of prefix seems to have contracted with verbal augment *a-, unless prevented by analogy; examples in §131.

III. Final -i before initial *a- keeps the writing iy*; the script does not show whether the -i is consonantized before the vowel, since it has no machinery for the distinction; but pati- never becomes *pasiy- (= pasu-) in compounds, though -ty- becomes OP -ṣ(i)yː, patiy-ahsvay, patiy-aša*, patiy-ajalā; pari-ait(iy), niy-apaišam, viy-ataryam.

The sequence -iya- seems in some instances to contract to -i-; all the examples are in augmented forms of compound verbs, in some of which the uncontracted forms also appear, in which the analogy of the separate uncontracted form is the cause of the failure to contract:

abi-jāvyəyam, also abiyy-ajāyyam.
nišādəyam, also niš-ādəyam.
iš-əiya, also niš-ašiya and niš-ašiyam.
iš-yasa for *niy-aśasaya; perhaps [ašiya]siya
for *niyy-ayaśiya.

IV. Final -u before initial *a- is similarly ambiguous in its writing; but probably the prefix Aryan *sə-, pl. *hə-, became hə- before a vowel, as in uaspa-, cf. Av. hvaspā, Phl. hwaṣp. Other examples of this prefix can be found in the Lexicon, under *u-.

V. Final m of the prior element was of course not written before an initial consonant of the second part:
haṃ-gmatā, haṃ-karta, haṃ-dugā, but ham-arənam.
haṃ-tasālayi, but ham-atəsələti.

VI. The initial *a- of the second element appears as a after a final -i or -u of the preceding element, according to the Aryan phonetic variation (§115): pAr. *sad-, pl. *həd-, but pAr. niš-əd-, unchanged in Iranian: generalized in niš-ədəyam, contracted niš-ədəyam.


Skt. sam-arənam, OP hamarənam; but with prefix, uṣhamarənaka, with double writing of the initial, a being the value after u, and h being the value when initial in the separate word. Perhaps also OP Pātiśvvaris for Pāti-
śvaris, see Lex. s.v. Cf. Reichelt, Aw. Elmb. §103, for the same phenomenon in Avestan.

For the initial *a- of the enclitic pronoun -šaity-
-šəm -šəm -ši, see §117.

VII. Initial y- after a final consonant of the prior element must of course appear as -i-, as in duṣṭərəm, from duš- + yərəm.

APPENDIX TO CHAPTER III

The origins of OP sounds, as expressed in the normalized transcription, may be traced from the following data (some references to Chapter II are included):

a < pIE ē o o §61, cf. §36; pIE o u §63.I, §66.II, §67.I- II; pIE m n §67; pIE m o §71; graphic for i §22; see also ar below.
i < pIE i o §64; pIE o §63.II.
u < pIE u §64; analogical for r §66.I.
a < pIE ē o a §62, §36; pIE m n §68; by contraction of a + a §131, of ḍaḥ §61, §131; graphic for a §36.I, §135; by vṛddhi §126.
i < pIE i §65; by contraction of i + i §131, of i + a §131, §110.III; by vṛddhi §126.
ā < pIE ā §65; by vṛddhi §126.
ai < pIE ei o i a §69; pIE si o §71; by contraction of a + i §131; from a with epenthesis §127; graphic for a before y §48; cf. §136.
u < pIE eu o u §70; pIE u o §71; by contraction of a + u §131; graphic for a before v §48, and for ahu §70.
āi < pIE ei o i a §72; by contraction of a + di §131; graphic for ai §72, §179.IV; by vṛddhi §126; cf. §136.
āu < pIE eu o u a §72; graphic for ahu §72; by vṛddhi §126.

ar §29-§35.

= r < pIE r §66, §29, §30.
= ar < Iran. ar §31-§33; pl. ur or §66.II; pIE r §68.
k < pIE q o §98, §99; by borrowing §99.
x < pIE qh qv §100; pIE q §102; pAr. k §103.I-III; pAr. gh §103.IV; by borrowing §100.
g < pIE qh qv §98, §101, §103.IV.
c < pIE q qv §98, §99, §105; pIE d + qv §105.
j < pIE qh qv §98, §101, pIE s §120.
t < pIE th §76, §76.I- II; pIE dh §103.IV; pIE t(h) in təst(h) and d(h) in dzd(h) §85; by borrowing §76.V, §83.III.
θ < pIE th §76, §76.II; pIE t §77-§81; pIE k §86, §87; for d(h) §83.II; by borrowing §76.V.
NOUN STEMS

