

Iran

The Land and Country

Draft by

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Iran has a land mass of 1,648,000 square miles, an area three times the size of France, the largest country in Europe. It stretches from the Caspian Sea in the north to the Persian Gulf in the south and is surrounded by seven countries: Turkmenistan, Afghanistan, Pakistan, Iraq, Turkey, Armenia and Azerbaijan.

The bulk of the land is a plateau in the form of a bowl formed by the Elburz and Zagros mountains. Although there are narrow strips of low lying land in the southern province of Khuzistan (ancient Mesopotamia) and along the Caspian and Turkoman steppes to the north, Iran is dominated by areas of dry desert, stark mountains and an average of 3000 feet above sea level.

The largest of the mountain ranges is the Zagros running northwest to southwest, veering off to the southeast, and occupying the entire western part of the country. Striking east from the northern Zagros are the Talish and Alborz chains which are narrower but equally high and run into Afghanistan. On the east side of the 'rim' of the central plateau are mountain highlands and irregularly disposed and detached ranges.

The Zagros contain some of the most imposing fold structures and clusters of high peaks in the entire Middle East (Mt. Savaion 14,000 ft.) interspersed with rich, well watered valleys and irregular tablelands which lie at an altitude of 5,000 ft to 6,000 ft. with 7000 to 9000 in the northern portions. The rainfall of the Zagros is 35 to 40 inches in parts of the extreme west due to hot air coming off the Baghdad deserts hitting the sharp escarpments of the cool Zagros, sometimes unloading brickbats of hail. Some of the earliest recorded remains of cultivation have been discovered in the fertile valleys.

Paleolithic cavemen lived from Urumiyeh in the northwest to Shiraz in the southwest as well as the southeast littoral of the Caspian and southern Khurasan. The population now alternates between settled agriculture in the valleys to pastoralism in the higher parts with nomads, mainly Kurds, still existing in certain areas. Abundant rainfall, fertile valleys and considerable extremes of temperature resulted in hardy peoples and animals favoring transhumance and nomadism.

The Armenians occupied the northern most parts in ancient times while the area is now called Persian Azerbaijan and farmed by Azeri Turks. Below the Kurds are the Lurs who live in the tortuous mountains which abut on the Khuzistan plains and the country of the Bakhtiari tribes.

The Zagros form the main watershed of the lowlying Mesopotamian plain where some of the earliest cities flourished. Settled agriculture probably started around 8000 B.C. in these areas. This is the province of Khuzistan on the southwestern slopes of the central Zagros and it is the largest area of lowland within Iran. This part of the Mesopotamian valley is fed by four large rivers. The Karun and Karkheh run swiftly down from the Zagros carrying enormous amounts of silt which have been instrumental in building up the alluvial plain. The Tigris and Euphrates emerge from the plateau of Asia Minor to empty into the Persian Gulf. Where the four rivers converge they become the Shatt-al-Arab, an area of plains and swamps and salt lakes and said to be the site of the Garden of Eden and where Noah loaded his Ark. It was probably an unusually heavy rain in the Zagros which sparked the flood that eventually left Noah stranded on mt. Ararat.

The Province of Fars in it's very southern position of the Zagros is best known for Persepolis, the spring capital of King Darius destroyed and burnt by Alexander the Great in 330 B.C. The weather is mild and although the rainfall is adequate the conditions favour nomadism. It is the province of the Qashghai, a Turkish speaking tribe who annually migrated from near the Persian Gulf to the borders of the Bakhtiari high country near Isfahan, a distance of about 600 miles.

Striking off from the Zagros massif in north-west Iran, the Alburz range plunges east for 600 miles dominated in the center by the 18,955 foot Mt. Damavand which is higher than any summit west of it in Asia and Europe. Unlike the Zagros the Alborz range is narrow, at its maximum width it is only 80 miles, but the mountains are extremely steep and on the north side rise out of the Caspian which is below sea level. On the south side the mountains appear as a solid wall with a few defiles and the land slopes off from the foothills to the great salt desert (Kavir) which dominates the plateau of central Iran.

The Talish hills form the extreme west of this range. This is an area of defiles, ravines and forests which plunge to a narrow littoral with the Caspian. Rainfall is persistent with hardly a dry

season and the thick, impenetrable forests form a sharp contrast with the rest of Iran.

