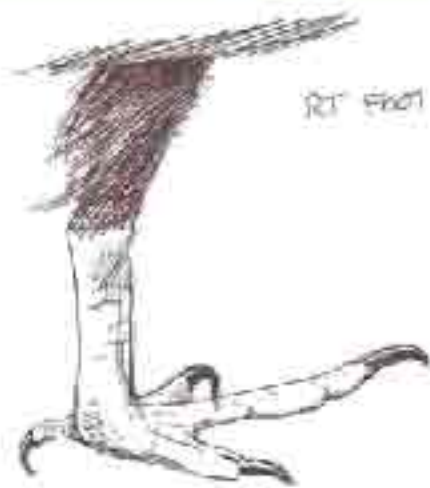


A LARGE HERD OF ELK
& A SMALL GROUP OF
PRONG HORN NEARBY ON
ROLLING SAGEBRUSH-GRASS
FLATS WITHIN 1/4 MILE OF
WOLVES FEEDING. OTHER
SMALL GROUPS OF ELK AT
BASE OF SLOPE LOOKING UP
NERVOUSLY, WATCHING FOR
LONG PERIODS. WOLVES LEFT CARCASS, SOMETIMES LYING NEARBY IN
GRASS, THEN TRILLED BEYOND RISE.

AT 0850, IN SUNLIT RIDGE ACROSS VALLEY, A BIG BROWN MOTHER
GRIZZLY & 2 CUBS SIGHTED.







YOU CAN SEE THROUGH THE NOSTRILS



Distal view, hood up



CONDENSED FEATHERING HEAD UNDER ULLARS

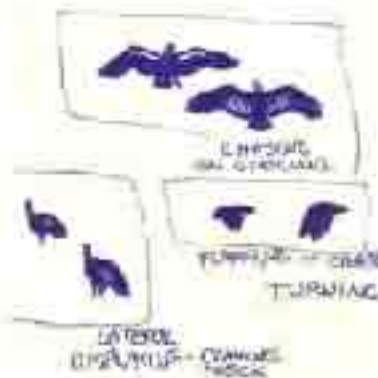
5. 1/2 FEATHERING
HOOD APPROXIMATELY
LIT (CHINA) (YOUNG)



LONGER PROPS OUTWARD
TOP OF CAPUCHON



RAISING
NECK



FEATHER









Chinook salmon





Coho salmon



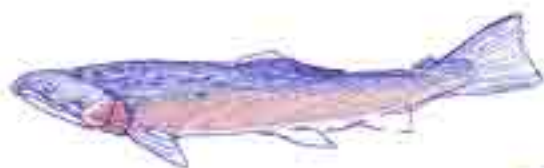
ANNE CUNNINGHAM © 1912

COLUMBIA RIVER COHO SALMON ♀





♀ DIGGING
IN GRAVEL



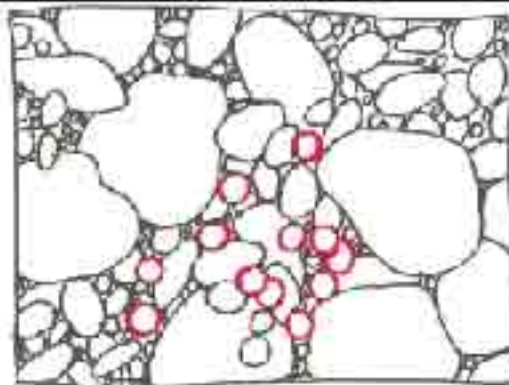
140m -
BEDD ON 10 FT - LONG, 5 FT
WIDE - GRAVEL. ♀ POSITION/CATCH
DLS MORE AS SILT IS MOVED
IN CIRCLES AROUND IT - NOW
NO OYS. PRESENT



