MISC 2024

The landscape of the Palo Alto area in the early Spanish period:

observations of the vegetation cover from original sources.

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- I. Introduction.
- II. Historical overview; a table of major events and participants arranged chronologically. Particular emphasis on events of botanic interest.
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I. Introduction.

The published commentaries of our earliest visitors are one of the few ways we can reconstruct the vegetation patterns around Palo Alto before the population influx affected the landscape. Naturally the physical characteristics of soil and soil depth, exposure, rainfall, etc., all help in the final evaluation of what were probably the original plant communities; I do not here attempt to evaluate this evidence. I have provided an historical overview in order to place the people whom I have quoted in the greater context of what was happening, particularly botanically, in California. The quoted passages are by necessity at times condensed; nevertheless I have tried to keep the original wording except where paraphrasing adds general knowledge about their location or activities. In addition to narrative commentary I have looked for early maps, although the search was by no means exhaustive. A record of pictorial impressions rendered by early visitors remains to be researched, and may prove quite rewarding.

The bibliography for a subject such as this is always open for additions. I would enjoy talking with any readers who are interested in this subject.

My thanks go to the many people with whom I discussed this project, particularly to Alan Grundmann from whom came the original idea, John Thomas who pointed out William Carey Clarke's thesis, and Herb Dengler whose enthusiasm for the subject has provided me much pleasure.

II. <u>Historical overview;</u> Table of major events and participants

- 1769. Nov. Gaspar de Portola. Overland expedition from San Diego to Monterey. Discovered San Francisco Bay by accident, by-passing Monterey. Diary. First report (Nov. 1769) of the plain by San Francisquito Creek "well wooded with live caks and much pasture." (Portola; 1909, p. 39)
- 1769-70. Miguel Costansó. Accompanies Portola. (Costansó, 1910 & 1911)
- 1769. Nov. & Fray Juan Crespi. Accompanies both Portola (in 1769) and 1772. Mar. Fages (in 1772). (Crespi, 1927, p. 18 & 285) and (Galvin, 1971). Mentions the Portola San Francisquito camp (Nov. 1769) and area between Coyote and Milpitas. (Mar. 1772). Draws map, 1772. (Galvin, 1971).
- 1770. Nov. Pedro Fages visits Santa Clara valley. (Fages: 1911, p. 1772. Mar. 151) and (Fages: 1937)
- 1770. San Carlos mission founded in Monterey. Search for suitable settlement sites includes such factors as year-around water, presence of Indians, good soil, and available wood.
- 1774. Nov. Fernando Rivera y Moncada. Traveled in the south and western parts of Santa Clara Valley. (Rivera y Moncada, 1774)
- 1774. Nov. Padre Francisco Palou. Accompanies Rivera y Moncada. One of the best early accounts, particularly re. chaparral. (Palou, 1926 v.3, p. 261-264)
- Juan Manuel de Ayala. First to enter San Francisco Bay by boat. Accompanied by Cañizares, who draws a map. (Galvin, 1971)
- Juan Bautista de Anza. Leads colonists north to found the presidio and mission at what becomes San Franicisco. (Bolton, 1930, v.3, p. 124, 126, 134)
- 1776. Mar. Pedro Font. Diarist for the Anza expedition. (Font: 1911; Font: 1933; and Bolton, 1930, v.4 p. 323-29, 344, 352-54)
- 1777. Pueblo of San Jose and Santa Clara mission founded.
- Jean-Francois Salaup de Ia Perouse stops at Monterey; map of San Francisco and Monterey bays (not reproduced).

 Accompanied by botanist Collignon who collects Abronia umbellata, the first western plant to be grown in Europe. (Ia Pérouse, 1799)
- 1791. Sept
 Alejandro Malaspina expedition anchors in Monterey harbor.
 Botanists Thaddeus Haenke (1761-1817) and Louis Neé collect
 in Santa Cruz Mts. Haenke's collections were described by

Karel Boriwog Presl. Neé describes <u>Quercus agrifolia</u> and <u>Q. lobata</u>. They collect <u>Berberis pinnata</u>, <u>Heteromeles</u>, and <u>Zauschneria californica</u>. (Presl: 1832-1858)

- 1792. Nov. Vancouver expedition stops in San Francisco bay; travel from San Francisco to Santa Clara mission. Famous remark about the oak parkland. (Vancouver, 1798, v.2, 16-20)
- 1792. Nov. Archibald Menzies. Vancouver's botanist. Gives It.

 Johnstone's report about trip on the peninsula. First to collect Sequoia sempervirens, Arbutus menziesii,

 Umbellularia californica and Lupinus arboreus. (Menzies, 1924, p. 276-77)
- 1797. San Jose mission founded on east side of south S.F. Bay.
- 1806. Apr. George Heinrich von Langsdorff. Surgeon naturalist on the von Krusenstern expedition. Visits shore of bay near Palo Alto. Mentions <u>Suaeda californica</u> Watson. (Langsdorff, 1813, p.3)
- 1810. 8,000 head of cattle in California. Number begins to multiply rapidly. (1,000,000 will die from lack of food in drought of 1862)
- 1810. Mexico begins revolt against Spain. Independent in 1821.
- Otto von Kotzebue. Commands the Russian ship "Rurik."

