

statute miles; and the latter distance, to 84 leagues of the former, or to 105 of the latter value. As the distances between these ~~points~~ points were considerably longer by road than in an air line, it is obvious that Castañeda's "110" and Jaramillo's "112 leagues" for the first, and Jaramillo's "perhaps about 80 leagues" for the second, ~~as well as their respective totals of 210 and 192 leagues for Mexico to Culiacan,~~ ^{in Castañeda's} fall short of the truth, if they ~~were~~ ^{were} leagues of 20 (which were, ~~besides~~ ^{besides} marine leagues), and still more so, if they ~~were~~ ^{were} those of 25 to the degree. ~~and we can hardly suppose that Castañeda, who had lived in Culiacan since its founding, and Jaramillo, who was a better geographer, did not know substantially the true road lengths that separated these two towns and the capital from one another.~~ It is obvious therefore, that the "112" ^{and} "110" ~~and the "80"~~ ^{Jaramillo's "80" for} which these authors give for Mexico to Compostela, ~~and Compostela to Culiacan,~~ ^{or common} were the longer leagues of ~~17 1/2 to the degree.~~ ^{17 1/2 to the degree.}

~~In such leagues, the rectilinear distance from Mexico to ~~Mexico~~ Compostela is a little more than 98, and that from Compostela to Culiacan is nearly 73 1/2; hence, by Jaramillo's figures, the road distance exceeds the air line by about (112 - 98 =) 14 leagues, between the former two points, and by about (80 - 73 1/2 =) 6 1/2 leagues between the latter two.~~

^{A change of itinerary measure} is what we should expect to find, when we reflect that, at Culiacan, Coronado's forces left the worked, well-beaten, and easily traveled highways, and thence northward would therefore be likely to reckon their marches by the much ^{terrestrial leagues, or by} shorter "leagues" or hours of travel in countries little frequented and difficult, instead of by the common nearly 4-mile league which they had used in coming thither from the capital of New Spain.

In ~~the~~ common leagues, of 17 1/2 to the degree, the rectilinear distance from Mexico to Compostela is a little more than 98, and that from Compostela to Culiacan is nearly 73 1/2; hence, by Jaramillo's figures, the road distance exceeds the air line by about (112 - 98 =) 14 leagues, between the former two points, and by about (80 - 73 1/2 =) 6 1/2 leagues between the latter two.

Castañeda's "110 leagues" for Mexico to Compostela, differs from Jaramillo's "112", only as a distance stated in round numbers. Castañeda nowhere directly states the distance from Compostela to Culiacan; but he gives "210 leagues" as the distance of Culiacan from Mexico, and by subtracting from this his distance for Mexico to Compostela, we have 100 leagues as his implied estimate of Compostela to Culiacan; which is noticeably different from Jaramillo's estimate — 80 leagues — of the same. As the actual air-line distance between these two towns is about 73 1/2 common leagues, and the road distance is

The distance from Mexico to Culiacan is 210 leagues according to Castañeda. The distance from Mexico to Compostela is 110 leagues according to Castañeda. The distance from Compostela to Culiacan is 80 leagues according to Jaramillo. The distance from Mexico to Culiacan is 100 leagues according to Castañeda's implied estimate. The distance from Mexico to Compostela is 112 leagues according to Jaramillo. The distance from Compostela to Culiacan is 80 leagues according to Jaramillo. The distance from Mexico to Culiacan is 210 leagues according to Castañeda. The distance from Mexico to Compostela is 110 leagues according to Castañeda. The distance from Compostela to Culiacan is 80 leagues according to Jaramillo. The distance from Mexico to Culiacan is 100 leagues according to Castañeda's implied estimate. The distance from Mexico to Compostela is 112 leagues according to Jaramillo. The distance from Compostela to Culiacan is 80 leagues according to Jaramillo.

probably enough more to bring the figures up to about 80. Jaramillo's estimate is apparently correct. Nor can we explain ^{the discordance of} Castañeda's ~~estimate~~ ^{in this regard} by ~~saying~~ ^{here} supposing that he used the leagues of 25 to the degree; for so, the road distance would be 277 miles, and the air line still less, — probably but little more than 250, — whereas, the air line is in fact about 290 miles. We therefore (whatever be the explanation of Castañeda's discrepancy) ~~must~~ adopt Jaramillo's estimates of 80 (common) leagues for the distance from Compostela to Culiacan, and (by adding to this his figures for Mexico to Compostela) 192 for Mexico to Culiacan. †

† It is unnecessary to have, as a basis for time-reckoning, the same league-value for distances south as for those north of Culiacan; for the time required to cover a route-part stated in leagues, depended, not on league-lengths, but on the number of leagues traveled in a day; and over the Mexico-Culiacan highway, parties could average, per day, as many of the longer leagues as, beyond the northern frontier, they could of the shorter ones.