The Talish system ends at the Sefid Rud river in Gilan where there is easy access from the Caspian to the plateau through the river valley. Then the mountain broadens and rises in altitude distinguished by and dominated by the volcanic cones of Mt. Damavand and Alam Kuh. There are permanent glaciers near the peaks and high valleys and on the northern slopes, below the tree line, abundant hardwood forest (the Hyrcanian climax forest). On the southern side junipers and other conifers once flourished but have largely disappeared. To the east, towards Afghanistan, the Alborz gradually becomes broader and ends in rolling highland.

The Caspian lowlands extend for 400 miles from Astara on the western border with Azerbaijan to Hasan Qul Beg in the east. On average the width of the littoral is 15 to 20 miles until it broadens out in the east into the Turkoman steppes. The Caspian is approximately 85 feet below sea level and, although fed by mountain streams and rivers from the Alborz, its main contribution comes from the Volga river running out of Russia in the north.

The Turkoman steppes start from the Bay of Gorgan on the east of the Caspian and work their way from semi-arid to arid as it projects towards the Reshte-Atabai range, the Qizil Bayer (red wasteland) and the Atrek river which forms the border with Turkmenistan until it turns south and flows towards Mashad in Khurasan. Jargalan, on the eastern edge of Persian Turkmenistan is bordered by the Kopet Dagh and Gulul Dagh mountain ranges which can reach a height of 9000 feet. Jargalan is wooded with a conifer (Saaur) peculiar only to that area and is not characterised by steppe. It is inhabited by Turkomans in some areas and Kurds displaced by a succession of Shahs in others. They are both settled and nomadic.

The steppe land was plowed up by the government in the 1940's and 50's and distributed amongst the local inhabitants (Turkoman) and large tracks given to members of the Royal family. Prior to the desecration of these traditional grazing lands there was rich pasture with natural alfalfa, clover, timothy, wheat grasses and rye. The north slopes of the Alborz were thickly wooded with a climax Hyrcanian forest (oak, beech, maple etc) while on the steppe there were wild pomegranates, figs and Hyrcanian walnuts. The flat steppe is bisected by deep gullies and ravines carved out by runoff over the loess soil.

Geographically and historically this area belongs to Central Asia and is the great corridor through which millenia of Indo-Europeans and later Turks and Mongols penetrated to the Middle East and settled or pushed on to Egypt and Greece. The low passes and upland hills across the dwindling Alborz made this an easy passage for man and his animals. Prehistoric sites abound in this region as do the tepes and remains of large Parthian and Sassanian cities. A wall extends from the Caspian (and, according to the Turkomans although it has not been excavated) to Afghanistan. Built by the Parthians against nomadic raiders out of the northern steppes, this wall, called Alexander's Wall, protected the sweet water sources of the north slopes of the Alborz. North of the wall brackish springs are sparse and far apart.

South of the Turkoman steppes lies Khurasan, often linked historically with Central Asia as whoever controlled Khurasan controlled the steppe oases of Samarkhand and Bokhara to the north-east in Central Asia. The Kopet Dag and Gūlū Dag define the borders with Turkmenistan and generally catch sufficient rainfall from the north and north-west to produce good grass and ample fodder for the nomads animals.

Most writers define Khurasan as starting at the watershed of the Gorgan and Atrek rivers and continuing south to Sistan and the Gulf of Hurmuz on the Persian Gulf. 800 miles from north to south, the land is varied from high, snow covered peaks to wide valleys and swamps. From extreme cold to humid heat in the south it was the climate that was forbidding to invasions, not natural geographic barriers.

In the extreme south-east lies Persian Baluchistan, an area of extreme heat, low rainfall, mountains, desert and swamps. Alexander the Great marched back from India through this area and nearly cut short his illustrious career there although his army must have been innured to just about every hardship.

The interior of Iran, the basin or bowl of the central plateau formed by the encircling mountain ranges lies from 1000 to 3000 feet above sea level. The flatness is punctuated by mountains which reach heights of 10,000 feet but the area is shut off from damp air masses and has a low rainfall. Temperatures rise during the day and drop at night. These inland basins cover more than one half of Iran's total land area. Once covered with water, little remains except for a few salt marshes. The area is dessicated although the Kavir, in many places, is an expanse of slime or

viscous mud covered with salt layers; rather like a chocolate cake with vanilla icing but treacherous in the extreme to cross. For this reason much of the Kavir is impenetrable. On the other hand, in the Dasht-e-Lut, in southeast Iran, there is a salt lake and sand dunes which makes it navigatable as opposed to the forbidding Kavir. Much of the ancient trade from India ran along the edges of the Lut desert through the east of Khurassan, the towns of Bam and Kirman and along the south edge of the Alborz, Damghan and Semnan, skirting the Kavir. Lonely remains of caravanserais dot the bleak landscape.