 Accompanied by ship's surgeon Johann Friedrich Eschscholtz
 (1793-1831) and naturalist Adelbert von Chamisso
 (1781-1838). Collect plants in bay area including Myrica
 californica, Rubus ursinus, R. vitifolius, Solanum
 umbelliferum, Scrophularia californica, Ceanothus
 thrysiflorus, Artemisia californica, Lupinus chamissonis,
 and Rhamnus californica. Eschscholtz visits San Jose.
 Chamisso names our California poppy Eschscholzia californica
 for his colleague. (Mahr, 1932)
- 1820. 3,270 settlers and soldiers in California. 20,000 mission Indians in California.
- 1824. Kotzebue returns to San Francisco bay, travels by boat to San Mateo point where he ate under the shade of spreading oaks. (Kotzebue: 1830, II, p.39)
- Mexican independence from Spain brings relaxed commercial policy and beginning of the hide and tallow trade. Missions secularized, begin decline.
- 1826. Nov & Dec. Captain Frederick William Beechey and ship surgeon Alexander Collie travel down peninsula from San Francisco to Coyote Creek and on to Monterey. (Beechey: 1831 & Hooker: 1830-41)

- 1827. Jan. Bernard du Hautcilly. On peninsula. (Bernard du Hautcilly, 1929, p.236; also pp.131-166, 214-250, 306-336)
- 1829. Alfred Robinson. Arrives in California. Earliest "tourist" account. (Robinson: 1891)
- David Douglas (1798-1834), plant collector for Royal Horticultural Society in Monterey and San Francisco; also probably on Mt. Diablo because he collects Calochortus pulchellus. Collects numerous other species including Pinus lambertiana, P. sabiniana, Iris douglasiana, Calochortus luteus, C. albus, Trillium ovatum, and Rhus diversiloba. Many of his plants were later described by John Lindley. Unfortunately, Douglas' California journal was lost in a shipwreck on the Fraser River in 1833. The information we have is from his letter to Sir W.J. Hooker, 23 Nov. 1831, where he describes his collections from his year spent at Monterey and mentions his trip north to San Francisco and beyond. (Douglas: 1836)
- 1830. Non-Indian population of California: 4,256.
- Thomas Coulter (1793-1843) in Santa Cruz Mountains. His notes and journal are lost but his 1,500-2,000 specimens survive. Collects Abies bracteata, Pinus coulteri, Romneya coulteri. Travels overland through the Salinas Valley and on to southern California and Arizona. Later becomes curator at the herbarium at Trinity College. (Eastwood, 1939)
- 1833-36. 38 land grants made in the Santa Clara Valley.

 Secularization of missions complete. First commercial vinyard established, 1833, by Vignes. First commercial orchard established, 1836, by Wolfskill. Most agricultural land in private ownership.
- Thomas Nuttall (1786-1859) collects <u>Aesculus californica</u> at Monterey and <u>Alnus rhombifolia</u>. (Eastwood, 1939)
- 1837. Oct/Nov. Richard Brinsley Hinds. Surgeon-naturalist on British survey ship H.M.S. Sulphur, under command of Edward Belcher. Accompanied by George Barclay, plant collector sent by the Royal Botanical Garden at Kew. Travel to Santa Clara. George Bentham describes the botanical collections. (Bentham: 1844-46)
- Duflot de Mofras. On peninsula he singles out San Mateo Creek and San Francisquito Creek as having laurels of "...regal proportions and extraordinary height." Publishes good map of bay area. (Duflot de Mofras, 1844)
- The Woodside and Portola Valley redwoods (known then as the Pulgas redwoods or San Francisquito woods, depending on which side of the creek you took them) supplied the limited need for wood of both San Francisco and Santa Clara missions and presidio and pueblo. Hand cutting utilizing sawpits

meant limited wood was cut, but many people were working in the area. (Brown, 1966)

- 1841. Oct. William Dunlop Brackenridge (1810-1893), assistant naturalist with the Oregon-California overland contingent of the U.S. Exploring Expedition under command of Charles Wilkes. Reports on the salt marsh near Santa Clara. Collects first plants for a U.S. collection (the Smithsonian) including the <u>Darlingtonia californica</u>. (Maloney, 1945, p.334, and Eastwood, 1945)
- 1841. Aug. Charles Wilkes stays several months in the bay area. Gives California population figures at this time as:

 Whites, 3,000
 Mexican, 2,000
 Indian, 8, or 9,000
 (Wilkes, 1856)
- John Charles Fremont (1813-1890) reports that in Santa Clara Valley there are four to five varieties of wild clover and that there are almost inpenetrable fields of wild mustard, ten to twelve feet high. (Fremont, 1848, p. 148)
- 1845 Jan/Feb Fremont is in San Francisco, New Almaden, San Jose, and crossed from Los Gatos to Santa Cruz. (Fremont, 1887, p. 456.)
- 1845. New Almaden quicksilver mine opens near San Jose.
- 1845. All desirable land in private holdings (land grants). Cattle are dominant economy.
- 1845. Theodor Hartweg (1812-1871), botanist sent by the Royal Horticultural Society to collect, is in Monterey and the Santa Cruz Mountains. (Hartweg: 1848, & Bentham: 1848)
- 1846. Feb. Edwin Bryant mentions the wild oats and mustard between Santa Clara and Palo Alto. (Bryant, 1849, p. 318)
- 1846. U.S. war with Mexico, cession of California to U.S.
- 1848. Firt water power sawmill in California, Dennis Martin on the San Francisquito Creek.
- ca. 1848. William Kelly visits California as a tourist. Gives the first negative account of the climate, indicating the summer water shortage. (Kelly, 1851)
- Dr. Albert Kellogg (1813-1887) founds California Academy of Sciences. Collects Lilium pardalinum.
- 1849. William Lobb, plant collector for English nurseryman, William Veitch, collects <u>Sequoia gigantea</u>. Died in San Francisco in 1863.