\[ \zeta < \text{pIE} \, \text{tr} \text{tl} \, \S 78, \S 79; \text{pIE} \, \text{kl} \, \S 94; \text{by borrowing} \, \S 78. \]
\[ d < \text{pIE} \, d \, dh \, \S 76, \S 76.11; \text{pAr.} \, d \text{from pIE} \, dh \, \S 76.11; \text{pIE} \, d(h) \text{in dzd}(h) \, \S 85; \text{pIE} \, \hat{g} \, \hat{gh} \, \S 86, \S 88; \text{by borrowing} \, \S 76.11. \]
\[ p < \text{pIE} \, p \, ph \, \S 75, \S 75.1; \text{pIE} \, y \, \S 75.1V, \S 90; \text{by borrowing} \, \S 75.1V. \]
\[ f < \text{pIE} \, ph \, p \, \S 75, \S 75.11; \text{pIE} \, sy \, \S 75.1V, \S 118.11; \text{by borrowing} \, \S 75.1V. \]
\[ b < \text{pIE} \, b \, bh \, \S 75.11; \text{pAr.} \, b \text{from pIE} \, bh \, \S 75.11; \]
\[ \text{pIE} \, y \, \S 75.1V, \S 91; \text{pIE} \, p + bh \, \S 75.1V, \S 130; \text{by borrowing} \, \S 75.1V. \]
\[ n < \text{pIE} \, n \, \S 110, \text{cf.} \, \S 67.1-11; \text{pIE} \, dn \, \S 83.1, \S 130; \text{by borrowing} \, \S 110. \]
\[ m < \text{pIE} \, m \, \S 109, \text{cf.} \, \S 67.1-11; \text{pIE} \, m + m \, \S 130; \text{by borrowing} \, \S 109. \]
\[ y < \text{pIE} \, i \, \S 113. \]
\[ r < \text{pIE} \, r \, \S 79, \S 106, \S 107; \text{part of pIE} \, r \, \S 11 \, \S 66, \S 68; \text{by borrowing} \, \S 106. \]
\[ l < \text{by borrowing only} \, \S 107. \]
\[ v < \text{pIE} \, y \, \S 114. \]
\[ s < \text{pIE} \, s \, \S 115, \S 116; \text{pIE} \, ts \text{of ts}(h) \text{and dz} \text{of} \]
\[ \text{dzd}(h) \, \S 85; \text{pIE} \, k \, \S 86, \S 87, \S 90, \S 93, \S 95; \text{pIE} \]
\[ k\, \hat{y} \, \S 90; \text{pIE} \, \check{sk} \, \S 97, \S 130; \text{pAr.} \, \check{s} \, \S 105; \text{by borrowing} \, \S 116. \]
\[ \check{s} < \text{pIE} \, s \, \S 102, \S 105, \S 115, \S 117, \S 140.1V; \text{pIE} \]
\[ k \, \S 89, \S 93, \S 96, \S 120; \text{pIE} \, g \, \hat{gh} \, \S 93, \S 96, \S 120; \]
\[ \text{pIE} \, k\, \hat{s} \, \S 92, \S 102, \S 130; \text{pIE} \, b \, \hat{kp} \, \S 102; \text{pAr.} \]
\[ \check{c} \, \S 104; \text{pIE} \, t \, \S 80, \S 82; \text{pIE} \, str \, \S 79, \S 130; \]
\[ \text{pIE} \, d \, \S 105; \check{s} + \check{s} \, \S 130; \text{by analogical} \]
\[ \text{extension} \, \S 84; \text{by borrowing} \, \S 117. \]
\[ z < \text{pIE} \, \check{g} \, \hat{gh} \, \S 86, \S 88, \S 91, \S 95; \text{pIE} \, \check{ghy} \, \S 91; \]
\[ \text{pIE} \, s \, \S 120; \text{pIE} \, d + \hat{gh} \, \S 130; \text{pIE} \, dz \text{in dzd}(h) \]
\[ \S 85; \text{by borrowing} \, \S 120. \]
\[ h < \text{pIE} \, s \, \S 118, \S 140.11; \text{by borrowing} \, \S 118.11. \]

There are also certain losses and increments which could not be included in the preceding;
these are merely graphic except when specified as phonetic:

Losses:

\[ i \text{ after } h \, \S 64, \S 27, \S 38; \text{after a consonant} \, \S 22. \]
\[ h \text{ before } i \, \S 27, \S 64, \S 118.11; \text{before } u \, \S 28, \S 70, \]
\[ \S 118.11, \S 140.11; \text{before } m \, \S 103.1; \S 118.11; \]
\[ \text{(phon.) in } \check{ah} \text{ from } \check{ahh} \, \S 131. \]
\[ y \text{ final before enclitics } \S 118.11, \S 136. \]
\[ v \text{ final before enclitics } \S 137. \]
\[ t \text{ final } \S 40, \S 84. \]
\[ d \text{ final } \S 40, \S 84. \]
\[ n \text{ final } \S 40, \S 84, \S 112; \text{medial } \S 39, \S 108, \S 111; \]
\[ \text{(phon.) by dissimilation } \S 88. \]
\[ m \text{ medial } \S 39, \S 108, \S 111, \S 140.11. \]
\[ \text{pIE} \, y \text{ (phon.) after labials } \S 114. \]
\[ \text{pAr.} \, t \text{ (phon.) in } -nt \, \S 40, \S 84. \]
\[ \text{pAr.} \, h \text{ (phonetic in some positions) } \S 40, \S 105, \S 119. \]

syllables by haplology (phon.) \S 129.

Increments:

\[ i \text{ after consonants } \S 25, \S 140.11. \]
\[ u \text{ after consonants } \S 26, \S 114; \text{(phon.) by an-} \]
\[ \text{aptaxis } \S 128. \]
\[ y \text{ after } \check{i} \, \S 37, \S 64, \S 113; \text{after } \check{i} \, \S 23.1, \S 65. \]
\[ v \text{ after } -u \, \S 23.1, \S 38, \S 64; \text{after } \check{u} \, \S 23.1, \S 65, \]
\[ \S 114. \]
\[ x \text{ (phon.) before } \check{s} + \text{consonant} \S 96. \]

CHAPTER IV. FORMATION OF NOUN AND ADJECTIVE STEMS

\S 141. NOUN AND ADJECTIVE STEMS may be

either the bare root, nominal or verbal (\S 142),
or the same with a thematic vowel -a- (\S 143),
or the same with suffix ending in -ā- (\S 144-\S 151)
or in -ē- (\S 152) or in -ā- (\S 153) or in a consonant
(\S 154-\S 158).