THE VEGETATION AND THE ANIMALS

There is only one humid forest in Iran and that is along the southern shores of the Casian and the northern slopes of the Alborz running from the Araz river on the border with Azerbaijan to the upper portion of the Atrek in Khurasan to the east. This is a Hyrcanian forest characterised by abundant tall, deciduous trees and shrubs (50 and 60 species of each). This forest is a relic of the warm, temperate forests which once covered most parts of Europe and northern Asia in the late Tertiary. The lower slopes climax in the European beech while further up the climax is a magnificent large oak. Unfortunately much of the forest on the lower slopes has been completely destroyed and the process is now continuing up to the 9000 foot they reach in the central Alborz.

There is a semi-humid oak forest along the Zagros extending from Turkey through Kurdistan and Luristan into Fars. These oaks differ from the Hyrcanian oaks in that they are short, squat and set far apart so that pasture grass grows underneath. Some tribes make bread from the acorns which is very much an acquired taste. This forest belongs to the Irano-Turanian group with some Mediterranean influence. In addition to the ubiquitous oaks, elm, maple, pistachio and almond are found.

In former times, before man made inroads with charcoal burning and fuel gathering, there were extensive Juniper forest covering the southern slopes of the Alborz and both sides of the mountains in Khurasan. This cold resistant forest also includes almond, berberis and cotoneaster as well as walnut and wild fruit trees, pomegranate, judas tree, willow and tamarisk and extends to the Kopet Dagh.

There was also an extensive dry forest of pistachio which covered much of the elevated portions of the interior plateau near the

Zagros oak forest. There are some remnants of this forest in Fars and near Lake Nairiz and the Zagros near Kirman.

Spiny bushes, Irano-Turanian, of the tragacanthic and artemisiera types cover most areas except for the true deserts which are bare.

The hot areas (garmsir) in the south are characterised by vegetation belonging to the Saharan-Arabian and Nubo-Sinian groups. The Irano-Turanian flora is prominent on the interior plateau and in the northern uplands and lowlands changing in the east where Irano-Turanian and Indo-Himalayan elements mingle in the forests.

Stands of saxaul and stiff grass bunches dominate sand deserts.

Vegetative conditions in Iran were at their best in the third and second millennia B.C. Prior to that period the area was drier due to the effects of glaciation and the Hyrcanian forest did not extend to the Gorgan mountains - nor the Zagros oak forest into Kurdistan. After the first millennium B.C. man's degradation's have increasingly destroyed his environment through over grazing, cultivation of meadows and steppe and deforestation through cutting forest and shrub for fuel. In this latter day deforestation for export of wood products has accelerated the process.

Iran, by virtue of its central position in the middle of widely diverse regions is a meeting place for all sorts of foreign influences. India, Arabia, Central Asia and the Caucasus all converge on Iran.

There are about 129 species of mammals found in Iran which, in comparison with all of Europe which is four times larger, and has 133 species, is a cornucopia of fauna.

There are 28 carnivora of which the most magnificent were the Hyrcanian tiger found in northern Iran (particularly the Turkoman steppe and forest) and the short maned lion of Persepolis and Babylonian fame, both of which are sadly now extinct. Of the cat family, leopards, cheetahs, lynx (caracal) and various kinds of smaller wild cats like the golden steppe cat not yet scientifically described, still exist.

There are wolves in every corner of Iran; the Hyrcanian on the Turkoman steppes (Hyrcania means the land of the wolves), big Kurdish wolves, Azerbaijan wolves, Fars, Khuzistan. In every

province the wolf flourishes. There are hyenas, foxes, jackals and Caspian seals which Herodotus found fascinating.

Among the ungulates there are the onager which lives in the central desert and knows how to circumnavigate the viscous, treacherous ooze to find sanctuary from hunters. There are the Iranian fallow deer, the red deer and the roe deer. Gazelles which live in the open savannah, wild goats on high cliffs and wild sheep in the mountains.

Wild boar are found everywhere especially near rivers and swamps but also in the forests and mountains.