1848. Population in California is 15,000.

1850. Population in California is 100,000.

1853. 15 water powered sawmills. Rapid cutting of redwoods begins on eastern side of the Santa Cruz Mts. crest. Prior to this time saw pits and hand sawing was the only means of obtaining timbers. Adobe construction required very little wood — only beams and door lintels. (Brown: 1966)

III. Quoted observations from original sources

1769. November. Fray Juan Crespi.

At the Guadalupe River between San Jose and the bay Crespi reports that a scouting party of the Portola expedition found "...a river with a considerable flow of water and a bed well-wooded with different kinds of trees." And just east of Palo Alto along San Francisquito Creek he writes, "we camped about four or five leagues from the end of this estuary, about a league from it, in a level plain which must have been at least six leagues wide, wooded with oak and some live oak. We stopped near a good stream of water that flowed through the middle of the large plain and estuary. All the land is so very good and mellow that it can not be excelled." (Crespi: 1927, p.28)

1770. November. Pedro Fages.

In the Santa Clara Valley between Coyote and San Jose: "During this whole day's journey the land was level and good, with many oaks and some live oaks." (Fages: 1911, p.151) And between San Jose and the tidal marshes fringing Coyote Creek at the southern end of San Francisco Bay: "This area was said to be a good country populated with oaks, live oaks, and other trees which the members of the expedition did not recognize. Somewhere near the mouth of Coyote Creek they crossed a dry arroyo which was heavily wooded with alders (or sycamores) and other trees. Nearby was a fresh water lagoon surrounded by rushes (juncos), cattails (eneas), and extensive pasture. (Clarke: 1952, p.138)

1772. March. Fray Juan Crespi.

Between Coyote and Milpitas: "The region just north of Coyote was well covered with grass and grown with oaks and live oaks. Farther north, about at San Jose, the valley was all black, mellow soil, well covered with several sorts of herbs and grass and with many oaks and live oaks. In the distance to the west they could see many trees which they judged to be on the Guadalupe River. They tried to reach the mouth of Coyote Creek, but were stopped by the tidal marshes which were so miry that they had some difficulty getting out of them. They camped near Milpitas on an arroyo with some alders in its bed. (Clarke paraphrase (ibid) of Crespi: 1927, p.285)

1774. November. Padre Francisco Palou.

Near Calabazas Creek (Cupertino): "we again took the road... following the plain of good land, partly wooded with small trees resembling junipers [probably Adenostoma fasciculatum], and among them some larger madroño, with fruit the size of a chick pea, but not yet ripe." Undoubtedly this latter was a species of Arctostaphylos. Further toward Palo Alto: "The day's march, although it has not been more than four hours and a half, has been heavy, for although it has all been over level ground, yet it has been troublesome on account of the thick groves of junipers and madrones that I spoke of yesterday, although the woods were interspersed with good spots of caks." He adds that they crossed three arroyos, all with many trees. These would have included the present Stevens Creek, Permanente Creek, San Antonio Creek, and Madera Creek. At San Francisquito Creek: "Its course is well grown with cottonwoods, willows, alders, laurels,

blackberries, and others not known. Near the crossing there is a grove of very large redwood trees, and a hundred steps farther down another very large one of the same redwood, which is visible more than a league before reaching the arroyo." They continued north from Palo Alto ...by the same plain or valley of good land and much pasture, grown with oaks and live oaks. The estuary comes very near on the north, and to the south there is a high mountain range covered with redwood trees. At the foot of it there is a range of hills of good land, pasture, and groves of caks and live caks. The whole plain runs in the same way with groves of live oaks in places." Somewhere close to San Carlos (two and a half hours from San Francisquito Creek) they turned into the hills because their leader, Rivera, was afraid of "...striking one of the marshes that are in the neighborhood of the shore of the estuary..." (There is a small hill that comes quite close to the shoreline between the present San Carlos and Belmont; they probably preferred to travel up the Pulgas Creek rather than crossing the hill.) In the foothills they crossed a stream (probably Belmont Creek) "...well forested with trees." Palou and Rivera climbed Buri Buri Ridge to the west of San Mateo and looked down on the western side of the bay (they could not see the eastern side on account of a light fog). "We saw its entire shore, which is full of small lagoons, small estuaries, and arroyos which empty into the large estuary. Judging by the tule beds which we have seen on its banks, it may have many marshes, and for this reason I suspect it will be very difficult to get to the very shore of the estuary..." (Palou: 1926, v.3, p.263-273)

1776. March. Juan Bautista de Anza.

The Guadalupe River course near Agnews had "... abundant and good timber of cottonwood, ash, willow, and other kinds." He reports a great abundance of firewood and agricultural land in the area and states the general suitability for a settlement here. In continuing north from Calabazas Creek to San Mateo Creek he comments, "all the arroyos mentioned today, and a larger number which have been passed dry shod, we have found grown with many tall and thick laurels of extraordinary and most fragrant scent." Just south of San Mateo Creek he reports, "here ends the abundance of oaks, live oaks and other trees which we have had on all sides on the way from San Bernadino [Gilroy]." (Bolton: 1930, v.3, pp 126-134)

