

SOME IMAGINARY CALIFORNIA GEOGRAPHY

BY HENRY R. WAGNER

UNTIL the latter part of the sixteenth century, what real knowledge existed of the northwest coast of America, its general trend and approximate distance from Japan, was confined to the Spaniards. The slow progress of discovery in the Arctic and Antarctic regions gave rise to keen competition among cartographers in the exercise of their imaginations about these regions. The famous "Antarctic Continent" of those days had its counterpart in the north in Münster's and Mercator's Polar islands, and it is not difficult to understand that the knowledge of the existence of the strait called Magellan's Strait, known to separate the main continent of America from some land to the south, was the principal basis of the belief that a corresponding passage existed north of America. The Strait of Anian, strictly speaking, could hardly be called a California myth, but the gradual extension of the term to cover the supposed strait north of America between the Atlantic and Pacific brought it into the field of California cartography. The term "California" is used in the following paper in its widest sense as embracing the west coast from Cape San Lucas indefinitely to the north, although the Spaniards seem to have placed a limit to the north in about 43° to 45° which was supposed to have been the farthest north that Juan Rodriguez Cabrillo reached in his expedition of 1542-1543. Before the Strait of Anian began to figure in the literature and cartography of the day, a fable that the Quivira of Coronado was somewhere in

the northwest near or on the coast, was current, and undoubtedly had great influence in inducing schemes for its discovery which eventuated in one and perhaps two cases in actual voyages.

In treating of the imaginary geography of California it is impossible to overlook a subsequent development, a curious idea that California was an island. This idea, entirely Spanish, originated no doubt in the fertile imagination of a Carmelite friar. A discussion of these three fables is the object of this paper. The earliest, the account of the Quivira myth, was published in substantially its present form in the *Quarterly* of the California Historical Society for October, 1924.

The following maps are reproduced to illustrate the paper:—

- Plate I. Section of Ortelius' map of 1564.
- Plate II. Typus Orbis Terrarum, from the Ortelius Atlas of 1570.
- Plate III. Map ascribed by Henri Vignaud to Giacomo Gastaldi.
- Plate IV. Paolo Forlani's map of 1574.
- Plate V. Nova Franza, by Bolognino Zaltieri.
- Plate VI. Henry Briggs' map, reproduced from Purchas.
- Plate VII. Map of the West Indies from the West-Indische Spiegel.
- Plate VIII. N. de Fer's map of California and New Mexico, 1700.

THE MYTHICAL CITY OF QUIVIRA

The maps of the northwest coast of America in the sixteenth century present us with a strange picture of mingled fact and fancy. Before 1540, this part of the world being entirely unknown, the delineations were fancy, pure and simple. The discoveries of Cortes and Ulloa were plotted fairly well, but although Juan Rodriguez Cabrillo must have made a map, and Francisco Vasquez de Coronado certainly did, as he himself tells us in his letter to Mendoza of August 3, 1540,¹ no cartographer appears to have made use of their work. Unfortunately we lack any authentic Spanish map made during the rest of the century, except the limited one of Diego Gutierrez, so the cartographers

¹The *Coronado Expedition*, by George Parker Winship, Wash., 1896, p. 547. The letter was first published in Italian in the third volume of Ramusio's voyages in 1556.

had to fall back on what they could gather from the written and published narratives.

Although Francisco Lopez de Gomara does not give us an account of the Cabrillo expedition of 1542-43, his *Historia de las Indias*² contains a slight sketch of the northwest coast with most of the names which Cabrillo had given, and a short story of the Coronado expedition of 1540-42, but with no indication of the direction in which Coronado moved on his expedition to Quivira. He does not say that the party went east or northeast, although he must have known that such was actually the general direction. Gomara says: "Quivira is in 40°, a temperate country, well watered, with many herbs, plums, mulberries, nuts, melons and grapes which mature well. There is no cotton. They wear buffalo and deer skins. They saw on the coast ships with merchandise which had on their prows pelicans made of gold and silver, and they thought they must be from Catayo or China, as they made signs that they had sailed thirty days."³ [Trans.] As the nearest seacoast was in the northwest, no doubt the map makers in reading this account considered that Quivira was there and that therefore the general sequence of the towns mentioned by Gomara was in that direction. Apparently no trace of either of these expeditions appeared on the maps until about 1556, beyond the placing of the name "The Seven Cities"⁴ on several earlier ones. When some maps are found showing their discoveries, Quivira, naturally enough, is found in the northwest part of America near the coast, and the various places named by Gomara are arranged in a line running from the southeast to the northwest. Beginning with Civola, these continue in the following order: Cuco or Chucho (i. e., Acuco), Tiges, Axa, Cichuich or Chicuich (Cicuye), and Quivira. These are all the names which occur in

²Zaragoza, 1552. Vedia's edition of 1852, p. 164.

³*Ibid.*, page 288.

⁴Usually *Sette Città*, with variations.

Gomara's account, and are a very certain indication that the maps were made from his narrative.

While this accounts for the curious error of the cartographers, the story of the ships had appeared in print before 1552 when Gomara's book was published. In 1550 Gio. Battista Ramusio published the first volume of his *Navigazioni et Viaggi*, and on folio 401 he prints a story which he says he heard from a gentleman of Mantua while on a visit to his friend Fracastro. This gentleman told a long story about Russia and the way to the spice countries of the East, and wound up by stating that he had seen a letter from the Viceroy Antonio de Mendoza, written in 1541, the substance of which he related. Richard Eden appended to his translation of the *Decades of the New World*, published in London in 1555, a translation of this story. Speaking of the effort to discover the land and countries of Cathay, the gentleman said:

"The whiche thyng, that ryght woorthy gentleman master Antony di Mendoza considerynge by the singular vertue and magnanimitie that is in hym, attempted to put this thyng in practise. For beinge viceroy of the cuntry of Mexico (so named of the great cite Mexico otherwise cauled Temistitan, nowe cauled newe Spayne, being in the .xx. [twentieth] degree aboue the Equinoctiall, and parte of the sayde firme lande), he sent certeyne of his capitaynes by lande, and also a nauie of shyppes by sea, to search this secrete. And I remember that when I was in Flaunders in Th[e] emperours courte, I sawe his letter wrytten in the yeare .1541. and dated from Mexico: wherein was declared howe towarde the northwest, he had fownd the kyngedome of Sette Citta (that is) Seuen Cities, whereas is that cauled Ciuola by the reuerend father Marco da Niza: and howe beyonde the sayde kyngedome yet further towarde the Northwest, Capitayne Francesco Vasques of Coronado, hauynge ouerpassed great desertes, came to the sea syde where he found certeyne shyppes which sayled by that sea

with marchaundies, and had in theyr baner vppon the proos of theyr shyppes, certeyne foules made of golde and syluer which they of Mexico caule Alcatrazzi: And that theyr mariners shewed by signes that they were .xxx. [thirty] dayes saylynge in comynge to that hauen: wherby he vnderstode that these shippes could bee of none other countrey then of Cathay, forasmuch as it is situate on the contrary parte of the sayde lande discouered. The sayde master Antonio wrote furthermore, that by the opinion of men well practised, there was discouered so greate a space of that countrey vnto the sayd sea, that it passed .950. leaques, which make .2850. myles. And doubtlesse yf the Frenche men in this theyr newe Fraunce, wolde haue passed by lande towarde the sayd northwest and by north, they shuld also haue founde the sea wherby they myght haue sayled to Cathay. But aboue all thynges, this seemed vnto me most woorthy of commendation, that the sayde master Antonie wrote in his letter that he had made a booke of al the natural and marueylous thynges whiche they founde in searchynge those countreys, with also the measures of landes and altytudes of degrees: A worke doubtlesse which sheweth a princely and magnificall mynde, wherby wee may conceaue that yf god had gyuen hym the charge of the other hemispherie, he wolde or nowe haue made it better knowen to vs. The which thyng, I suppose no man doth greatly esteeme at this time: being neuertheless the greatest and most glorious enterprise that may bee imagined."⁵

It does not seem possible that Mendoza could have written any such story, but that he did write something on the subject which the Mantua gentleman may have misunderstood is apparent from contemporary evidence. The letter to which he refers was undoubtedly that written by Mendoza about August 1, 1541. On July 28, 1541, one Peralmidés (Pedro

⁵Arber's reprint in *The First Three English Books of America*, London, 1885, p. 287.

Almindez Cherino) wrote a letter from Mexico to Juan de Sámano, the secretary of the Council of the Indies, in which he said that eighteen days before, letters from Coronado had come to Mendoza, who would not reveal the contents to anyone, but said he would do so in a letter to the King and to the Council. All that he gave out was that the party was well and had found a well-populated country. Peralmides intimated, however, that after the *flota* had left for Spain Mendoza might tell something.⁶ Among the letters from Coronado to which Peralmides referred was undoubtedly that of April 20, 1541, which is lost. In his of October 20, written after his return from the plains, Coronado refers to this one of April 20, and says that he had written in it all the wonderful things which he had heard from the Turk.⁷ The Turk, so-called, was an Indian slave whom Hernando de Alvarado brought back from Cicuye on his return from the expedition to see the buffalo about the end of March, 1541. The Turk said he was a native of the country towards Florida, and told Alvarado that there were some large settlements in the farther part of that country. The only one of the various accounts of the expedition which contains any extended notice of what the Turk had to say is that of Pedro de Castañeda.

“The Turk said that in his country there was a river in the level country which was 2 leagues wide, in which there were fishes as big as horses and large numbers of very big canoes with more than 20 rowers on a side, and that they carried sails, and that their lords sat on the poop under awnings, and on the prow they had a great golden eagle. He said also that the lord of the country took his afternoon nap under a great tree on which were hung a great number of little gold bells which put him to sleep as they swung in the air. He said also that every one had their ordinary dishes made

⁶Archivo General de Indias, Seville, 58-6-9.

⁷Coronado Expedition, p. 580.

of wrought plate, and the jugs and bowls were of gold."⁸ This account, which was not written until after 1560, was probably not known in Spain until much later, but these must be some of the wonderful things which Coronado had written to Mendoza.

Although as stated, Mendoza could hardly have believed such stories, yet there is some evidence that he considered it worth while to have some investigation of them made. About the time he must have written to the Council he and Alvarado were dispatching an expedition to the northwest coast. The instructions to Diego Lopez de Zuñiga, who was to command that expedition, had been prepared in April, some time before Mendoza had received Coronado's letter, but some supplementary instructions may have been issued in August. Not much is known of that expedition, which must have sailed about September and returned in the spring of 1542,⁹ but in the account of the subsequent expedition of Juan Rodriguez Cabrillo which left in June, 1542, there are abundant indications that one of their instructions was to search for some river, possibly the Turk's river, two leagues wide. Herrera, in his account of the expedition, even gives the river a name, "Rio de Señora."

The fable must have obtained its greatest currency, however, through Quivira being placed on the coast in maps produced in the latter part of the century. The earliest map to show the results of Coronado's expedition is probably the one made by Giacomo Gastaldi in the third volume of Ramusio. The Preface to this volume which was published in 1556, is dated June 20, 1553. From this it appears that Gastaldi had already made the map, which he certainly drew up from the description by Gomara contained in the same volume. Gomara said that Quivira was in 40° and it is so

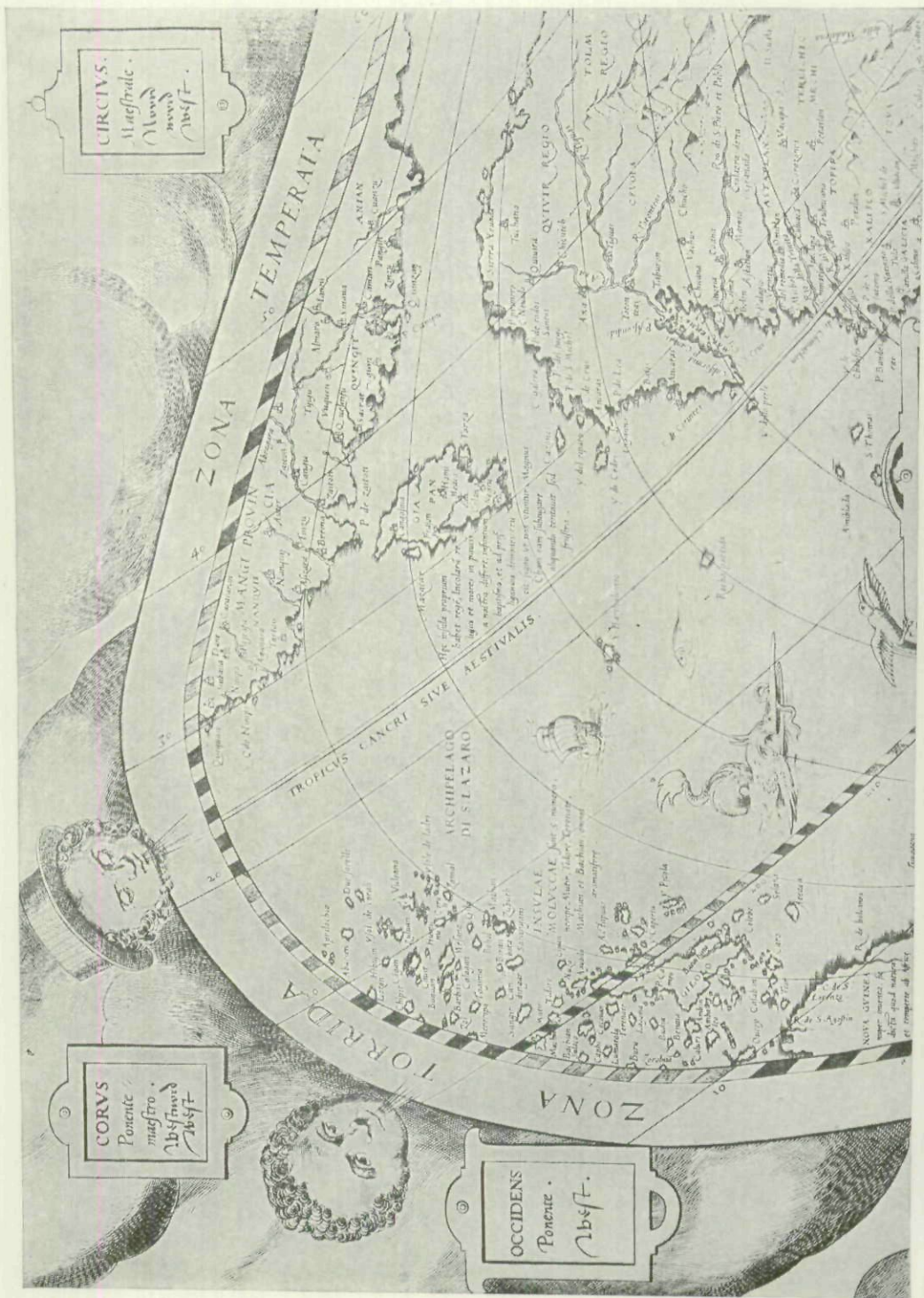
⁸Coronado Expedition, p. 493.