Most species of mammals are palearctic .18 percent are endemic, including *Equus hemionus onager* , which is a high-altitude, semi-desert animal as opposed to its cousin in Turkistan which is a low-lying, desert plains animal. This first center of endemic animals is in Khurasan. The second is in Kurdistan from which the so-called 'ass of the mountains' was taken for use in 3000 B.C. Mesopotamia.

However many foreign elements have come into Iran by different routes. The Asiatic black bear came via Baluchistan whereas the tiger entered through Afghanistan. Other fauna entered from Turkistan and some African species entered over the land bridge of the Straits of Hurmuz and settled mainly in the south. A sand cat indigenous to the Sahara has a closely related species in Turkistan.

According to the Cambridge History of Iran, (Vol. 1, 1993 ed), Iranian fauna may be classified:

Palearctic species	55.1 %
Endemic	18.1 %
Indian	14.6 %
African	8.6 %
Mixed	3.4 %

There is little variation in the existing species and they differ little from region to region with few sub species. Glaciation was only in Azerbaijan and the Alborz so the same fauna found now have been indigenous since the Tertiary period.

Iran's Horses Chapter 2

EARLY HISTORY: NEOLITHIC THROUGH MEDIAN

Although modern man probably evolved in Africa, evidence points to the Middle East as being atleast one of the areas in which the form we now know first developed. Paleolithic man certainly lived in many parts of Iran as well as the earlier Neolithic whose remains have been found in Kurdistan (western slopes of the Zagros mountains), along the Caspian and Khurasan as well as Afghanistan and Central Asia. Bisitun, near Kirmanshah, was occupied during the middle Paleolithic (where remains of horses were also found) and also near Khurnick, Khurasan in the 'Sarakhs Corridor' and Shiraz near lake Nairiz. (Carleton Coon, The Seven Caves)

Caspian man, an upper Paleolithic (9,335 years old), non-Neanderthal man was found in Hotu Cave on the Caspian by Carleton Coon. Technically it was Mesolithic because of the presence of the bow and dog.

In early post-glacial times the Caspian coast region was an important East-West passageway for people (before domestication of animals became prevalent) but the main areas of settlement where Palaeolithic man existed were in a triangle between Shiraz-Zahidan-Mashad with a concentration around Bam. Neolithic industry on the Caspian dates to about 7000 BC with beginnings of animal domestication.

Early man was primarily a sedentary farmer-gatherer as opposed to nomadic. The latter were considered as primitive, backward tribes and looked down on by the others.

Semi-nomadic Iranian tribes first arrived in the Zagros, mixing with the Neolithic settlements of native peoples sometime during the second and first millenia BC and it was with the arrival of these people that proper nomadism started and the Kurds and Lurs evolved although it was the much later Turkish and Mongol invasions which destroyed the civilized settlements most profoundly.

The earliest recorded settled agriculture is in Elam in Khuzistan where the mild climate and plentiful water from the Karkhah and Karun rivers flowing down from the Zagros into the alluvial plain were enormously favorable for cultivation. From about the 7th millenium BC, early settlers made their way down from the

Zagros. They were goat herders with a primitive knowledge of agriculture and acquainted with artificial irrigation. It is postulated that the tribes of the Iranian highlands belonged to the North-East Caucasian linguistic family and those of the South-East to the Proto-Dravidian while there were also tribes who spoke languages completely unrelated. It is not possible to determine to which ethnic groups these early Elamites belong, although some are depicted as being dark skinned and therefore possibly related to the Dravidian groups now best represented by people like the Tamils of India. But no tribes in early Iran spoke any Indo-European languages. The first language on the Khuzistan plain was Sumerian, later displaced by Elamite.

The most important community on the lowlands was Susa (ca 3000 BC) although they appeared to have kept their connections with the mountains and an important center, Anshan in Fars, which was suitable for sheep and cattle breeding and rich in the natural Zagros oak forests. Probably transhumance was practised as the lowlands became extremely hot during the summer months.

There followed a longish period during which the Sumerians, Elamites and Akkadians (a semitic speaking group) fought with first one and then the other gaining supremacy until, in the 18th century BC, the Kassites from the Zagros overran Mesopotamia. By the middle of the first millenium BC the Assyrians had replaced them.

