

“The hymns identify themselves by the composers.”

True, each hymn has an assigned author (or composer). However, if you examine the authors names, you realise the celestial phenomenon itself is assigned as author's name.

R̥gveda has 10 books (Book 1 through book 10) as you know. None of the 10 books has author's name attached to it. We do not know who compiled the books.

For example, the author of the RV v.60.6 (R̥gveda book 5, hymn 60, stanza 6) is Śyāvāśva (श्यावाश्वः), a descendant of Atri (अत्रिः a devourer). Atri, the devourer, is the Stone, the celestial ioniser. It is really not a person's name. It is addressed to the Maruts (मरुतः pl.) and Maruts-Agni (मरुतोवाग्निश्च). The addressee's name is also the celestial phenomenon (or phenomena).

Maruts (pl.) are the one of the names assigned to plasma blooms grow and mature in the Soma Pond. For the convenience of the reader, I have added grammatical analyses.

RV v.60.6 author श्यावाश्व आत्रेयः, to मरुतो मरुतोवाग्निश्च, metre त्रिष्टुप् छंदः

यदुत्तमे मरुतो मध्यमे वा यद्वावमे सुभगासो दिवि षु ।

अतो नो रुद्रा उत वा न्वशंस्याग्ने वित्ताद्धविषो यद्यजाम ॥५.६०.६॥

यत् । उत्तमे । मरुतः । मध्यमे । वा । यत् । वा । अवमे । सुभगासः । दिवि । स्थ ।

अतः । नः । रुद्राः । उत । वा । नु । अस्य । अग्ने । वित्तात् । हविषः । यत् । यजाम ॥५.६०.६॥

Whether, O blessed Maruts, ye be dwelling in the Upper Heaven, in the Midheaven, or in the Lower Heaven, Thence, O Rudras, O Agni, know that we shall offer this oblation of ours.

(RV v.60.6)

यत् <(यद्) adverb conjunction – (with ind. particle वा) whether - or>, उत्तमे <m. loc. sg. of उत्तम – in the Upper Heaven>, मरुतः <m. voc. pl. of मरुत् – O Maruts>, सुभगासः <m. voc. pl. of adj. सुभग – blessed>, मध्यमे <m. loc. sg. of मध्यम – in the Midheaven>, वा <ind. – or>, यत् वा <whether – or>, अवमे <m. loc. sg. of अवम – in the Lower Heaven>, दिवि <m. loc. sg. of दिव् – in the Heaven>, स्थ <pre. 2nd person pl. of √अस् – ye dwell, exist>;

अतः <ind. – from this, thence>, रुद्राः <m. voc. pl. of रुद्र – O Rudras (sons of Rudras, i.e. the Maruts)>, उत वा <ind. – and also>, अग्ने <m. voc. sg. of अग्नि – O Agni>, नु <ind. – indeed, surely>, नः <m. gen. pl. of अस्मद् – our>, अस्य <m. gen. sg. of pron. इदं – of this>, हविषः <n. gen. sg. of हविस् – of oblation>, वित्तात् <ipv. 2nd person pl. of √विद् – ye know, understand>, यत् <(यद्) adverb conjunction – that>, यजाम <ipv. 1st person pl. of √यज् – we shall offer>.

Another example:

RV i.164.35 author दीर्घतमा औचथ्यः, to विश्वे देवाः, metre त्रिष्टुप् छंदः

इयं वेदिः परो अंतः पृथिव्या अयं यज्ञो भुवनस्य नाभिः ।

अयं सोमो वृष्णो अश्वस्य रेतो ब्रह्माय वाचः परमं व्योम ॥१.१६४.३५॥

इयं । वेदिः । परः । अंतः । पृथिव्याः । अयं । यज्ञः । भुवनस्य । नाभिः ।

अयं । सोमः । वृष्णः । अश्वस्य । रेतः । ब्रह्मा । अयं । वाचः । परमं । व्योम ॥१.१६४.३५॥

This Yajña is the origin of the World, this Altar of cosmic Yajña is beyond the limits of the Milky Way. This Soma, the seminal stream of the mighty stallion. The Speeches and the supreme Vault of the Heaven are Brahṁā. (RV i.164.35)

इयं <f. nom. sg. of pron. इदं – this>, वेदिः <f. nom. sg. of वेदि – a sacrificial altar, i.e. the altar of cosmic Yajña>, परः <m. nom. sg. of adj. पर – far, remote, ulterior>, अंतः <m. nom. sg. of अंत – an inner part, inside, settlement, limit, boundary>, पृथिव्याः <f. gen. sg. of पृथिवी – of Pṛthivī, i.e. of the Milky Way>, अयं <m. nom. sg. of pron. इदं – this>, यज्ञः <m. nom. sg. of यज्ञ – the cosmic Yajña>, भुवनस्य <n. gen. sg. of भुवन – of the World, i.e. the manifested World, the galaxy>, नाभिः <f. nom. sg. of नाभि – navel, centre, origin>;

अयं <m. nom. sg. of pron. इदं – this>, सोमः <m. nom. sg. of सोम – Soma (here, it refers to a draught of electrons)>, वृष्णः <m. gen. sg. of adj. वृष्ण – strong, mighty>, अश्वस्य <m. gen. sg. of अश्व – of a courser, stallion>, रेतः <n. nom. sg. of रेतस् – a stream, current of rain or water, a seminal stream, i.e. a stream of cosmic plasmas>, ब्रह्मा <m. nom. sg. of ब्रह्मन् – Brahṁā, the Creator>, अयं <m. nom. sg. of pron. इदं – this>, वाचः <f. nom. pl. of वाच् – speeches, sounds>, परमं <n. nom. sg. of adj. परम – highest, supreme>, व्योम <n. nom. sg. of व्योम् – the Vault of the Heaven>.