1776. March. Pedro Font.

Near Calabazas Creek Font climbed a hill and looked down at the south end of the bay where he reported "...several small inlets and a large stretch of bad, muddy and salty land this side west of the water; but it appears that the estuary extends at times through all that margin and flat." An arroyo just north of Calabazas, either Stevens or Permanente Creek, was called "Arroyo de los Laureles" because of the laurels along its course. Somewhere in this area he notes, "...a very dense grove of abrojos, which they call El Bosque Espinoso, although it does not have thorns." He reports San Francisquito Creek to have "...various laurels, ash, and other trees, and a few spruce trees which they call redwood, a tree that is certainly beautiful; and I believe that it is very useful for its timber, for it is very straight and tall..." They continued north from Palo Alto through "...a very beautiful plain full of oaks, which we saw all the way yesterday and

today, and which are likewise seen at a distance. Thus it appears that they are found in all the plain shich surrounds the estuary and which is continuous with yesterday's plain [Santa Clara Valley]." A little later Font says that the <u>Llano de los Robles</u>, so-named "...because it is very thickly grown with oaks of all sizes..." ends some three leagues (ca. eight miles) north of San Francisquito Creek. Of San Mateo Creek he writes, "it has many laurels and ash trees on its banks, and in all this stretch, which likewise is level country, there are many laurels and also oaks and some live oaks." And of the shore of the bay near San Mateo, "the estuary is very large, but has very bad shores, for everywhere for a good stretch it is surrounded by marshy lands and little bays which run out from it and extend for a greater or less distance through these shores and flats. But outside of the flats the land is level and very green." (Font: 1930, v.4, pp 325-344)

1792. November. George Vancouver.

Reporting on the trip south from San Francisco, they have just left what is probably San Mateo Creek: "We had not proceeded far from this delightful spot when we entered a country I little expected to find in these regions. For about twenty miles it could only be compared to a park, which had originally been closely planted with the true old English oak; the underwood, that had probably attended its early growth, had the appearance of having been cleared away, and had left the stately lords of the forest in complete possession of the soil, which was covered with luxuriant herbiage, and beautifully diversified with pleasing eminences and vallies; which, with the range of softly rugged mountains that bounded the prospect, required only to be adorned with the neat habitations of an industrious people, to produce a scene not inferior to the most studied effect of taste in the disposal of grounds..." (Vancouver: 1798, p.) A little way south from Palo Alto on the way to the mission of Santa Clara they leave the oak parklands and enter an open meadow a few miles in extent. Then, before reaching the mission, they pass through six miles of low swampy country, with their horses nearly knee-deep in water and mud. (Clarke : 1952, p.142)

1792. November. Archibald Menzies.

Menzies, the botanist on Vancouver's expedition, was unable to make the trip due to sickness. His report is based on the testimony of a Lieutenant Johnstone, who did accompany Vancouver on the trip south. From the mission they travelled some twenty miles before they halted for a lunch stop "on a verdant plain skirted with some rising ground and beautifully diversified with groves of trees through which a limpid stream of fresh water meanderd in its course and gave a novelty to the prospect, which from the aridity of the country was but seldom met with; in short a spot more delightful they all agreed could hardly be met with on the whole globe... They were yet scarcely half way, and excepting a few Indian huts there was no other house or shelter between them and Santa Clara... The road they pursued was plain and level as a bowling green without even a stone to impede their progress, as they advanced they passed through forests of fine oaks, [Quercus lobata] the greatest part of which they left on their right hand, these caks were scatterd so far apart, that instead of incommoding or obstructing their way, they contributed much to render

it more delightful by the various scenes and vistas which were every moment opening to their view. A ridge of hills to the southward seemingly clothed with pines ran between them to the sea coast, and on their north side a range of mountains ran parallel to it, at the foot of which a branch of the port of San Francisco ran towards Santa Clara, so that their path ran through a fertile valley, which for pleasing prospects and richness of soil could no where be excelled..." They were still about four leagues from Santa Clara when they, "came to low swampy ground, which the late rains had coverd with water about a foot deep..." (Menzies: 1924, 276-277)

1806. April. George Heinrich von Langsdorff.

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Travelling from the presidio to the mission, "The road is bad either for horses or for walking, consisting almost every where of a loose sand. The surrounding country is in general naked, and the hills, covered in some parts with low shrubs, afford but little variety. The birds were almost the only things to attract our attention; I saw several sorts unknown to me, besides eagles, cranes, curlews, ducks; there were also a few rabbits and hares." (Langsdorff: 1814, p. 154) In describing the view from on board he writes, "The shore, on our left, or the eastern shore, presented a low and extensive plain stretching several miles inland, which was bounded by a chain of hills of a moderate heighth, intersected with deep vallies, and in some places well covered with wood. The western shore is bounded with hills partly naked, partly covered with brushwood. The whole shore forms many points of land and small bays; in one of the latter lies the Mission of St. Francisco. As far as this place, the water is deep enough for large vessels, but soon after it grows much shallower, not having a depth of more than five feet; this was shewn by a great change in the color of the water." (ibid. p.189) They travel by shallow boat to Mission San Jose on the southeast end of the bay and describe in great detail the marshy area thereabouts (ibid. pp. 190-191) He describes the site of the mission, "The only disadvantage is that there are no large trees very near. The natives of the country have several times from thoughtlessness, when they wanted to celebrate some particular rejoicing, set fire to the woods, and burnt down large tracts, so as to leave scarcely any trees standing; the wood for building must therefore be brought from a distance of several miles." (ibid. p. 193)

Near San Bruno, at the spot Beechey calls "Burri Burri," they come upon the collecting spot for large quantities of soaproot (Chlorogalum pomeridianum). Near San Mateo he describes, "...a wide country of meadow land, with clusters of fine oak free from underwood. It strongly resembled a nobleman's park: herds of cattle and horses were grazing upon the rich pasture..." Farther south, near Belmont, "...the plain still continued animated with herds of cattle, horses, and sheep grazing; but the noble clusters of oak were now varied with shrubberies, which afforded a retreat to numerous coveys of California partridges [quail]..." Near the town of Coyote, Beechey's party stopped by the creek and ate under the shade of an "aliso-tree" [alder].