A noun or adjective suffix attached
directly to a verbal root is called a primary suffix;
one attached to a noun or adjective stem is
called a secondary suffix. Many stems two or
more suffixes, or are compounds of twoelements,
the prior of which is or becomes invariable. A fuller
treatment of the stems than that given in the
following sections will normally be found in the
Lexicon s.v.v. The suffixes and the antecedent stem
will here be presented not in pIE form, but in
their pAr. or even Iranian or OP values, as
convenience may dictate.

The following noun and adjective stems are not
dealt with here or are dealt with only in part,
because of uncertainty in their formation or because
they are loan-words; possible interpretations of
their formation will in some instances be found in
the Lexicon:

-ā-stems: fraša-, spādmaidā-, Ainaira-, Autiāra-,
Atamaita-, Adukanaiša-, Arabāya-, Arza-, Ar-
mina-, Û(v)ja-, Uvānaicaya-, Katpatuka-, Ka-
-a stems: A-varā,- Arbairā,- Aršāda,- Izalā,- Uyamā,- Kuyanakā,- Tārava,- Tigrā,- Čuša,- Yauhiyā,- Yadā,- Razā,- Raqā.-
-t stems: Baktudri,- Kāpiškānī,- Ciciiri,- Cišpi,- Pattišwāri,- Višpauzi.-
-t stems: Abirādru,- Ku'daru,- Bābiru,- Māru.-
§142. Root Nouns and Adjectives, some of them only in derivatives or in compounds, are found as follows:
§143. Noun and Adjective Stems with thematic -a- occur as follows:
I. Attached to a verbal root, the ablaut grade of the root varying: kara- in compounds, u-cara,- kāma,- karsa,- gauša,- raga,- adv. daršam, drauga,- baqa,- bara- and bāra- in compounds, zana- in compounds; less certain formations in ā-baha- in āvaha-vajā, caša,- U-tōna,- u-tava,- gara- in bātu-gara,- Vi-vāna,- varga- in hauma-varga.-
II. Extending a non-verbal stem: ānara- to nar,-  PRIMARY_word_ to pati,- pada- pāda- to pad,- Mārga- to Marqy,- duṣ-īyāra- to  PRIMARY_word_ ,  PRIMARY_word_ in vara-ka- to  PRIMARY_word_ , vāhara- in  PRIMARY_word_ -vāhara- to  PRIMARY_word_ , u-ṣma- to zam,- hama- to ham; perhaps Gau-barwana- to barw-, māha- to māh,- vih- to vih-.
III. With no obvious simpler nominal or verbal form: ama- in Aršāma,- asa- aspa,- u-ba,- poss.  PRIMARY_word_ , kauša,- kāra,- daiva,- darpa,- naiša,- Pāra,- pisa,- Māda,- rāba- in u-rāba,- raka- in Varkāna- and Varka-zana,- Saka,- spāda- in Tazma-spāda-, spāra- in Vāya-spāra-; the restored hana- in hanātā-; maqīza-, of uncertain etymology; the possible  PRIMARY_word_ in  PRIMARY_word_ .
IV. Corresponding feminine formations in -ā-:
īswā-, xaudā-, bīkā-, didā-, yalā-, Sākā-, ha'-duqā-, kēzā- in kēzānam, the uncertain parakṣayadān, the borrowed maškā-; the feminines to adjectives in masc.-neut. -ā-.
V. These formations have varying meanings, including the following:
Abstracts: kāma- 'desire'.
Agents: baga- 'dispenser, god'; drauga- 'deceiver, the Lie'; aršī-bara- 'spear-bearer'; zārā-kara- 'evil-doer'; dāraniyā-kara- 'gold-worker, gold-smith'.
Passives: ha'-'duqā- 'im-pressed' = 'inscription'; pati-kara- 'made thereto' = 'sculptured figure'; asa-bāra- 'horse-borne'.
Adjectives of relation: Mārga- 'related or belonging to Margu,- Margān'; ānara- 'good belonging-to-a-man, skillfulness'.
VI. The vocalism of the root varies in these formations, being either -a- (PIE *e- or *o- or *a-), as in baga-, bara-, daiwa-; or a zero grade, as in karša,- u-ṣma-, darga- (see Lek. s.vv.); or a vridhddh or lengthened grade (§126), as in kāma-, asa-bāra-, Mārga-.
§144. Noun and Adjective Stems with suffix -(i)ja-; these are adjectival formations which may acquire substantival use; before the suffix a stem-final -a- regularly, and -ā- sometimes, disappears. The OP examples are the following:
I. Perhaps primary, in arija-.
II. In words of numerical value: -ja- in an-ija-;
-ija- in durā-ija,- čiš-ija,- to pAr- *dyia- *trita-.
III. Forming ethnics: Akausac-ija- to *Akausaka-; Avar-ija- to Avarā-; Armin-ija- to Arminā-;
Asagart-ija- to Asagarta-; Ū(v)ijaja- to Ū(v)ja-;
Uvārazmi-ija,- Kāš-ija- to Kāša-; Gardāya-ja- (possibly error for *riya-) to Gardāra-; Gθαγu-ija- (error for *uvya- or *udya- or *udiya-?) to Gθαγu-;
Putā-ja,- Bābiru-ija,- Māc-ija- to Maka-; Spard-ija- to Sparda-; Hāzāmniš-ija-;
Harwati-ja-; Hi'du-ja (error for Hi'dwya-?).
IV. Other formations, including some personal names: agr-ija- to agrā- (§148.I), banwan-ija-,
daran-ija,- brazman-ija,- mar-ija- to mara-; haš-ija- to hat- (§240), ha'-mi-ija- to mihra-; Artawad-ija-;
Kα'būj-ija,- Bard-ija,- Mardun-ija-.
V. Corresponding feminine forms as abstracts, which may become concretes: yau-ija- 'course, canal'; nāv-ija- 'navigability'; perhaps paš-ija- 'writing, document'.
VI. With suffix -ti-, becoming Med. -ti- in xššāyāhiya-; and OP -ti- in anušija-.