The author of stanza RV i.164.35 is Ṛṣi Dīrghatamā Aucathya (दीर्घतमा औचथ्यः), the descendant of Ucathya (उचथ्यः) who is one of the descendants of the Aṅgirās (अङ्गिरसः āṅgirasah m. nom. pl. of अङ्गिरस्). The Aṅgirās are angels or messengers (compare to Gk. ἄγγελος ángaros, ἄγγελος ángelos as noted by Monier-Williams); they are celestial lights and fires, the messengers of the Heaven (see Figure 7). The celestial lights and fires are also named the bright arrows, spears, thunderbolt of Indra, Soma plants, golden fleece, and so on. The Aṅgirās are Indra's weapons, the warring angels, who slay Vṛtra, the serpent of the Heaven, in cosmic battles to release the celestial lights and fires that are contained in the Soma Pond.

The term Vyoma (व्योम) used in stanza RV i.164.35 is another name for Nāka (नाकः), the Heavenly Vault. While Nāka implies the shape of the Heaven is a dome or vault, the term Vyoma indicates the functional aspect of the Heaven as an impeller of cosmic Yajña. Vyoman (व्योमन्), the root form of Vyoma, is derived from 'vi-√av (वि-√अव्)' or 'vi-√ve (वि-√वे)'. The vi (वि) is a prefix. The verb √av (√अव्) means "to drive, impel, animate (as a car or horse)". The verb √ve (√वे) means "to weave, interweave, braid". Vyoma is the Heavenly Vault that impels the celestial Yajña and weaves the nebulous fabric of the Milky Way. Note, in this book, the word 'celestial' is used interchangeably with 'cosmic'.

According to RV i.164.35, the Supreme Heavenly Vault (परमं व्योम paramam Vyoma) and the Speeches (वाचः vācaḥ) of cosmic plasmas are Brahmā (ब्रह्मा), the Creator. Speeches, or sounds, or hymns, are the oscillations generated by cosmic plasmas across a broad frequency band of the electromagnetic spectrum. And these Speeches, or sacred hymns, or oscillations, according to the Ṛgveda, play a critical role in cosmic creation and the sustenance of physical reality.

What would give the impression that any of its contents are much older than about 1,800 B. C. E.?

I personally do not use BCE and CE to designate the calendar eras. I prefer the terms 'anno domini' (AD) and 'before Christ' (BC), but not for religion's sake.

"Since no chronological data of the ancient Vedic literature exist, establishing the date of the Veda is difficult. As stated in Winternitz (1927), the estimated age of the Ṛgveda varies from about 1000–3000BC and even up to 6000BC.¹ Müller (1919) argues that it may be brave to postulate the date of the Vedic hymns around 2000BC or even 5000BC as a minimum.² These estimates are mostly based on the supposed migration of Āryans into India and the astronomical information revealed in the Ṛgveda. For detailed discussions on the basis of different estimates of the age of the Ṛgveda, refer to Müller (1919) and Winternitz (1927). Note, however, the Ṛgveda is not about the astronomy nor history and social customs of Āryan as earlier Vedic scholars assumed it to be. In the Ṛgveda, Ārya (आर्यः), which is translated as 'Āryan' by Griffith and others, is the positive charge of the double layer of a cosmic plasma sheath, not the race which immigrated from central Asia into Northern and Central India. The negative charge of the double layer is called Dāsa (दासः)."

"It will be equally, if not more, difficult to establish when the Veda was first revealed to men and for how long it had been orally transmitted before its obliteration in the last Dvāpara Yugaṁ. The reader, who is interested in knowing the history of the human race and what the real age of knowledge revealed in the

¹ ibid., pp. 293, 296.

² F. Max Müller, *The Six Systems of Indian Philosophy*, new impression, London, Longmans, Green and Co., 1919, p. 34.

R̥gveda could be, is encouraged to read *Forbidden Archeology: the Hidden History of the Human Race* by Cremo and Thompson (1993)."

"... supermassive black hole at the core"

I personally do not buy into the mainstream physics and astrophysics. Neither do the books of R̥gveda. According to the R̥gveda, it is the Stone, the celestial ionizer that produce cosmic plasmas (celestial Lights) and pours out that Lights, not the black hole.

"Celestial objects and cosmic plasma phenomena observed by NASA space probes and space telescopes correspond well to what the R̥gveda reveals. On the other hand, these observed celestial objects and cosmic plasma phenomena are incompatible and inconsistent with the big bang theory. According to the big bang theory, the whole universe is created out of nothing at the moment of the initial singularity, the big bang, and the universe itself is continuously expanding and cooling to the present day. The big bang theory is based on exotic mathematical artefacts, such as 'singularity', 'black hole', 'dark matter', 'dark energy', 'anti-matter', and so on instead of observed facts and reality. The big bang theory does not provide answers about what the conditions were before the big bang. Also not explained is how the initial singularity could arise, which must be a prerequisite for the event of the big bang."

