



Zendejan

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Zendejan¹ district borders on Gulran in the north, Kushk in the northeast, Injil and Guzara in the east, Farsi in the south and Ghuriyan in the west (see Figs 1; 61). The district covers 2,082 km², corresponding to 3.7 % of Herat province. In 2003 it had a population of 48,600 persons living in 36 villages²; in 2008, 55,000 persons and 106 settlements were counted. That number rose to 63,460 in 2019/20.³ With 31 persons/km², the population density of Zendejan is higher than that of Kohsan and Ghuriyan.⁴ Most settlements are located in the relatively small irrigated area.

As the administrative and economic heart, Zendejan is the largest, yet still rather small town of the district (Fig. 1356). It has two parts: the old historical centre with a closeby fort and a new part, Qal'e Naw, located in the southeast.

Maitland (1888a, 128) describes Zendejan as follows: *'Zindajan is quite a mile and a half long, and perhaps as much in width. It is a mass of gardens and fields, enclosed by walls, and irrigated by the canal from the Hari Rud we saw yesterday. It is divided into two parts - the first, and largest, is Zindajan proper, which forms the western portion of the whole; the other is Kala Nao.'* While Tajiks lived in the former, Alizai, Durrani and other Pashtun families had settled in the latter. The measure of 1.6 miles corresponds rather well to the whole populated area of Zendejan town. Along with its surrounding villages, it occupies the larger one of the two major cultivated areas on either



Fig. 1356 Zendejan town



Fig. 1357 Pigeon tower, near Zn 6

- 1 Also spelled Zindejan, Zindajan, Zende Jan.
- 2 AIMS 2003, 4; AIMS 2005b, 4. - Adamec (1975, 435) recorded 38 villages for 1969.
- 3 NSIA 1398/2019-20.
- 4 AIMS UNAMA 2008; https://en.wikipedia.org/wiki/Zindejan_District, data 2012. The proportionate increase in villages compared to people is very high, it might be due to different counts. Otherwise this difference remains unexplained, since a splitting of families into smaller units to such an extent is unlikely.

side of the Hari Rud, the slightly smaller one being located on the northern bank.⁵ Both show the typical occupation pattern of small clusters of mud and mud-brick houses, loosely scattered across the oasis. Together, they form a rural landscape marked by enwalled gardens and fields, crossed by canals fringed with trees (Figs. 1357; 1358).

⁵ Measuring c. 2 x 4 km, see below.



Fig. 1358 A 'street' near Zendejan town centre



Fig. 1359 Track from Kafer Qal'e (Zn 9) near Koh-e Taraka towards the oasis

Although the district is lined up in a chain along the Hari Rud with Injil and Guzara to the east and Ghuriyan and Kohsan to the west, the geographic setting and natural conditions of Zendejan district are quite different. Injil and Guzara are situated in the flood plain at its widest extension, Ghuriyan and Kohsan stretch out in fertile pockets and are bordered by mountains mainly on the northern banks. In the south, the expanding oasis leads over to the open plains.

Zendejan, oppositely, begins just at the closure of the Koh-e Diwandar and the Koh-e Taraka mountains (Figs. 1359; 1362), which mark the borders to Injil and Guzara. The border to the Ghuriyan district, which occupies the more favourable area, is between Khamaku and Barnabad. Sandwiched between the mountains to the north and south, the Hari Rud meanders less and the fertile floodplain widens only gradually, reaching its broadest extension in Ghuriyan, while in Zendejan it is rather narrow. In addition, the barren plain of the Dasht-e Andamao and large alluvial fan ranges, marked by the massive transportation of coarse sediments along the wadis, have led to a further reduction of arable land (Fig. 1363). At the narrowest

point of the valley, an advantage is taken of the Sinjao ravine, where the Chashmeh Sabz and Ardewan Passes to Kushk cross the mountains (Fig. 1364). Here a large dam (Zn 22, Fig. 1365) blocks the seasonal floods draining into the Hari Rud. Beyond, the area opens again to the two major cultivated pockets of the district, one with Zendejan in the south, the smaller one with Mahallah Tajikiha on the opposite northern bank, bordered by the mountains. Only the northern stretch along the westernmost extension of the Band-e Badghisat up to the Koh-e Siah Koh belongs to the Zendejan district. The brown patches along the river are potentially tillable but, apparently, they have been abandoned or lie fallow. The satellite images do not reveal a major change in land use during the past 30 years, but they were taken during the dry winter season (December).