§145. Noun and Adjective Stems with suffix -ta- found in OP are mostly participles (§242), superlatives (§190.II), and ordinal numerals (§204). The remaining examples are arwasta-, a neuter abstract seemingly formed upon an adjective *aryant- (see Lex. s.v.); Xššārīša-, a hypocoristic to a compound personal name; ardatā-śilver, perhaps an -a- extension of a participle in -nt, cf. Lat. arg-ent-um; dasta-‘hand’, which cannot be related to any simpler extant root; and three feminine abstracts arštā-, hanatā-, avastā-, the last two of which are dubious and the third is taken as having acquired concrete meaning.

§146. Noun and Adjective Stems with suffix -ka- are adjectives which may assume substantive meanings. This -ka- may be attached directly to a stem, nominal or verbal; it may appear as -aka- or -ika-, in which it can often not be determined whether the vowel belongs to the suffix or to the basic stem. Only when -ika- is attached to an -a- stem is it clear that the -i- belongs to the suffix. The OP examples are:

I. Perhaps primary: ukš-ka-, karnw-aka-.

II. Secondary: *Ākuja-ka- in Ākujafaciya-; Anūma-ka-; əṭ-ika-, to pAr. *asra-, LAv. asra-; Arša-ka-, hypocoristic to a compound name; āršīka-, probably with vridhī; kapatu-ka-; kāska-; ba’dā-ka-; vara-ka-; Vahau-ka-, hypocoristic to a compound name.

III. Of somewhat uncertain analysis: nīyāka-, apa-nīyāka-, marī-ka- (see Lex. s.v.).

§147. Noun and Adjective Stems with suffix -na-, varying with -ana-, are not infrequent in OP; there are also extensions of the -na- to -ina- and -mna-.

I. Primary -na-, added to the root or to the thematic verbal stem (often not distinguishable from verbal nouns!), making nouns of various meanings:


Expressing concretes: arja-na-, fem. stū-nā-, fem. hai-nā-.

Expressing adjectival actor, as personal name: Vi- dar-na-; name of month, Vi-yax-na-.

Forming adjectives: a-xšai-na-.

Forming passive participles, see §243.

II. Secondary -na-, forming adjectives: para-na-, perhaps here kam-na; as masc. sb., draujana-, as nt. abstract pariy-an-ana; forming hypocoristic personal name, Āgi-na-; perhaps Marduna- in Mardun-inya; forming place names, Varkāna- to varka-, Har-gamalāna- to ha-gamala-; with -na- of uncertain origin, hažīna- (see Lex. s.v.).

III. Secondary -ina-, forming adjectives: aha-ga-ina-, kāsaka-ina-, nauca-ina-.

IV. mna- in present middle participles, see §241.

V. For the dubious neuter abstract dar-tana-, see §238.

§148. Noun and Adjective Stems with suffix -ra- occur in OP as follows:


Problematic, and perhaps not Iranian, lacara- dacara-. On vazra- in vazra- ka-, vāhara- in ßora-vahara-, parara-, see §154.I.

II. Comparatives in -(a)ra-, -tara-, -thara-, see §190.III.

III. Primary suffix -tra- appears in ci-ça-, xša-ça, pu-ça, va-ça- in vača-bara-; U-xaž-TRA- (with Med. tr after s); loanword Mitra- Mitra-, also in ha-mi-ziya- and Va-ziya-.

§149. Noun and Adjective Stems with suffix -ma-.

I. Primary, in the following: dar-ma- in personal name Upa-darma-, gar-ma- in month name Garma-pada-, fem. tau-mā-, adj. tax-ma- in personal names (see Lex.), hau-ma- in hauma-varga-.

On dubious siyamam, see Lex.

II. Secondary, in ordinal nava-ma- (§204.IV).

§150. Noun and Adjective Stems with suffix -ya- are a miscellaneous group. They include aia-va- ‘one’; adjective duru-ya-, to verbal root dar-; adj. par-ya-; ethnic Purha-va-, cf. Pārśa; yā-ya-, to relative ya-; har-ya-; visa- and (Med.) vispa-, from pIE *vij-yo-; ji-ya- ‘living’, unless the v is somehow radical (cf. §216). On Gau- hariya-, see Lex. s.v.; on fem. aruvā- as abstract, see Lex. s.v.
§151. Noun and Adjective Stems with Miscellaneous -a- Suffixes, not already given, include the following:
-a- in fem. gai-thå.
-ga- in adhå-ga-, cf. asan-
-sa- in buzz-sa-, in personal name Baga-buzza.

§152. Noun and Adjective Stems ending in -i, apart from some names of persons and places listed in §141, are the following; stems in -i- and those in -i- cannot be distinguished except by correspondences in other languages, which sometimes are lacking (§222):
I. Stems in -i-: acc. paš-im, båj-im; adi- in personal name Åhiy-abušna; dip-i; uša-bär-i; Åi- extended from *ādr- in hypocoristic personal name Åi-na- and in month name Åi-yadiya; personal names Dådarš-; month names Åsigar-i, Bøga-yåd-i; secondary in adjective yúman-i; loanword skauwi-i.
II. Stems in -i-, some may have been transferred to -i- stem declension (§179.1): àp-i (see Lex. s.v.); dual uš-a-; fem. adj. to stems in -ant-, as place names, Sika¥a-wat-i, Hara-wat-i; fem. ptc. yau[da]tim, to masc. -ant-; to stem in -lar-, Bæx-tr-i; Uvâræm-i; adi, aha-yain-i in nph. iya, to masc. aha-gama.
IV. Miscellaneous: thi- in dwær-thi-; më-i in bû-mëi; perhaps mi- in war-mi.