"In the Vedic model of cosmic creation, neither the concept of 'singularity' nor the concept of 'black hole' is required. Neither 'dark energy' nor 'dark matter' is necessary. The Vedic model, presented in the R̥gveda and backed by modern scientific observations made by NASA, is persuasive and elegant; and it just makes sense."

"I strongly disbelieve that any *Brahmanical commentaries* have any *actual knowledge* of the contents of the hymns, certainly not completely."

I completely agree with you.

"*Agni Vaisvanara*"

I do not study other classes of Sanskrit literature, especially Puranic literature. They are prone to modification and highly personified and symbolised (different symbolism than R̥gveda) with very few exceptions. Only R̥gveda has unadulterated texts. That's why I study it and translate it.

"R̥gveda has numerous references to "Heaven and Earth", primarily *Dyāvapṛthivī* and *Rodasī*."

In R̥gveda, Dyāvāpṛthivī and Rodasī is differently used.

Dyāvāpṛthivī (द्यावापृथिवी) is a combination of two words द्यावा (the two Heavens) + पृथिवी (Milky Way). So its meaning is 'the Two Heavens and the Milky Way', not 'Heaven and Earth' as it is popularly believed.

Monier-Williams Sanskrit Dictionary provides the following definitions,

Dyāvā (द्यावा) is the dual form of Div (दिव्) so it is the Two Heavens:

"दिव्, द्यु (nom. द्यौस्; voc. द्यौस् [RV. vi, 51, 5; AV. vi, 4, 3]; acc. द्याम्, दिवस्; instr. दिवा or दीवा [see below]; dat. दिवे [द्यवे, MBh. i, 3934]; abl. gen. दिवस् [rarely द्योस्, e.g. RV. iv, 27, 3; i, 115, 5]; loc. दिवि, द्यवि; du. द्यावा s.v. [द्यवी as voc. only, iv, 56, 5]; pl. nom. द्यावस् [दिवस् only, ix, 118, 11]; acc. द्यून् [rare, दिवस्, दिवस्, e.g. i, 194, 2; iv, 3, 8]; instr. द्युभिस्; native grammarians give as stems दिव् and द्यो; the latter is declined through all cases

like गो, but really does not occur except in forms mentioned above and in द्यो-सलिल, MBh. viii, 4658, while दिव् and द्यु regularly alternate before vow. and cons.) m. (rarely f.) in Ved., f. in later Skr. heaven, the sky (regarded in Ved. as rising in three tiers [अवम, मध्यम, उत्तम or तृतीय, RV. v, 60, 6 &c.], and generally as the father (द्यौष् पिता, while the earth is the mother [cf. द्यावा-पृथिवी], and Uṣas the daughter), rarely as a goddess, daughter of Prajā-pati, AitBr. iii, 33; ŚBr. i, 7, 4, 1)”

Pr̥thivī (पृथिवी):

“पृथिवी f. (= पृथ्वी f. of पृथु) the earth or **wide world** (**‘the broad and extended One’**, personified as देवी and often invoked together with the sky [cf. 3. दिव् and द्यावा-पृथिवी, RTL. 182]; according to VP. daughter of पृथु; the Veda makes 3 earths, one called भूमि, inhabited by men, and 2 under it; there is also an earth between the world of men and the circumambient ocean [ŚBr.] and one extending through the 3 worlds [Naigh.]), RV. &c”

Rodasī (रोदसी):

रोदसी is the dual form of the neuter or feminine word रोदस्.

Yes the Monier-Williams define as the heaven and earth. However if you actually read the related hymns, it is clear that it means the Stone and the Soma Pond, not “Heaven and Earth”.

“रोदस् n. du. (prob. connected with रुद्र; cf. रोदसी) heaven and earth (only ibc. and in gen. रोदसोः, RV. ix, 22, 5)

“f. (du., once sg.) heaven and earth, RV. &c.”

Examples of related Hymns:

In the Rgveda, Agni is proton and Soma is electron. Stanza RV iii.20.2 emphasises that there are three forms or fires of Agni, which are termed three isotopes of hydrogen in modern physics. Agni’s three forms are described as three coursers, three abodes, or three ancient tongues of flame. Agni is born of the fire sacrifice, that is, through ionisation. The author is Gāthī (गाथी), the ‘singer’. Kauśika (कौशिकः) is the patronymic of Gāthī, so he is a descendant of Kuśika, the ploughshare. All the Devas are singers, but the most prominent singer is the Stone who drives the cutting blade to plough the field (Soma Pond) to grow plasma blooms, or Soma plants (refer to section 2.7.11).

RV iii.20.2 author गाथी, to अग्निः, metre त्रिष्टुप् छंदः

अग्ने त्री ते वाजिना त्री षधस्था तिस्रस्ते जिह्वा ऋतजात पूर्वीः ।

तिस्र उ ते तन्वो देववातास्ताभिर्नः पाहि गिरो अप्रयुच्छन् ॥३.२०.२॥

अग्ने । त्री । ते । वाजिना । त्री । सधस्था । तिस्रः । ते । जिह्वाः । ऋतुजात । पूर्वीः ।

तिस्रः । ऊं इति । ते । तन्वः । देववाताः । ताभिः । नः । पाहि । गिरः । अप्रयुच्छन् ॥३.२०.२॥

O Agni, born of sacrifice, three are thy coursers, three are thine abodes, three are thine ancient tongues of flame. Three are thy manifestations, desired by the Devas. With these three forms, attend thou to our invocations, O thou heedful. (RV iii.20.2)