The vast southern portion of the district is dominated by north-south oriented mountain ranges reaching up to 1400 m in height and by semi-desert plains at an average altitude of 1000 m. They stretch along the western flanks of Koh-e Kaftar Khan and Koh-e Taraka to Koh-e Kismaran and the Band-e Bedak in the southeast (Figs. 1359; 1361).

Ecological zones and environmental conditions are just as diverse as in other districts. The climate ranges between hot and cold semi-desert and steppe conditions, with freezing temperatures and snow in winter and very hot summers. Prevailing soil types are medium-textured with an irrigation horizon⁶ in the narrow alluvial Hari Rud floodplain (Fig. 1537) and mountain light serozems, light serozems and brown semi-desert soils in the southerly regions. The plant cover in the riverine parts has preserved fragments of the natural vegetation, such as *tamarix spp.*, *salix spp.* and reeds as well as *populous spp.*, willow and poplar. Situated in the azonal riverine belt, the latter is much affected by human activities and has largely disappeared.⁷ The shrubby steppe and semi-desert vegetation (dwarf *amygdalus*) is dominated by *artemisia spp.*, *zygophyllum spp.* and,

⁶ Soil Map AFG/UN, Land and water survey 1961–62.

⁷ Freitag 1971a. – Freitag 1971b. – Breckle 2007a.

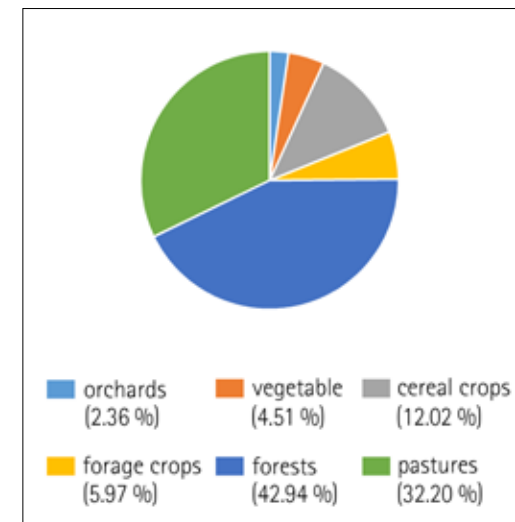


Fig. 1360 Landuse

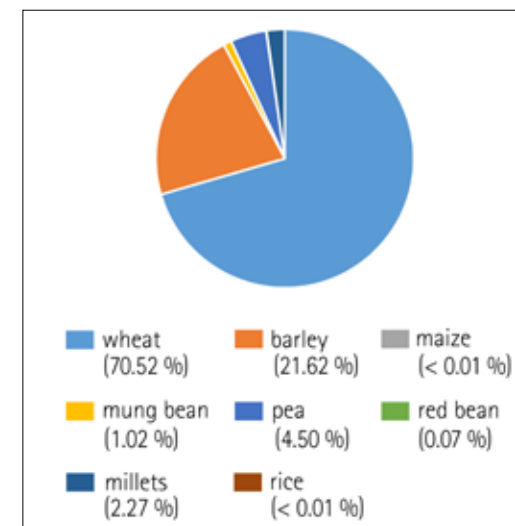


Fig. 1361 Crop production

along the dry wadi beds, by thorny species. These areas are much-frequented pastures, where overgrazing and collecting winter food have further reduced the typical steppe-grass vegetation. Open *pistacia atlantica*-woodlands with many herbs are only preserved in the lower mountain zones, along with limited *amygdalus* and *juniperus* shrubland stretches.⁸

The arable land, in total c. 20,000 hectares, is located in or close to the flood plain and in piedmontal zones with higher precipitation. Annual rainfall averages from 200 to 300 mm in the north and below 200 mm in all other parts. The higher amount suffices for dry farming

⁸ Breckle 2007a.