Eulogizes the oak parklands and stresses the arrangement of the trees into clusters. Comments on the mistletoe (<u>Phoradendron villosum</u>) on many of the larger oaks and on the treeless plain south of Palo Alto, adding that it stretched from the bay to the foot of the mountains.

1829. Alfred Robinson.

I include in his account their start from the anchorage at Yerba Buena: "We commenced our route through a dense thicket, where the path was narrow, and where the trees so intersected their branches, as to endanger our heads as we rode along. Thus we went on; sometimes crossing little valleys, where the fox-like coyote prowled, and sometimes rising sandy eminences, where a glimpse was had of the neighboring bay. Through the woods resounded the wolf's howl, and the heavy track of the grizzly bear lay printed in our course. At length, through an opening in the woods, we saw the Mission of Dolores. Its dilapidated walls, and dark tiled roof, well accorded with the bleak and cheerless scenery with which it was surrounded; for the cold, blustering sea winds, as they sweep over the hills, chill and destroy vegetation. ... We proceeded on our route for Sta. Clara. The first two or three leagues of the journey were over a succession of hills and small valleys, where the strong westerly gales came with such force that the progress of our horses was somewhat impeded, in consequence of the violent effect of the wind on the large leather trappings attached to our saddle-gear. We passed on the road a large inclosure, called El potrero,, used for the rearing of horses, the walls of which were of loose stones, piled up to the height of about four feet.

Passing this, we opened upon the grazing grounds of the Mission, where thousands of cattle were scattered about in herds. On our right, the land was elevated, and as it continued in the distance, its top was covered with pines. To the left, lay the smooth and spacious bay, extending in a southeast direction, full thirty miles from the ship's place of anchorage, bounded on the opposite side by the highlands of St. Leandro and St. José. Our ride was charming, and now and then a distant framhouse, or Indian hut, with its little garden, would come in sight; and numerous rivulets winding their way towards the bay, adding much to the picturesqueness of the scene. A few leagues brought us to the sheep-farm of St. Mateo, situated in the midst of a small wood. The building, occupied by the mayordomo and servants, is spacious and covered with burnt tiles. Here we alighted, and, after a short rest, remounted and resumed our journey. "El Rancho de las pulgas" was the next place of any importance in our route, and is situated a little retired from the road, at the foot of a small rising ground. It is the property of Doña Soledad Ortega, widow of Don Luis Arguello, formerly governor of California. I found her a beautiful woman, and the mother of three or four fine children. She was very lady-like in her manner, and treated us with the utmost courtesy. After dinner, we bade her adieu, and again proceeded on ur way, which was uninterrupted, till, far distant in the center of a spacious plain, we beheld Santa Clara and its numerous buildings."

It was three o'clock when we arrived at this Mission, having performed the journey of eighteen leagues in about eight hours... The hills of St. José were visible beyond, and betweixt the trees that covered the

plain we obtained a distant view of the town of that name." The bay area is described as having a population of over five thousand Indians, two hundred whites, more than forty thousand domesticated cattle (exclusive of horses, mules, and sheep). "The rivers and creeks are supplied with an abundance of salmon and other fish; game is plentiful, and bears, wildcats, woves, and coyotes, are often met with. On the northern side of the bay are found the American elk and antelope, and great quantities of deer; the first of these is hunted for its tallow, which is preferred to that taken from bullocks. (Robinson: 1891; 68-72)

1841. Eugene Duflot de Mofras.

En quittant la Mission de SAnta Clara pour aller à celle de San Francisco, on traverse une très longue prairie parsemée de bouquets de chênes, et où paissent de nombreux troupeaux. On passe les deux petits ruisseaux de San Francisco et de San Mateo, près desquels s'élèvent des lauriers royaux d'une dimension et d'une hauteur extraordinaire. La route serpente sous ces arbres majestueux, et près des ranchos de San Francisquito, San Mateo, los Juanes, Buri et Sanchez.