अग्ने <m. voc. sg. of अग्नि – O Agni>, त्री <(=त्रीणि) n. nom. pl. of त्रि – three>, ते <m. gen. sg. of 2nd person pron. युष्मद् – your>, वाजिना <(=वाजिनानि) n. nom. pl. of वाजिन (=वाजिन) – the steeds of a war-chariot, horses>, त्री <त्रीणि n. nom. pl. of त्रि – three>, सधस्था <(=सधस्थानि) n. nom. pl. of सधस्थ – abodes, homes>, तिस्रः <f. nom. pl. of त्रि – three>, ते <m. gen. sg. of 2nd person pron. युष्मद् – your>, जिह्वाः <f. nom. pl. of जिह्वा – tongues of Agni’s flame>, ऋतजात <m. voc. sg. of adj. ऋतजात – O born of sacrifice>, पूर्वीः <(=पूर्वाः) f. nom. pl. of adj. पूर्व – ancient, old>;

तिस्रः <f. nom. pl. of त्रि – three>, उ <ind. – and, also, further>, ते <m. gen. sg. of 2nd person pron. युष्मद् – your>, तन्वः <f. nom. pl. of तन् – bodies, forms, manifestations>, देववाताः <f. nom. pl. of adj. देववात – wished for, desired by the Devas>, ताभिः <f. inst. pl. of 3rd person pron. तद् – with these

(i.e. with these three forms)>, नः <m. gen. pl. of 1st person pron. अस्मद् – our>, पाहि <ipv. 2nd person sg. of √पा 2P – you observe, attend to>, गिरः <f. acc. pl. of गिर – Speeches, invocations, praises>, अप्रयुच्छन् <m. voc. sg. of अप्रयुच्छत् – O thou attentive, heedful, mindful>.

In stanza RV v.18.1, Agni is called Atithi (अतिथिः), which has been translated as a ‘guest’ by Vedic students. However, note that, in the R̥gveda, Agni is the lord of the house, never a guest. The word atithi (अतिथि) must have been derived from ‘ati’ (अति ind. beyond, surpassing) or ‘at’ (अत् ind. extraordinary). Agni is the beloved lord of the house. The deceased men (मर्तः pl.) refer to the men reborn as cosmic plasmas after death, that is, the destruction of atomic structures through the ionisation process.

RV v.18.1 author द्वितो मृक्त्वाहा आत्रेयः, to अग्निः, metre अनुष्टुप् छंदः

प्रातरग्निः पुरुषप्रियो विशः स्तवेतातिथिः । विश्वानि यो अमर्त्यो हव्या मर्तेषु रण्यति ॥५.१८.१॥

प्रातः । अग्निः । पुरुषप्रियः । विशः । स्तवेतु । अतिथिः ।

विश्वानि । यः । अमर्त्यः । हव्या । मर्तेषु । रण्यति ॥५.१८.१॥

At dawn, may Agni, the beloved lord of the house, be celebrated in hymns,
He, the immortal among the deceased men, who delights in all oblations. (RV v.18.1)

प्रातः <(प्रातर) ind. – at daybreak, at dawn>, अग्निः <m. nom. sg. of अग्नि – Agni>, पुरुषप्रियः <m. nom. sg. of adj. पुरुषप्रिय – much beloved, liked, wanted>, विशः <f. gen. sg. of विश् – of the house, dwelling, settlement, i.e. of each plasma bloom or the Soma Pond>, स्तवेत <opt. middle 3rd person sg. of √स्तु – may he be praised, celebrated in song or hymns>, अतिथिः <m. nom. sg. of अतिथि (derived from अति beyond, surpassing or from अत् ind. extraordinary) – the extraordinary, the lord (Traditionally it has been translated as a ‘guest’). However, note that, in the R̥gveda, Agni is the lord of the house, never a guest.>.

विश्वानि <n. acc. pl. of adj. विश्व – all>, यः <m. nom. sg. of pron. यद् – he who>, अमर्त्यः <m. nom. sg. of अमर्त्य – the immortal, imperishable, divine>, हव्या <n. acc. pl. of हव्य – oblations, sacrificial foods>, मर्तेषु <m. loc. pl. of मर्त (from √मृ to die, de cease) – amongst deceased men, among mortals (refers to the men reborn as cosmic plasmas after death, i.e. the destruction of the atomic structures of hydrogen)>, रण्यति <pre. 3rd person sg. of √रण् – he rejoices, delights, take pleasure in (loc.)>.

Soma is one of the two charged embryonic particles of celestial Waters, that is, cosmic plasmas. Soma encloses and restrains Agnis in the nucleus, forming the shell of the atomic structure. This act of enclosing Agnis in the nucleus is described as an important task of Soma (RV ix.97.41). Soma is called water buffalo, Pavamāna, and Indu, a bright drop (RV ix.97.41). Soma is a bull, falcon, and a spark of light (RV ix.96.19). Soma is the lord of the mind (RV ix.28.1) and the lord of Speech (RV ix.26.4).

Stanza RV ix.97.41 is addressed to Pavamāna Soma (पवमानः सोमः) and the author is Parāśara (पराशरः), ‘the crusher or destroyer’.