For convenience of reference in computing the approximate number of days expended in various journeys of the Coronado expedition, and certain consequent approximate dates, a Table of ^{Road} Distances has been prepared, which is placed at the end of the chapter, *here introduced.*

† Castañeda's "210" for the ^{road} distance from Mexico to Culiacan, is somewhere near the truth in marine leagues only; which it can hardly have been his intention to use for land travel. Indeed, ~~as~~ as we have seen, he reckoned more than half of it (his "110" leagues" between Mexico and Compostela) in common leagues. What he reckoned the 100-leagues remainder in, is a conundrum; for it does not agree with the actual road distance from Compostela to Culiacan, as judged from recent maps, in Spanish leagues of any kind.

Footnote

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In view of the confusion that has existed in the minds of some writers concerning the several localities into ^{whose} ~~the~~ names of which the word "Corazones" enters in one way or another, we will first briefly consider the history of these. This, we shall see, is connected more with the annals of the rear army than with those of the advance.

Of the localities to which the name "Corazones" is applied in the narratives of the expedition, there are four. One — aboriginal in occupancy ~~is that~~ — is that which Cabeza de Vaca had named "la Villa de los Corazones", because on his arrival there from Texas in 1536 the inhabitants had presented his little party with more than six hundred cured deer-hearts; it is ^{referred to} ~~mentioned~~ by Oviedo* as "this

Footnote

*Historia. Here translated from the Spanish ~~quoted~~ quoted by Bandelier (S. W. Hist. Contr., 42) and Winship (B. A. E., XIV, 484).

pueblo, or, more properly speaking, associated pueblos," and described by the same as consisting of "three pueblos which were contiguous and small, in which there were not to exceed twenty houses;" and in the narratives of Jaramillo, Coronado, and Castañeda, as presented by Winship, it is ~~named~~ variously called "este Pueblo de los Corazones," "the Town of Hearts," "Valley of Hearts," and sometimes simply "Hearts," or "Corazones." The remaining three are Spanish. Each of the latter seems to have borne the name, San Hieronimo de los Corazones, Saint Jerome of the Hearts; but ^{it} was also commonly shortened to "San Hieronimo" or to "Corazones"; which has been no small source of confusion.

In his essay of 1869, Simpson remarks, "With regard to the position of the town of Corazones, it is difficult, on account of the vagueness of ~~the~~ the narratives of Jaramillo and Coronado, to fix it. Jaramillo speaks of it as having been situated about five days' journey northwardly from the Yaquemi River, and conveys the idea that it was near or on the Rio Sonora." With this ^{opinion} ~~statement~~, later writers generally agree. But he goes on to cite several statements of Castañeda and one of Coronado (the latter misunderstood through Hakluyt's translation, as already shown), and concludes "that the town of Corazones ^{is} on ~~the~~ Sonora River was Sonora," which particular Corazones, on his map, he locates, under the name "Sonora", on Sonora river below the junction of the Rio San Miguel, or in other words, about in the position of Hermosillo, the present capital of the State of Sonora; ~~and he further concludes~~ "that San Hieronimo de los Corazones was ... on a river which is now called San Ignacio."* Thus Simpson recogniz-

Footnote

*Smithsonian Report for 1869, pp. 324, 325.

ed but two geographic positions for the name "Corazones" on Coronado's route.

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W.C. L. A. ...