A droite, on aperçoit, sur le dernier plan, les montagnes couronnées de pins rouges; au-des-sous, les eaux de la baie, et souvent, au bord du chemin, de grandes mares desséchées et couvertes de croûtes salines, qui, de lin, btrillent au soleil comme de vastes champs de neige. A gauche, s'élève la sierra de San Bruno, terminaison de celle de Santa Crúz, de laquelle se détachent quelques pitons de quatre à cinq cents mètres, et le mont de Santa Clara qui les domine tous, et est visible à plus de dix lieues en mer. Parvenu à la pointe de San Bruno, le terrain devient aride; il est entièrement sablonneux près de la Mission; mais vers la côte, sur le penchant occidental de la sierra de San Bruno, il y a des herbages dans les bas-fonds, et les trois bonnes fermes de Vazquez, Sanchez et Guerrero. (Duflot de Mofras: 1844, pp 423-424)

1841. August. Charles Wilkes.

At the time of our visit the country altogether presented rather a singular appearance. Instead of a lively green hue, it had generally a tint of a light straw-colour, showing an extreme want of moisture. The drought had continued for eleven months; the cattle were dying in the fields; and the first view of California was not calculated to make a favorable impression either of its beauty or fertility. (Wilkes: 1852, p. 232)

"The valley ... of San Juan [Santa Clara Valley] ... is capable of producing wheat, Indian corn, rye, oats, etc. with all the fruits of the temperate and many of the tropical climates. It likewise offers fine pasture-ground for cattle. ... But although several small streams and lakes serve to water it, yet in dry seasons or droughts, not only the crops but the herbage also suffers extremely, and the cattle are deprived of food." (Wilkes: 1856, p. 154)

"The country we passed through was at this time destitute of both water and grass, and the weather uncomfortable warm. In places we found it picturesque, for the scattered oaks, laurels, etc., though to all appearances entirely unfit for cultivation. Where ever there was any running water, a pond, or vegetation, large flocks of geese and ducks were seen." (Wilkes: 1856, p. 212)

1841. October 25. William Dunlop Brackenridge.

Reports on the salt marsh near Santa Clara: "At 4 p.m. we came up to our party who had encamped on the margin of creek of water influenced by the tides [20 miles north from the Santa Clara mission].

Plants. Verbena sp. - in habit of V. venosa, flor. blue.
Salicornia sp. - abundant on salt marsh near St. Clara.

[S. pacifica]
Stachys sp. - in thickets near St. Clara.

[S. bullata]

The country around St Clara is flat, with a rich loamy soil, a large portion towards the bay consisting of a salt marsh, towards the base of a range of Mts. - close behind are found a good many oaks thinly scattered over the plain."

October 26.

"...This day was spent in collecting seeds and botanical specimens, to the last we added

Nicotiana sp. - flos. white - leaves very sticky - plant annual [N. bigelovii]

Mimulus sp. - stem shruby, leaves lanceolate, flor. pale orange, this I believe to be the same plant that Mr. Nuttall introduced into the U. States from this country. [Diplacus aurantiacus] Quercus sp. - a tree 60 feet - stem smooth much branched at top, leaves prickly, acorns large with a sharp point. [Q. agrifolia] Rhamnus sp. - a shrub 10 feet high - common in thickets.

[R. californica]

Leptosiphon sp. - a slender annual with white flowers, dry places.

Solanum sp. - stem shruby - flos. a fine sky blue - a handsome plant.

Laurus sp. - perhpas L. Ptolmi of Hooker, this tree reaches the height of 40 feet - and covered with a profusion of fruit in size and appearance of a Damson plum. [Umbellularia california]
Two species of Composita related to Grindellia, from Salt Marshes." [Grindelia comporum and G. humilis]

[Maloney: 1945, pp. 334-335]

1845. January and February. John Charles Fremont.

"The fertile valley of San José is a narrow plain of rich soil lying between equally fertile ranges from two thousand to three thousand feet high, covered on one side with wild oats, and wooded on the range toward the sea. The valley is openly wooded with groves of oak free from underbrush, and after the spring rains covered with grass. On the west it is protected from the chilling influence of the northwest winds by the <u>Cuesta de los Gatos</u> - Wild-cat Ridge - which separates it from the coast." [Fremont: 1887, p. 456]

1846. John Charles Fremont.

Reports that in summer the Santa Clara Valley had four or five varieties of wild clover several feet high, and "in many places it is over-grown with wild mustard, growing ten or twelve feet high, in almost impenetrable fields, through which roads are made like lanes." [Fremont: 1848, p. 148]

1846. February. Edwin Bryant.

Reporting of the area between mission San Jose (the lower east side of the bay) and the town of San Jose: The route passed "... for the most part over a level and highly fertile plain, producing a variety of indigenous grasses, among which I noticed several species of clover, and mustard, large tracts of which we rode through, the stalks varying from six to ten feet in height. The plain is watered by several arroyos, skirted with timber, generally the evergreen oak." [Bryant: 1849, p. 314]

From Santa Clara to Palo Alto he reports, "We travelled fifteen miles over a flat plain, timbered with groves and parks of evergreen oaks, and covered with a great variety of grasses, wild oats, and mustard. So rank is the growth of mustard in many places, that it is with difficulty that a horse can penetrate through it." [ibid, p. 318]

ca. 1848. William Kelly

Questions Fremont's description of the bay area's climate. "The soil, I admit, is of an unsurpassing quality, made up of constituent qualities and ingredients, capable of producing any crop only for the adverse operation of the seasons, which keep it saturated, and in most places submerged in water, from November until April, rendering it physically impossible to prepare the land, much less to sow the seed during that period; and then before July it is so baked and cracked under a hot and cloudless sun, that not only is all further vegetation arrested, but everything above ground is crisped, and ready to fall into powder at the touch; while the streams that might be supposed available for irrigation are, in ninety-nine cases out of a hundred, completely dry. Thus there would be only three months to plough and harrow, sow and reap — a period infinitely too circumscribed for the maturation of any grain, and most vegetables." (Kelly: 1851, p.15)