RV ix.97.41 author पराशरः, to पवमानः सोमः, metre त्रिष्टुप् छंदः

महत्तत्सोमो महिषश्चकारापां यद्वर्धोऽवृणीत देवान् ।

अदधादिंद्रे पवमान् ओजोऽजनयत्सूर्ये ज्योतिरिंदुः ॥६.६७.४१॥

महत् । तत् । सोमः । महिषः । चकार । अपां । यत् । वर्धः । अवृणीत । देवान् ।

अददात् । इंद्रे । पवमानः । ओजः । अजनयत् । सूर्ये । ज्योतिः । इंदुः ॥६.६७.४१॥

Soma, the water buffalo, an embryonic particle of celestial Waters, performed an important task when he enclosed the Devas. Pavamāna granted power upon Indra, and Indu brought fire to Sūrya. (RV ix.97.41)

महत् <n. acc. sg. of महत् – a great thing, important matter>, तत् <n. acc. sg. of pron. तद् – that>, सोमः <m. nom. sg. of सोम – Soma>, महिषः <m. nom. sg. of महिष – water buffalo>, चकार <prf. 3rd person sg. of √कृ – he made, performed>, अपां <f. gen. pl. of अप् – of celestial Waters>, यत् <(यद्) adverb conjunction – that, when>, वर्धः <m. nom. sg. of वर्ध – an embryonic particle>, अवृणीत <ipf. middle 3rd person sg. of √वृ – he (Soma) veiled, surrounded, restrained>, देवान् <m. acc. pl. of देव – the Devas (here, the Devas refer to Agnis in the nucleus)>.

अददात् <ipf. 3rd person sg. of √दा – he (Pavamāna) granted, imparted, offered to (loc.)>, इंद्रे <m. loc. sg. of इन्द्र – on/upon Indra>, पवमानः <m. nom. sg. of पवमान – Pavamāna, the name of Soma (it literally means ‘being purified or flowing clear’)>, ओजः <n. acc. sg. of ओजस् – strength, power>, अजनयत् <ipf. cau. 3rd person sg. of √जन् – he (Indu) generated, caused>, सूर्ये <m. loc. sg. of सूर्य – in/unto Sūrya>, ज्योतिः <n. acc. sg. of ज्योतिस् – light, fire>, इंदुः <m. nom. sg. of इंदु – Indu, a bright drop of Soma>.

Pr̥thivī is one of the most misunderstood celestial objects of the Ṛgveda. Translated as ‘earth’, it has been known to be the planet earth by Vedic pundits and scholars. When read in the context of the Ṛgveda, Pr̥thivī, which literally means “the broad and extended One”, is revealed to be the Milky Way. According to the Ṛgveda, the Milky Way has four major Arms (RV i.164.42). The four major Arms of the Milky Way are called the four pointed-out regions (प्रदिशः चतस्रः RV i.164.42). The Arms of the Milky Way are also called mountain ranges (पर्वताः pl. RV v.84.1), downward sloping mountain range (प्रवत्त्वान् m. RV v.84.1), six divine expanses (देवीः षट् उर्वीः RV x.128.5), and so on.

In the Sūryasiddhānta and the Siddhāntaśiromaṇi, and in the Purāṇic literature, the spiral Arms of the Milky Way are called Dvīpas (द्वीपाः pl. peninsulas) or Varṣas (वर्षाः pl. divisions). Dvīpas are the peninsulas that project out from Mt. Meru (मेरुः), the Galactic Bar, at the centre of the Milky Way, and wrap around Mt. Meru. The Dvīpas are “separated from each other by the concentric circumambient oceans”.³

RV i.164.41 author दीर्घतमा औचथ्यः, to विश्वे देवाः, metre जगती छंदः

गौरीर्मिमाय सलिलानि तक्षत्येकपदी द्विपदी सा चतुष्पदी ।

अष्टापदी नवपदी बभूवुषी सहस्राक्षरा परमे व्योमन् ॥१.१६४.४१॥

गौरीः । मिमाय । सलिलानि । तक्षति । एकपदी । द्विपदी । सा । चतुष्पदी ।

अष्टापदी । नवपदी । बभूवुषी । सहस्रञ्जक्षरा । परमे । विज्योमन् ॥१.१६४.४१॥

She hurls the celestial lights and fashions the waves of celestial Water. One-footed, two-footed, four-footed, She has become eight-footed, nine-footed, then thousand-syllabled at its peak, O Vyomā. (RV i.164.41)

गौरीः <f. acc. pl. of गौरी – bisons, water buffaloes (refer to celestial lights, cosmic plasmas)>, मिमाय <prf. 3rd person sg. of √मि – she (mother milch Cow, the Stone) casts, throws>, सलिलानि <n. acc. pl. सलिलं – surges, waves (of celestial Water, cosmic plasmas)>, तक्षति <pre. 3rd person sg. of √तक्ष – she fashions by cutting, chiselling>, एकपदी <f. nom. sg. of adj. एकपद – having only one foot, one-footed>, द्विपदी <f. nom. sg. of adj. द्विपद – two-footed>, सा <f. nom. sg. of 3rd person pron. √तद् – she (mother milch Cow)>, चतुष्पदी <f. nom. sg. of adj. चतुष्पद – four-footed>;

अष्टापदी <f. nom. sg. of adj. अष्टापद – eight-footed>, नवपदी <f. nom. sg. of adj. नवपद – nine-footed>, बभूवुषी <f. nom. sg. of prf. active pt. of बभूवुषी (√वृ) – she has become>, सहस्राक्षरा <f. nom. sg. of adj. सहस्राक्षर – having a thousand syllables or Speeches>, परमे <n. loc. sg. of adj. परम – at the highest point, extreme limit, the highest degree>, व्योमन् <m. voc. sg. of व्योमन् – O Vyomā, O Vault of the Heaven>.