IN
RIPPLE
ABOVE
RIPPLE

RIPPLE

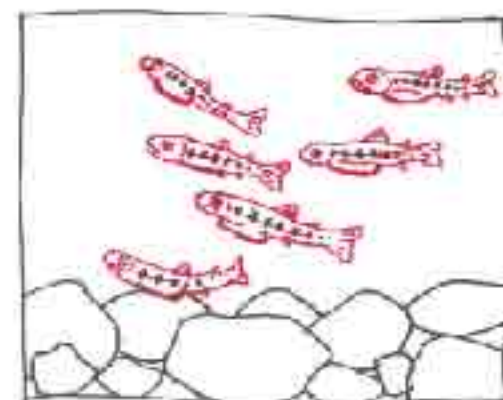
↑
CREEK



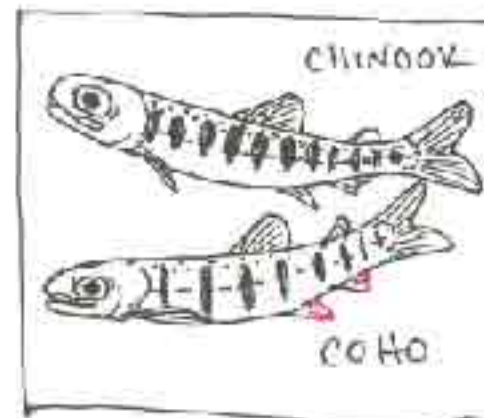
EGGS



ALEVIN IN GRAVEL

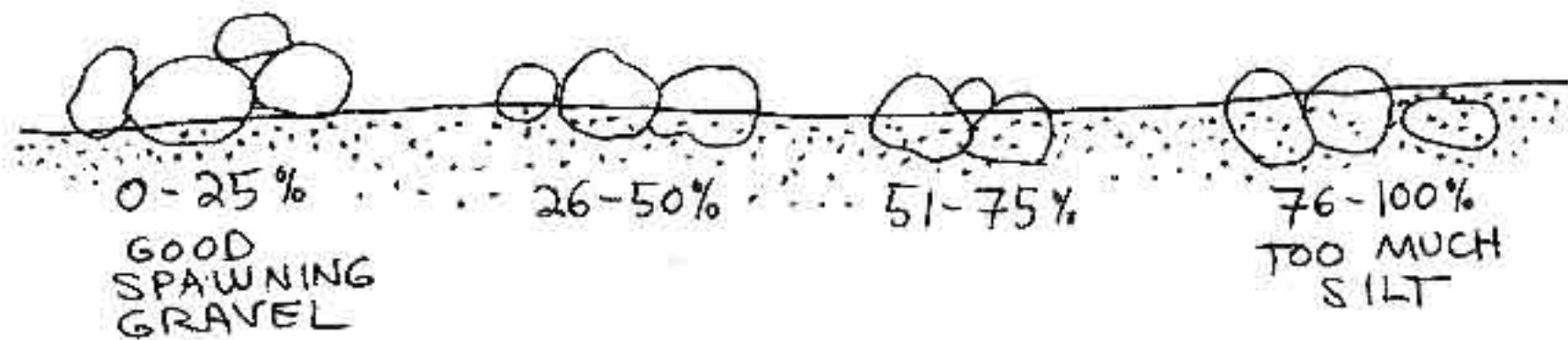


FRY EMERGE



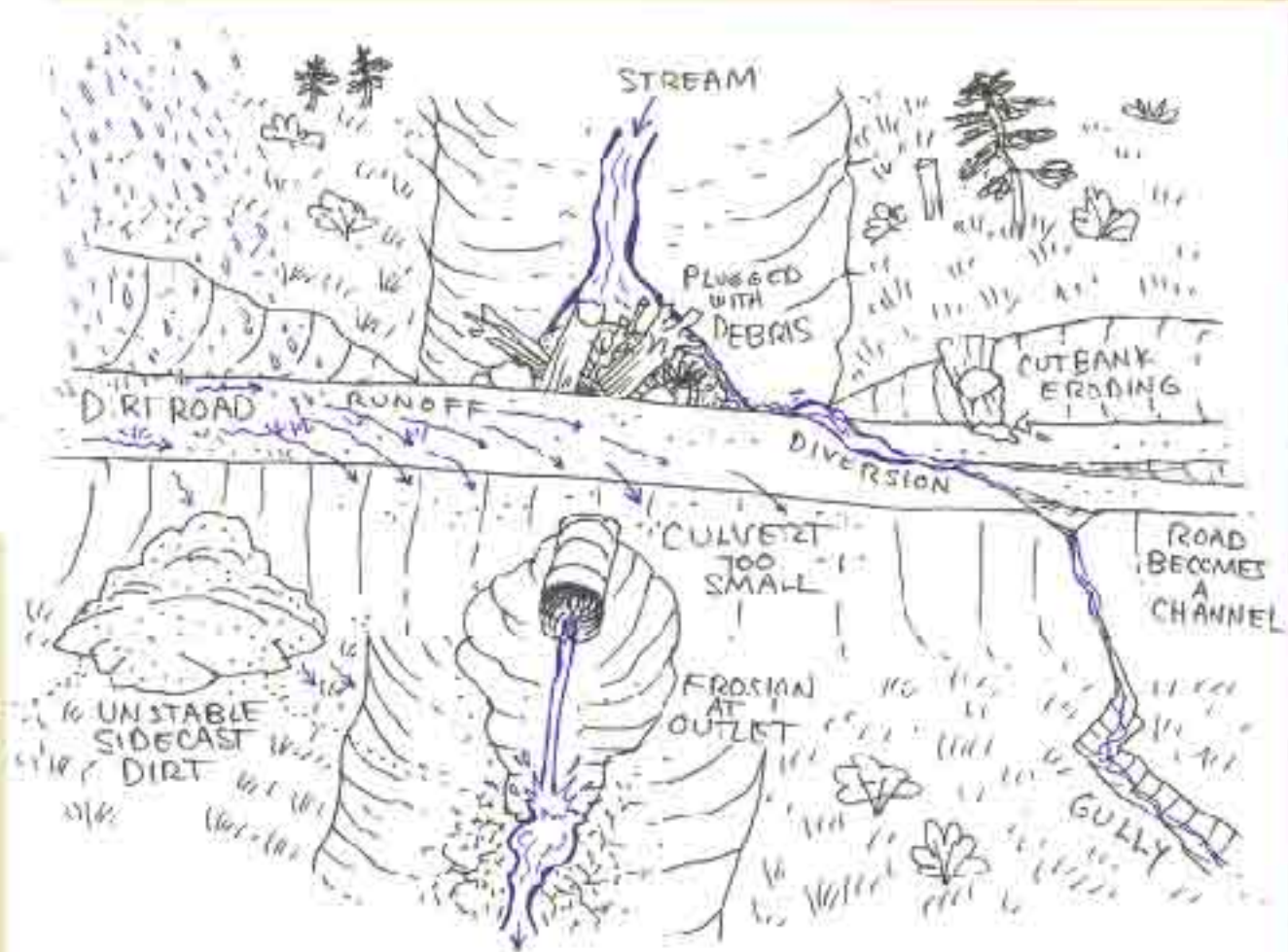
JUVENILES

EMBEDDEDNESS:





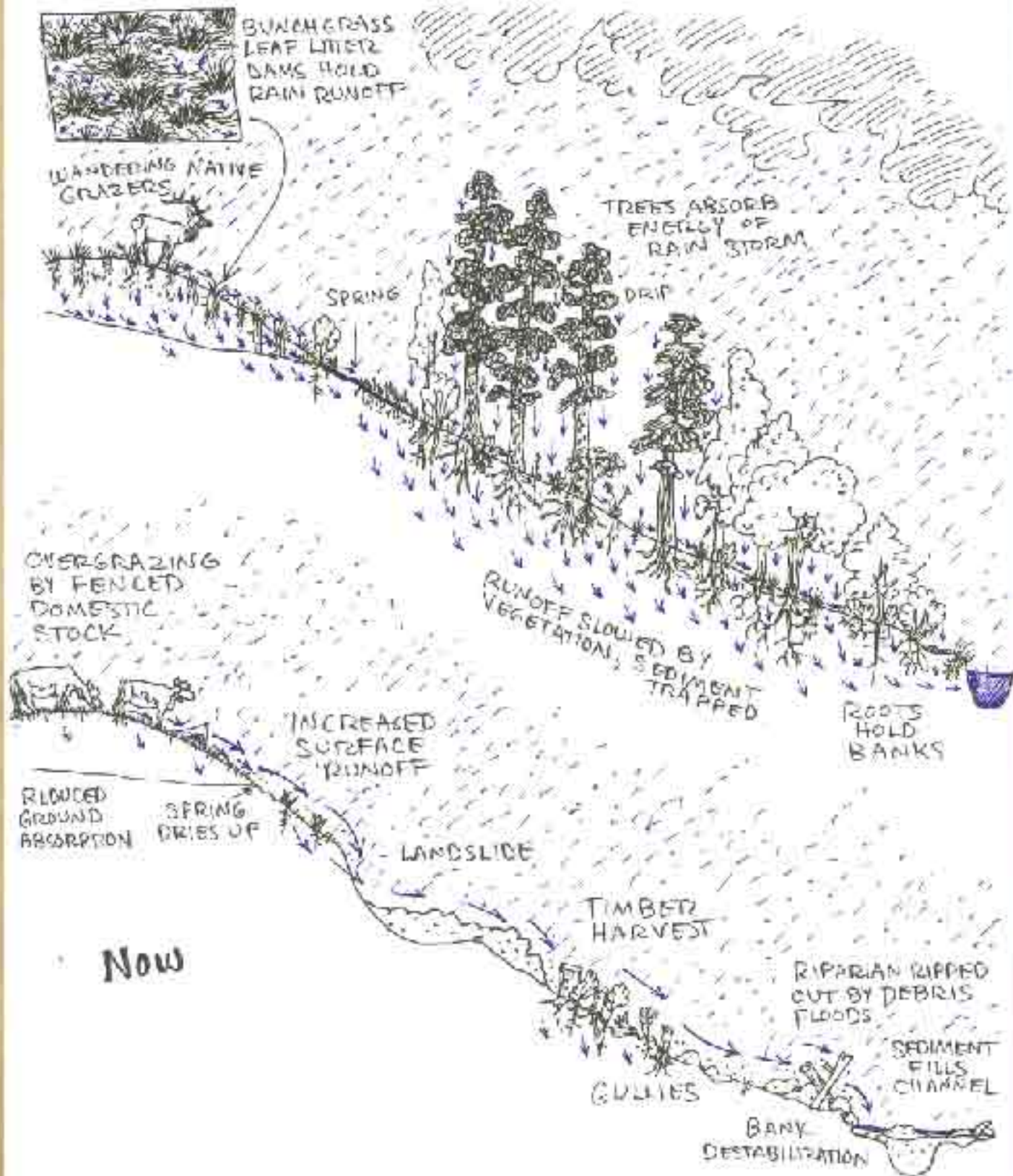
A DOUGLAS FIR CLEARCUT ON A COHO SALMON STREAM, 1966.
 (AFTER A PHOTOGRAPH IN HALL AND LANTZ 1969)



ROAD EROSION PROBLEMS

UPSLOPE

500 YEARS AGO



Coast Bay Sea





FUR SEALS
HEADING FOR
SARDINE GROUP



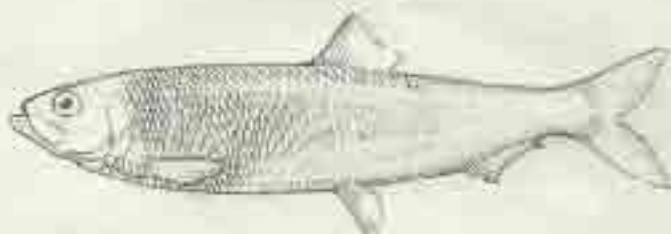
MASSIVE SCHOOL OF
SARDINES BY SHORE
- AERIAL VIEW -



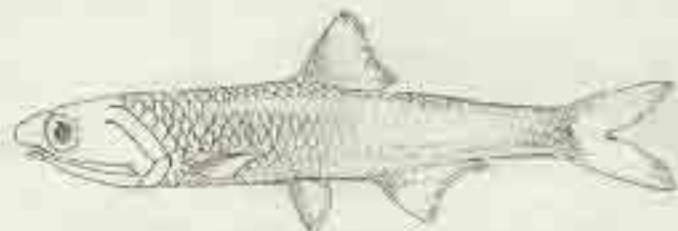
WHALE
SWALLOWING
THOUSANDS OF
SARDINES AT
ONE GULP