§153. Noun and Adjective Stems Ending in -i-., apart from some place names listed in §141, are as follows:
I. Stems in -i-: adj. par-u, ard-u in personal name Ardu-maniš, vaš-u in personal names Dâraya-vaš Vau-misa Vahau-ka; substantives baru- in Gau-baru-a, maršiy-u ‘death’ in adj. wø-maršiyu, mard-u in Marduniya, Mag-u, Hûd-u, Marg-u, Kûr-u, uncertain bût-u in bûtugara; loanwords pir-u, Ufrat-u; restored loanword agur-u; uncertain as to stem, Ḍatag-u, sikab-u.
II. Stem in -i-; tan-i-.
III. With suffix -iu-: gã-thu-; zra-thu- (unless the -i- is in this word radical rather than suffixal). For θ, see §81.
IV. With suffix -iu-: dah-yu, with uncertain root.

§154. Noun and Adjective Stems ending in -r-, as found in OP, consist of two classes of nouns.
I. Neuter nouns with nom.-acc. ending in -r-, replaced by -n- in other case-forms; in OP, only in derivatives: pAr. *yaz-r, in OP vazr-ada-; pAr. *yas-r in OP Thura-salar-a-; pAr. *pre-r in OP par-tara-. An extension of the -n- form of the suffix -r/-tn- is probably to be seen in the OP infinitive (§238), perhaps also in [da]ranaya (§238).
II. Nouns with suffix -tar-, including agents ja-čar, fra-čar, daļ-ar-; words of relationship pi-čar, mä-čar, brä-čar; also a-čar ‘fire’, in derivative personal names.

§155. Noun and Adjective Stems Ending in -n- are of several kinds in OP:
I. Stems in -an-: ad- an- and its derivative aha-ga-, arš-an- varying with arš- a, barš-an-.
II. Stems in -an-: are-šan- (for 8-), §82.
IV. Stems in -van-: arø-ivan, xøa-pø-ivan, banivan in banivan-iya.
V. Stem in -vin-: adj. manø-win.

§156. Noun and Adjective Stems Ending in -s- are of several kinds in OP:
I. Stem in -s-: Maz-då-h, also in A吸入zadåh.  
II. Neuters in -as-: draj-ab, man-ab, mid-ab, ravo-ab, zir-ab, har-ab in Hara-wati; can-ab assuming masc. forms in cpd. personal name Aspa-canah; suffixal -nas- in ravo-lah; suffixal -nas- in far-nah assuming masc. forms in cpd. personal name Vrå-da-fornah.
III. Stems in -jas-: sika-yah in place name Sika¥a-wati; comparatives towi-yah, vah-yah in personal name Vahyaz-þasta (§120); zero grade -is- in superlative ending -iš-la- in mab-išla dwa-þasta, §190.1.  
IV. Stems in -is-: neuters abi-cariš, had-š; becoming masc. in personal names Ardu-man-š, Hará-man-š.

§157. Adjective Stems with Suffix -vant- are found in OP only in derivatives; the OP syllabary does not make clear whether these derivatives are formed on -vant- (pIE -vant-) or on zero grade -vat- (pIE -vät-); more probably they are made upon val-: ar-want- in arwas-ta, sika¥a-want- in Sika¥a-wat-i, hara-want- in Hara-wat-i.
§158. OTHER NOUN AND ADJECTIVE STEMS ENDING IN CONSONANTS are to be found listed among Root Nouns and Adjectives, §142.

§159. NOUN AND ADJECTIVE COMPOUNDS IN OP, apart from phrasal adverbs (§191.IV.), may have as prior element an inseparable adverb as in a-xšaṭa-, u-cūra-, duš-išyāra-, ham-arana- (§268); or a prepositional adverb, as in apa-dāna-, paṭi-kara- (§268); or a noun or adjective stem.1 They have as second element a noun or adjective stem, which may receive an additional suffix.

Only compounds of stem + stem will be here discussed. Either stem may itself be a compound; either stem may already have one or more suffixes. The initial syllable of the first element, especially in adjectives, may show vriddi or lengthening of the vowel, as in dāraniya-kara- ‘gold-worker’ to dāraniya- ‘gold’; less often this appears in the second part, as in Bāga-yādi- ‘god-worshipping (month)’, where it is seen in both parts, and in asa-bāra- ‘horse-borne’, where it indicates passive meaning.

Compound adjectives with second elements of a specific gender assume the genders of their derived meaning and use, with change of form if necessary. Thus the masc. name Hāxā-maniš ‘Having the mind of a friend, Achaemenes’ has a neuter stem as its second element, used without change in the masculine adjective as noun; the masc. adjective tigrəzaudaiš- ‘wearing a pointed cap’ has as second element the fem. zauḍa- ‘cap’.

Derivative adjectives to compounds may be made by the addition of suffixes: Hāxāmaniš-iya- ‘Achaemenian’ to Hāxāmaniš-, Asagart-iya- ‘Sagartian’ to Asagarta-.

Compounds of stem + stem, so far as they occur in OP, may be divided into (1) Determinative Nouns and Adjectives, dependent and descriptive; (3) Participial Adjectives, the prior element governing the second. Adjectives of all these classes may become nouns as names of persons and places.

The following will not be dealt with here, because of uncertainties or difficulties in their interpretations; but some information may be found in the Lex. s.v.v.:

Common nouns: abāhavai, āvodā-.

Personal names: Kabbijiya-, Gauamā-, Cīṣpi-. Place names: Uvādaicya-, Uvārzmi-, Paγiγiγiaγi-.