Fig. 1362 Track towards Qasr-e Shirin (Zn 24), in the Sefid Koh Range



Fig. 1363 Dasht-e Andamao, on the track towards Qasr-e Shirin (Zn 24)

(8,447 ha), whereas 10,750 ha have to be irrigated by a network of canals, fed with water from mountain discharge and wells.⁹ A larger number of *qanats* were noted near the mountains by Maitland (1888a, 401), but most of them were already out of use at his time.

The limitation of arable plots and the ecological conditions are probably the reason that Zendejan produces a lower amount of certain species (Figs. 1361; 1366; 1367). It has, in proportion, the lowest wheat share in the province, although it is larger than e.g. Injil and Pashtun Zarghun – the latter harvest 20 times more. Instead, Zendejan cultivates more barley than most other districts (c. 11 % of the provincial yield), a crop that is better adjusted to harsher conditions. Nevertheless, crop production is the lowest in Herat Province (0.08 %). Maitland (1888, 129) noted, however, that '*the place produces a great deal of fruit, melon and lucerne, besides grain of various kinds. There are eight mills at Zindejan – three water mills and five wind mills.*'

⁹ All statistical data after USAID Herat Provincial Profile 2008.



Fig. 1364 *Sinjao ravine, at the foot of the Ardewan and Chashme Sabz Passes, near Zn 23 and Zn 22, looking to the Hari Rud and the Do Shakh range, 1885 Wash sketch, Afghanistan Boundary Commission (ABC) 1884-86*