~~See the position~~ In his Southwestern Historical Contributions, of 1890, concerning the Valley of Hearts, or the ~~position~~ position of the Corazones Indians, ~~seen by Gabera de Vaca's party, in 1539~~, Bandelier wrote, "It lay a short distance from the village of Batuco in Sonora," but "nearer to the coast;" and his conclusion was, "we can fairly locate the three hamlets where deer-hearts were offered to the Spaniards at some place in the vicinity of 'Matapa'." ~~See~~In ~~the~~ ~~same~~ ~~Contributions~~ ~~he~~ ~~wrote~~ ~~of~~ ~~the~~ ~~town~~ ~~in~~ ~~which~~ ~~Marcos~~ ~~de~~ ~~Niza~~ ~~stopped~~ ~~over~~ ~~for~~ ~~a~~ ~~while~~ ~~in~~ ~~1539~~, ~~when~~ ~~northward-bound~~ ~~for~~ ~~Gibola~~, "I am convinced that the Vacapa of Fray Marcos was 'Matapa' or 'Matape', an Indian village of central Sonora." He therefore regarded ^{the aboriginal} Corazones and Vacapa as being in one and the same vicinity. Matape, which figures on many of the older maps of Mexico, is still in existence, though of less importance ^{in late times} than formerly; it is about 22 miles in a straight line west from Batuco. But in "The Gilded Man," published three years later than the Contributions, he says, "The Valley of Hearts is south of Batuco."

Hodge, in a skillful discussion too long to reproduce here,*

Footnote *See Brower's Memoirs, II, pp. 34 - 37.

presents literary, geographical and other data bearing on the position of the several towns of "Corazones," and places the aboriginal, as well as the first Spanish town of that name, near Ures. That this position is correct, is strongly supported by Castañeda's statement, "There is also the Corazones, which is in our possession, down the valley of Señora."*

Footnote *Winship's Cor. Exped., p. 515.

(Continued on Page 20.)

Coronado ^{had} remained at the Indian Pueblo de los Corazones but a few days: long enough to have some coast Indians brought thither, who told him they had seen a ship pass, which he thought might be either that of Alarcon or that of some Portugese. He seems, in fact, to have stopped there ~~for~~ 3 days, which covered, however, more or less of 4. The inhabitants ^{had} told him that their town was "a long five-days' journey from the western sea;" by which they probably meant 5 jornadas considerably longer than those (of ^{13 or 14} ~~13 or 14~~ miles) which they knew that the Spaniards ^{were accustomed to} ~~recently~~ make. Ures is about ~~100~~ 100 miles from the coast by the shortest possible ^{land-} route. To summon Indians thither from the coast and await their coming, as Coronado says he did, to get word of Alarcon's sea expedition, in the 3 or 4 days of his stay, meant rapid work for both summoners and summoned; but if the messengers sent and those who came were some of the Indian runners for which northwestern Mexico is so famous, there is no difficulty whatever, in view of their almost incredible feats of long-distance running, in understanding how the thing was done.* Moreover, as the Hearts Indians were friendly to the Spani-

Footnote
 *In his ~~Spanish~~ memoir on the Seri Indians, in the 17th Report of the Bureau of American Ethnology, Dr. McGee alludes to "the hardly conceivable fleetness of the Seri," who inhabit the coast region opposite Ures, and gives some impressive examples of it, together with a full-length photograph of a Seri Indian runner (pp. 125 and 149-152, and Plate XXI). That the more easterly mountain Indians, the Tarahumari, were not behind them in fleetness, we learn from Lumholtz' letters in the Bulletin of the American Geographical Society and from his "Unknown Mexico." As for the Opata Indians of central Sonora, Bartlett's Personal Narrative (Vol. I, page 445) cites Velasco's "Noticias del Estado de Sonora" as authority that "in twenty-four hours they have been known to run from forty to fifty leagues." The natives of Ures were, according to Orozco y Berra and the author of the Rudo Ensayo, in part Opatas. (See Hodge, ~~pp. 36.~~)

Coronado's March

ards, it is possible that Coronado and some of his attendants reached the Town of Hearts some hours in advance of his army, and left it some hours later than the army did, in order to arrange communication with the coast Indians and hear through them, if possible, ^{word} ~~from~~ ^{from or about} ~~the fleet of~~ Alarcon; and so he himself may have been in the town nearly or quite 4 days (for he says, "I stayed there four days"), while his advance army stopped there (as ~~one~~ ^{one} narrative indicated) only about 2. Yet as we shall show, ~~these~~ ^{these} seemingly conflicting figures can be reconciled in another way. The rear army, under his lieutenant, ~~Captain Arellano,~~ ^{Captain Arellano,} arrived there a few weeks later.

According to the Relacion del Suceso, when Coronado ^{had} set out from Culiacan, "with his" 80 horsemen and 25 foot soldiers, and a small part