The Kassites were a non-Indo-European tribe from the Luristan region of the Zagros who introduced horse breeding and the light chariot into Babylonia on a considerable scale although onagers had been used in the Kingdom of Ur (standard of Ur) and small horses called Anse-Kur-Ra (ass of the mountains) been used for riding (terra cotta plaques) since atleast 3000 BC.

At some time in the first half of the 2nd millenium BC, tribes speaking Indo-Iranian arrived on the Iranian plateau."Indo-Iranian is a branch of Proto-Indo-European, spoken in the 4th and early 3rd millenium BC in eastern-central-Europe (pg 41 Vol.2 Cambridge)

There was no invasion of Indo-Europeans as such, rather a comingling of ethnic cultures and languages as the newcomers assimilated. Although the language in subsequent history became Indo-European, present day Iranians are principally descended from the indigemous populations - not, as is normally assumed,

the Proto-Indo-European tribes of Europe. In the 3rd millennium BC the population of neolithic cattle breeders in central-south-east Europe (speakers of Proto-Indo-European language) expanded and as they spread the language of the pastoral populations superceded that of the isolated communities which were unable to communicate with each other. So these Indo-European speakers eventually reached the Atlantic in the west, the Bay of Bengal in the east, the Polar sea and the Mediterranean carrying and infiltrating their language with them (rather as English is now a global language).

The tribes who created the cultures of the steppes and Central Asia in the 2nd millennium BC were the precursors of the Scythians and Sacae (Eastern Iranians). The ancestors of the Indo-Aryan group (Western Iranians - Median, Persian, Parthian) reached south-west Central Asia and eastern Iran earlier, by the end of the 3rd and beginning of the 2nd millennium BC. By the end of the 2nd millennium BC a large part of the Iranian plateau was already speaking Indo-Iranian languages. There was a large area, however, in present day Kurdistan and Luristan which still kept its indigenous language. Horse harness, statuettes and seals depicting horses have been found in their burial grounds. They were not related to the Indo-European, Iranian culture.

"It has now been established that in the Near East the horse was domesticated already in the 3rd millennium BC... Not only in mountain regions but also in Mesopotamia horses were harnessed to war-chariots already in the 21st to 18th centuries BC although they were regarded as less aristocratic than donkeys or mules (pg 46 Vol.2 Cambridge). ' In the steppe regions of eastern Europe, Central Asia and Siberia, by contrast, though bones of horses are found in settlements and tombs from as early as the 3rd millennium BC or even earlier, fully reliable information on saddle horses goes back to the 13th century BC. They belong to the period of transition of the local population for a semi-nomadic existence. But mass cavalry came to be formed in the steppes of present day Ukraine, in the Volga region and in Central Asia only with the transition to a completely nomadic existence about the 12th to 9th centuries BC... But neither then, nor earlier, did the steppe dwellers seem to have known the light, spoke-wheel war-chariot."

"The peoples of the Near East did not have to wait for the Aryans to form an army on horses and wheels. This was first formed in south-western Asia, and the reason why it preceded the more effective cavalry troops must have been the longstanding

traditions of using war chariots drawn by donkeys (probably onagers as the donkey had not yet arrived. LF) The east European steppe dwellers did not possess such traditions " Indo-Europeans arrived on foot perhaps accompanied by ox carts and only in later centuries with horses.

"The centre of ancient horse breeding, not only in the 2nd millenium BC but down to the 3rd quarter of the 1st millenium BC were the mountain pastures in the Zagros highlands of Iran, Armenia and Asia Minor, especially those of Armenia and Media. In the plains horse breeding was for a long time not very successful. It is evidently in these highlands that the peoples of the oldest civilizations in the Near East, and after them the Indo-Iranian newcomers, came to know mass horse-breeding and chariot tactics" (pg 47)

The Indo-Iranians seem to have become adept horsemen rapidly which subsequently contributed to their superiority in the military field and predominant over the local population. But prior to the Indo-Europeans, the Proto-Hattic and Hittites in Asia Minor in the 20th to 18 th centuries BC were consummate horsemen and had written treatises about training and care of horses. The Indo-European Mitanni's learned from the Hittites (Kikkuli document etc.)

The Western Iranian tribes were the first to come; Persians, Medes and Parthians. After them came the Eastern Iranian tribes only some of which penetrated to the Iranian plateau. They were the Bactrians, Sakas, Scythians, Alani, Massagetae, Chorasmians and Sogdians most of which remained in Central Asia and developed western Iranian (Persian) and various Turkic languages.