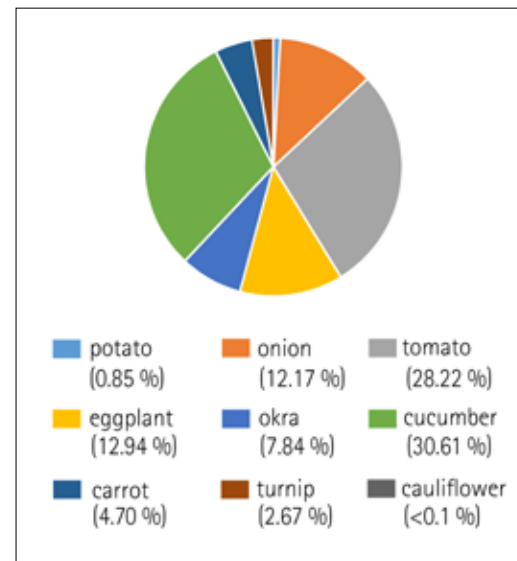


Fig. 1366 *Vegetable production*



Fig. 1365 *Remains of a dam and water divider (Zn 22)*

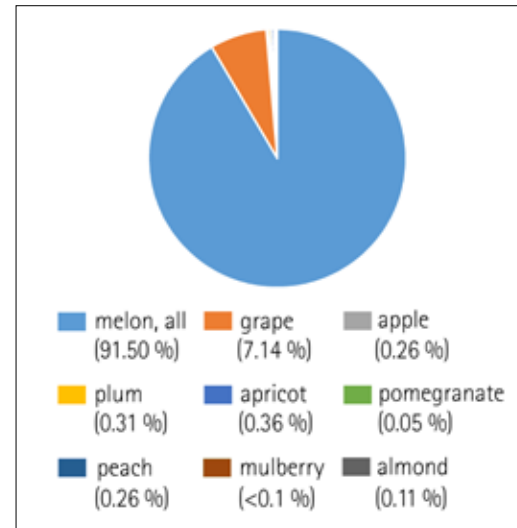


Fig. 1367 *Fruit production*

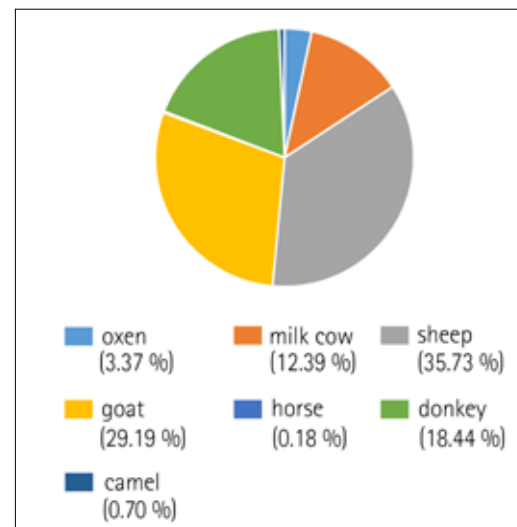


Fig. 1368 *Livestock*

Vegetables are average in numbers: most common are tomatoes, cucumbers, eggplants, turnips and carrots, potatoes play a minor role. Among the fruits, melons are predominant, making up c. 90 % of the total yield of the district, and 10 % of the province.

The proportion of livestock (Fig. 1368) is low: only Injil, a smaller and more densely cultivated district, has less. Taking into account the ecological setting, the low number of goats, which are well adapted to the natural condition and terrain, is surprising. It possibly reflects effects of overgrazing and unsuitable soils. By contrast, the degraded number of dairy cows, which ranks fifth in the province, is surprisingly high, especially when compared to the low number of oxen. It reveals a stronger focus on dairy products than on meat production.

Apart from agriculture and husbandry, the district has few economically important sources of income. One is a baryte deposit in the Koh-e Kaftar Khan range, another are limestone resources 35 km west of Herat, used for cement production.



Fig. 1369 *A deserted building in the Dasht-e Andamao*



Fig. 1370 *A wadi on the track to Qasr-e Shirin (Zn 24)*

Noteworthy are brick factories, which produce large quantities of burnt bricks. Their environmental impact is massive: Being fired with thorny shrubs and wood, they contribute substantially to the reduction of plant covers (Fig. 1371). Both commodities cater the growing demand caused by the construction of new housing complexes up to Herat city.

The district shares the major road network with Injil, Guzara, Ghuriyan and Kohsan – the national highway in the north and the ancient route via Ghuriyan to Kohsan in the south. Yet, it has only 41 km of tarmacked road, while 10 km are gravel pistes and 150 km other tracks. All routes leading towards the southwest and southeast are seasonal.¹⁰

¹⁰ Ministry of Rural Rehabilitation and Development 2010-11.