Stanza RV i.164.42 states that there are four major Arms (प्रदिशः चतस्रः) of the Milky Way. And by the flows of the imperishable Water, that is, cosmic plasmas, the Milky Way is sustained. The first line of the stanza is addressed to Vāk (वाक् Speech) and the second line, to the celestial Waters (आपः āpaḥ pl.), the cosmic plasmas.

RV i.164.42 author दीर्घतमा औचथ्यः, to वाक् (पूर्वार्धस्य) and आपः (उत्तरार्धस्य), metre प्रस्तारपंक्तिः छंदः

तस्याः समुद्रा अधि वि क्षरन्ति तेन जीवन्ति प्रदिशश्चतस्रः ।

ततः क्षरत्यक्षरं तद्विश्वमुप जीवति ॥१.१६४.४२॥

तस्याः । समुद्राः । अधि । वि । क्षरन्ति । तेन । जीवन्ति । प्रदिशः । चतस्रः ।

ततः । क्षरति । अक्षरं । तत् । विश्वं । उप । जीवति ॥१.१६४.४२॥

From her, the celestial oceans flow out, thereby the four Arms of the Milky Way remain alive. Thence, flows the imperishable Water, by which the whole World is sustained. (RV i.164.42)

तस्याः <f. abl. sg. of तद् – from her (the mother milch Cow, i.e. from the Stone)>, समुद्राः <m. nom. pl. of समुद्र – celestial oceans (here, the oceans in the plural refer to the individual plasma blooms)>, अधि <ind. preposition – from>, वि-क्षरन्ति <pre. 3rd person pl. of वि-√क्षर् – they flow away>, तेन <mn. inst. sg. of pron. तद् – by that, thereby>, जीवन्ति <(जीवन्ति) pre. 3rd person pl. of √जीव् – they live, remain alive>, प्रदिशः <f. nom. pl. of प्रदिश – the pointed-out regions, i.e. the Arms of the Milky Way>, चतस्रः <f. nom. pl. of चतुर् – four>;

³ See Monier Monier-Williams, *A Sanskrit-English Dictionary*, 1899, op. cit., p. 507, under द्वीप dvīpa; P. Gangooly (ed.), *Translation of the Sūrya-siddhānta*, 1935, op. cit., p. 287.

ततः <(ततस्) ind. – from that place, thence>, धरति <pre. 3rd person sg. of √धृ – it (the imperishable Water) flows>, अक्षरं <n. nom. sg. of अक्षर – imperishable Water, i.e. cosmic plasmas>, तत् <n. nom. sg. of pron. तद् – this>, विश्वं <n. nom. sg. of विश्व – the whole World, i.e. the Milky Way>, उप-जीवति <pre. 3rd person sg. of उप-√जीव – it lives, is supported by>.

Stanzas 37 and 38 of Bhuvanakośa (भुवनकोशः) of Siddhāntaśiromaṇi (सिद्धान्तशिरोमणिः) support the view of the Ṛgveda that there are four major spiral Arms. Stanza 37 states that the sacred Gaṅgā (गंगा), which has emerged from Viṣṇu's foot (विष्णुपदी), falls upon Mt. Meru, the Galactic Bar, and is divided into four branches. Stanza 38 explains that the four divided branches of Gaṅgā flow along the four Arms of the Milky Way. According to the Siddhāntaśiromaṇi, the four Arms of the Milky Way are Bhadrāśvavarṣa (भद्राश्ववर्षः), Bhāratavarṣa (भारतवर्षः), Ketumālāvarṣa (केतुमालावर्षः), and Uttarakuruvarṣa (उत्तरकुरुवर्षः: Upperkuruvarṣa). Bhadrāśvavarṣa is likely the innermost Arm and Uttarakuruvarṣa the outermost Arm of the Milky Way. See section 6.2.6 for the translated stanzas of 37 and 38 of Bhuvanakośa, Siddhāntaśiromaṇi. In the extant text of Bhūgolādhyaṃya (भूगोलाध्यायः) of Sūryasiddhānta (सूर्यसिद्धान्तः), we do not find the detailed information about the spiral Arms of the Milky Way.

RV ix.86.29 author पृथ्वीयोज्ञाः, to पवमानः सोमः, metre जगती छंदः

त्वं समुद्रो असि विश्ववित्कवे तवेमाः पंचं प्रदिशो विधर्मणि ।

त्वं द्यां च पृथिवीं चाति जग्निषे तव ज्योतीषि पवमान सूर्यः ॥९.८६.२९॥

त्वं । समुद्रः । असि । विश्ववित् । कवे । तव । इमाः । पंचं । प्रदिशः । विधर्मणि ।

त्वं । द्यां । च । पृथिवीं । च । अति । जग्निषे । तव । ज्योतीषि । पवमान । सूर्यः ॥९.८६.२९॥

Thou art the Ocean of celestial Waters, the knower of all, O Seer. Under thy laws are these five Arms of the Milky Way. Thou reachest beyond the Heaven and beyond the Milky Way. Thine are the lights, O Pavamāna, thine is Sūrya. (RV ix.86.29)