Personal and place names of Elamite, Akkadian, and Armenian origin also cannot be discussed among OP compounds.

§160. DETERMINATIVE NOUNS AND ADJECTIVES, compounded of stem + stem; the prior element determines or limits the second.

I. Dependent determinatives, the prior element standing in some case relation to the second:

a. Accusative:
hamaraṇa-ka-ra- ‘battle-making’; zūra-kara- ‘evil-doing’;
dāraniya-ka-ra- ‘gold-working’; ciya-kara- ‘doing how much’, anā-kara- ‘doing that’;
arši-bara- ‘spare-bearer’; saq-ara-ba- ‘bow-bearer’;
taka-bara- ‘petasos-wearing’.

b. Nominative:
xcōxa-pāvan- ‘kingdom-protecting, satrap’;
dćarvi- (for *dći-varc-) ‘doorway-covering, colonnade’;
hauna-xvaga-, mas-dh-k, bāšu-gara-, see Lex. s.vv.

Arṭa-xvardiya- ‘Justice-worker’.

b. Genitive:
artu-staṇa- ‘place of light’; dainu-dāna- ‘holder of demons’.

Xṣṝyṝśka- (from *xṣṝya-arṣka-) ‘Hero of Kings’;

c. Instrumental:
as-a-bāra- ‘borne by horses’; uši-ba- ‘borne by camels’; [dasta]-kar-a- ‘done by hand’.

Baga-buṣka- ‘Freed by God’; Bagābṅa- perhaps ‘Begotten by God’.

d. Ablative: Abiγ-ābavāṇa- ‘Freed from misfortune’.

e. With idea of specification: Ciṣa-taxma- ‘Brave in lineage’.

II. Descriptive determinatives,1 the prior element

1 The greatest part of this class consists of those whose first part is an inseparable adverb or a prepositional prefix; under our plan these are not here considered (§159).
ment directly modifying the second as adjective or appositive:
§161. Possessive Adjectives, often differing from the preceding only by a shift of accent which can be observed in accented Sanskrit words, but cannot be determined in OP or Avestan.
I. Determinative compounds (cf. §160.1); the OP examples are all names of persons or of places or of months:
   a. Accusative: Aspa-canah- ‘Having love of horses’; Bâga-yâdi- ‘(Month) marked by the worship of the bagas’.
II. Descriptive compounds (cf. §160.2).:
   a. The prior element is an adjectival modifier: paru-zana- ‘having many men’; vispa-zana- ‘having all (kinds of) men’; visa-dahyu- ‘containing all lands’; hama-pitar- ‘having the same father’; ha-mîtar- ‘having the same mother’; tigra-xwada- ‘wearing pointed caps’; udâ-maršiyu- ‘having one’s own death’ (see Lex.).
Ariya-ciça- ‘Having Aryan lineage’; Ardu-maniš- ‘Having an upright mind’; Taxma-spâda- ‘Having a brave army’; Vâhyyaz-dâta- ‘Following the better law’; Vîšâspâ- from *visla-aspa- (see Lex. s.v.) ‘Having ready horses’; Aara-gu- ‘(Land) having hundreds of cattle’ (but see Lex. s.v.); Thûrâ-vâhara- ‘(Month) having vigorous spring-time’.
   b. The prior element is appositive to the second:
Varka-zana- ‘(Month) belonging to the wolf-men’. wedâ-palšiyu- ‘having self as lord’, with adjectival suffix.
   c. The second element is predicate to the prior: Ariyâramna- from *ariya-âramna- ‘Having the Aryans pacified’, so to be interpreted because the -na- participles are passive.
§162. Participial Compound Adjectives, the participle as prior element of the compound governing the second; all the OP examples are personal names:1

1 Xšâyâršâ is taken by Bv. Gr. §815 as an -ah-stem like Hwârma-â, based on a contraction of plural final -a into -e, e.g., Xšâyâršâ ‘(Month) marked by the worship of the bagas’.

Vâyâ-spâra- ‘Weaving shields’ = ‘Maker of wicker shields’; unless vâyâ- is not a participle, but a noun of action (-a-stem), and the name is a possessive adjective (§161.1.b., ‘Having a shield of weaving’, = wicker shield’.
§163. Names of Persons in the OP inscriptions must be divided according to nationalities, which in the main show the linguistic nature.
I. Names of Persians are far the most numerous; but some show Median phonetics, indicated by a following M in parenthesis:
   b. Names of other Persians: Artaviyâ-, Ardîuniš-, Aspakanah- (M), Uâna-, Bizra-, Daštâha-ya-, Dâdârši-, Bagâbigha-, Bagâbuzâ-, Marduniya-, Vaumisha- (with -s which is not Persian nor Median), Vâyaspâ-. Vâhauka-, Vâhyyaz-dâta-, Vidafernâh- (M), Vidâr-va-, Vîsâna-, Haxâ- maniš-.
II. Names of Medes: Xšâbiya-, Dâarâ-, Taxmaspâ-, Fravarti-, and the Sagartian Ciçataxma.
III. Names of other Iranians: the Margian (Bactrian) Frâda-; the Scythian Skûrsâ-; unspecified Abyûbaùna-, Aršaka-.
IV. Names of Armenians: Arzâ, Dûdârši-, Hâlûta-.
V. Names of Elamites: Atumâita-, Cicziri-, and four which have the appearance of IE names: Aça-a-, Upadarma-, Martiya- (see Lex. s.v.), which may have been more or less etymologized when transcribed into OP; and Imaniš, the name assumed by the Persian Martiya as usurping king of Elam, with -maniš- reminding of Haxîmaniš- and Ardûmaniš-.
VI. Names of Babylonians: Akkadian Ainaita-, Nadîtablau-, Nâbûdûracâra-, Nabûwaita-.
VII. Certain writings, probably corrupt: Xárâdâsî (= Xšâyâršâ?), Ardâzâsca (prob-

ing’ and arš- ‘just’, and therefore meaning ‘Ruling with justice’). But there is no example in which contraction of a short vowel takes place despite the reduced final -i; for another objection, and the proper interpretation of the case-endings, see §167 and note 2, and Lex. s.v.
ably = Artaxšaža, Vahšdēraka, Vahyavšdēpaya, Hadaxaya.