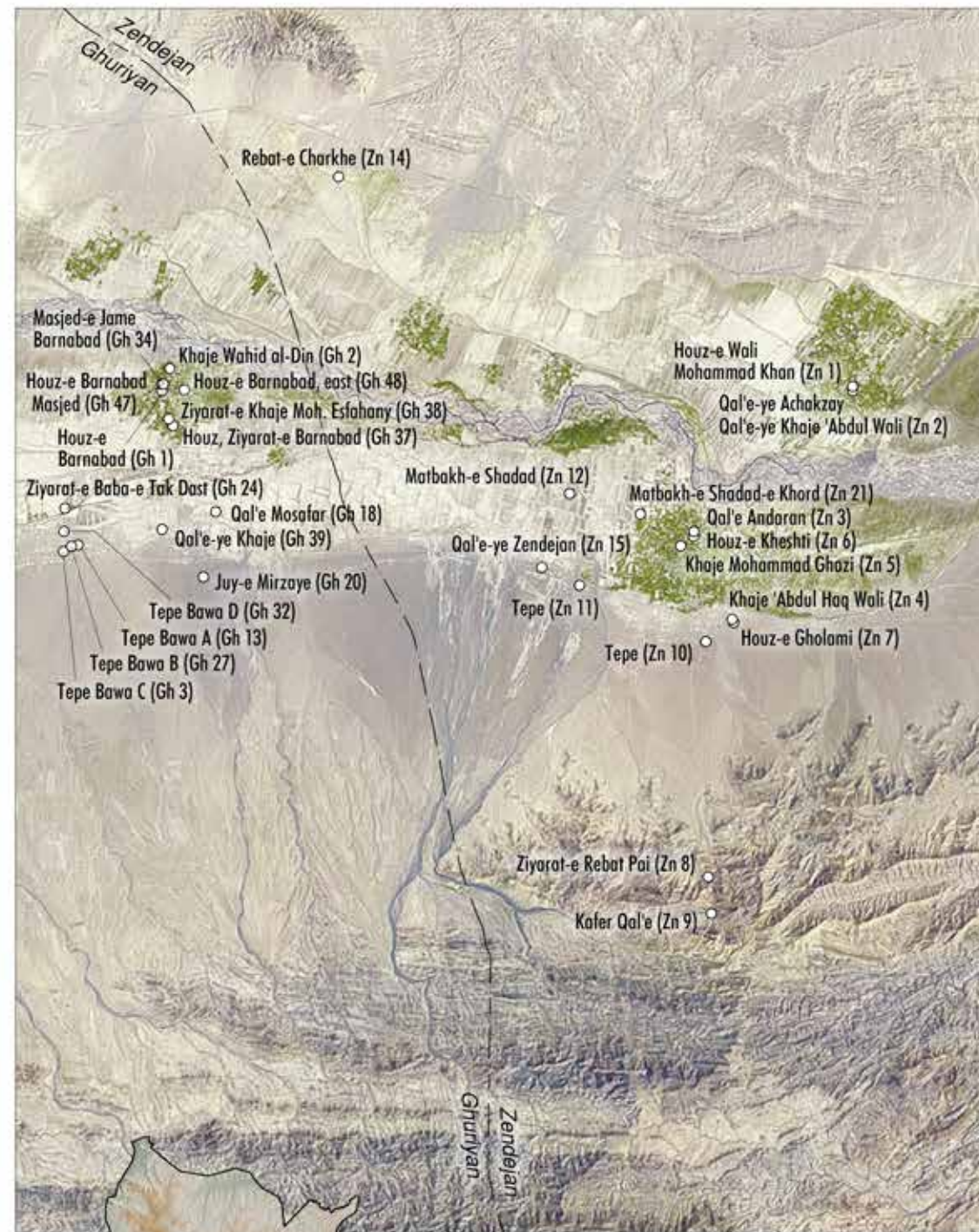
Fig. 1371 *Brick factory west of Qala'-e Gholam Nabi Khan (Zn 5)*

The threat of mines is still in the upper range, similar to Ghuriyan and Kohsan, particularly at passes and administrative borders. Since back areas such as large parts of Zendejan are the last to be cleared of mines, the danger poses an ongoing threat.