⁹An account of the expedition in the writer's *California Voyages, 1539-1541*, S. F., 1925. Since this was published the instructions to Lopez de Zuñiga have been found and a translation of the document will appear in a subsequent volume of *California Voyages*.

found on this map at a distance of perhaps 300 miles from the coast of the Pacific. The only indication that Gastaldi had read Gomara's description of the north-west coast is a single place name, "Sierra Nevadas," placed on the coast directly west of Quivira. In the Ayer collection in the Newberry Library in Chicago, there is a manuscript map, probably made by Battista Agnese. As it is not dated it is a little uncertain just when it was made, but almost certainly it was not later than 1564 and probably not before 1560. On this map Quivira appears in the same location as on Gastaldi's map but the "Sierra Nevadas" are somewhat farther south. Above, in the ocean, at about 45°, is a legend which, translated from the Italian, reads: "Up to this point Francisco Vasquez de Coronado discovered," and in the ocean just off the coast at about 40° is another: "Ship of Catayo, or China."¹⁰

In the British Museum there is a map entitled *Americae sive Quartae Orbis Partis Nova et Exactissima Descriptio*. It was engraved by Hieronymus Cock in Amsterdam in 1562, purporting to have been drawn by one Diego Gutierrez, probably Diego Gutierrez the younger. This map is somewhat celebrated owing to the fact that it contains the word "California," the earliest known use of the name in the cartography of the Pacific coast. The Peninsula of California is not shown, but only a projecting point at the lower end to which is applied the name, "C. California," that is, Cape California. Without going through a somewhat technical line of reasoning, it seems likely that Gutierrez also produced another map showing the Pacific and the Islands of the Indies, China, etc., which probably included the Peninsula of California as well. No example of this exists, but as there is only one known of the other, its disappearance need not cause any wonder. From these two maps it seems likely that the

¹⁰Another, almost identical, is in the Library of the University of Bologna, reproduced as Plate XXV in the Atlas to Kretschmer's *Die Entdeckung Amerikas*, Berlin, 1892. If not by Agnese, it is Agnesan.



CIRCVS
MAESTRALE
1647

CORVS
Ponente
1647

OCCIDENS
Ponente
1647

PLATE I. SECTION OF ORTELIUS' MAP OF 1564

famous heart-shaped map of the world, published by Abraham Ortelius in 1564, may have been constructed. The only copy of this map known, only recently discovered, is in the British Museum, and bears the title, *Nova Totius Terrarum Orbis Juxta Neo-Terricorum Traditiones Descriptio*. From the fact that some peculiarities in nomenclature found on the lower Pacific coast of Mexico only occur in this map and that of Gutierrez, it seems possible that Ortelius made use of the latter. On Ortelius' map Quivira appears near the coast with the Sierra Nevadas beyond to the west.

In 1569, Gerard Mercator produced his famous world map, on which he moved Quivira to the coast, where it appears as a town in 40° of latitude, in consonance with the misunderstanding of Gomara's statement.¹¹ On this map for the first time appeared the remarkable extension of the northwest coast to the west. This coast line reaches as high as 41° or $41\frac{1}{2}^{\circ}$ where the Sierra Nevadas are placed, and then turns slightly to the south of west for nearly ten degrees of longitude. Here at 40° Quivira appears, beyond which the coast turns in a curve a little north of west until in a short distance it attains a northerly direction. Even Ciciuic and Tiguex appear on the coast at about 38° . Farther south are various place names copied probably from an Italian map on which Gomara's names were displayed. Mercator was a student of books as well as of maps and the line of reasoning on which he based his conception appears to have been this: From reading Gomara's account, he thought that the place where the ship from China was seen was Quivira, and he therefore placed it on the coast. As Gomara distinctly stated that this place was in 40° of latitude and as the name had not appeared on the maps which showed the results of the Cabrillo expedition, Quivira was then farther to the west and Mercator therefore extended the coast in that direction.

¹¹This part of the map reproduced in *Coronado Expedition*, Plate 7.

Perhaps when Drake was coasting along the northwest coast of America and is supposed to have been seeking the Northwest Passage, he had an eye open for Quivira. We can be fairly certain that among the maps he carried was the famous Ortelius Atlas, first published in 1570, in which maps of the world and of America appeared which had been reduced from the Mercator map of 1569 and are not modeled on Ortelius' own map of 1564. On these, Quivira, Cicuic and Tiguex appear as towns just as on Mercator's. Not only did Drake have these maps, but very likely also the pamphlet of Sir Humphrey Gilbert which had been published in 1576, entitled, *A discourse of a discoverie for a new passage to Cataia*.¹² After citing the ancient historians to prove that America is an island, Gilbert proceeds to discuss the accounts of more modern travelers beginning with Marco Polo, who, he says, sailed fifteen hundred miles toward the northeast on the coast of Mangia and Anian. He then quotes the passage previously translated from Gomara, although he adds a little, saying that Coronado passed from Civola, through the country of Quivira to Sierra Nevada, which Gomara did not say. In Chapter 7 he tells the apocryphal tale about Andres Urdaneta's returning from the Philippines through the Northwest Passage to Germany, and by means of these arguments arrived at the conclusion that America was an island and that a passage existed by water from the Atlantic to the Pacific north thereof. In Chapter 10, in speaking of the projected trade to the East, he says, "Moreover we might from all the aforesaid places have the yeerely returne, inhabiting for our staple some convenient place of America, about Sierra Nevada, or some other part, whereas it shal seeme best for the shortning of the voyage."

To illustrate this pamphlet Gilbert produced a map showing his supposed strait, or better said, open sea, at

¹²Reprinted in Richard Hakluyt's *Voyages*, 1903 edition. Vol. VII, p. 158 *et seq.*

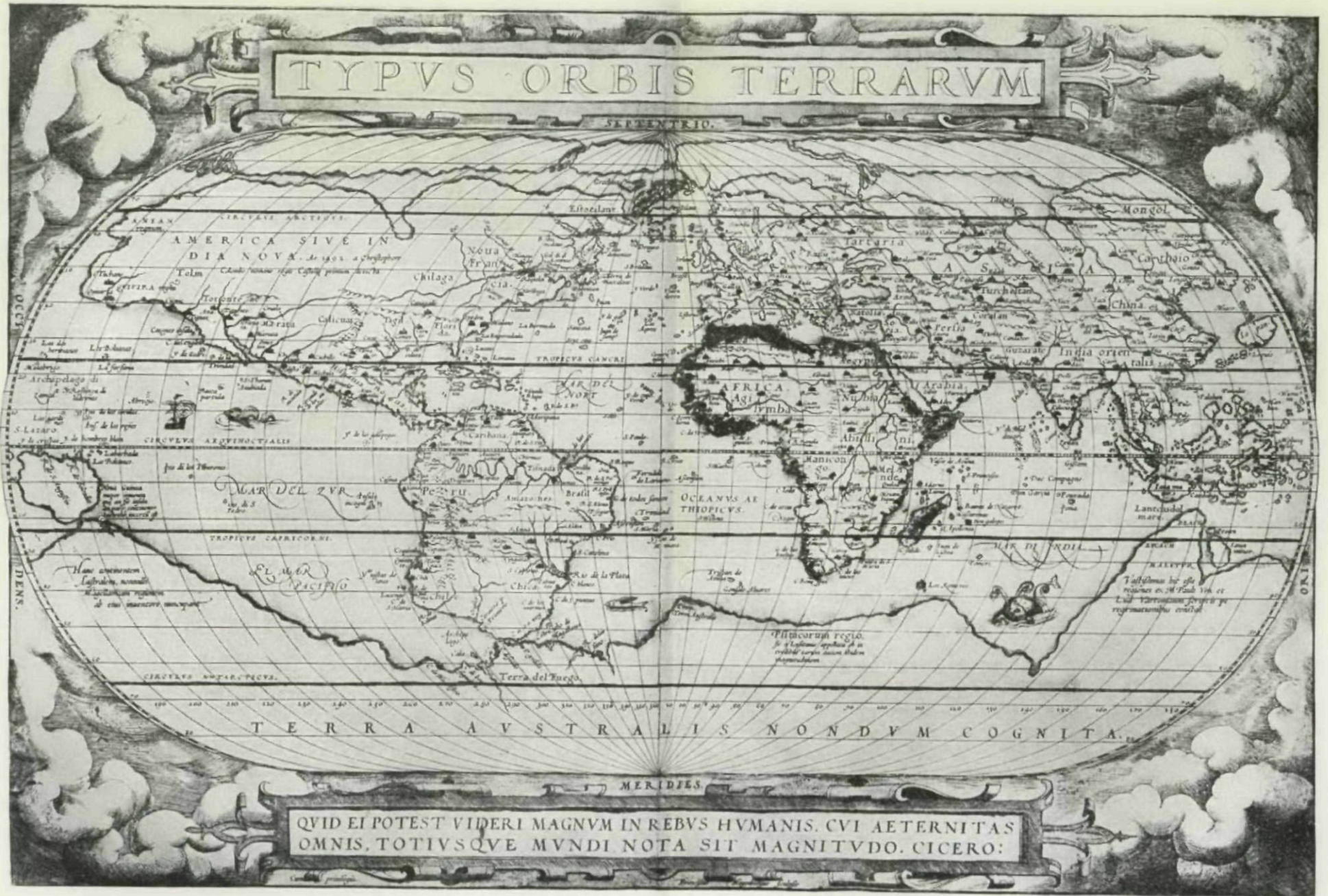


PLATE II. TYPUS ORBIS TERRARUM, FROM THE ORTELIUS ATLAS OF 1570

the north of America, with a strait at the east between Greenland and Labrador, and another at the west between Asia and America. This last is not named; apparently he had not seen the map of Bolognino Zaltieri, published in 1566, which names it the Strait of Anian. He took as his model the Ortelius map of 1564, and although this does not show a narrow strait but a wide one, his strait between Asia and America is narrow. He was not honest in copying it, however, as he places the Sierra Nevada in the narrowest part of his strait, and Quivira to the east thereof on the south coast of the northern sea.

The Ortelius Atlas, the popularity of which is manifest from the numerous editions published before the end of the century, fixed the type of cartography of the northwest coast for fifty years to come; in fact, even after the map makers began to produce maps in the second quarter of the seventeenth century showing California as an island, such maps of the Ortelius type continued to appear side by side with them in the same atlas. Even as late as the middle of the eighteenth century there was still a belief current that Quivira was actually located somewhere in the northwestern part of America, in spite of the fact that later and more authentic maps had been produced showing the place which Coronado called Quivira somewhere near its actual location northeast of New Mexico.

THE STRAIT OF ANIAN

It is sometimes said that the theory of a Strait called Anian, connecting the Pacific with the Polar sea, was an intelligent anticipation of the one now known as Bering's Strait. Such, however, was not the case. The Strait of Anian was as purely imaginary as the great Austral Continent known on the early maps as the "Terra Australis." America had no sooner been discovered by Columbus than two schools of cosmography arose, in one of which it was taught that the new found land was part of Asia, and in the other that

it was continental in character. Columbus himself was clearly of the former opinion, but even before he died, doubters began to express their belief that he was mistaken. During the sixteenth century these two schools produced numerous maps in which their respective theories were displayed. In each case purely hypothetical reasons were advanced to support their views. It is clear that there were three guesses possible, first, that Asia and America were joined, second, that they were separated by a considerable expanse of ocean, and third, that they were separated by a strait more or less narrow. Such geographers as maintained the view that America was a continent usually adhered to the theory that it was separated from Asia by an extent of ocean extending over at least twenty degrees of longitude. Generally speaking it may be said that the cartographers in the north of Europe supported this last theory, while in Italy the school of which Giacomo Gastaldi was chief held that the two continents were joined. The Spaniards and the Portuguese, however, usually refrained from committing themselves as it was a principle of their map-making not to show anything but actual discoveries.