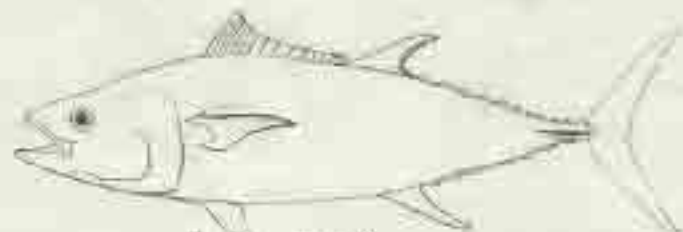
SARDINE



HERRING



NORWAY
ANCHOVY



TUNA



YELLOW FIN ALBACORE

Steller's Sea Cow

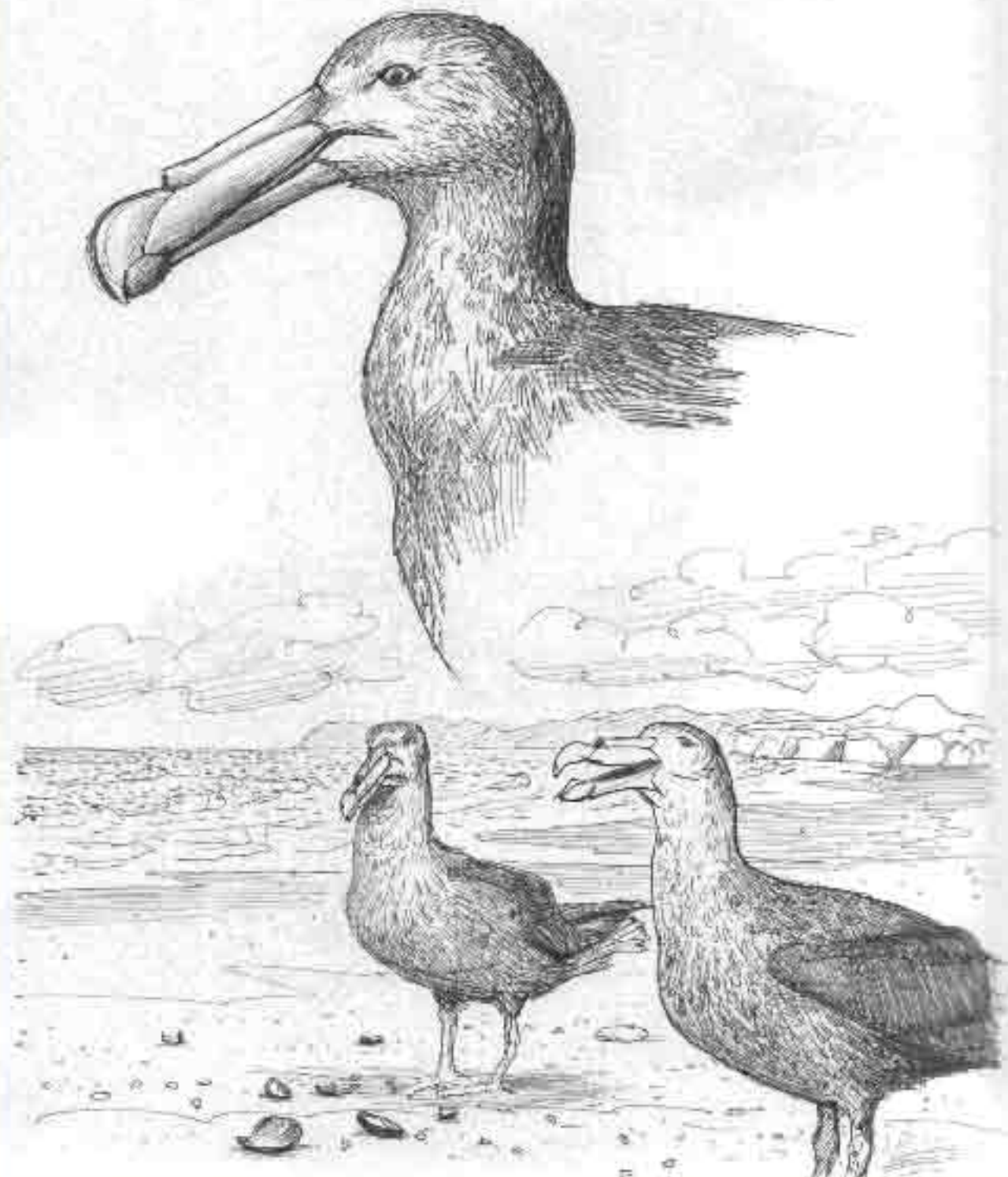


GIANT PETREL - *Macronectes giganteus*

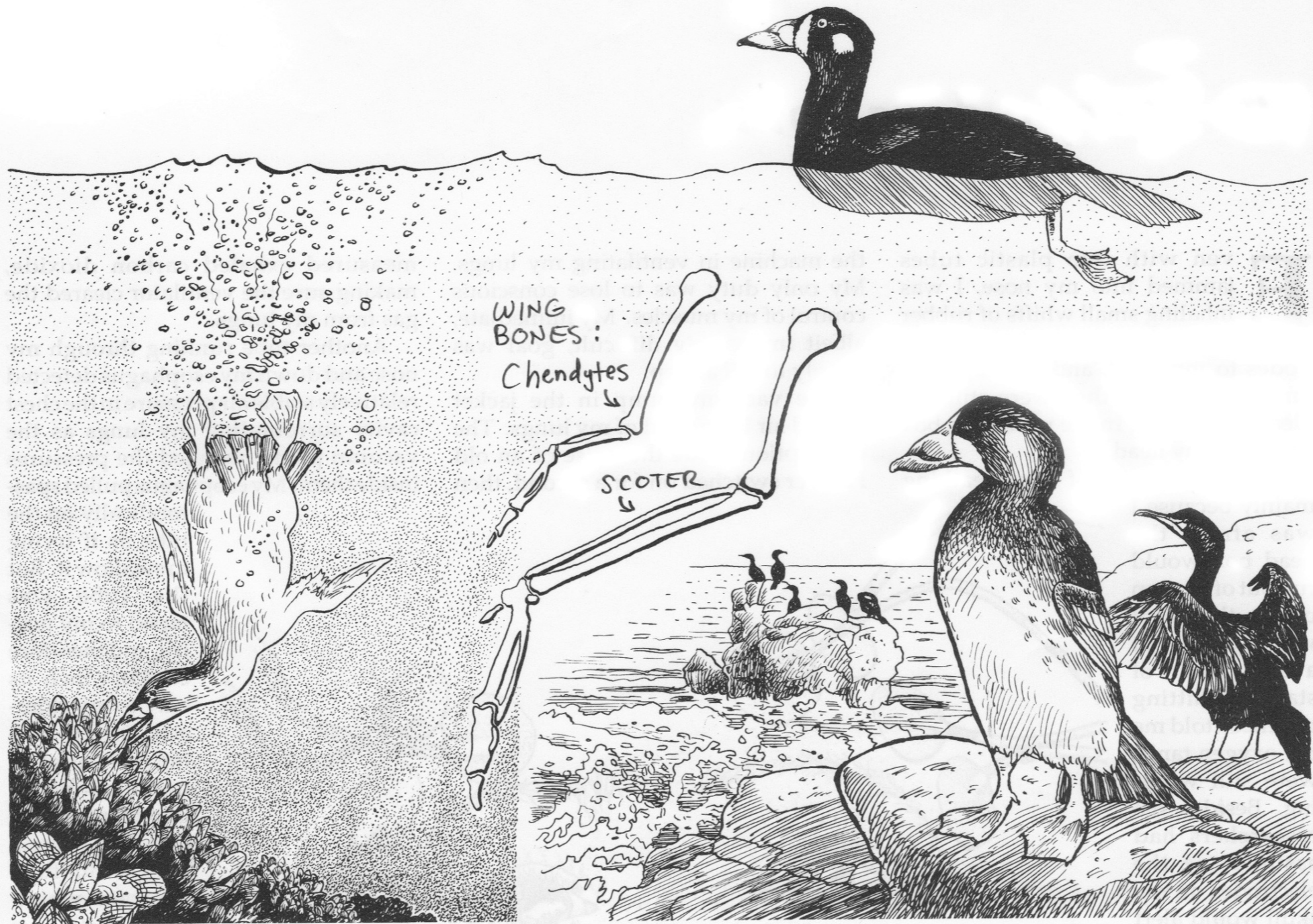
FORGIVABLE BILL - SCAVENGER