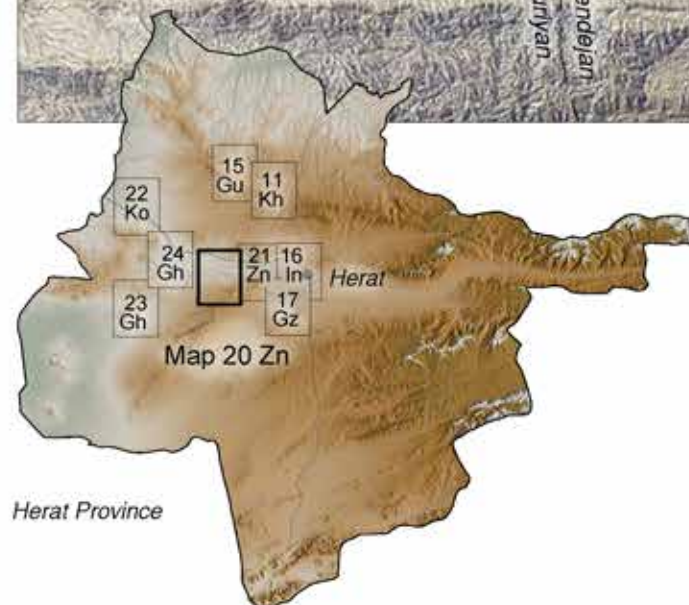
A total of 19 sites have been documented in Zendejan. Most of them are located in the fertile river plain, a pattern that reflects accessibility and the routes taken, but also settlement preferences, as the tours included remote and unsettled mountainous and desert areas as well: in the north to Koh-e Divandar, up to 8 km south of the Band-e Badghisat, and in the south to the Koh-e Taraka range. In these areas, however, only sites close to the tracks were recorded, mostly in or near wadis (e.g. Zn 9; Zn 22-24). Four sites listed in the catalogue were not visited: Zn 14, a *caravanseray*, and Zn 15, an undefined earthwork, were recorded by Ball 2019, the other two were identified from satellite imagery (Zn 10: dwelling, Zn 16: *caravanseray*). Nos. Zn 13 and Zn 17-20 were omitted due to administrative changes of district borders.

With the exception of Zn 4, which yielded a large quantity of pottery sherds, and Zn 23, there were no or few, and mostly non-diagnostic finds, e.g. from dwellings (Zn 10; Zn 11), a fortified hilltop settlement (Zn 9), fortified groups of buildings (Zn 2; Zn 3, Old Zendejan), a fortification (Zn 24) and from other sites (Zn 12; Zn 21; Zn 23). The monuments include three cisterns (Zn 1, Zn 6, Zn 7), a mausoleum (Zn 5) and two shrines (Zn 4, Zn 8). Zn 12 is among other structures probably a windmill, Zn 22 a dam.

Most of the sites date from the very late Islamic period (post-16th century), based on ceramic, architectural or epigraphic evidence. Only an archaeological site around the shrine of Khaje 'Abdul Haq Wali (Zn 4), which dates from the 11th-13th century onwards, based on the ceramic evidence, possibly the shrine itself as well as the mausoleum of Khaje Mohammad Ghazi in Zendejan, with a 14th-century cenotaph (Zn 5) are older.