In 1546 Gastaldi had put out a very fine map of the world entitled *Universale*, which on a reduced scale was published in the first Italian edition of "Ptolemy" in 1548 as *Universale Novo*. This map, with or without modification, appeared in subsequent Italian editions of Ptolemy, and in consequence had a very great vogue. Gastaldi, however, apparently later studied the subject more thoroughly, and took occasion to examine the writings of Marco Polo as published in 1558 in the second volume of Ramusio's *Navigazioni et Viaggi*. Gastaldi had close relations with Ramusio and made the maps which the latter had published in his third volume of 1556. One of these was another map of the world in two hemispheres, which indicates that he already had some doubts about America and Asia being connected, as this is shown in a tentative

way only and in an entirely different manner from that in his earlier maps. In 1562 he published *La Universale Descrittione del Mondo*, a small pamphlet in twenty-four unnumbered pages, as his new contribution to universal cosmography. A few extracts from it were printed in 1902 by Stefano Grande in his *Notizie Sulla Vita e Sulle Opere di Giacomo Gastaldi*. Unfortunately, the pamphlet which was in the Royal Library in Turin has disappeared, and our only knowledge of its contents has to be obtained from a few quotations in Grande's sketch. In his description of Asia, Gastaldi says, "Asia has as its boundary toward the east the Strait called Anian, although in the said mappemonde, it appears towards the west,¹³ and extends through the Gulf of Cheinan and passes in the Ocean of Mangi as far as the meridian which is at the end of the Island of Japan towards the east, and following the said meridian towards the south through the Island of Gilolo, ends at the fifteenth degree of South latitude . . . its boundary towards the north is a line which begins at the source of the River Don in the Scitico Sea and extends to the Strait of Anian." In his description of the new world he says that the twelfth province of New Spain "is Quivira, which is bounded towards the west by part of Asia." This mention of the Strait of Anian is apparently the first known use of the name in print, Gastaldi having apparently obtained the name "Anian" from Marco Polo, who had described a province with a somewhat similar one, somewhere near Siam. He apparently misread the original, and transferred the name to the northeastern part of Asia.

In 1921, Henri Vignaud published in the *Journal de la Société des Américanistes de Paris* a short article descriptive of a map which he called *Une Ancienne Carte Inconnue de l'Amérique, La Première ou Figure le Futur Détroit de Behring*. Vignaud had found the map in an

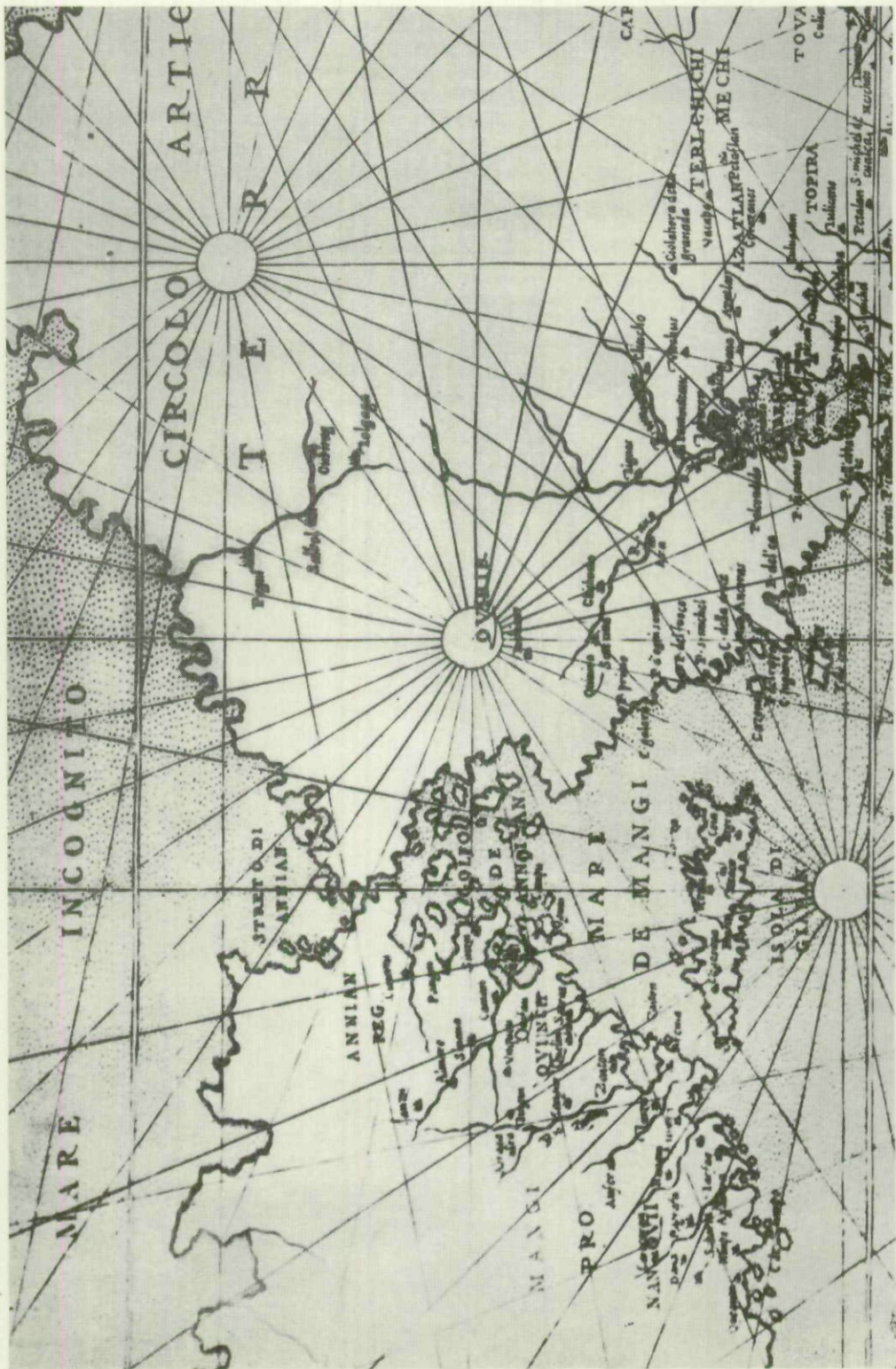
¹³That is because the top of the map was the south.

atlas belonging to M. Charles Chadenat, the well-known Paris bookseller, which seemed to have been made up by G. F. Camocio, an Italian publisher who put out a number of Gastaldi's maps after 1560. The atlas contains one of Gastaldi's maps of Asia dated 1575, his map of 1562 entitled, *Universale descrittione*, and an engraved map of America in six sheets of different sizes, without any name of author or publisher, in fact, unfinished or imperfect, as a large section which should include the lower end of the Peninsula of California is missing. Vignaud was of the opinion that one of these sheets, which shows the northwest coast with a narrow crooked strait between Asia and America, had been also made by Gastaldi for the purpose of exemplifying his geographical ideas as set out in the pamphlet previously described. The atlas is now in the possession of Sir Leicester Harmsworth, who very kindly had photographs of this map of America made for me. While it is true that there is much of Gastaldi about the map, I am unable to agree with Vignaud that it has anything to do with Gastaldi's pamphlet, nor do I think that it was produced in 1563 or 1564 as he suggested. In the first place the strait has no name, nor does the name "Anian" appear upon or near the coast of Asia. In the second place the map has every appearance of being the original or a copy of one issued by Paolo Forlani in December, 1574, which bears a statement by Forlani that it was made from one furnished him by Diego Hermano of Toledo. Who this Diego was is not known but it is plain that he was a Spaniard and probable that he was Diego Gutierrez the younger.

Abraham Ortelius acknowledges his indebtedness to Gastaldi in the first edition of his "Atlas," published in 1570. He probably cultivated epistolary relations with him and very likely had a personal acquaintance with him. In 1564 Ortelius published his heart-shaped map to which previous reference has been made. This map shows evident marks of Italian origin and agrees much better with Gastaldi's views as set out in



PLATE III. MAP ASCRIBED BY HENRI VIGNAUD TO GIACOMO GASTALDI



his pamphlet than the Vignaud map. It therefore seems possible that Ortelius had copied in part some map not now in existence made by Gastaldi to illustrate his new views. Anian appears near the northeast Asia coast opposite America and the two continents are separated by about 350 miles of water, making an unnamed strait which bears little resemblance to that of the Vignaud map.

There is occasionally found in the Lafreri collection of maps one entitled *Il Disegno del discoperto della noua Franza*, dated Venice, 1566. It was made by Bolognino Zaltieri and is the first known map to name the strait between America and Asia the "Streto di Anian." Although this map bears some resemblance to the one in the collection of Sir Leicester Harmsworth, ascribed by Vignaud to Gastaldi, yet it could hardly have been copied from it. The Strait is considerably longer on Zaltieri's map and more islands are shown in what he calls the "Golfo Chinan." "Giapan" is also farther south. Zaltieri's name for the Strait at once took the popular fancy and hardly a map was produced thereafter which did not show it under that name, except Mercator's. Like other maps heretofore described, the Strait only connected a gulf, usually known as Cheinan, a Marco Polo name, with a sea at the north, usually called the "Mare Septentrionale Incognito." It therefore had no connection whatever with the so-called Strait of Bacallaos, which was the name originally applied to the body of water which separated Greenland from the mainland of America. In the early literature in which the Northwest Passage is discussed, these two Straits are carefully distinguished from each other.

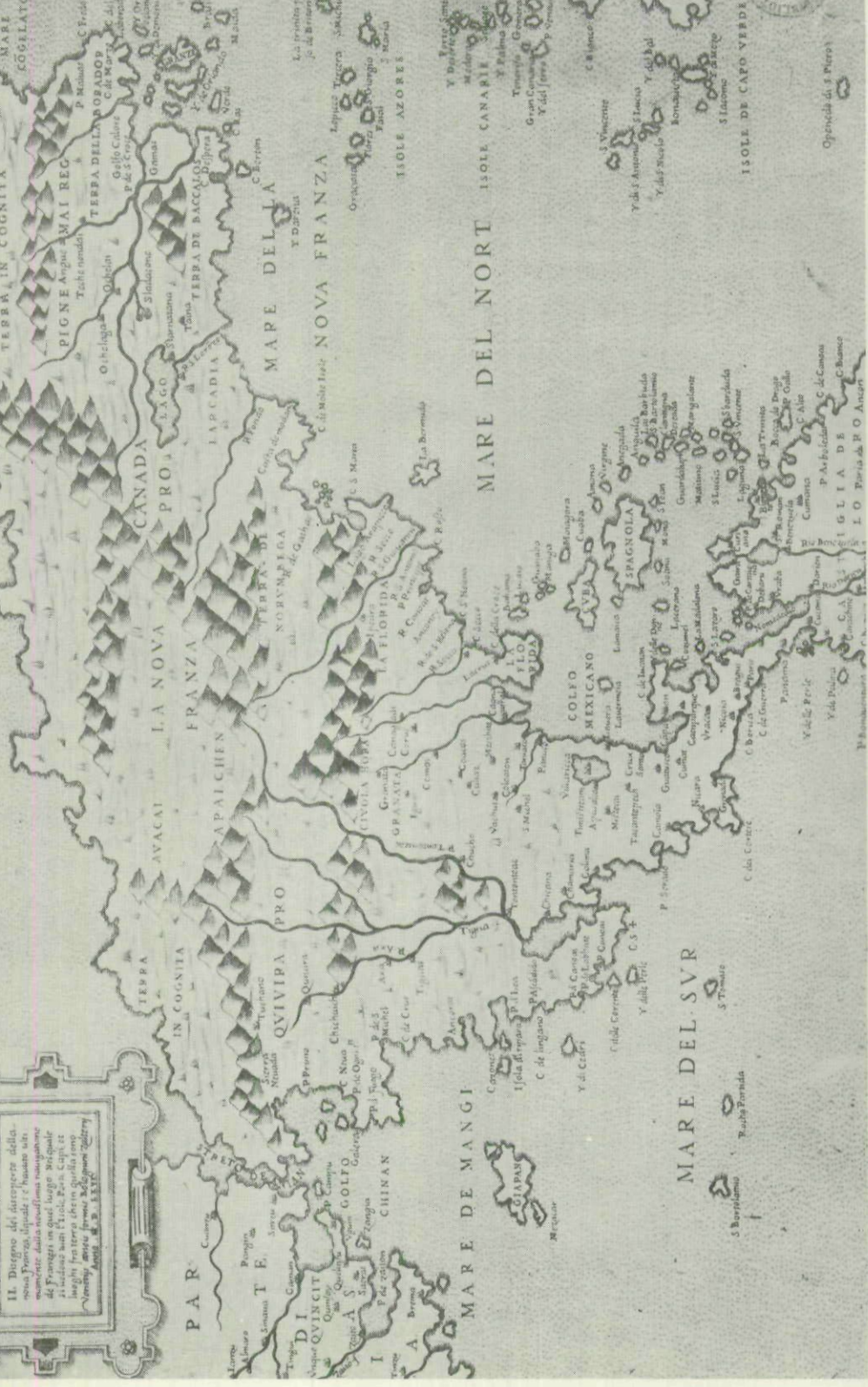
When Mercator issued his world map in 1569 he adopted a different idea about the unknown northern sea. Sebastian Münster had laid down a theory that there were four large Polar islands which encircled the North Pole in the neighborhood of the seventieth or eightieth parallel of latitude, separated by compara-

tively narrow passages. These islands were removed only a short distance from the northern parts of Europe, Asia and America. On the maps of Mercator and his follower Ortelius therefore, a long narrow passage is shown extending north of America, the eastern entrance of which is between Greenland and what is called Estotilant and the western entrance from a Polar sea just north of a passage between Asia and America, quite similar to that shown on Ortelius' map of 1564. This passage is not named, but "Anian" appears on the American side just north of the sixtieth parallel.