And, to finish these accounts on a rather modern refrain, Kelly anticipates the California Native Plant Society with the following observation: "There is one national nuisance the valley is subject to, which it is found next thing to impossible to abate — I mean the wild mustard, which invades the richest pasturage, covering large tracts of teh choicest land, to the annihilation of all other vegetation; for it is of such rank growth, it attains a height of nine and ten feet, and its small imponderous seed is carried about by the slightest current of air. From experiments, it has been ascertained that it could be destroyed by repeated cuttings down during the season; but as the germs are found to be carried about, and deposited with the ordure of the cattle, all attempts, unless unanimously adopted throughout, must prove useless, where, in absence of all fences, the cattle of the indifferent man may wander over the grounds of his more painstaking neighbour." [ibid. p. 323]

IV. Copies of maps

| 1. | Father Crespi, 1772. (Galvin: 1971) | p. | 16b |
|----|--|----|-----|
| 2. | Cañizares, 1776. (Galvin: 1971) | p. | 17 |
| 3. | P.F. Petrus Font, 1777. (Font: 1911) | p. | 18 |
| 4. | Ias Pulgas rancho plat, 1795. (Becker: 1964) | p. | 19 |
| 5. | Rancho Cañada del Corte de Madera, n.d. (Stanford University: n.d.) | p. | 20 |
| 6. | Duflot de Mofras, 1840-1842. (Duflot de Mofras : 1844) | p. | 21 |
| 7. | Alan K. Brown's reconstruction of the vegetation cover in Palo Alto in the 1840s ' (Brown: 1963) | p. | 22 |

V. Bibliography

I have divided the bibliography into two sections, primary and secondary sources. I hope this will facilitate use and not cause undue complications; the intent was to keep the narratives separate from the later scholarly studies. In many cases, of course, the early narratives were not published until long after the events being described. I have attempted to cite first editions or at least the earliest English language editions at Stanford, with exceptions in those cases where significantly different material appears later. The call number refers to Stanford University Libraries' holdings; RBC indicates a Rare Book Collection location. Gunst is also in Special Collections.

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[G650 1825.B41 1831 RBC]