SPITS STINKING STOMACH OIL AT INTENDERS

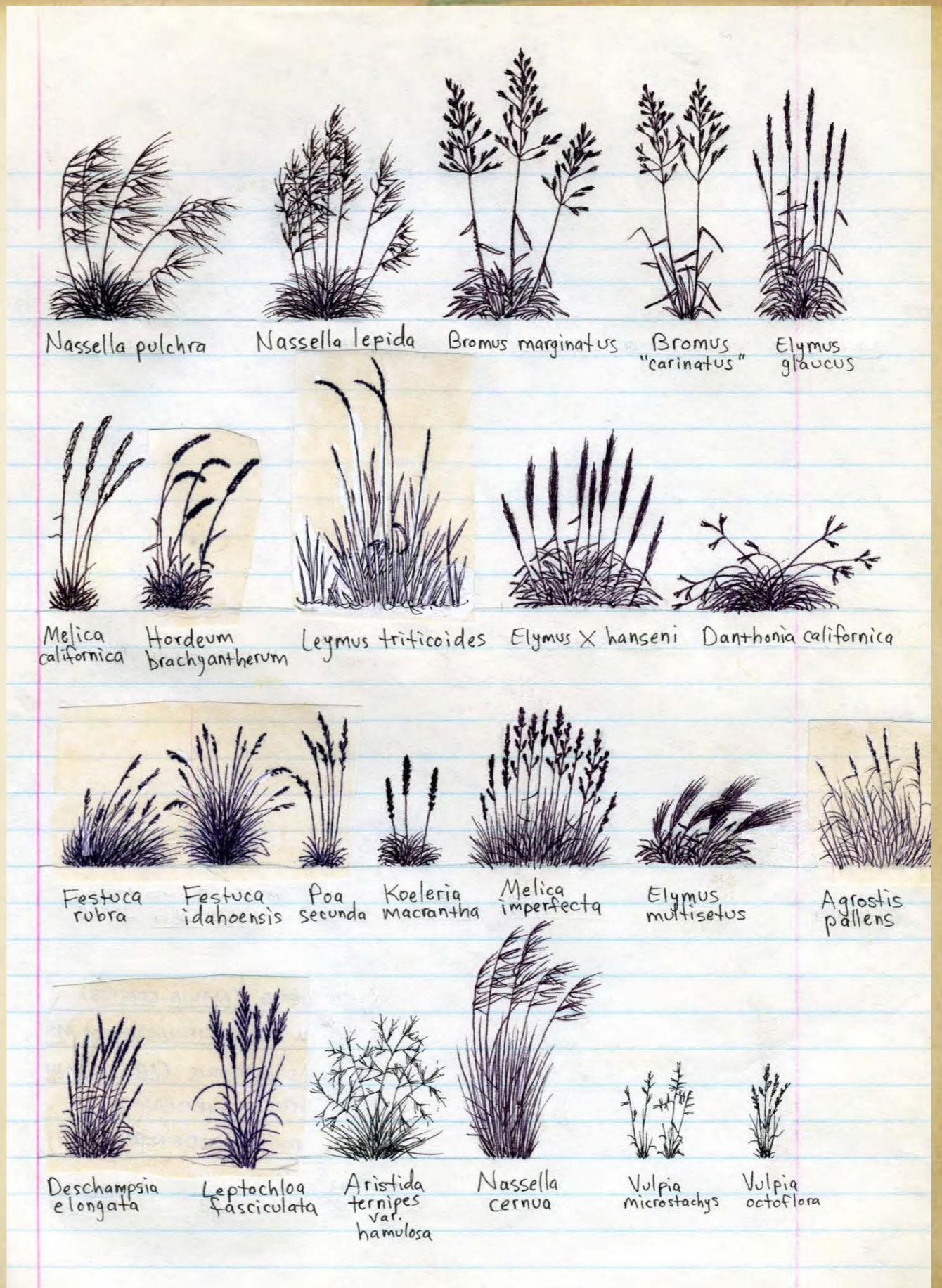
WOBBLE ABOUT ON LAND, & AWKWARD GAIT, BUT GLIDE
GRAACEFULLY THRU HAZARDS.



Extinct Diving Goose



Grassland



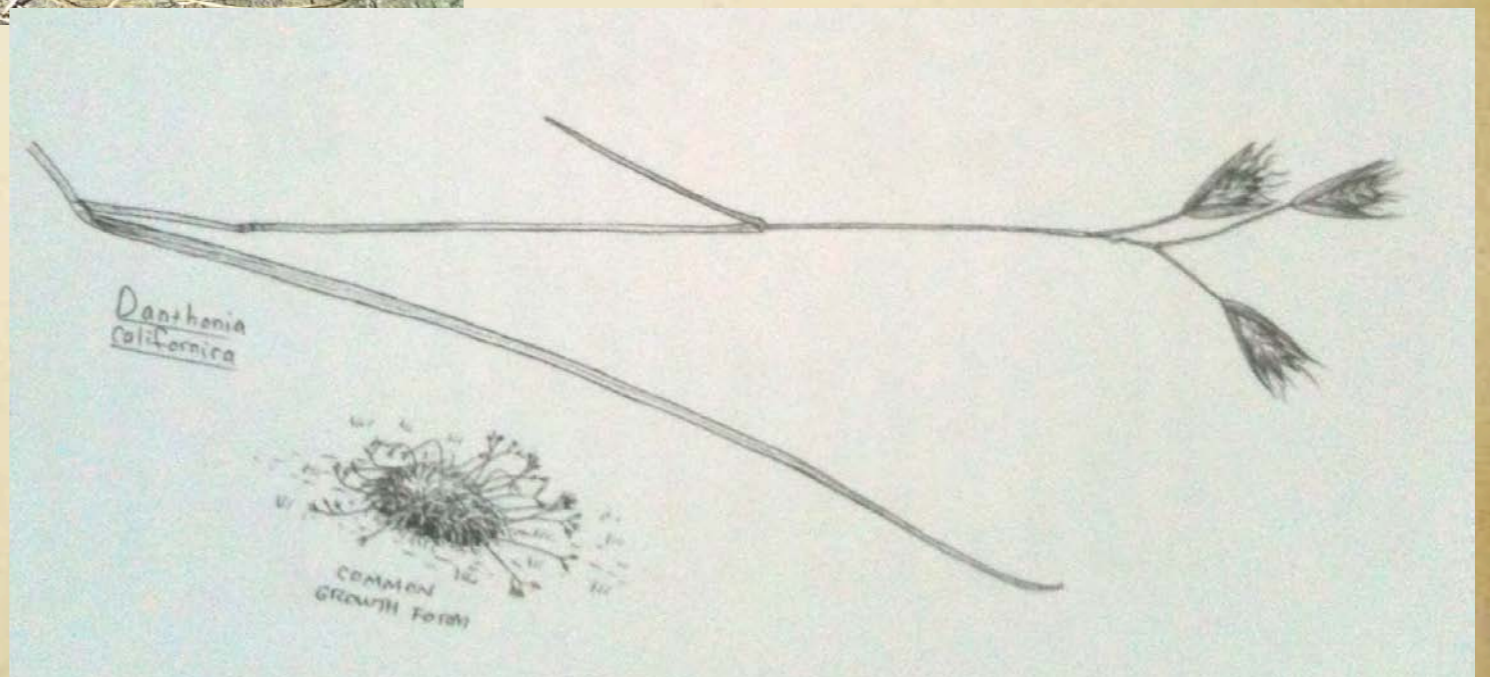


Edmund Spenser 1911





California
oatgrass
(*Danthonia
californica*)