By a process of natural extension the supposed strait north of America came to be known as the Strait of Bacallaos and by a further process of extension became known later as the Strait of Anian. It seems very likely that this last application of the name was first made by English writers, who in the decade between 1575 and 1585, supported the frenzied search for this Northwest Passage through which it was hoped to reach the fabled riches of Cathay without following the long and dangerous routes by the Cape of Good Hope or the Strait of Magellan. Some interesting documents are to be found in the British Museum in the Lansdowne MSS and the Otho MSS which were printed by Admiral Richard Collinson in his *Three Voyages of Martin Frobisher*.¹⁴ The first, *A Discovery of Lands beyond the Equinoctial*, was written about 1574 in support of a petition to the Queen of England to charter a company for trade in that quarter. The idea embraced was to proceed through the Strait of Magellan, and in a "Discourse," which was apparently written in support of the same petition, interesting ideas regarding a passage north of America are set out. In this a careful distinction is made between the Strait of Anian and that of the Bacallaos. In fact, the author alleges that the sea north of the country of Bacallaos is open, and that there is no Strait of Bacallaos. He

¹⁴By the Hakluyt Society, London, 1867.

MARE SETENTRIONALE IN COGNITO



Il Disegno del distretto della
terra di Cognita, e di Panama, e
de' monti della montagna
de' Frangiti in quel luogo. Brigante
si succedono con l'isola. Capi di
luoghi fra terra che si dicono
Venezia Anno M.D. LXXVI
N. B. 11111

GRVTLVADIA
MARE
ECCELATO

TEBBA IN
COGNITA

PIGNE
ANGUI
MAI
REG

TEBBA
DELLA
OBADOP

TEBBA
DE BACCIO

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

TEBBA IN
COGNITA

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

LA
NOVA

FRANZA

LA
CACCIA

MARE
DELLA

NOVA
FRANZA

MARE
DEL NORT

ISOLE
DE CAPO
VERDE

therefore suggested that the Strait of Anian could be better discovered from the Pacific side, as the sea under the Arctic Circle was so frozen that it could only be navigated for three months in the year, an insufficient time to make the voyage through it and back again in case no exit should be found on the western side. By going through the Strait of Magellan, they could at least arrive at Cathay and the Oriental Indies in case no Strait of Anian should be found.

These views were not those of Sir Humphrey Gilbert, who early evinced a strong belief in the existence of a Northwest Passage. It is not known when he wrote his "Discourse,"¹⁵ but it could not have been before 1568, as he refers to that year in his pamphlet. Gilbert displayed a very great knowledge of current cartography, and relied upon the Münster-Mercator theories for his idea of the Passage. It is also interesting to note that among the various cartographers whom he brings forward to support his opinions was Gastaldi, from which it appears that he must have seen some map made by him after he had revised his views in 1562 on the subject of the connection between Asia and America. Gilbert does not refer to Zaltieri or the Strait of Anian, but Richard Willes, who wrote another "Discourse" in support of the Northwest Passage, does refer to Zaltieri's map of New France and Forlani's map of 1574.¹⁶ At the end Willes has a curious passage referring to these various cartographers in which he says that they "doe so much differ from Gemma Frisius and Cabota, among themselves, and in divers places from themselves, concerning the divers situation and sundry limits of America, that one may not so rashly, as truely surmise, these men either to be ignorant in those points touching the aforesaid region, or that the Mappes they have given out unto the world, were collected onely by them, and never of their owne drawing."

¹⁵See Note 12.

¹⁶Hakluyt's *Voyages*, Vol. VII, p. 191.

Like most of the imaginary geography of the time, the existence of a Northwest Passage was based not only upon hypothetical reasoning, but on apocryphal discoveries. Gilbert ransacked the pages of ancient and modern history for statements from which a conclusion might be deduced that America was a continent and unearthed a few stories which seemed to him to point out clearly that the Passage had been navigated. The principal discovery alleged was a very recent one. He claimed that he had heard in Ireland in 1568, a man named Salvaterra tell Sir Henry Sidney that more than eight years before, one Andrew Urdaneta had told him that he came from the South Sea into Germany through the Northwest Passage. This apocryphal tale served for a long time as the chief link in the chain of reasoning adopted by believers in the Northwest Passage. Urdaneta, who returned from the Philippines in 1565, never went anywhere near the western entrance of any Northwest Passage, even supposing that it had existed, and it is not possible that he ever told anyone that he had. There is some reason to think, however, that he believed that some Portuguese had passed through it sometime before 1540. As time went on, more apocryphal voyages were made through the Passage, which kept the public interested in the subject for a long time. Lorenzo Ferrer de Maldonado was the first claimant for this distinction, although his story was not generally known until much later. Michael Lok, the principal proponent of the Frobisher voyages, produced a Greek witness whose Spanish name was said to be Juan de Fuca, who claimed to have been in the Spanish service for forty years in the West Indies, and who said that in 1592 he had entered the Strait from the west end and had sailed through it for a long distance.

Fuca's story began to be current in England shortly after 1596, although I do not discover that it appeared in print until 1625 when Purchas published it in *His Pilgrimes*. In checking up the statement attributed

to Juan de Fuca with contemporary Spanish documents I have discovered that part of it was true. Fuca was in Mexico almost certainly about 1590 and it is likely that he came there as a prisoner with Thomas Cavendish and was put on shore at Cape San Lucas with the passengers and crew of the *Santa Ana*. Fuca told Lok that he had been on the *Santa Ana*, but this is very unlikely. Cavendish had captured a Greek pilot on the coast of Chile, whom Francis Pretty in his account of the expedition calls Jorge, probably the same man. It is also probable that this so-called Jorge was Juan, the Greek pilot whom Drake had captured in Valparaiso in December, 1578.¹⁷ There is no record of any expedition to the northwest coast between the abortive one of 1589 or 1590, financed by Hernando de Sanctotis, in which Fuca perhaps took part (he certainly knew of it), and the time that he appeared in Italy, but it does not follow that none was made. There are cartographical indications, beginning in 1592, that there had been some expedition on the northwest coast of which no other record exists. There might have been one, therefore, in 1590 or 1591, and if so, while it is not probable that it ever sailed as far north as the entrance to the Strait of Juan de Fuca in 48°, some river might have been found large enough to give some color to the idea that it was the mouth of a strait.

It is a moot question just how high on the northwest coast Sir Francis Drake reached, but it is perfectly certain that he came back with the statement that he had found no strait which corresponded in any sense to the one on Gilbert's map, for which according to many writers he was looking. Although Frobisher had found nothing but ice in his three voyages of 1576, 1577 and 1578, and Drake had found no western entrance to any passage, yet the belief in the existence of one was so strong that the English adventurers set on foot three more voyages under the command of John Davis,

¹⁷Hakluyt's *Voyages*, Vol. XI, p. 309. Fuca said that he had been robbed of gold by Cavendish, but it is more likely that he referred to the gold taken from his ship in Valparaiso by Drake.

beginning in 1585. Davis made some discoveries and also convinced himself that the Passage existed. A subsequent discovery in 1610 by Henry Hudson of what is now known as Hudson's Bay, and the still later one of Button's Bay by Sir Thomas Button, kept alive the theory as it was hoped that some connection between them and the Pacific would be found.

It is not my intention to follow the course of exploration in the northwest and the repeated futile attempts to discover the Northwest Passage, nor to give an account of the actual discovery of what is now known as Bering's Strait. Before this was found the Strait was so fixed in the cartography of the world as the Strait of Anian that it seemed to be almost a geographic fact rather than imaginary.

CALIFORNIA AS AN ISLAND

Strange as it may appear, Sir Francis Drake seems to have been indirectly responsible for the belief, which was so prevalent during the latter part of the seventeenth century and far into the eighteenth, that California was an island. This idea, however, must not be confounded with the similar one entertained when California was first discovered and for a few years thereafter. The two conceptions were totally distinct, and have no historical connection. When first discovered, besides several islands in the gulf near the coast known to be such, the lower end of the Peninsula itself was thought to be an island, probably on account of its general situation opposite to and some distance away from the mainland of Sinaloa. Many of Cortes' companions afterwards referred to California as "the island" or "the islands," and although after the voyages of Ulloa and Alarcon the fact was established that California was not an island but a peninsula, it was frequently referred to by Spaniards as the "California Islands" or "the Californias." The expression did not include that part of California which belongs to the United States, as this was universally referred to at

that time by Spanish writers and navigators as New Spain.

There was never the slightest real evidence for the belief that the Gulf of California extended north to 42° or 43° of North latitude, where it connected with the Pacific. Everything points to the fact that we have here one of those extraordinary geographical fables so common at that period regarding those parts of the world about which little real geographical knowledge existed. All the maps in circulation showed some of the discoveries of Ulloa and Alarcon, but the narratives of their expeditions seem to have been unknown in Mexico, and by the year 1600 only the vaguest kind of notions existed there about them and that of Coronado sixty years before. Especially hazy were the ideas about the configuration of the upper part of the Gulf of California and the section of the country drained by the Colorado River in its lower course. An idea seemed to be abroad that the gulf did not end where the Colorado River flowed into it as had been demonstrated by Ulloa and Alarcon, but extended northward to the west. In 1554 a map of the world made by Michael Tramezini was published in Venice which showed the gulf as extending north to about 37° of latitude, where it ended in a point. The gulf ran parallel to the Pacific Coast and only a short distance removed from it, the outer coast itself extending almost due north and south as delineated on the very earliest maps of Waldsemüller and Stobnicza, a conception which had been followed by almost all the German cartographers up to and even later than the discovery of California. Where Tramezini obtained this idea I cannot imagine, but perhaps he derived it from a mistaken notion of Marcos de Niza's journey, of which he seems to have had some knowledge. In 1582, Hakluyt published in his *Divers Voyages* a map made by Michael Lok which repeated this peculiar idea of Tramezini. Lok, however, who was a believer in a passage between the Atlantic and Pacific,

shows it on his map, the northern point of the Gulf of California extending almost to this east and west passage, so that the cutting of the short remaining space, on paper at least, was a matter which required very little further stretch of the imagination. Generally speaking, however, the cartographers depicted California more or less correctly as far as its general shape is concerned, with one or two rivers flowing into the gulf at its northern extremity, which was placed on different maps anywhere between 30° and 34°.

There is very slight evidence that up to 1600 any Spanish explorer or even pearl fisher had seen the northern end of the gulf since Alarcon, so all the maps, as a matter of fact, were based upon those made by members of the Ulloa or Alarcon expeditions. There is some indication that some of Alarcon's party had discovered the depression west of the Cocopa Mountains which is occasionally, at times of very high water in the Colorado, filled by the overflow passing around the lower end of the Cocopa Mountains.¹⁸ The channel through which the water flowed was evidently discovered at that time and very possibly also the lake, now known as the Laguna Salada, which might have been at that period full or partly full of water from a previous overflow. A reference to little volcanoes will be found in Lopez de Gomara's account of the Ulloa expedition, he having perhaps mixed his account of the Alarcon expedition with that of Ulloa, who so far as known never went inland even a short distance from the bank of the River. Ulloa makes no mention of them, but later at Puerto de los Lobos speaks about the dust from the falling sand looking like smoke from volcanoes, so it is possible that Gomara obtained his idea from this statement. That Alarcon actually discovered Volcano Lake or the mud volcanoes nearby must be considered doubtful, but it seems certain that he heard of the Lake and probably also of the Salton

¹⁸See the writer's *California Voyages*, p. 84.

Sea, which may have been filled with water at that time. Volcano Lake discharges through what is known as Hardy's Channel into the main river just above Montague Island, and it may be that Alarcon did not recognize this branch as one of the outlets of the Colorado but thought that it connected with some other body of water west of the Colorado. At any rate there seemed to be a notion current at the end of the century that west of the Colorado there was some body of water which might be supposed to be the main gulf extending to the north.

Nothing happened during either of the voyages of Sebastian Vizcaino to throw any light on this matter. He did not go far enough north in the gulf to see the mouth of the river, and of course his explorations on the west coast did not disclose the opening of the gulf at its northern end. At the northern point reached by the *Tres Reyes*, however, the coast seemed to turn northeast, and at one time it was supposed that this was the entrance to the famous Strait of Anian by which one could pass to the Atlantic Ocean, very much as depicted on Lok's map. Shortly after this expedition returned, the theoretical extension of the Gulf as shown by Tramezini and Lok, to a connection with this supposed Strait, was made, and the theory having once been established, evidence began to appear to support it.