These Indo-Europeans in the 3rd to beginning of the 2nd millenium BC were cattle breeders, not horsemen. They were introduced to the light, spoke-wheel chariots in Iran. It was only in the second half of the 2nd millenium BC that the horse came to be used as a mount amongst the Indo-Iranians.

The main migration route of the Indo-Europeans from Central Asia was along the valley of the Atrek into Khurassan (Sarakhs Corridor). Iranians did not reach historical western Media until about the 7th century BC; in the eastern sector, however, earlier. Sialkh, once Elamite, were Iranian speaking by the 8th century BC Assyrians began attacks on the Zagros 'city-states' (Median) starting in the 10th century BC plundering cattle and horses. Later

Urartians to the north fought battles with the Assyrians and Medians while an advance by the Urartians towards the south in the Zagros brought about a loss of power to the Assyrians and restored the independence of the Medes. In the 7th century BC Assyrian raids continued into Media because "the reformed standing army of the Assyrians was in great need of horses, for chariots and especially for cavalry to which an ever growing importance was attributed, and it was only in the mountain pastures, particularly in Media, that horsebreeding was successfully practised during this period" (see David Stronach, Tepe Nushi-Jan for evidence of horse breeding). The Assyrian King Tiglathpileser's annals (737 BC) describe traversing the Nisaeen Plain famous for horse breeding and even reaching present day Teheran and the Dasht-e-Kavir. Assyrian texts describe a seizure at one time of 5000 horses and men and cattle 'without number'.

Nomadic horsemen began to appear out of the Caucasus in the second half of the 8th century BC penetrating into the Near East. It is not clear whether they were Scythian or Cimmerian. "In the opinion of the Greeks of the 8th century BC the neighbours of the Thracians living on the western shore of the Black Sea were horse breeding tribes", but Herodotus says the Scythians moved along the Caspian. However, Cimmerians were supreme in Asia Minor in the 7th century BC until ousted by the Scythians who also made incursions into Media and involved themselves in internecine politics between the Assyrians and Medians.

During the first half of the first millennium BC, the southern part of east Europe was occupied mainly by tribes of Iranian stock: either Scyths (Saca) or Sarmatians. The Scyths were not a homogeneous people but the principal tribe, the Royal Scyths, were of Iranian stock, nomads who lived in the steppe east of the Dnieper and the Crimean steppe. The steppe Scyths were true nomads and had no permanent settlements. Their main occupation was fighting and their economy was based on pastoralism, the raising of horses, cattle and sheep. They had no saddles or stirrups and rode on a cloth. Horses were sacrificed (up to four hundred in one burial) and buried with their departed owners in burial barrows covered with earth. Although the Scyths invaded Iran in the 7th century BC and subdued Media, they were overthrown around 600 BC and expelled whereupon they removed themselves once more to the north.

Media became an independent, consolidated Kingdom from the end of the 70's of the 7th century BC with its capital at Ecbatana. Iranian script was invented called 'Old Persian' and based on

Aramaic, Akkadian and Urartian writing replacing the cuneiform of Babylonian, Assyrian extant since 3000 BC.

The Median empire stretched to Central Asia including Bactria, Tajikistan, parts of Afghanistan, Hyrcania, Parthia (Khurasan and the foothills of the Kopet Dagħ). In the south-east it stretched to Sistan. Agriculture was already very advanced in the foothills of the Kopet Dagħ (northern Parthia) with damming of mountain streams having begun not later than the 6th millennium BC - almost at the same time as advanced agriculture in the Near East. Fortified settlements such as Anau III (near modern Ashkabad) existed from the 3rd and during the entire 2nd millennium BC.

There were similar settlements in Khurasan (Tureng Tepe, Tepe Hisar II) in Afghanistan and Tajikistan. Near Kirman, Tepe Yahya was a literate civilization as early as the first centuries of the 3rd millennium BC. In the 2nd millennium BC southern Turkmenia had perfected building irrigation canals. A highly developed agricultural culture developed in Hyrcania in the valleys of the Gorgon and Atrek rivers and also in the north of Parthia (Anau IV)

There were developed city-states in south-west Central Asia in the 7th and 6th centuries BC one of which was Bactria, whose power Herodotus states was equal to Babylonia or Egypt. Thus Media spread from Chorasmia in the east to Transcaucasia in the west and south to the border with Elam. With this vast expanse of land under their influence they had access to the native horses of Central Asia as well as the indigenous horses of the Zagros region and would have practised selective breeding to achieve the superiority in horse flesh so admired by the Assyrians. (more on Pazyryk horse burials and influence of Assyria, Media and the Achamaenians on the Altai culture).