WINTER



SPRING

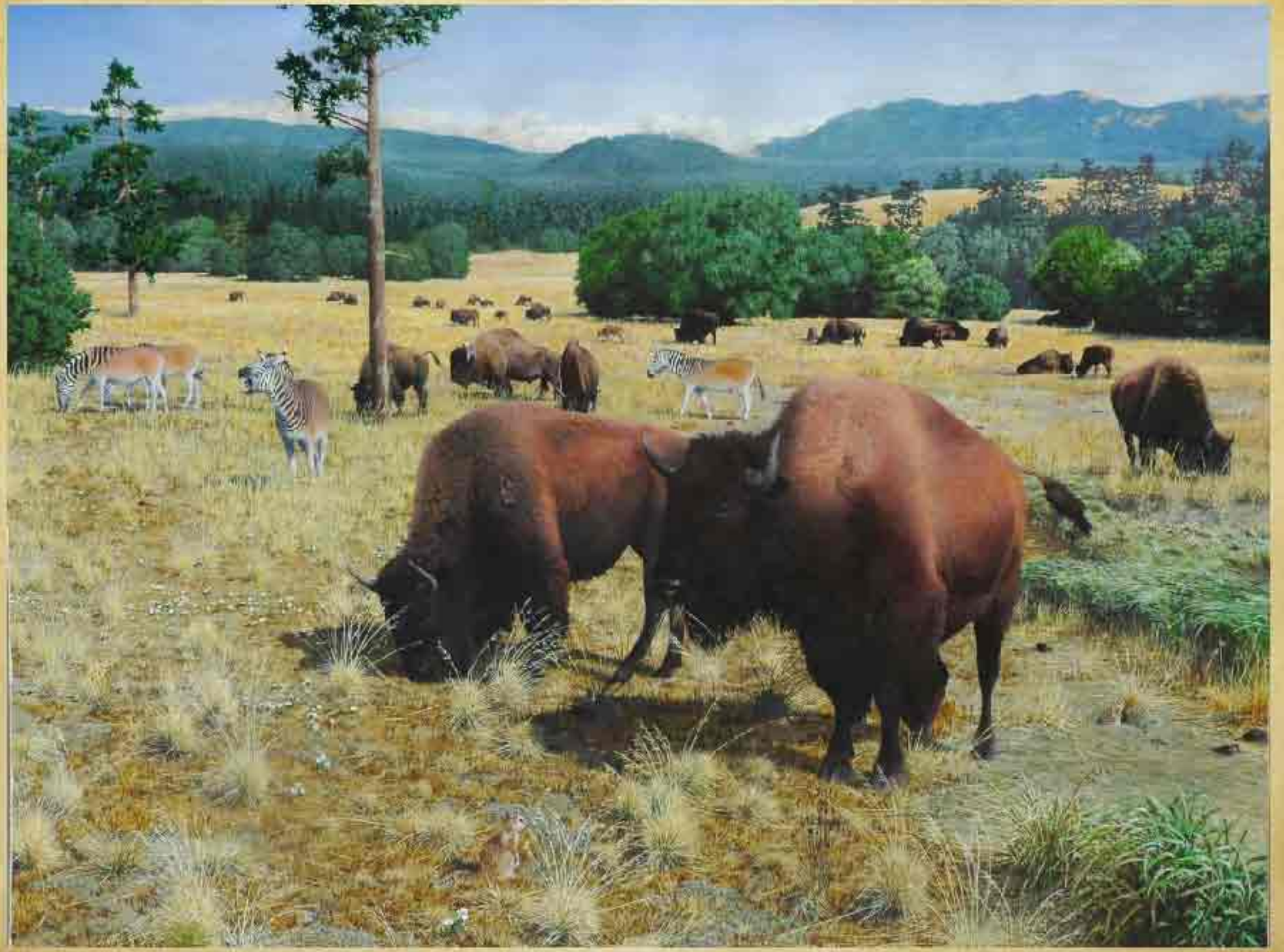


SUMMER





K. [unclear] 1917



Oaks





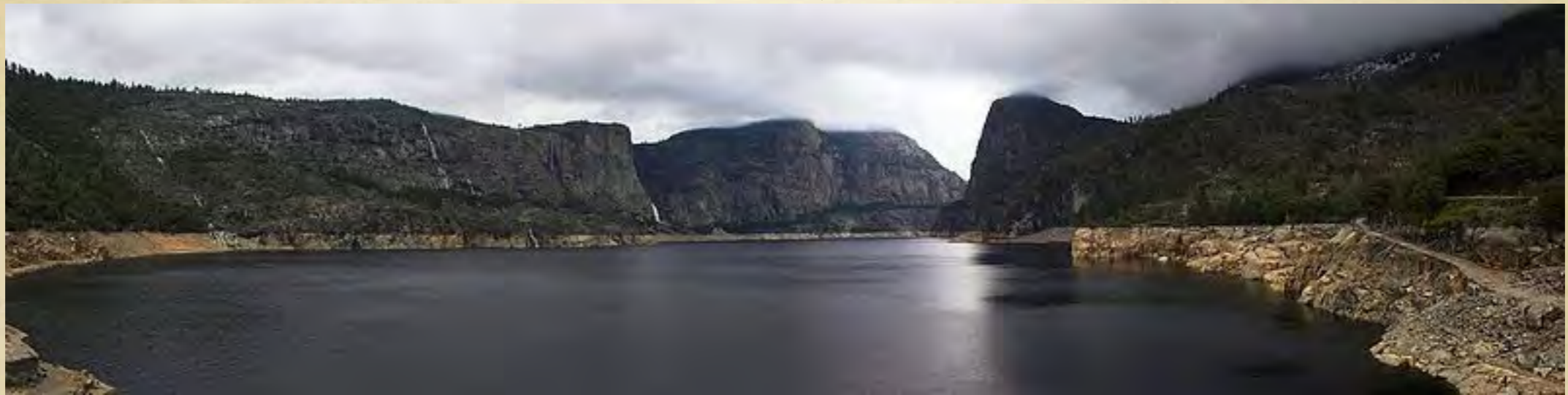


San Joaquin Valley





Hetch Hetchy Reservoir





Ecological Processes

*Fire
Flood
Climate*