Geronimo de Zárate Salmeron, writing about 1626,¹⁹ said that he had heard a story from Fr. Antonio de la Ascension that a pilot named N. de Morena (or Morera, spelled both ways) had arrived at Sombrerete in New Galicia, where he told the Governor, Rodrigo Rio de Losa, that he had been put ashore by Drake in the Strait of Anian or at the entrance to it, and had wandered on foot during four years, having passed an arm of the sea which separated New Mexico from a

¹⁹In *Documentos para la Historia de Mexico*, Series III, Tomo IV. A translation was published by C. F. Lummis in *The Land of Sunshine*, Los Angeles, November, 1899 to February, 1900.

great western land. This story has always been considered to be a fable, but it is a curious fact that when Drake was in Guatulco in April, 1579, one of the Spanish sailors there claimed to have recognized a man on board the *Golden Hind* as a pilot named Morera. The similarity in names is certainly remarkable to say the least, and affords considerable evidence that there was such a man and that he may have been the same one that arrived at Sombrerete and told this story just related. Fr. Antonio de la Ascension, a Carmelite, came to Mexico just before 1600, and having received some education in cosmography in Spain at the University of Salamanca, became an ardent student of the geography of the western part of the continent. He accompanied Vizcaino on his voyage to the northwest coast in 1602 and wrote an extended account of the expedition, which unfortunately has disappeared, but which formed the basis of that given by Juan de Torquemada in his *Monarchia Indiana*, published in 1615. As previously stated, the sailors on the *Tres Reyes* came back with a story that the coast turned northeast at the most northern point which they reached, and concluded that this must be the entrance to the Strait of Anian. Fr. Antonio evidently connected this with Morena's story about crossing an arm of the sea after having been put ashore in the Strait of Anian and thus deduced the idea that this must have been far to the north instead of being the Gulf of California, as it probably was. Fr. Antonio obtained some confirmation of his theory from the account given by Geronimo Marquez of the expedition of Juan de Oñate to the mouth of the Colorado River.

While no explorations in the northern part of the gulf had been made, there had been some through New Mexico from the Rio Grande to the west, beginning with the expedition of Antonio de Espejo in 1583 and followed later by that of Juan de Oñate in 1604. Espejo did not reach the Colorado River, but he went near enough to it to hear some wonderful tales,

especially about a lake on whose shores there lived a numerous people who wore gold bracelets and other ornaments, and which was supposed to be some sixty days' journey north or northwest of Zuñi. When Oñate, who without doubt had with him a copy of Espejo's narrative, reached the Colorado River he began to inquire about this lake of gold, and of course the Indians readily told him all about it—at least he so understood from the signs they made. They also told him any number of other fanciful tales including one of an island, ruled by a giantess, located west of the mouth of the river. Oñate followed the river on the east side from its junction with Bill Williams' fork and when he reached the mouth he recognized the body of water into which it flowed as the Gulf of California, but needless to say, he saw no signs of any body of water to the west, nor did he cross the main channel to the west and so see either Volcano Lake, Laguna Salada or the Salton Sea. As nearly as can be made out, however, from Fr. Francisco de Escobar's account of the expedition,²⁰ they understood from the Indians that there was a body of water to the west of the Cocopa Mountains which they saw opposite the mouth of the Colorado River, and being evidently obsessed with the idea that the gulf extended farther north they thought that this water must be the gulf.

The pearls found on the Lower California coast in the gulf proved an ever-standing lure to the adventurous spirits of Spain and Mexico. In order to secure licenses from the government to prosecute the fishery, all kinds of schemes were elaborated which the pearl seekers offered as bait. One of the principal ones was to form a settlement near the lower end of the peninsula, which, it was asserted, would be useful as a stopping place for the Manila galleons. Another was the conversion of the natives to the True Faith, and later, the discovery of the Strait of Anian was held out as an inducement. About 1610 one Tomas de

²⁰Translated by Dr. H. E. Bolton in the *Catholic Historical Review*, 1919.

Cardona, a resident of Seville, formed a company to exploit this pearl fishery and made a contract with the Crown to settle the country. In compliance with the agreement, Cardona's nephew, Nicolas de Cardona, and one Juan de Iturbe were sent out from Spain and made a voyage to California in 1615. At different times Nicolas de Cardona wrote various accounts of his expedition to the upper part of the gulf with Iturbe, but his manuscript in the Biblioteca Nacional in Madrid, written between 1627 and 1632, contains a rather full one in which he asserts that he went as far north as the mouth of the Colorado River, which he places in 34° of latitude. There is some doubt about the truth of this statement, as he does not assert this in his other accounts. On the return to Mazatlan, one ship was sent to Navidad, but at Zacatula, Pedro Alvarez de Rosales, who was in command of her, found a Dutch fleet under the command of Spilberg, who immediately seized the vessel and undoubtedly found on board some account of the expedition as well as some maps. It is probable that from one of these maps the vignette was made which appeared on the engraved title page of the various editions in French, Latin and Dutch of Antonio de Herrera's *Descripcion de las Indias Occidentales*, which were published in Amsterdam in 1622 by Michel Colin.

This map is usually stated to be the earliest to show California as an island, and while in one sense this is a correct statement, in another it is very misleading because California as shown thereon can hardly be considered an island in the proper sense of the word, as what is depicted is a river flowing into the Gulf of California from the northeast, which is prolonged to a connection with the sea north of America, or joined to another river which flows into that sea, whichever one might consider. Such a conception, of course, is ridiculous and could never have received any considerable acceptance from cartographers. It evidently, however, was Cardona's idea as exemplified in a map

attached to the manuscript above referred too. In an addition to that manuscript, Cardona mentions Fr. Antonio de la Ascension and his opinion that California was an island and enters into a rather elaborate argument to prove that such was the case, although as a matter of fact he does not prove the point, but on the contrary proves that it is a peninsula.

Fr. Antonio, whose interest in the geography of California has already been mentioned, very early developed schemes for the settlement of the Peninsula and the conversion of the natives. Two memorials of his on the subject are extant, furnished in aid of petitions of pearl seekers, one of Ramirez de Arellano of December 21, 1620, and the other of one Vastan de Santiago of 1628. They are very similar and the first can be read in translation in Dr. Herbert E. Bolton's *Spanish Exploration in the Southwest*. Vastan de Santiago's petition brought on an investigation about the best method of colonizing California, held in Mexico City before the *Licenciado* Alvarez Serrano, and Fr. Antonio appeared before him as an authority on California and gave his testimony. It is apparent from all of his writings and his testimony as well as that elicited from others during this investigation that Fr. Antonio was the chief supporter of the idea of the insular character of California. In one of his memorials he says that he had made a map of the Vizcaino expedition shortly after the return in 1603, and in that of 1620 he states that he is sending one with the memorial. This map is not to be found in the Archives with the document, but from his remarks it must have shown the gulf as extending to the north to a connection with the Strait of Anian.

Attached as a kind of appendix to the *Declaration of the State of the Colony and Affairs in Virginia*, published in 1622, appeared *A Treatise of the Northwest Passage to the South Sea, through the Continent of Virginia and by Fretum Hudson*. This was signed "H. B.," that is, Henry Briggs. In an argument based on the dis-

coveries of Henry Hudson and Sir Thomas Button, designed to show that the Pacific was not very far from Virginia, Briggs says that Button's Bay "doth extend it selfe very neere as farre towards the west as the Cape of *California*, which is now found to be an Iland stretching it selfe from 22. degrees to 42. and lying almost directly North & South; as may appeare in a Map of that Iland which I haue seene here in *London*, brought out of *Holland*; where the Sea vpon the Northwest part may very probably come much nearer then some do imagine: who giuing too much credit to our vsuall Globes and Maps, doe dreame of a large Continent extending it selfe farre Westward to the imagined Straight of *Anian*, where are seated (as they fable) the large Kingdomes of *Cebola* and *Quiuira*, hauing great and populous Cities of ciuill people; whose houses are said to bee fiue stories high, and to haue some pillars of *Turguesses*."

No evidence has yet been found that Briggs made any map to accompany his *Treatise*, but it seems likely that he did make one which may not have been published until 1625 when it appeared in Purchas' *His Pilgrimes*, together with a revised version of his *Treatise*. On this published map there is a note to the effect that California, sometimes supposed to be a part of the western continent, has since been found to be an island by a Spanish chart taken by the Hollanders. This chart is evidently the one referred to in his *Treatise*, which he had seen by 1622, and at once recalls the lost map of Fr. Antonio de la Ascension which had been included with his memorial of 1620. Indeed, many extraordinary features of Briggs' map make it certain that the original from which it was taken had been made by Fr. Antonio as it exemplifies the views set forth in his memorial about the Gulf of California and the knowledge he had obtained while with the Vizcaino expedition.

Whether Briggs published his map in 1622 or thereabouts or not, it seems certain that he furnished a copy



PLATE VI. HENRY BRIGGS' MAP, REPRODUCED FROM PURCHAS

of it to some publisher in Amsterdam, as in 1624 a small quarto volume appeared there entitled, *West-Indische Spiegel*. The book is a compilation said to have been made by one Athanasium Inga and is devoted to a description of the Spanish Americas, but so far as I can find, has nothing to say about California. Strictly speaking, therefore, the map contained in it is the first to show California as an island, although the California part must have been copied from one of Briggs', as will appear later in the account of his map.

An examination of Briggs' map at once demonstrates the fact that we here have a new map of California, not only new in its appearance as an island, but with new nomenclature. So far as known it is the first published map to indicate the results of the Vizcaino expedition of 1602 and 1603 up the west coast of California, and further, it is the first to contain the name "Puerto de la Paz" in Lower California, a name with which Cortes' "Puerto y Baya de Santa Cruz" had been re-christened by Vizcaino on his 1596 expedition. What might be called western New Mexico contains a few names originating during the expedition of Espejo and especially that of Oñate of 1604 to the mouth of the Colorado River. The names on the Sonora coast are old names from the sixteenth century maps, but there is one striking peculiarity in that what is apparently the Yaqui River, or as it was called then, the San Francisco, is made to rise in a lake in New Mexico, and in its upper course is intended to represent the Rio Grande. In other words, the Rio Grande was made to empty into the Gulf of California instead of into the Gulf of Mexico. This particular feature argues a lack of knowledge on the part of the maker of the map of the Oñate expeditions in general, because those thoroughly established the fact that the Rio Grande ran to the east or southeast, and there is no suggestion in any account of them that the river might have flowed southwest into the Gulf of California.

Considering first the Vizcaino names: The first

account of this expedition was published by Torquemada in his *Monarchia Indiana* in 1615, and at first sight it might be thought that the names had been derived from that narrative, but on closer examination this appears impossible because names are found on the map which do not occur on Palacios' map,²¹ in the narrative, or in the so-called *diario* of the voyage—a manuscript document existing in the Archives in Seville which contains quite an amount of geographical information regarding the voyage not on Palacios' map. A peculiarity at once apparent is the duplication of the name "Punta de la Concepcion," one appearing north of the Santa Barbara Channel and the other south. At first this seemed to be a simple error, but on consulting the *derrotero* of Francisco de Bolaños, a document conserved in the Biblioteca Nacional in Madrid, it appears that the one below the Channel of Santa Barbara is an error for "Punta de la Conversion"—a name given, apparently January 25 on the return voyage from the north, to what is now called either Pt. Dume or Pt. Hueneme.²² Either the manuscript map was in error in this respect, or the one who copied it mistook the word *Conversion* for *Concepcion*. The latitudes of Briggs agree closely with those of Bolaños, the chief pilot of the expedition, and it seems evident, therefore, that the real origin of the nomenclature was the *derrotero* of Bolaños, and more especially so because at the end of the *derrotero* it is stated that it had been approved and corrected by Fr. Antonio de la Ascension.

One of the peculiarities of the map is the name "Puerto San Francisco Draco" for the port under Point Reyes, a name which we could hardly conceive as having appeared on a Spanish map. *Draco* is not

²¹The charts of the expedition made by Geronimo Martin Palacios still exist in the Archives in Seville in a copy made by Enrique Martinez. They have not been published to my knowledge, but Martin Fernandez de Navarrete reduced them to a small map which he inserted in 1802 in the Atlas to the *Viage de las Goletas Sonora y Mexicana*. An original narrative of the voyage by Vizcaino was published by Dr. Bolton in *Spanish Exploration in the Southwest* with some extracts in the footnotes from the *diario*.

²²Vancouver said it was the latter, but his opinion was probably formed from some highly incorrect map; he may, however, have been right.