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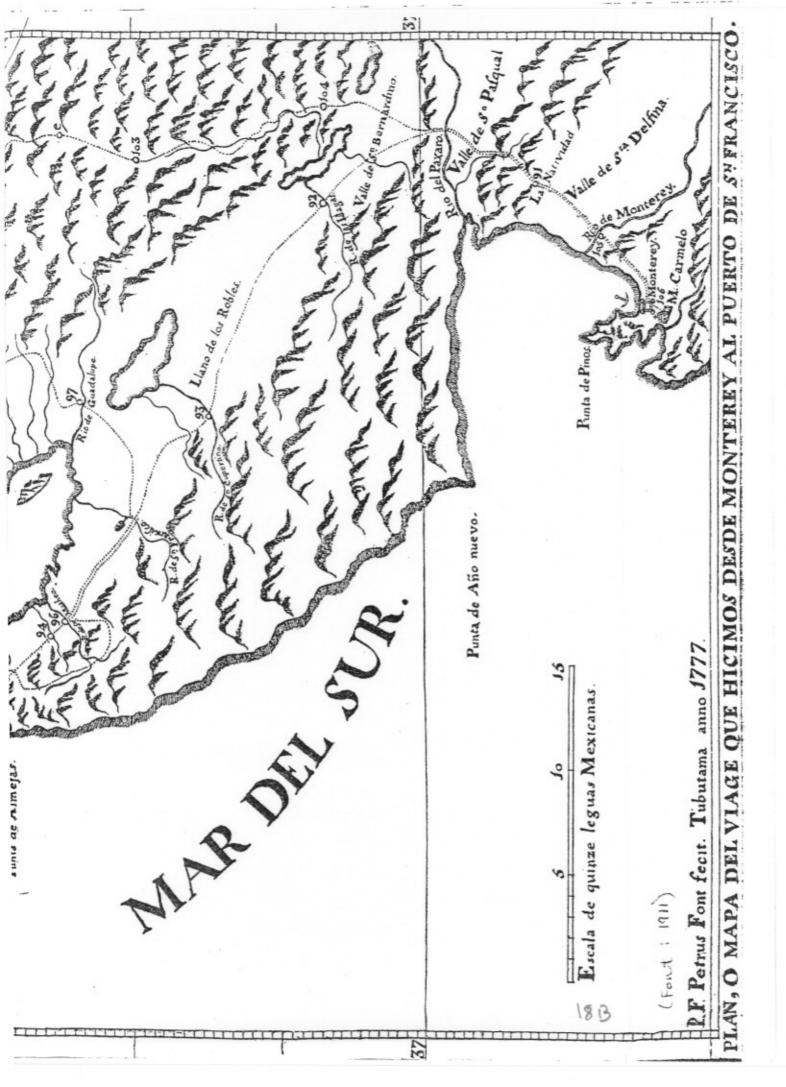
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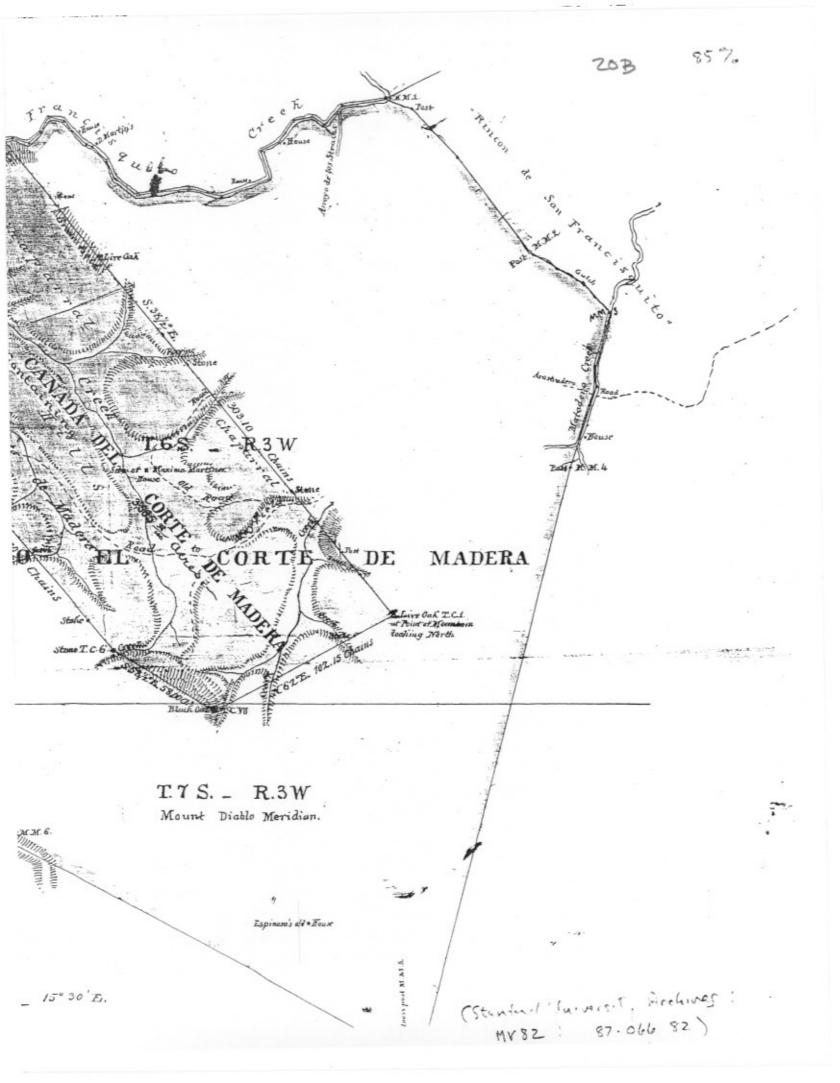
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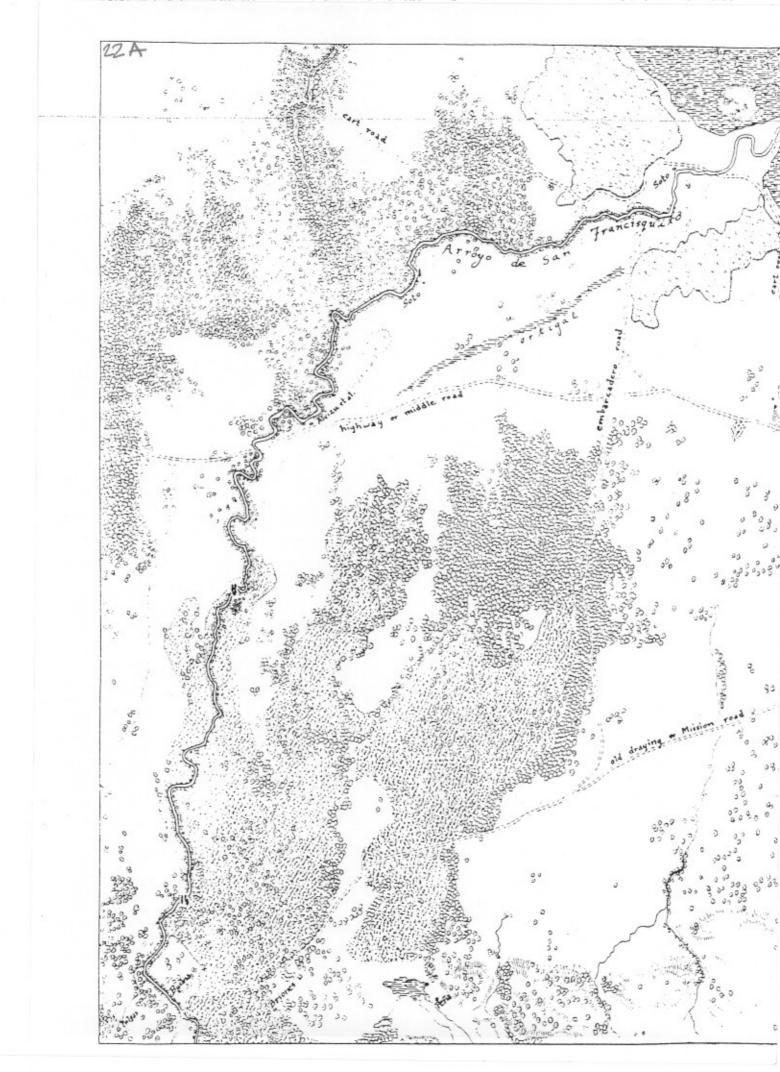
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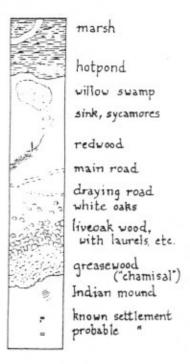






PALOALTO 22B

in the 1840's from later surveys and other sources.





A.K.B. 9-63

(Brown, 1763)