त्वं <m. nom. sg. of 2nd person pron. युष्मद् – you>, समुद्रः <m. nom. sg. of समुद्र – Samudra, the Ocean of celestial Waters>, असि <pre. 2nd person sg. of √अस् 2P – you are>, विश्ववित् <m. nom. sg. of विश्ववित् – the omniscient one, the knower of all>, कवे <m. voc. sg. of कवि – O seer, singer>, तव <m. gen. sg. of 2nd person pron. युष्मद् – your, yours>, इमाः <f. nom. pl. of pron. इदं – these>, पंच <mfn. nom. pl. of पञ्चन् – five>, प्रदिशः <f. nom. pl. of प्रदिश – the pointed-out regions, quarters of the "sky", i.e. Arms of the Milky Way>, विधर्मणि <n. loc. sg. of विधर्मन् – under the laws, rules>;

त्वं <m. nom. sg. of 2nd person pron. युष्मद् – you>, द्यां <m. acc. sg. of दिव् – the Heaven>, च <ind. – and, both, also>, पृथिवीं <f. acc. sg. of पृथिवी – Pṛthivī, the Milky Way>, च <ind. – and, both, also>, अति <ind. prefix to verb जग्निषे (√भृ)>, अति-जग्निषे <prf. 2nd person sg. of अति-√भृ 2P – you reach beyond>, तव <m. gen. sg. of 2nd person pron. युष्मद् – yours, thine>, ज्योतीषि <n. nom. pl. of ज्योतिस् – celestial lights, i.e. cosmic plasmas>, पवमान <m. voc. sg. of पवमान – O Pavamāna>, सूर्यः <m. nom. sg. of सूर्य – Sūrya>.

In RV x.128.5, the regions of the Milky Way are described as six divine Expanses (देवीः षट् उर्वीः). The poet's name is Vihavya Āṅgīrasa (विहव्यः आङ्गिरसः vihavyaḥ āṅgīrasaḥ), 'the invoked descendant of Āṅgīrā (अङ्गिराः)'. The stanza is addressed to the Viśve Devas. The Viśve Devas represent the different aspects of cosmic plasmas that are discharged into the Soma Pond and grow, bloom, and mature within it until they are released.

RV x.128.5 author विहव्यः, to विश्वे देवाः, metre त्रिष्टुप् छंदः

देवीः षळ्वीरुरु नः कृणोत विश्वे देवास इह वीरयध्वं ।

मा हास्महि प्रजया मा तनूभिर्मा रंधाम द्विषते सोम राजन् ॥१०.१२८.५॥

देवीः । षट् । उर्वीः । उरु । नः । कृणोत । विश्वे । देवासः । इह । वीरयध्वं ।

मा । हास्महि । प्रजया । मा । तनूभिः । मा । रंधाम । द्विषते । सोम । राजन् ॥१०.१२८.५॥

O Viśve Devas, for us, build ye the six divine expanses of the Milky Way and divide them far apart. Let us not leave behind our offspring. O King Soma, let us not succumb to our foe.

(RV x.128.5)

देवीः <f. acc. pl. of adj. देव – heavenly, divine>, षट् <f. acc. pl. of षष् – six>, उर्वीः <f. acc. pl. of उर्वी – (with षष्) six spaces or rivers of Pṛthivī (the Milky Way)>, उरु <ind. – far, widely, far off>, नः <m. dat. pl. of अस्मद् – for us>, कृणोत <ipv. 2nd person pl. of √कृ 5P – ye place, put, lay, prepare, build>.

विश्वे देवासः <m. voc. pl. of विश्वे देव – O ye Viśve Devas>, इह <ind. – here, now, at this time>, वीर्यध्वं <ipv. 2nd person pl. of √वीर् (वि-√ईर्) – ye split, divide asunder>;

मा <ind. a particle of prohibition – not>, हास्महि <sub. 1st person pl. of √हा – (with मा) let us not abandon, leave behind (inst.)>, प्रजया <f. inst. sg. of प्रजा – offspring, children, aftergrowth, i.e. newly born cosmic plasmas>, मा <ind. particle – not>, तनूभिः <f. inst. pl. of तनू – with/by selves, themselves (used as a reflexive pron.)>, मा <ind. particle – not>, रधाम <sub. 1st person pl. √रध् – (with मा) let us not succumb to (dat.)>, द्विषते <mn. dat. sg. of द्विषत् – to the foe, enemy>, सोम <m. voc. sg. of सोम – O Soma>, राजन् <m. voc. sg. of राजन् – O King>

According to stanza RV i.22.16, there are seven domains of the Milky Way. The poet's name is Medhātithi Kāṇva (मेधातिथिः काण्वः), 'the drink of Agni, descendant of Kaṇva (कण्वः)'. Kaṇva belongs to the family of the Aṅgīrās (अङ्गिरसः pl.), the angels, the messengers of celestial lights. Medhātithi (मेधः drink, juice + अतिथिः a name of Agni) is the 'drink of Agni', which is Soma. The stanza is addressed to Viṣṇu and other Devas.