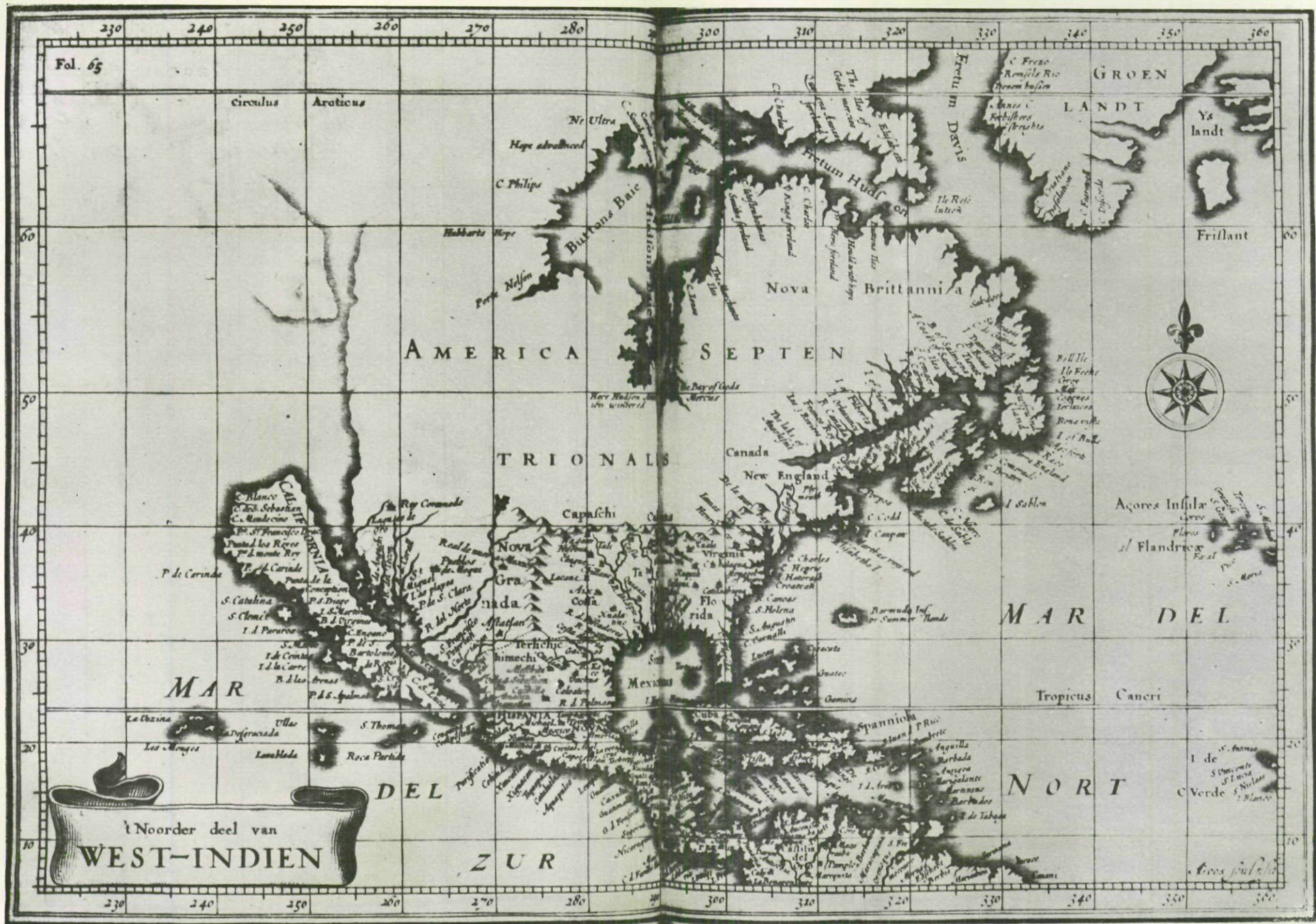


PLATE VII. MAP OF THE WEST INDIES FROM THE WEST-INDISCHE SPIEGHEL

Spanish for *Drake*, which is *Draque*, but it looks like a clumsy English attempt to turn Drake's name into Spanish. It therefore seems obvious that the change was made in England, the original name having appeared correctly as "Puerto de San Francisco," so given by Sebastian Rodriguez Cermeño in 1595 and so appearing in the Bolaños *derrotero*.²³ The Spaniards, so far as known, had no very accurate knowledge of Drake's voyage along the northwest coast, and if they had had it is very certain that they would not have named any port after him. Briggs' motive for the change seems to have been a wish to identify Drake with some point on that coast and the Puerto de San Francisco seemed to require the least change, besides agreeing in latitude with that of the bay where Sir Francis Drake was supposed to have stopped. As the Dutch map shows the same port under the same name and as it contains fewer Vizcaino names than that of Briggs, it appears certain that it was copied from Briggs' map.

Not only do both of these maps show California as an island, but they also show the discoveries in the Hudson Bay region made by Henry Hudson and Sir Thomas Button. The nomenclature here is entirely English, and therefore must have been taken from an entirely different source from that part of the map delineating California and the adjacent region. No previously published English map that I have seen contains the later discoveries in the Hudson Bay region put down on this map. Hudson's discoveries had been portrayed with English names on a map published in Amsterdam in 1612 by Hessel Gerritsz with an account of Hudson's voyage, but no account of Button's voyage had been published, Briggs apparently having put Button's discoveries on his map from a manuscript one of Josias Hubbard. Baffin's dis-

²³In the official accounts of the expedition this port is called "Don Gaspar" out of compliment to the Viceroy Gaspar de Zuñiga y Azevedo. Bolaños is the only one who called it by its previous name.

coveries, although made only a few years after those of Sir Thomas Button, are not shown, possibly because the map does not extend that far north, but Briggs mentions him in one of his legends. The Dutch map shows more of Mexico in the southern part and perhaps some ten degrees more of North latitude than Briggs' map, but it even fails to show Baffin's discoveries.

In the western New Mexican section of the map we find the Real de Santa Fe and the Moqui villages, names obviously derived from the accounts of the Oñate expedition, also the Rio de Tizon, or Tecon as the map has it, and the Rio de Corall and the Laqueo de Oro (i. e., Lago de Oro), also evidently from the accounts of his expedition to the gulf in 1604. The only names on this part of the map not found in any of the accounts are Rio de Anguchi and Rey Coromedo. Anguchi is possibly an error for Anpach, a word which Fr. Francisco de Escobar says meant "gold" in the language of the Colorado River Indians. There is no evidence that Fr. Antonio, supposing him to have been the original author of the map, ever saw the account of Fr. Francisco de Escobar, as he seems to have taken his information from another one written by Geronimo Marquez, who also accompanied Oñate. As confirmation of this it may be noted that a number of years ago Dufossé, a Paris bookseller, advertised for sale the original account of the Vizcaino expedition written by Fr. Antonio de la Ascension, to which was appended in Fr. Antonio's handwriting an account of Oñate's expedition of 1604 written by the same Geronimo Marquez. This manuscript has disappeared, and all of my efforts to locate it up to the present have been unavailing. I conclude, however, that if we had that manuscript we might find the origin of the name "Rio de Anguchi," and possibly also an explanation of the extraordinary course of the Rio Grande as depicted on the map.

Fr. Francisco de Escobar, tells about the famous island which is called "Gigante" on the map and was to

be found in the Gulf opposite the mouth of the Colorado River. The *Giganta* was a giantess who was chieftain of the island, according to the Indian stories. It is impossible, from the information given by Fr. Francisco de Escobar, to locate the Rio de Corall, but it was either the Santa Clara—one of the mouths of the Colorado—or the San Ignacio River, or the Sonora, as it seems, according to the account, to have been at some little distance from the main Colorado. It was so named because the Indians at the mouth of the river were supposed to find coral there which they traded with the Indians farther north. There remains to be considered the name "Rey Coromedo" which appears in what would be on these maps western New Mexico. Fr. Francisco de Escobar does not give the name nor refer to any "Rey Coronado," for which it appears likely it was an error, but even this does not advance us very far. Like the other place names near it, it must be considered to have been derived from the accounts of the Espejo or Oñate expeditions. In Joan de Montoya's *Relacion del Descubrimiento del Nuovo Mexico*, Rome, 1602, Espejo is said to have discovered a town on the Rio Grande with a crowned king, but the account by Espejo himself in Juan Gonzalez de Mendoza's *Historia de la China*, published in Madrid in 1586, contains no mention of him. The name is more likely either a reminiscence of Tatarax of Coronado or else was taken from some story which Oñate's party of explorers to the Colorado River heard in 1604, contained perhaps in the account written by Marquez previously referred to. In the latter case, of course it might have appeared in the narrative as "Rey Coromedo." Fr. Antonio de la Ascension in his memorial printed by Dr. Bolton refers to the Pueblos of the "Rey Coronado," which were near the Tizon River. As Fr. Antonio almost certainly made the original map, this is an indication that the "Rey Coromedo" is an error for "Rey Coronado."

The new ideas of Briggs were not at once generally

accepted. Joannes de Laet, who first published his history in 1625 and revised it in 1633, states in Book 6, page 13, that he had seen an old manuscript map which depicted California as an island, but he evidently did not believe in the theory, because the one which he published was similar to that in the Hakluyt "Peter Martyr" of 1587. It would appear that he had not seen either the Dutch map above referred to or the Briggs map. No map seems to have been copied from the Dutch map, but all those which subsequently appeared in the seventeenth century showing California as an island are based on that of Briggs. A few fanciful additions were made in the latter part of the century, and some corrections of obvious errors, but generally speaking, the type remained constant until superseded in the eighteenth century by new maps made from more correct geographical knowledge. Even while this map was appearing in the atlases of the seventeenth and eighteenth centuries it was common to reprint from old plates maps showing California as a peninsula—simple copies of those published towards the end of the sixteenth century, and it is not infrequent to find both in the same atlas. Gradually, however, the peninsula theory was abandoned, and towards the year 1700 most of the maps made of the world or of North America showed California as an island. The Rio del Norte as flowing into the Gulf of California disappeared about 1690 and was shown with its approximately proper course as emptying into the Gulf of Mexico.

With the exception of some pearl diving enterprises in the Gulf of California, none of which reached the mouth of the Colorado, and a very occasional sight of the Upper California coast by a ship returning from the Philippines, nothing was seen which could in any way affect the current cartography of California. In New Mexico it seems likely that some expeditions must have been made to the west, as we find on maps of the latter part of the century the "Xila Apaches." From this it

seems likely that the upper regions of the Gila River had been discovered. Towards the end of the century the attempt of Isidro Atondo y Antillon to colonize Lower California brought about a revival of interest in the northern region. The Jesuits had penetrated into the northern part of what is now known as Sonora, and had established numerous missions on the Yaqui and Sonora Rivers. The final grand impulse to their colonization enterprises came from two of the great characters of western history—Eusebio Francisco Kino and Juan Maria Salvatierra. California was the field first chosen by them, and Kino took part in the Atondo expeditions. After the failure of these, he was sent in 1687 to northern Sonora, where he founded the Mission Dolores, which became his headquarters during his career of exploration in the north.

Kino had been educated in Germany, and came to Mexico in 1681 with a reputation as a mathematician and astronomer. He had been taught to believe that California was a peninsula, but when he came to Mexico he discovered that the current opinion there, backed up by numerous maps, was that it was an island, and he became converted to that view. The only maps in circulation showing this were copies of that originally made by Briggs, with some imaginary additions, and no doubt Kino carried to Sonora one of these, or at least a copy of one, made by him, very probably the latter. Besides this map he had a knowledge of the Oñate expedition of 1604 and 1605 derived from reading some narrative of it, and no doubt also possessed some information regarding the central part of New Mexico, as he later tells us that the Gila River rose near Acoma. Beginning about the year 1700 he wrote up an account of his previous explorations, and again at later periods until about 1708 or 1710. These were made up from his various diaries, the diaries of others, and letters, and the whole was finally combined under a general title—*Favores Celestiales*—which still remains in manuscript in the *Archivo General* in Mexico.

Large extracts from it were made by José Ortega in the *Apostolicos Afanes* and by Miguel Venegas in the *Noticia de la California*, but the work itself has only been printed in 1922 by the Mexican government, with an introduction written by Dr. Emilio Bose. Dr. Herbert E. Bolton had discovered the manuscript in the archives about 1908, and he published a translation of it as *Kino's Historical Memoir of Pimeria Alta* in 1919²⁴. Dr. Bose had an idea that Kino had gone to Sonora for the purpose of demonstrating that California was a peninsula, but there is nothing in Kino's work to indicate anything of the kind, on the contrary he held on to the idea that California was an island until 1699, and then abandoned it with great reluctance. He was endowed with a very strong imagination and seems to have conjured up all kinds of benefits for the Crown of Spain and the Church to be derived from the spiritual and temporal conquests to be made through this Gulf of California, which extended on his maps as high as 45° or 46°. His early explorations were made apparently with the sole object of evangelizing the Indians and had no ulterior motive whatever.

After having founded the mission of Dolores and settled himself well, so to speak, he started in 1690 on his career of exploration to the north. In 1692 he reached the San Pedro River, and December 15, 1693, looked across the Gulf of California from near Caborca, and again in February of the following year. He plainly saw the mountains on the peninsula and applied some names to these, of which he mentions San Marcos, San Mateo, San Juan and San Antonio. In November, 1694, together with Juan Mateo Manje he reached the Gila, and November 27 discovered the Casa Grande. This remarkable ruin had been previously discovered by Francisco de Ibarra in 1567 and described by Baltasar de Obregon, but Kino did not know this.²⁵ He says that he took the altitude of the

²⁴This translation will hereafter be referred to in the Notes as "Kino."