§164. PERSONAL NAMES OF IRANIANS ARE OF THE USUAL IE TYPES.

I. The typical IE name consisted of a compound of two stems; such names have mostly been interpreted in §160–§162. To these must be added the following, which are of uncertain interpretation: Kašbūṭiyā, Gaumāta (see Lex. s.v.v.).

II. Compounds of which the prior part is an inseparable or a prepositional prefix are the following: *U-vazštra-, Vi-darna-, Vi-vāna-, Fra-vart-, perhaps *U-tūna-. It is possible that some of these are only shortenings of longer compounds of which these were the prior part, and that they belong under III.

III. Hypocoristics or nicknames were formed in PIE by limiting the compound name to approximately its prior part, to which there might or might not be added a suffix. There are the following probable examples in the OP names: Θυράρα, Βαρδ-ιήα, Βαθού-κα, Άρσα-κα, Χαθ-ηα, Φράδα, Ματίγα.

IV. Still other names are appellatives indicating the qualities of the persons, like the reduplicated Dā-dārā ‘Bold’. Possibly *U-vazštra-, Vi-darna-, Vi-vāna- (given under II) also belong here. Or names may denote occupations, as perhaps in the adjectival derivative, possibly patronymic, Mardun-ιήα ‘Vinten’s son’.

V. Uncertain names: Ciśi- (or Caśiśi-); Kūru-; Dātwahiya-; Arxa-, name of an Armenian, of unknown meaning, and probably belonging under III or IV.

§166. NAMES OF MONTHS IN OP ARE ADJECTIVES, OR SUBSTANTIVES AS ADJECTIVES, MODIFYING THE WORD ‘MONTH’; THE PHRASE IS ALWAYS IN THE GENITIVE. All are compounds of two stems or of prefix + stem, and some end in an adjectival suffix.

With vriddhi in first part: Θαγγαρχι-, (etymology uncertain); perhaps in Adu-kanaśa- (etymology uncertain), Anāma-ka-.

With vriddhi in both parts: Bāga-vādi.

With vriddhi in second part: Āgiyād-ιήα, Θυρα- vāharā.

Perhaps with vriddhi in prefix: Vi-yax-na- (radical element uncertain).

Without vriddhi in either part: Garma-pada-, and the restored Varka-zana- (but see Lex. s.v.). For further details, see Lex. s.v.v. and §161.

§166. NAMES OF PLACES ARE LESS LIKELY TO BE OF PERSPICUOUS ETYMOLOGY EVEN THAN NAMES OF PERSONS, SINCE NAMES OF PLACES OFTEN PERSIST EVEN WHEN THERE HAS BEEN A CHANGE OF POPULATION AND AN ATTENDANT CHANGE OF LANGUAGE. The OP place-names include the following types: dāhyauś ‘administrative province’ and also ‘district’ of a province; ‘city’, generic word not given in OP; vārnanam ‘town’; āvahanam ‘village’; didā ‘fortress’; kaufa ‘mountain’; raulya ‘river’. At the first introduction of less-known place names the generic word is regularly given; but it is given with names of provinces only when there is a list of all or several, and is omitted with some larger districts (Karmanā, Varkāna), with cities (Pārsā, if = Persepolis; Pāsiyōwadā ‘Pasargad’; Hāgmatāna ‘Ecbatana’; Arbairā ‘Arbel’; Bāhirūs ‘Babylon’), and with well-known rivers (Ufrātēs ‘Euphrates’; Tigrā ‘Tigris’). The place names may be geographically, and to a certain extent linguistically, grouped together as follows: I. Indo-Iranian provinces: Pārsā ‘Persis, Persia’: including districts Karmanā, Yavutīya; cities Pāsiyōwadā, perhaps Pārsā; towns Uvadacaya, K urgency, Tūrawā, Rāzā; mountains Arakādrīs, Paragā. Miśa ‘Media’: including districts Asargarta (given as administrative province in DPe 15), Kapada, Nisāya, Raγa; city Ḥagmatāna; towns Kudurūs, Māru; fortress, Sīkayawatiś. Paurā ‘Parthia’: including district Varkāna ‘Hyrcania’ and towns Patigrabanā, Viśpawatiś. Harawatiś ‘Arachosia’: including district Gattava; fortresses Aṟūdā, Kāpīsakāniś.