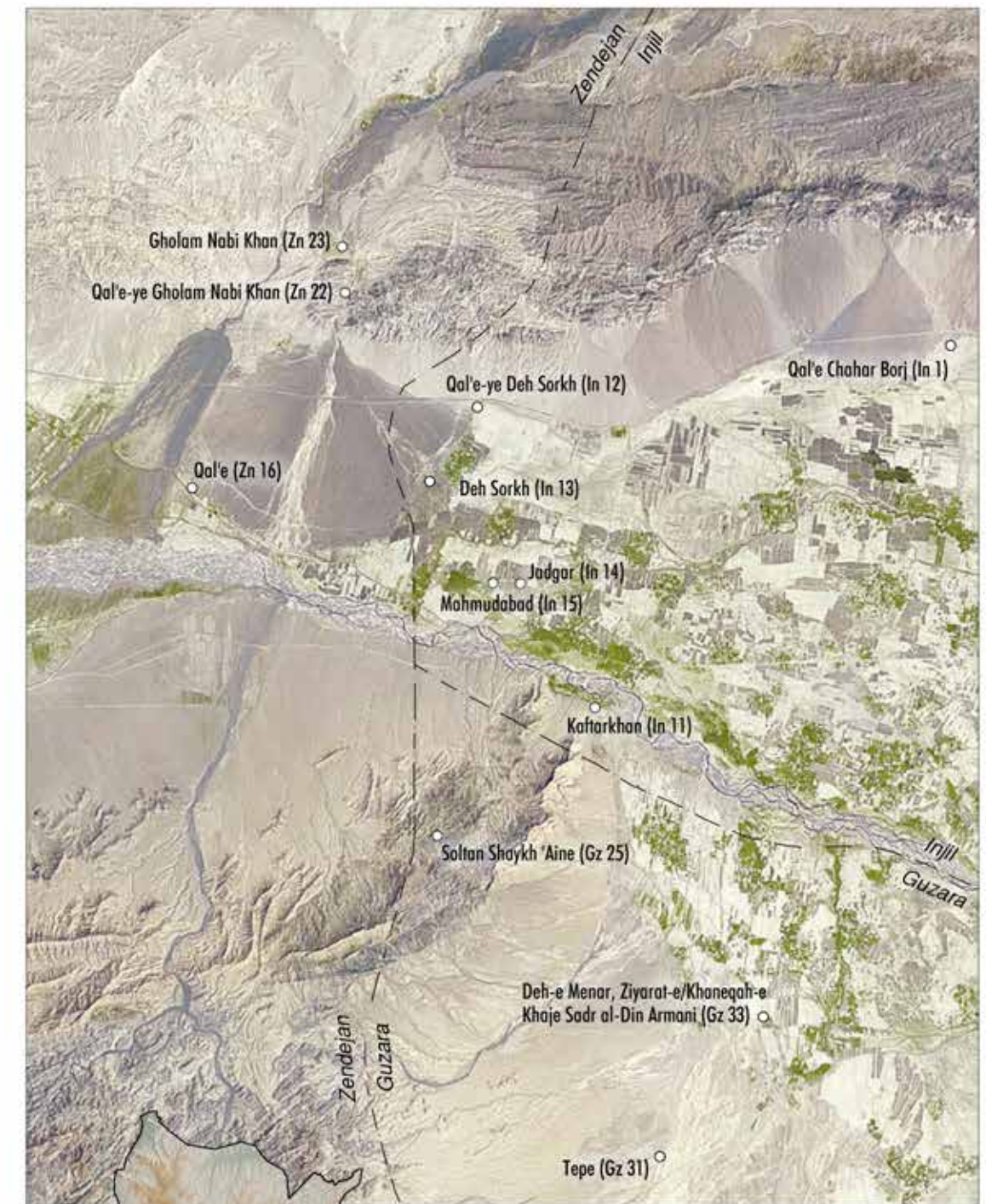


satellite image: Atlogis Geoinformatics

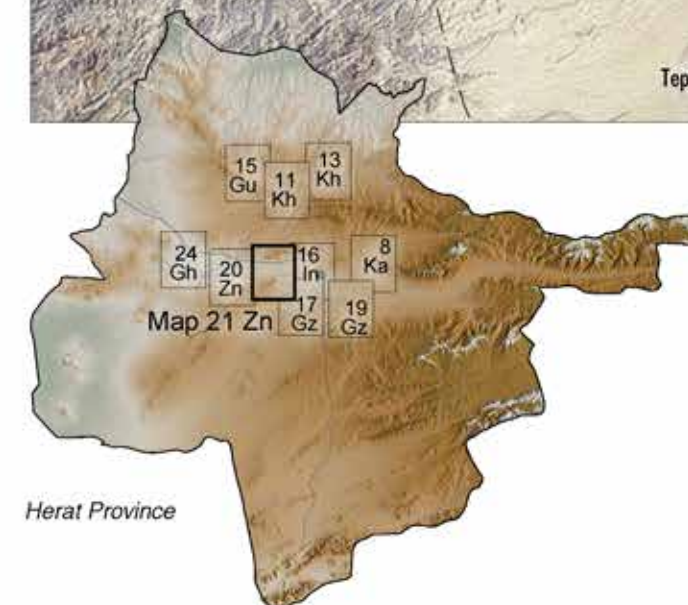


Map 20
Zendejan (Zn)
Ghuriyan (Gh)

Herat Province
Survey 2004-2006



satellite image: Atlogis Geoinformatics



Map 21
Zendejan (Zn)
Injil (In); Guzara (Gz)

Herat Province
Survey 2004-2006