²⁵This is Obregon's date, but it seems likely that he was mistaken, and that the expedition took place in 1565. A translation of Obregon's highly interesting narrative made by George P. Hammond of the University of Arizona will shortly appear.

sun there and made a map of the lands.²⁶ He descended the River four leagues to an Indian rancheria, which he named San Andres, having reached there on November 30. Here he heard from the Indians about the rivers to the north and the northeast, and probably guessed at this time that one was that known as the Rio de Coral at its lower end. He certainly knew that it was the river called the "Hila," as he calls it. This was the first map Kino mentions having made of this part of the country. He must have made another, however, some time before June 3, 1697, as he evidently sent one with a letter of that date to the General of the Jesuit Order in Rome, together with a memoir on the life of Father Saeta, one of his companions who had been killed by the Indians in 1695. Thirso Gonzales, the General, in his answer refers to Kino's letter of June 3, 1697, and says that he had received the map but not the "life." In November, 1697, Kino went to the Casa Grande again, this time by way of the San Pedro River, and on his return he made another map to accompany his account of the expedition.

It was not until September, 1698, that he set out to see the famous Gulf of California and the mouth of the "Rio Grande," as he called it, but he did not reach the river on this journey, as instead of going down the Gila he went across the desert to the coast at a point which he said was in 32° of latitude and where he found a bay which he thought was the old Puerto de Santa Clara, one of the few names given by Alarcon still remaining on the maps of that period. Here he looked across and saw California, as he thought, fifteen or twenty leagues away, and on his return he made a map to accompany his account, that is to say, probably in October, 1698. In the following February, 1699, he went directly across through Sonóita to the Gila, and descending that River saw its junction with the Colorado from a hill, returning thence up the Gila to

²⁶Kino, I, 128.

San Andres. At this time he named the Gila the "Rio de Santos Apostoles" and recognized the other River as the Rio Colorado, having obtained this name no doubt from his knowledge of the Oñate relation. Even at that time, as he himself says ²⁷, it did not dawn on him that California was not an island, but having found among the Indians at the Colorado some blue shells—probably abalone shells—which he had previously seen on the west coast of the Lower Peninsula, he came to the conclusion after his return that the shells could only have come across land from the Pacific coast, and therefore he concluded that there must be a land passage to the Pacific in that general direction. At the end of this year Kino sent to Rome the first part of his book, *Favores Celestiales*, and it is very likely he sent at the same time a map depicting his new views concerning California.

In September, 1700, he again set out, and October 7 saw the Colorado River from the hill where he had been in February, 1699. He went down to the junction, where he named the rancheria there "Dionisio" on the 9th, and took the altitude of the sun, from which he located that place at $35\frac{1}{2}^{\circ}$ ²⁸. He ascended another hill here and saw the Colorado, as he says, running ten leagues to the west and then south about twenty leagues where it emptied into the gulf. At this time he revised his ideas about geography and said that the Colorado was the same as the Rio del Norte of the ancients and that it flowed ten leagues west of the Moquis which was in 36° .

Although by this time Kino had satisfied himself that California was not an island, he wanted more proof, so in March, 1701, he set out with Manje and Father Salvatierra to go around to the mouth of the river by following the gulf coast, but this proved impossible on account of the sand and the lack of water beyond the Santa Clara Mountains, where, however, they looked

²⁷Kino, I, 230.

²⁸This is an undoubted error in the manuscript for $34\frac{1}{2}^{\circ}$.

over to California and saw the Sierra Azul and the Sierra del Mescal, so in November he went again to the Gila direct, near the junction, and descended the river on the east side to apparently about a day's journey from the gulf, where he crossed. Here he thought that he was in 32° , and the Indians told him that there were two other rivers that entered the gulf at its head—one from the northeast called the Amarillo and the other from the north called the Azul.²⁹ In February, 1702, he took along a witness, Father Manuel Gonzales, and following his previous route to the junction of the rivers they descended to the gulf, at least so he says, and took the altitude there at $31\frac{1}{2}^{\circ}$. As he does not mention the tidal bore it seems probable that he did not actually reach the mouth of the river. He noticed that below the junction of the rivers the Colorado divided into two very large branches and made a great island more than fifty leagues around.³⁰ His last journey was made with Fr. Manuel Oyuela in 1706, but this time they only went to the Santa Clara Mountains, where they again looked over to California, and this time, Kino says, they were in 35° .

Besides the maps above mentioned, there are references in the book to others which he made, notably one after this last expedition, and another to accompany the *Favores Celestiales*, probably made about 1708. He said this showed the Rio Azul and the Rio Amarillo.³¹ According to his statement,³² he sent another map after the receipt of a letter from Rome dated December, 1701, and quotes the Father Visitor as having acknowledged the gift and thanked him for his very fine map. This probably was in 1702. He also wrote a cosmographical discourse to which he attached a map, but nothing more is known of the discourse or the map.

Making a resumé, therefore, of his cartographical

²⁹Kino, I, 318.

³⁰*Id.*, I, 350.

³¹*Id.*, I, 342.

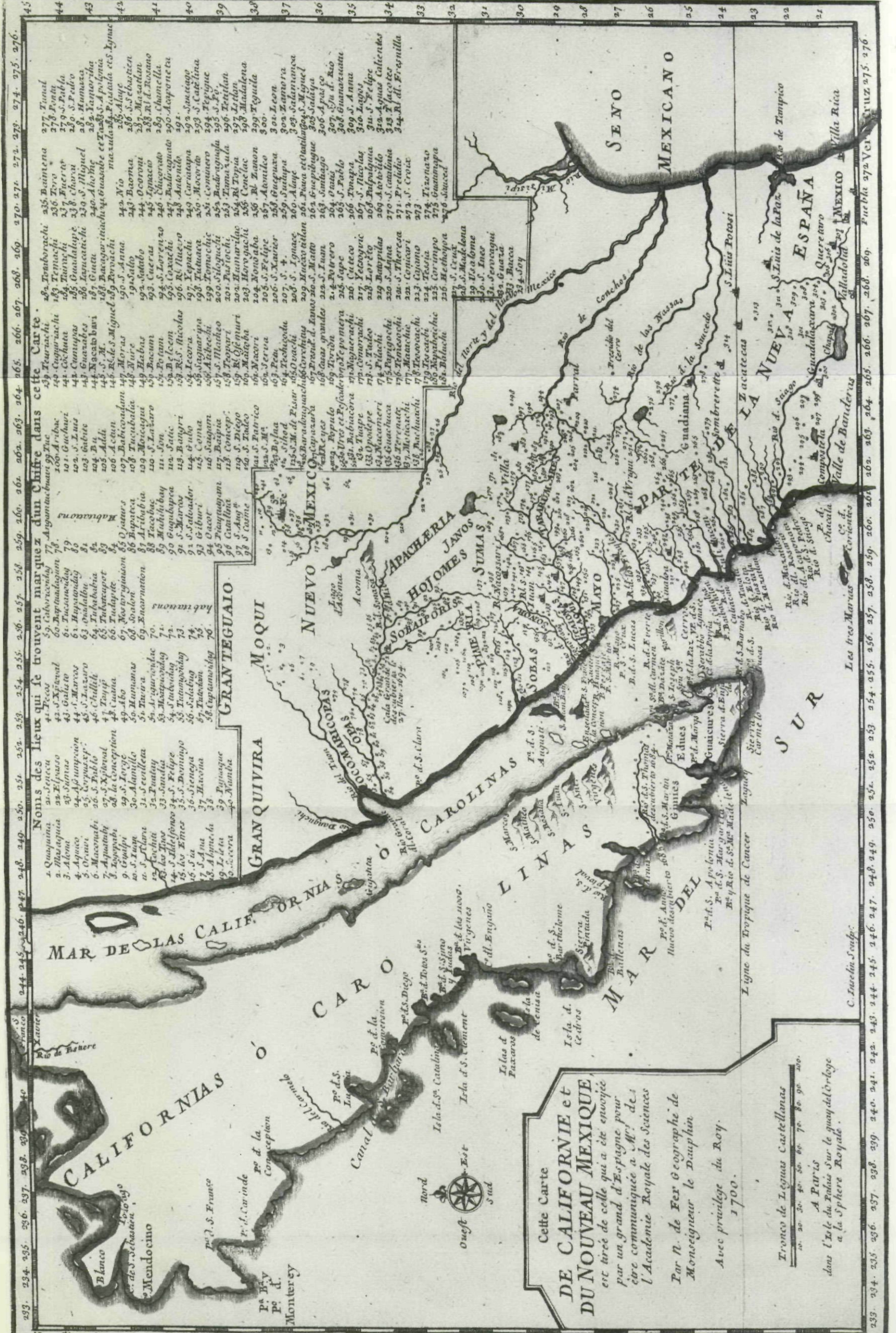
³²*Id.*, II, 70.

labors, we see that he made a map about January, 1695; another before June 3, 1697; another about October, 1698; another after his expedition of February, 1702; another probably in 1703; and the last probably in 1708—the one that was attached to the *Favores Celestiales*. Besides these is his published map of 1705, probably made in the summer of 1701.

Examining Kino's geographical ideas at the different times these maps were made, we find, first, that in 1695 he only knew California as an island and had discovered the Gila at the Casa Grande. In 1697 nothing but local knowledge had been added to this. In October, 1698, he had been north on the Gulf coast as far as the Pinacates, that is, what he called the "Santa Clara Mountains." It was at the end of 1699 that he formed the idea that California was a peninsula. Although he probably made a map to show this about that time, there is no record of his making any until 1702. In this map he probably showed the two Rivers which he called the "Amarillo" and the "Azul," flowing into the gulf, as it was on the expedition of February of that year that he obtained this information.

The first map to show the Kino discoveries known to me is that by N. de Fer, which bears the following inscription: *Cette Carte de Californie et Du Nouveau Mexique est tirée de celle qui a été envoyée par un grand d'Espagne pour être communiquée a M^{rs}. de l'Academie Royale des Sciences Par N. de Fer—Avec privilege du Roy. 1700.* It was issued in a collection called *L'Atlas Curieux*, which appeared between 1700 and 1704 in five parts. Attached to the map is a sheet of notes on the various explorations to California, at the end of which it is stated that: "it is made [probably the map] in 1695 for the Viceroy of New Spain for the furtherance of the design of the conquest and conversion of the Islands of California or New Carolines." [Trans.] The notes are almost identical with those in Kino's *Various Voyages and Expeditions to California*.³³

³³Kino, I, 217-222.



233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276.

277. Tonal
278. Penah
279. S. Pablo
280. S. Pedro
281. S. Juan
282. S. Miguel
283. S. Antonio
284. S. Carlos
285. S. Felipe
286. S. Juan de los Rios
287. S. Juan de los Caballeros
288. S. Juan de los Caballeros
289. S. Juan de los Caballeros
290. S. Juan de los Caballeros
291. S. Juan de los Caballeros
292. S. Juan de los Caballeros
293. S. Juan de los Caballeros
294. S. Juan de los Caballeros
295. S. Juan de los Caballeros
296. S. Juan de los Caballeros
297. S. Juan de los Caballeros
298. S. Juan de los Caballeros
299. S. Juan de los Caballeros
300. S. Juan de los Caballeros

301. Leon
302. S. Juan de los Caballeros
303. S. Juan de los Caballeros
304. S. Juan de los Caballeros
305. S. Juan de los Caballeros
306. S. Juan de los Caballeros
307. S. Juan de los Caballeros
308. S. Juan de los Caballeros
309. S. Juan de los Caballeros
310. S. Juan de los Caballeros
311. S. Juan de los Caballeros
312. S. Juan de los Caballeros
313. S. Juan de los Caballeros
314. S. Juan de los Caballeros
315. S. Juan de los Caballeros
316. S. Juan de los Caballeros
317. S. Juan de los Caballeros
318. S. Juan de los Caballeros
319. S. Juan de los Caballeros
320. S. Juan de los Caballeros
321. S. Juan de los Caballeros
322. S. Juan de los Caballeros
323. S. Juan de los Caballeros
324. S. Juan de los Caballeros
325. S. Juan de los Caballeros
326. S. Juan de los Caballeros
327. S. Juan de los Caballeros
328. S. Juan de los Caballeros
329. S. Juan de los Caballeros
330. S. Juan de los Caballeros

331. S. Juan de los Caballeros
332. S. Juan de los Caballeros
333. S. Juan de los Caballeros
334. S. Juan de los Caballeros
335. S. Juan de los Caballeros
336. S. Juan de los Caballeros
337. S. Juan de los Caballeros
338. S. Juan de los Caballeros
339. S. Juan de los Caballeros
340. S. Juan de los Caballeros
341. S. Juan de los Caballeros
342. S. Juan de los Caballeros
343. S. Juan de los Caballeros
344. S. Juan de los Caballeros
345. S. Juan de los Caballeros
346. S. Juan de los Caballeros
347. S. Juan de los Caballeros
348. S. Juan de los Caballeros
349. S. Juan de los Caballeros
350. S. Juan de los Caballeros
351. S. Juan de los Caballeros
352. S. Juan de los Caballeros
353. S. Juan de los Caballeros
354. S. Juan de los Caballeros
355. S. Juan de los Caballeros
356. S. Juan de los Caballeros
357. S. Juan de los Caballeros
358. S. Juan de los Caballeros
359. S. Juan de los Caballeros
360. S. Juan de los Caballeros