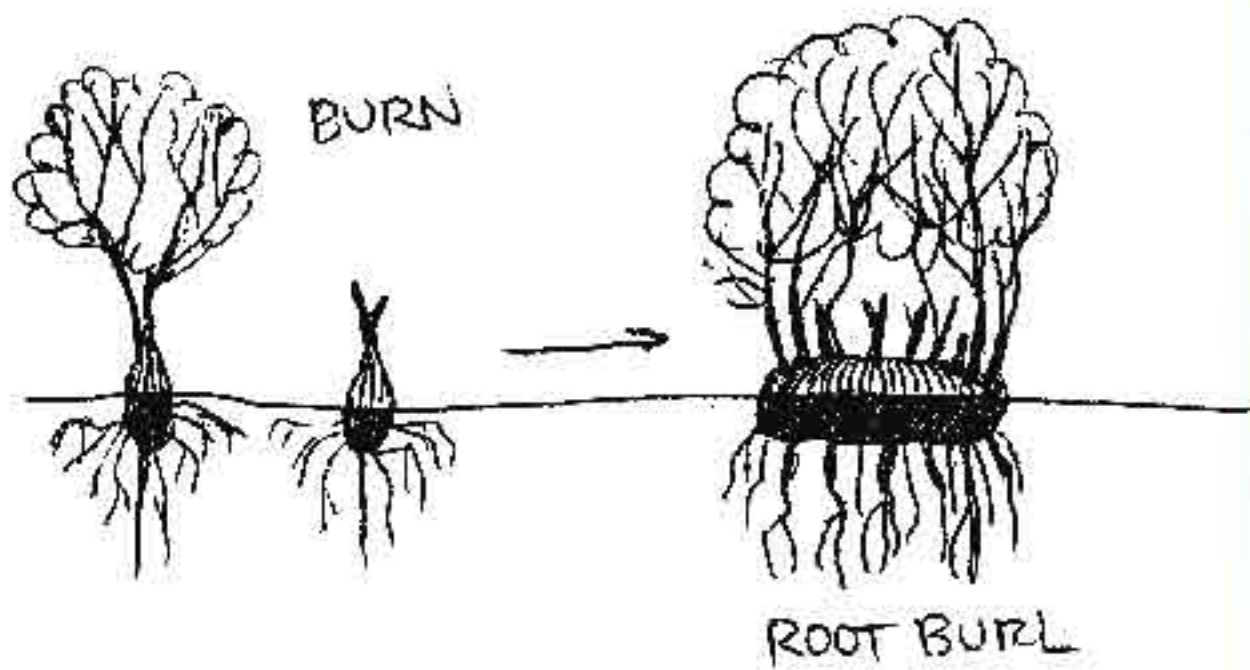




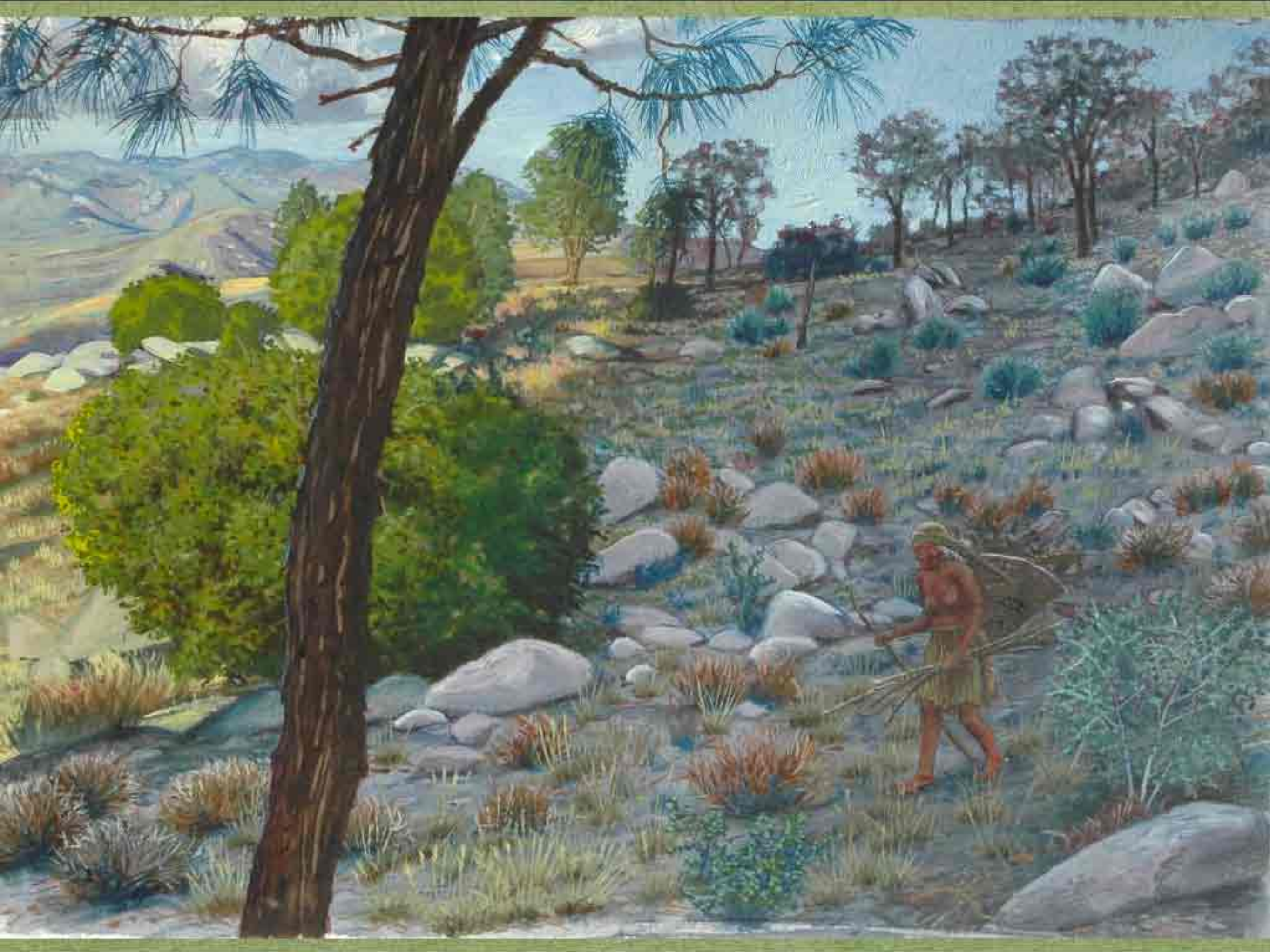
Low
intensity
grassfire









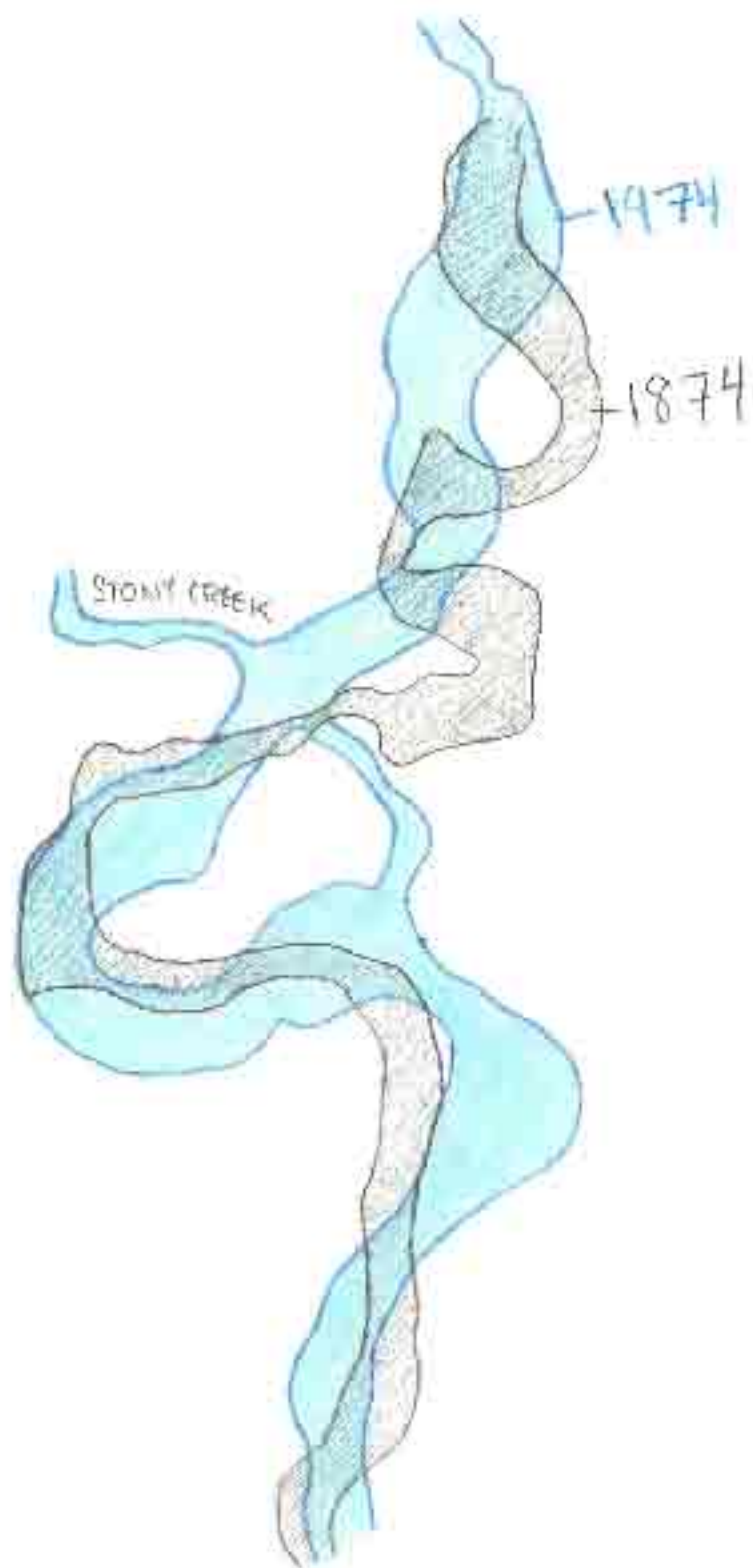






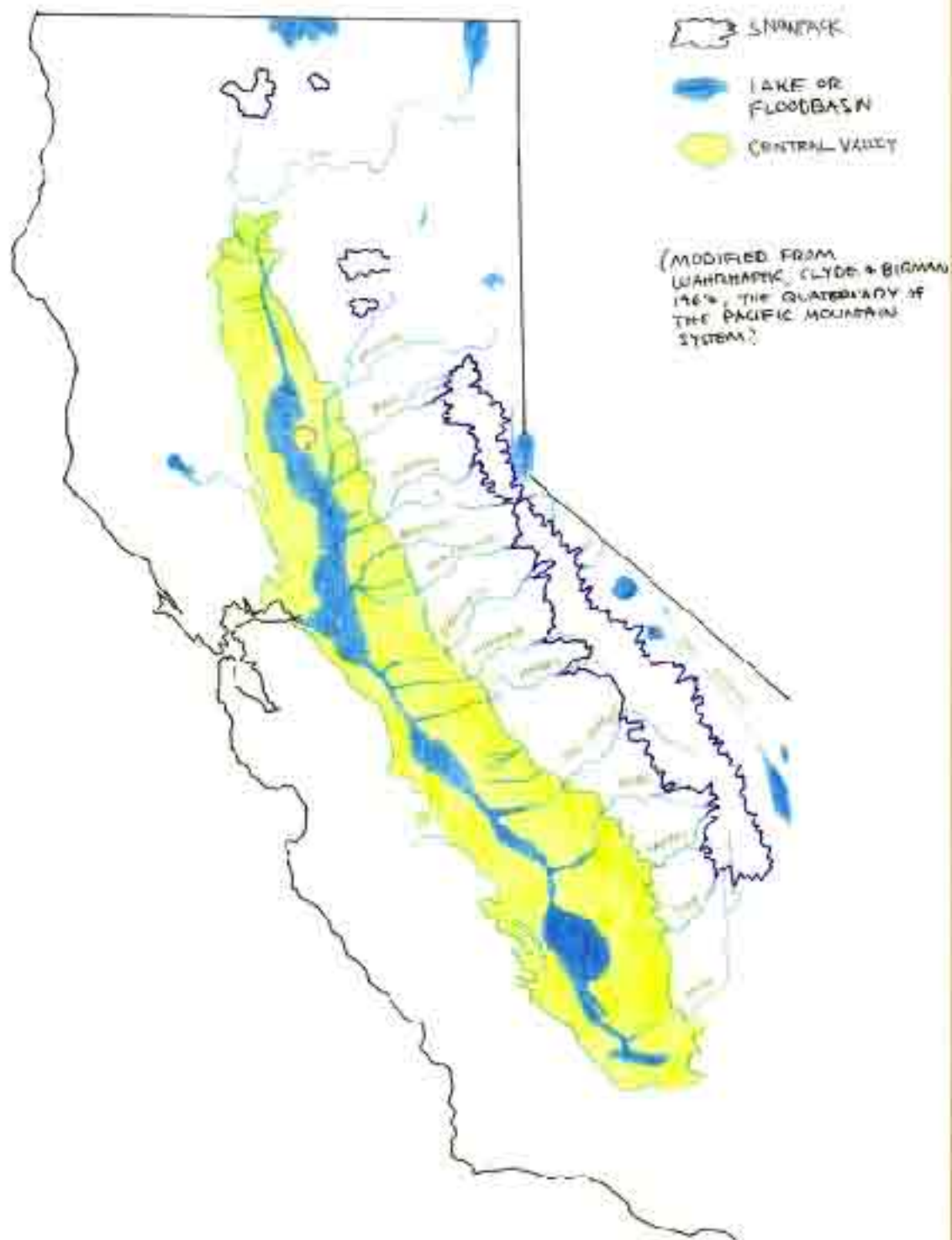
Flood

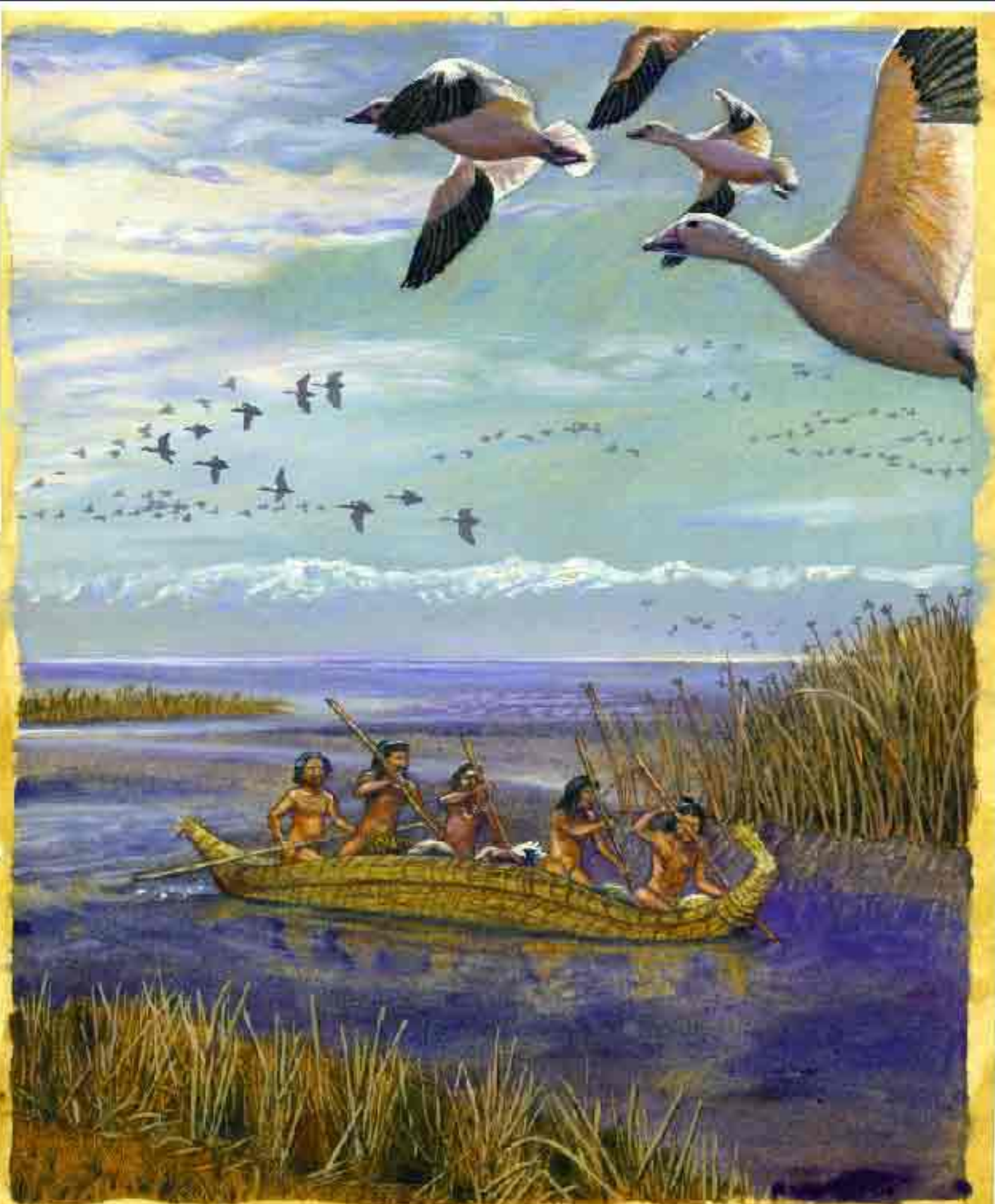


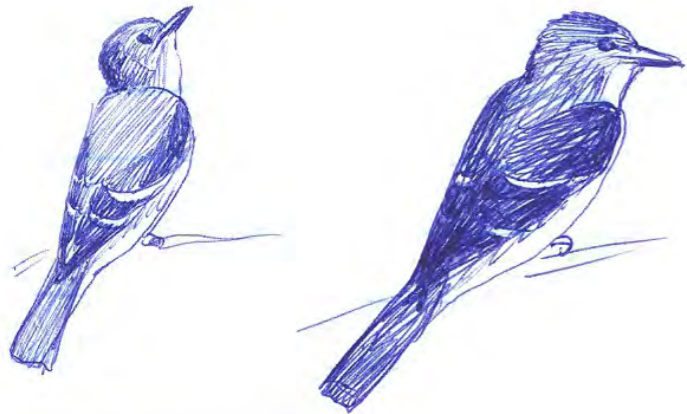


THE SAME STRETCH OF THE SACRAMENTO RIVER, SHOWING SHIFTING MEANDERS FROM 1874 TO 1974. (AFTER BRICE 1977)

CALIFORNIA







WILLOW FLYCATCHER:
WHITE THROAT
& BREAST.
NO EYELINE
WING BARS.