1 Cf. the names of the states of the United States of America; about half of them are derived from aboriginal American languages, and the rest come directly or ultimately from English, German, Celtic, French, Spanish, Latin, Greek, Hebrew, and Indo-Iranian. For the OP place-names which can with certainty or with some probability be interpreted etymologically, see Lex. s.v.v. 2 This section attempts only to list and classify the nouns and ethnic adjectives used as geographical terms in the OP texts; a complete list of the provinces of the Persian Empire, as given in the OP texts, will be found in JNES 2,302-6, with discussion of the variations. The classification of Yadd DB 3,26, apparently the OP name for
Bāxtīrīš ‘Bactria’: including district Marguš ‘Margiana’.
Ālauatīyā ‘Men of Akaukata’; Unūrakmīt and -mīš ‘Chorasmia’; Gadārā ‘Gandaritis’; Thalagūš ‘Satagydia’; Dahā ‘the Daee’; Maka or ethnic Macīyā; Saka or fem. Sakā ‘Scythia’ or Sakā ‘the Scythians’; Sug(u)da ‘Sogdiana’; Harāiva ‘Aria’; Hidūs ‘Sind’.
II. Elam:
Ū(v)ja ‘Elam’, including city Čūsā, village Aqirāduš.
III. Semitic provinces:
Bābirūš ‘Babylonia’: including district Dubāla; city Bābirūš ‘Babylon’; town Zūzāna; rivers Ufrātūš, Tigrā.
Ašurā ‘Assyria and Syria’: including district Izalā; city Arbāirá; mountain Labanānā.
Arabīyā ‘Arabia’.
IV. Armenia:
Arminia or Arminiya ‘Armenia’: including district Autiyāra; village Zūzahyā; fortresses Uyamā, Tigrā.
V. Provinces of Asia Minor and Southeastern Europe:
Katpatūka ‘Cappadocia’; Karkā ‘the Carians’; Yaua ‘Ionia’ or Yaua ‘the Ionians’; Šparda ‘Sardis, Lydia’; Skudra ‘Thrace and Macedonia’.
VI. Provinces of Africa:
Mudrāyā ‘Egypt’ or Mudrāyā ‘the Egyptians’, including river Pirwā ‘Nile’.

Kūśa ‘Ethiopia’ or Kūśiyā ‘the Ethiopians’. Pūlayā ‘the Libyans’.

§167. Province Names and Ethnicities. In certain instances the province name is merely the masculine ethnic, with ellipsis of a masculine noun for ‘country’; once it is the feminine ethnic. But more frequently the ethnic is formed from the province name by the -ya- suffix; and the plural of the ethnic thus formed, as well as that of other ethnicities, may be used as province name. Once the -ya- ethnic in the singular is used for the province as alternative to the suffixless form. In the accompanying table, the occurrence of the province name and the ethnic in identical form is indicated in the second column by x, and ethnicities which in the singular are extant in full only in the late text A²P are indicated by a following *.

To these names may be added those of three large districts which were not governmental provinces: Karmāna, Varkāna, Marguš with ethnic Mārgava; ethnic Pātišwariš, to an unknown place-name; Hazāmanisīya, patronymic family-name to Hazāmanis; Magūš, denoting a member of the priestly clan of Media.

Of the province names used as ethnicities, Bābirūš and Ūvja as ethnicities are certainly errors. Of the ethnicities in A²P, Kūśiyā is probably miswritten for Kūśa; Gadārāya for Gadārīya; Thalagūya for Thalagwīya, or misread for Thalagudaya, a miswriting for Thalagudiya; Hīdūya for Hīdwiya.

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### CHAPTER V. DECLENSION OF NOUNS, ADJECTIVES, PRONOUNS

§168. Declension in OP. The OP noun, along with the pronoun and the adjective, shows approximately the expected assortment of forms. There are nouns and adjectives with stems ending in -a-, -i-, -u-, -ah-, -ah-i-, -ar-, -an-, -man-, -van-, -vin- -vant, -l- -d- -θ- -s-. Some categories are but scantily represented, and in the discussion of each class all extant forms are listed, except where the examples are numerous.

All the cases found in Sanskrit and Avestan are found in OP, except the dative, which has been lost, its functions being assumed by the genitive form. The ablative has no distinctive form, but has been merged in the instrumental and the locative either by phonetic development or by analogy; except for one form, Bābiruš, which is identical with the genitive, as in Sanskrit. Similarly the accusative plural has become identical with the nominative, either by phonetic process or by analogy, except in the enclitic pronouns which have no nominative form.

Both singular and plural numbers are represented in OP, and there are a few dual forms.

§169. The Case-Endings of -o-Stems in PIE: these are added to the stem-vowel, which is either e or o, and when vowel is added to vowel a contraction results, giving either a long vowel or a diphthong.

I. The endings of the singular: Nom. -s and acc. -m are added to stem-vowel -o-, giving -os -om; and the voc. is the bare stem in -e: Lt. *lupum* *lupe*; Gk. *λύκος* *λύκως* *λύκος* ‘wolf’. The neuter has -m as ending for the nom. as well as for the acc.

Gen. ending -sio is found in Aryan and in Greek, added to stem-vowel -o-: *irosio, Skt. tāṣya, Gk. (Hom.) ῥῶς, (classical) ῥῶ; and with added -s in a few Latin words: *eius, Skt. asyā; caeus, Skt. kāṣya, from *q̣osjō. This ending was original in pronouns only, and spread from pronouns to certain classes of nouns in some languages.

The inst. ended in -ė and -ē, evidently by contraction of the stem-vowel -e- and -o- with another vowel whose quality cannot be determined. The abl. had -ėd and -ēd, a similar contraction with an unidentifiable vowel plus a dental consonant, which may have been either t or d; sandhi processes make it impossible to determine its original nature. The loc. ended in -i, added to either stem-vowel: cf. Gk. *ὁίος* and *ὁίκαι* ‘at home’.

II. The forms of the plural number: Nom. pl. ending -es, added to stem vowel -o-, gave -os, which remained in Aryan, Germanic (Gothic *wulþōs* ‘wolves’), Oscan-Umbrian (but was replaced by -i, with pronominal plural-sgn -i, in Greek, Latin, Balto-Slavic). Acc. pl. ending -ns, added to -o-, gave -ons. Nom. -acc. nt. pl. in -a was properly a fem. nom. sg. in -ā, with collective meaning. Gen. pl. ending -ōm, contracted with the