While the Medes had reigned in the western and northern Zagros another Indo-European tribe, the Persians, had concentrated in Fars. They were united when the daughter of the Median King Astyages married Cambyses I, son of Cyrus I. Their son, Cyrus II (the Great) defeated his grandfather in battle in 550 BC and founded the Achamaenian dynasty. This was the greatest of the many great Persian empires and stretched from Central Asia to the Mediterranean until Alexander the Great defeated Darius III in 331 BC and burnt his spring capitol, Persepolis.

THE HORSES

By the time of the Medians all the ingredients for selective breeding of horses were present in the areas controlled and influenced by Iran. There was the tiny indigenous horse of the Zagros and Khurasan as far north as the Kopet Dagh. And there were two distinct types of horses from Central Asia; the tall, slim horse averaging over 15 hands and the shorter, stocky horse standing between 13 and 14 hands.

The tiny horse was more a browser than a grazer and probably kept to the mountain forests in the same biotope as the deer. The steppe horses were grazers with the tall, meatless breed a native of the waterless savannah of south-west Central Asia while the stocky horse could stand the winter cold of the Kazakh and Siberian steppe further north. (LF personal observation of the horses in their native habitats.)

The indigenous horse was tiny (90 to 100 centimeteres at the withers) .In pre 3rd millenium B.C Sialkh II, near Kashan, osteological remains of *E. caballus Pumpelii* Duerst were found (Cambridge Ancient history p455). Texts from 3rd millenium BC southern Mesopotamia and Elam also refer to horses of the mountains (Anse.Kur.Ra.) (Littauer p.43) and by the early 2nd millenium BC the true horse was firmly documented in Anatolia as well as south-west Iran. Horses of an 'Oriental ' type also began to appear in Egypt (imported) (Littauer p.56)(Buhen horse - Clutton-Brok). Old Assyrian texts also refer to the horse (p58-9) and the evolution of light, spoke-wheeled, horse drawn chariots.

The horses in Egypt were imported from southwest Asia and were of an Oriental type; small, fine heads, carried high, little depth of girth, long bodies, slender legs, high tail carriage. They were already the products of selective breeding as indicated by lists of horses according to their sires..

The Kikkuli text is from the 14th century BC. Also a Hittite text (Middle Assyrian)

At this time there was a full movement of horses throughout the area from soutwest Central Asia to the Mediterranean (Littauer p.84)

Median levels at Nushi-Jan give wide range of sizes from miniature horses (1.05 - 1.10 cent) to horses over 1.50 with the majority being 1.35 - 1.37 cent. A further indication of selective breeding.

Assyrian horses under Ashurbanipal were strong, well built, well muscled with long cannon bones, large hooves and 'breedy' heads (Littauer p. 110-11). Assyrian horses largely imported from Media, Urartu and Azerbaijan.

Later first millenium ; horse remains from Urartu (early 6th cent. BC) belong to two breeds; one large and the other standing 1.25 m.

"Horses continue in light harness and as mounts. Although there is at present no published osteological material firmly dated to this period, horse skeletons from the destruction level of Karmir Blur in Urartu (early 6th cent. BC) were reported to belong to a large and a small breed, the latter standing 1.25 m. The existence of distinct breeds may also be deduced - from evidence from both pre-Achamaenid (Median) and post-Achamaenid (Parthian) sites in Iran. And representations and texts provide considerable information about the types of horses in use.

"The reliefs at Persepolis show the royal harness animals as long-bodied, big-boned and ram-headed, with short, thick necks and heavy crests looking like somewhat smaller versions of the saddle horses led in front of them. They are very probably of the 'Great Nesaeen' breed referred to by Herodotus and other classical authors, said to be named after the Nesaeen plain in Media, where they were bred.... The tribute chariot horses depicted on the Persepolis reliefs are pony-sized. They are also somewhat lighter in type, shorter-bodied, with more elegant heads and even a suggestion of a concave profile. They do not correspond to what seem also to be ponies pulling the royal chariot on an Achaemenid cylinder seal or to those harnessed to one of the Oxus gold models." (Littauer p148)