361. S. Juan de los Caballeros
362. S. Juan de los Caballeros
363. S. Juan de los Caballeros
364. S. Juan de los Caballeros
365. S. Juan de los Caballeros
366. S. Juan de los Caballeros
367. S. Juan de los Caballeros
368. S. Juan de los Caballeros
369. S. Juan de los Caballeros
370. S. Juan de los Caballeros
371. S. Juan de los Caballeros
372. S. Juan de los Caballeros
373. S. Juan de los Caballeros
374. S. Juan de los Caballeros
375. S. Juan de los Caballeros
376. S. Juan de los Caballeros
377. S. Juan de los Caballeros
378. S. Juan de los Caballeros
379. S. Juan de los Caballeros
380. S. Juan de los Caballeros
381. S. Juan de los Caballeros
382. S. Juan de los Caballeros
383. S. Juan de los Caballeros
384. S. Juan de los Caballeros
385. S. Juan de los Caballeros
386. S. Juan de los Caballeros
387. S. Juan de los Caballeros
388. S. Juan de los Caballeros
389. S. Juan de los Caballeros
390. S. Juan de los Caballeros

391. S. Juan de los Caballeros
392. S. Juan de los Caballeros
393. S. Juan de los Caballeros
394. S. Juan de los Caballeros
395. S. Juan de los Caballeros
396. S. Juan de los Caballeros
397. S. Juan de los Caballeros
398. S. Juan de los Caballeros
399. S. Juan de los Caballeros
400. S. Juan de los Caballeros
401. S. Juan de los Caballeros
402. S. Juan de los Caballeros
403. S. Juan de los Caballeros
404. S. Juan de los Caballeros
405. S. Juan de los Caballeros
406. S. Juan de los Caballeros
407. S. Juan de los Caballeros
408. S. Juan de los Caballeros
409. S. Juan de los Caballeros
410. S. Juan de los Caballeros
411. S. Juan de los Caballeros
412. S. Juan de los Caballeros
413. S. Juan de los Caballeros
414. S. Juan de los Caballeros
415. S. Juan de los Caballeros
416. S. Juan de los Caballeros
417. S. Juan de los Caballeros
418. S. Juan de los Caballeros
419. S. Juan de los Caballeros
420. S. Juan de los Caballeros

Cette Carte
**DE CALIFORNIE et
DU NOUVEAU MEXIQUE**
est tirée de celle qui a été envoyée
par un grand d'Espagne pour
être communiquée à Mr. de la
l'Académie Royale des Sciences
Par N. de Fer & Coographe de
Monseigneur le Dauphin
Avec privilège du Roy.
1700.

Tronco de Leguas Castellanas
10 20 30 40 50 60 70 80 90 100

A Paris
dans l'Isle du Palais sur le quay de l'Orloge
à la Sphere Royale.

PLATE VIII. N. DE FERS MAP OF CALIFORNIA AND NEW MEXICO, 1700

This chapter was apparently written in 1699, but as the last clause relating to Salvatierra's journey to California in October, 1697, is lacking in Fer's notes, it is possible that Kino wrote this first about the end of 1694 giving the history up to that time, and that this was sent with his map made at that time, which certainly formed the basis for the one reproduced by Fer, above described. It would be interesting to know who did the work; I should hardly be surprised to find out that it was Carlos de Sigüenza y Góngora.

On the map, the missions and towns in the north are represented by numbers, with few exceptions, and a table is printed at the top with the corresponding names. In 1720 the map was reissued, enlarged, with names on the map instead of numbers, as *La Californie ou Nouvelle Caroline. Teatro de los Trabajos Apostolicos de la Compa. E. Jesus en la America Sept.^e Dressée sur celle que le Viceroy de la Nouvelle Espagne envoya il y a peu d'Années a M^{rs}. de l'Academie des Sciences. Par N. de Fer.* Below this, *A Paris . . . 1720.* A few changes in the spelling of the native names occur, and a few additions which were probably on the original manuscript map, but otherwise the map of Pimeria is the same. In California the only additions are some new names in the far south.

On these maps California appears as an island nearly as on Hubert Jaillot's Sanson map of 1695—the usual Briggs type but with most of the errors in names corrected. On the east of the Gulf three rivers enter: Rio Danguchi below 35° opposite which is the fabled Island Giganta, the Rio del Tison and the Rio Grande dl. Coral. At about 33° on the Sonora coast is P°. de S. Clara. The Rio del Norte flows into the Gulf of Mexico as already delineated by Marco Vincenzo Coronelli as early as 1690.³⁴ Indian towns are shown on the Gila, Santa Cruz, San Pedro, San Ignacio and Sonora Rivers, most of which are mentioned in Kino's various manuscripts or those of Juan Mateo Manje.

³⁴In a map in his *Atlante Veneto*.

A legend reads: "Casa Grande descubierto le 27 Nov. 1694." According to Kino's brief account of his journey on which this was discovered, ³⁵ he went down the Gila but a short distance below to what he calls "El Coatoydag," named by him "S. Andres," but he says that the Indians there told him of two friendly nations down the River and to the northwest on the Rio Azul and on the Rio Colorado still farther. Here he must have learned the names of the Indian rancherias below on the Gila as shown on this map, several of which he does not refer to on his subsequent journey along the river.

As we have seen, Kino sent to Rome in 1697 another map and it is usually stated on the authority of the *Memoires de Trevoux* of 1703 that the map of North America by Guillaume de l'Isle published in Paris in 1700 was based on one made by Kino in 1697, presumably therefore this one. It is also usually said that this map which shows California as a peninsula is the earliest one to show Kino's views on this subject. Nevertheless, as we have seen in tracing Kino's geographical ideas, no map made by him in 1697 could have shown California as a peninsula. De l'Isles's map was undoubtedly intended by him to show California in this way, although the upper end of the gulf is not well defined. It is a great improvement on the customary seventeenth century map of this type but if the author had under his eye any map of Kino made in 1697 he certainly made but little use of it. The Pimeria names are largely the old ones, and the gulf is shown as extending at least one degree north of the mouths of two rivers called R. de bona guia, an Alarcon name, and R. de Coral, so named by Oñate. I do not find any Kino names on it unless it may be the "Pimases"; but the Rio de Coral, except for its mouth, is laid down like the Gila, with its southern branches, the San Pedro and Santa Cruz, unnamed, as in the Fer map. It contains on the Pacific side of California a

³⁵Kino, I, 127.

few Vizcaino names and some older ones, a mixture, so to speak, of those of the Briggs type with those of the sixteenth century.

In 1703, de l'Isle, however, put out a map of Mexico and Florida which does show Kino's names in Pimeria Alta and is possibly the one referred to in the *Memoires de Trevoux*. This map has the peculiarity that the Gila (not named except at the east end) flows into the gulf about one degree south of the R. del Tison, which branches at about $36\frac{1}{2}^{\circ}$, the branch to the east extending to the Moqui villages being called the R. de buena esperanza—an Oñate name. On this map the R. de Angouchi is also shown entering the gulf west of the mouth of the Tison, just as in Fer's map. In fact, this part of the map has all the appearance of having been copied from his. Quite a little art was displayed by the author in making it, as the map only extends on the west to the mouth of the R. de angouchi, thus leaving it uncertain whether California was an island or a peninsula.

In 1705, Kino's famous map of a land passage to California was published in the *Lettres Edifiantes*. It was probably made immediately after his return from the expedition of November, 1701, and purports to show his discoveries from 1698 to 1701. In October, 1700 he had been at the junction of the Gila and Colorado Rivers which according to his observation was at $35\frac{1}{2}^{\circ}$ although this figure is probably an error for $34\frac{1}{2}^{\circ}$. On his expedition of November, 1701, he mentions an observation of 32° taken just west of where he crossed the River. It is probable that on the same expedition he made another observation at the junction and this time found only 33° as can be inferred from his statement.³⁶ The map therefore shows the junction of the Rivers in 33° and the end of the Gulf in 31° as he had determined it in March, 1701. There is a possibility that the map was not published as made by him but had the latitudes corrected to agree

³⁶Kino, I, 287.

with his statements made in the accounts he sent to his superiors above cited. This is probable because maps published subsequently which were obviously based upon some map of Kino's invariably have the junction of the Rivers in 34° or higher and the head of the gulf in 32° as can also be seen in a copy of his map which exists in the Archives of the Indies in Seville, reproduced by Dr. Bolton.³⁷ This particular map may have been made as late as 1737 but in its general features it is like the published one of 1705, except in these latitudes. I have never seen any map except reproductions that could be said to have been copied from the one published in 1705.³⁸

In 1722 de l'Isle put out a new *Carte d'Amerique*. This was based on a later map made by Kino as can be seen by the way the Colorado divides below the junction and makes a large island. This peculiarity was noticed by Kino on his expedition of 1702 and it is probable that he showed this on the map he sent in 1703 to the Father Visitor. This de l'Isle map was the prototype of almost all others made later in the century. Of Kino's later maps there appears to be no trace; none has been found with his Rio Azul and Rio Amarillo flowing into the Gulf, as he says he showed on his map, probably made in 1708, attached to the *Favores Celestiales*.³⁹

Kino's handling of the name Colorado for the river is rather interesting. This, so far as known, was first applied by the Oñate party in 1604 to what is now called the Colorado Chiquito. Fr. Francisco de Escobar says that ten leagues towards the west (i.e., from Moqui) they arrived at a river called the San Joseph. Zárate Salmeron says they called it the San José or the Colorado—the latter because the water was nearly red. Kino had evidently read about the Col-

³⁷Kino, I, 330.

³⁸Numerous reproductions have been made of this celebrated map, the latest being by Dr. Bolton in his *Kino's Historical Memoir*.

³⁹Perhaps even on the one of 1702.

orado in these accounts, and when he was at San Andres, just below the Casa Grande, in 1694, the Indians evidently told him of a river towards the west which he understood from them ran into the Gila. On Fer's map, therefore, there appears a small one flowing into the Gila about half way between the Casa Grande and the junction with the Colorado proper. This has no name but on the 1720 issue it is named the Colorado. It is therefore probable that the name appeared on the original manuscript map, but was omitted from the published one of 1700 on account of its small size, just as the name Rio Azul applied to Salt River first appears on the 1720 issue, although the River itself is shown on that of 1700 without name.

When Kino went up the Gila in 1699 he discovered that there was no real river flowing into the Gila, where he had placed the Colorado, nor another one which he had also placed on the original map farther west, so he eliminated these, and when he came to make his map of 1701 he transferred the name Rio Colorado to the main river, where it appears as the Rio Grande ó del Norte. The addition of "del Norte" was intended by him to indicate that this was the one known on the map he had—i. e., the Briggs type of map—as the Rio del Norte, and in fact, in the course of his book he several times states that this was the Rio del Norte as known to the ancients. That Kino identified the main Colorado with the one discovered by Oñate is evident from his remark that it flows ten leagues west of the Moqui.⁴⁰ This identification was easy because the Oñate party, judging from the remarks of Fr. Francisco de Escobar, thought quite correctly that the Colorado, or San José, although it ran to the northwest where they discovered it, emptied into another large river which entered the Gulf of California.

Kino was also of the opinion that the Gila River was the Rio de Coral of Oñate, and at its mouth it is so

⁴⁰Kino, I, 252.

labeled on Fer's map. Above the junction of the San Pedro it has another name—R° de Sonaca d' Hila. In 1699 he christened this the Rio de Santos Apostoles, a name which, however, he did not put on his map of 1701, although it sometimes appears on maps later in the century. While at the Casa Grande in 1694 he heard of the Rio Azul, although he did not see it at that time. In Manje's diaries of the expedition up the Gila in 1699 he refers to this River as the Verde, a name which was afterwards applied to the western branch of the Salt.

In spite of the fact that the *Memoires de Trevoux* in 1703 in speaking of the de l'Isle map state that the New Mexican portion was taken from a map made by Kino based on a manuscript relation of Esteban de Perea, this is highly improbable. A manuscript account of the journey to the Jumanos by Fr. Esteban de Perea undoubtedly existed at one time—even possibly had been printed—and that portion of the map may have been based on his narrative, but it is more likely that it was taken from Fr. Alonso de Benavides' *Memorial* published in 1632 and that the New Mexico part of the map had been made in Mexico City when the general one of the north was prepared in 1695, as stated by Fer. A manuscript account of New Mexico written by Perea formerly existed in the Archives in Paris, and from it and a relation by the Conde de Peñalosa a manuscript map was drawn up in Paris, probably about 1675 or 1680, which, however, does not appear to have been used or seen by Fer or de l'Isle, although in a later work by de l'Isle there is an indication that he was aware of the existence of a Peñalosa manuscript or map.

Although Kino's reasoning that California was a peninsula and not an island was plausible it is not entirely convincing. In order to establish his theory beyond all doubt it was necessary either to cross the land intervening between the Colorado River and the Pacific or else to follow either down or up the east coast

of the Peninsula between the mouth of the Colorado River and the settlements at the lower end. Kino tried to establish a connection with Father Salvatierra by sending letters to him by Indians from near the mouth of the River, but these never reached their destination and the Jesuits themselves never seem to have been quite satisfied that the Gulf did not extend still farther north, west of the mountains which could be seen from the Colorado River. It was not until Father Fernando Consag reached the mouth of the River in 1746 by skirting the coast of the Peninsula that all doubt disappeared. Nevertheless, Kino's ideas were generally accepted by cartographers after the publication of his map in 1705, and very few after that time continued to delineate California as an island. The most notable exception was perhaps Fer who not only reissued his 1700 map enlarged in 1720 but produced another in 1713 showing the old Gulf of California extending to a connection with the Pacific and threw into it a considerably greater number of imaginary islands.

Copyright of Proceedings of the American Antiquarian Society is the property of American Antiquarian Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.