Flood birds



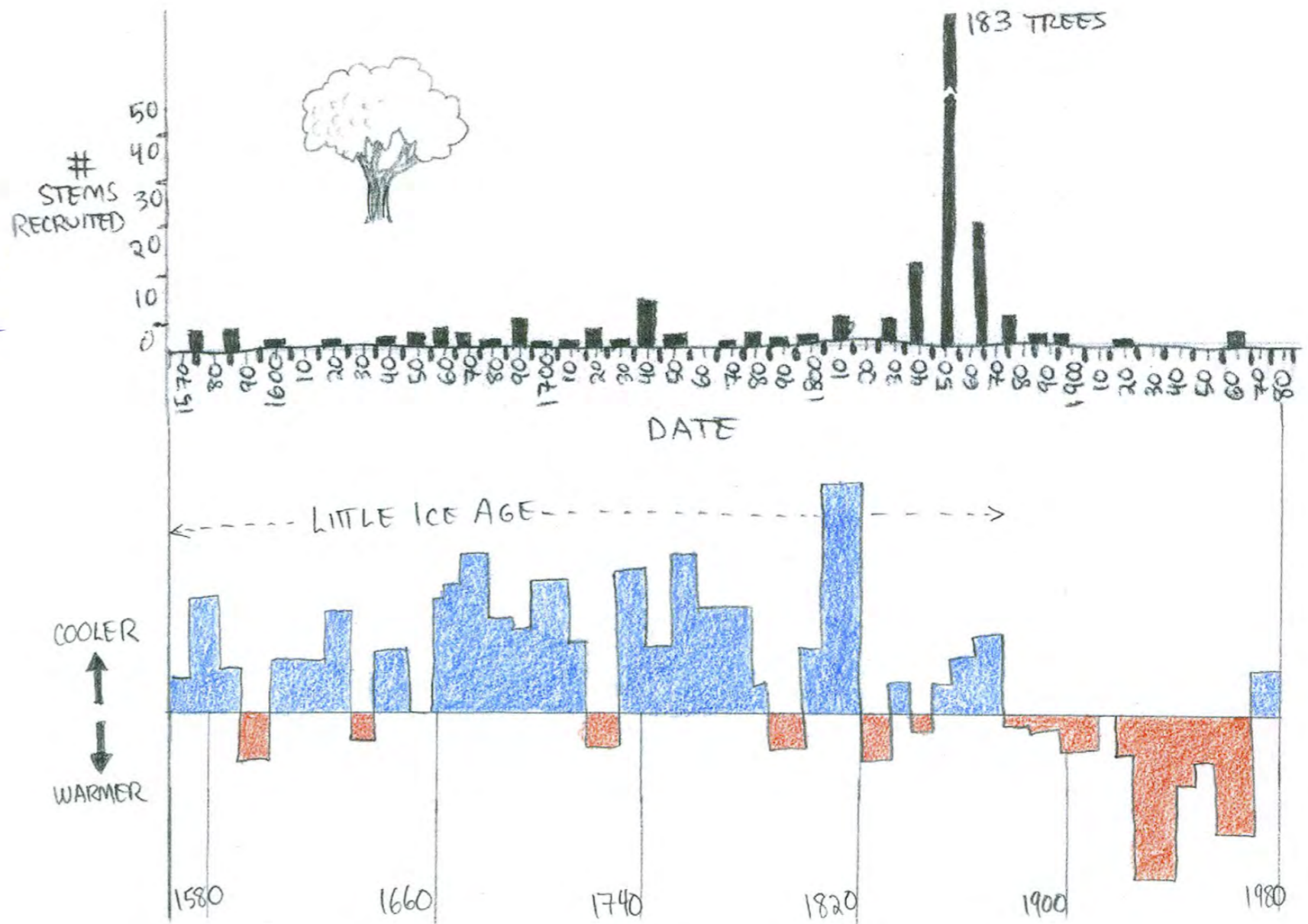
San Bernardino Today



Old California



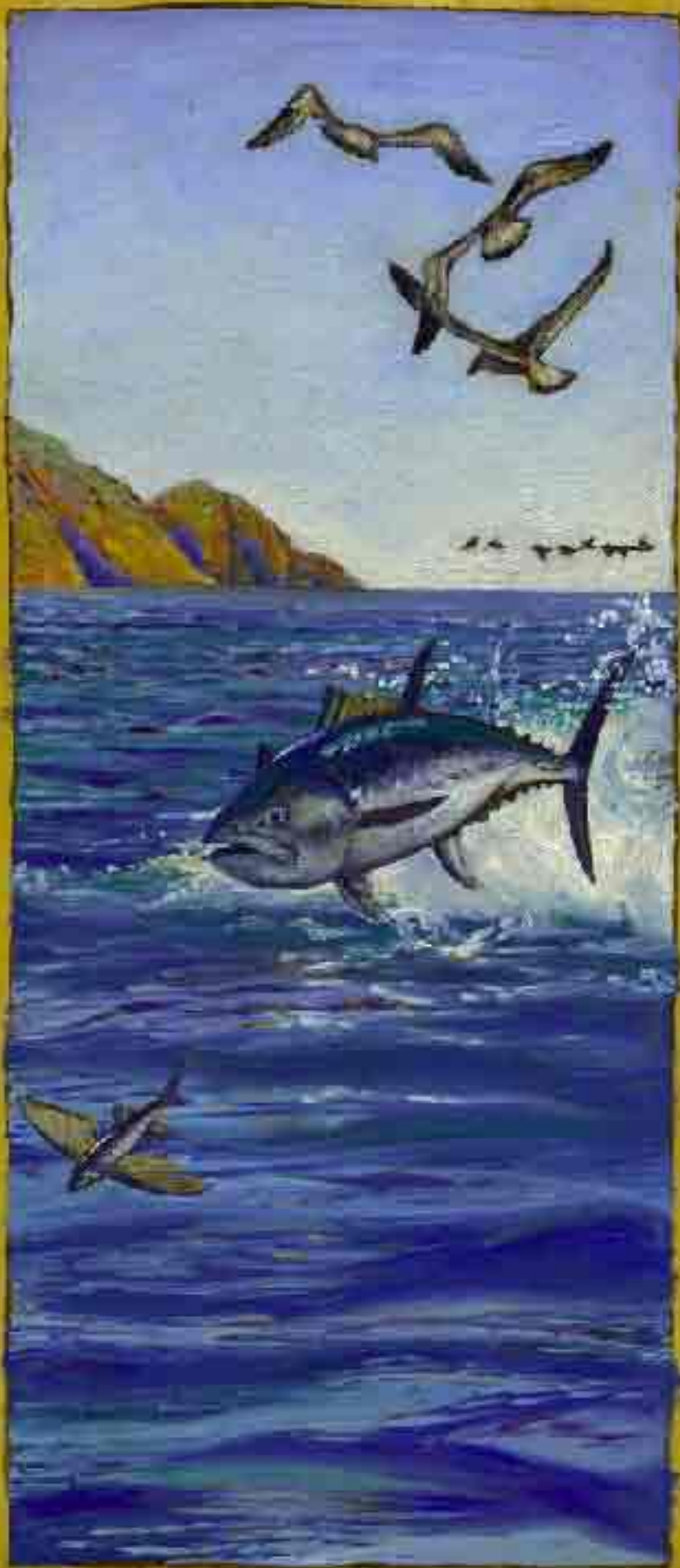
Climatic fluctuations



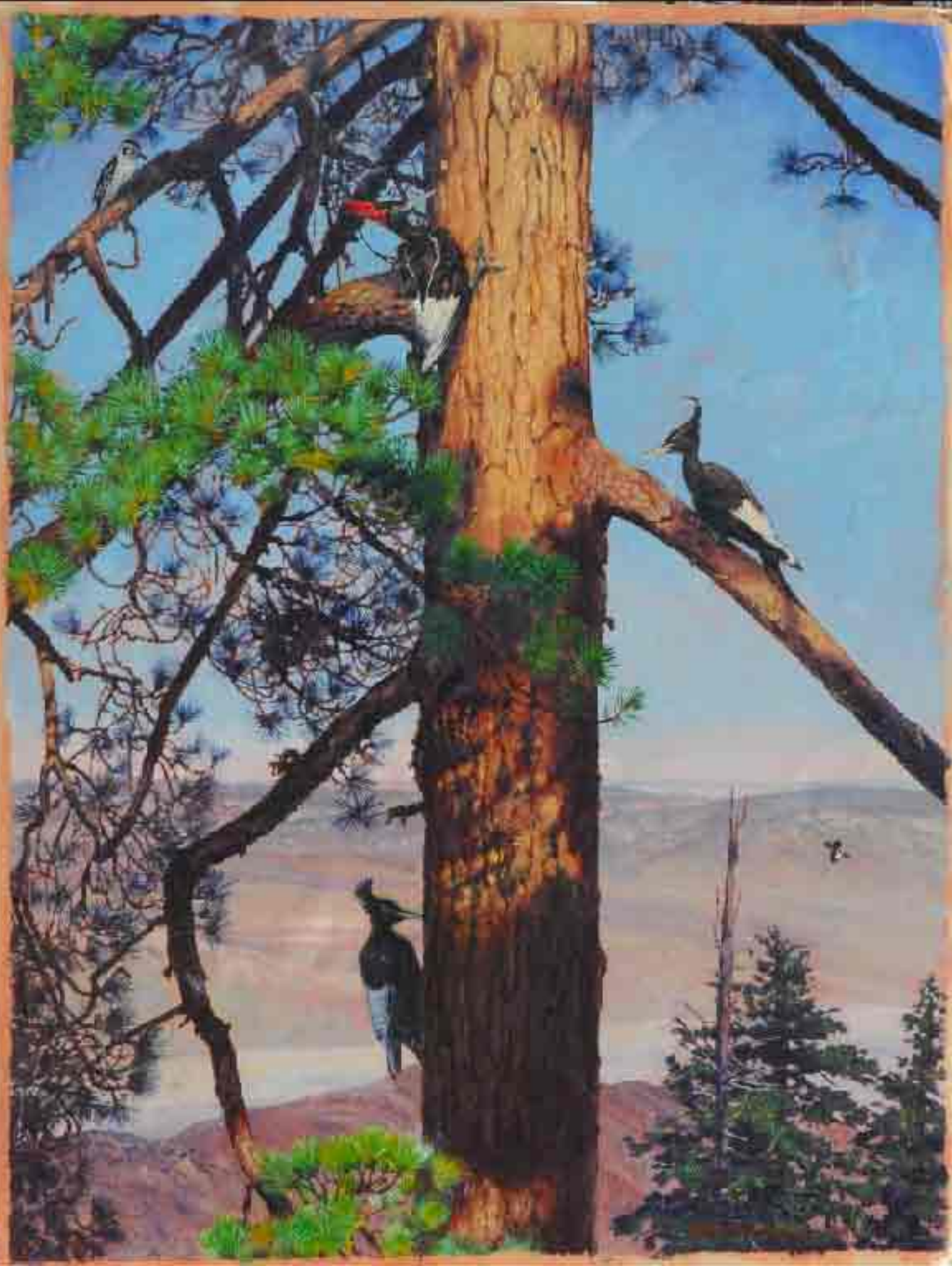
IS CLIMATE AFFECTING OAKS ?

ABOVE NUMBER OF BLUE OAKS MATURING PER DECADE AT TEJON RANCH, KERN COUNTY, FROM TREE RING ANALYSIS OF 279 TREES (AFTER MENSING 1992).

BELOW, TEMPERATURES BASED ON OXYGEN ISOTOPE RATIOS, FROM THE QUEZCOAYA ICE CORE, PERU (AFTER THOMPSON 1991).









Restoring Old California Locally



Back to the Ice Ages