RV i.22.16 author मेधातिथिः काण्वः, to विष्णुर्देवा वा, metre गयत्री छंदः

अतो देवा अवंतु नो यतो विष्णुर्विचक्रमे । पृथिव्याः सम धामभिः ॥१.२२.१६॥

अतः । देवाः । अवंतु । नः । यतः । विष्णुः । विचक्रमे । पृथिव्याः । सम । धामभिः ॥१.२२.१६॥

From here, whence Viṣṇu strides, let the Devas lead us

Through the seven domains of the Milky Way. (RV i.22.16)

अतः <(अतस्) ind. – from here, hence, henceforth>, देवाः <m. nom. pl. of देव – the Devas>, अवंतु <ipv. 3rd person pl. of √अव् – let (the Devas) drive, impel, lead>, नः <m. acc. pl. of 1st person pron. अस्मद् – us>, यतः <(यतस्) ind. – from where, wherefrom, whence>, विष्णुः <m. nom. sg. of विष्णु – Viṣṇu>, विचक्रमे <prf. middle 3rd. person sg. of वि-√क्रम् – he strides through, traverses>;

पृथिव्याः <f. gen. sg. of पृथिवी – of Pṛthivī, of the Milky Way>, सम <n. pl. of सप्त – seven>, धामभिः <n. inst. pl. of धामन् – through dwelling places, domains>.

According to RV i.35.8, Savitā illumines the Milky Way's eight regions, three bow-shaped paths, and seven rivers. The stanza indicates that there are eight regions, three bow-shaped paths, and seven rivers in the Milky Way. Savitā is the electric, impelling aspect of Tvaṣṭā. As can be seen on NASA's map, in the Milky Way, currently, two bow-shaped paths (Near 3kpc and Far 3kpc Arms) are identified and mapped. The 'aquatic' jewels (रत्ना वार्याणि) refer to the celestial Waters, the cosmic plasmas.

RV i.35.8 author हिरण्यस्तूप आंगिरसः, to सविता, metre त्रिष्टुप् छंदः

अष्टौ व्यंख्यत्कुकुम्भः पृथिव्यास्त्री धन्व योजना सम सिंधून् ।

हिरण्यक्षः सविता देव आगादधद्रत्ना दाशुषे वार्याणि ॥१.३५.८॥

अष्टौ । वि । व्यंख्यत् । कुकुम्भः । पृथिव्याः । त्री । धन्व । योजना । सम । सिंधून् ।

हिरण्यक्षः । सविता । देवः । आ । आगात् । दधत् । रत्ना । दाशुषे । वार्याणि ॥१.३५.८॥

The eight regions of the Milky Way, he illumined, the three bow-paths, and the seven rivers.

The Deva Savitā, the golden-eyed, came, bringing aquatic jewels to the worshipper.

(RV i.35.8)

अष्टौ <f. acc. pl. of अष्टन् – eight>, वि <ind. prefix to verb अख्यत् (√ख्या)>, वि-अख्यत् <ipf. or aor. 3rd person sg. of वि-√ख्या – he (Savitā) illumined>, कुकुम्भः <f. acc. pl. of कुकुम्भ – spaces, regions>, पृथिव्याः <f. gen. sg. of पृथिवी – of Pṛthivī, of the Milky Way>, त्री <(=त्रीणि) n. nom. acc. pl. of त्रि – three>, धन्व <n. acc. sg. of धन्वन् – a bow>, योजना <योजनानि n. acc. pl. of योजन – (with धन्व) bow-shaped paths, bow-paths>, सम <m. acc. pl. of सप्त – seven>, सिंधून् <m. acc. pl. of सिंधु – sindhus (pl.), celestial rivers>;

हिरण्यक्षः <m. nom. sg. of adj. हिरण्यक्ष – golden-eyed>, सविता <m. nom. sg. of सवितु – Savitā>, देवः <m. nom. sg. of देव – the Deva>, आ <ind. prefix to verb अगात् (√गा)>, आ-अगात् <aor. 3rd person sg. of आ-√गा – he (Savitā) came, arrived>, दधत् <sub. 3rd person sg. of √धा – he brings>, रत्ना <n. acc. pl. of रत्न – gemstones, jewels>, दाशुषे <m. dat. sg. of दाशु – for/to the worshipper, sacrificer>, वार्याणि <n. acc. pl. of adj. वार्य – watery, aquatic>.

We find only one short hymn with three stanzas, RV v.84.1-3, addressed to Pṛthivī, the Milky Way, in the extant text of the R̥gveda. The author is Bhauma Atri (भौमः अत्रिः), Bhauma means 'related to Bhūmi'. Atri is the devourer, the Stone. Bhūmi translates as "earth, soil, ground" or "territory". In the Heavenly Spheres,

the Milky Way is the ground or territory, on which life is created and nurtured. The Stone, the celestial ioniser, feeds the Milky Way with cosmic plasmas.

In stanza RV v.84.1, the mountain ranges that slope downwards refer to the Arms of the Milky Way.

RV v.84.1 author भौमः अत्रिः, to पृथिवी, metre अनुष्टुप् छंदः

बळित्था पर्वतानां खिद्रं बभर्षि पृथिवि । प्र या भूमिं प्रवत्वति मुह्ना जिहोषि महिनि ॥५.८४.१॥

बद् । इत्था । पर्वतानां । खिद्रं । बिभर्षि । पृथिवि ।

प्र । या । भूमिं । प्रवत्वति । मुह्ना । जिहोषि । महिनि ॥५.८४.१॥

Thou, O Milky Way, indeed bearest the weight of the mountain ranges.

O Mighty One, thou who with might procurest the territory along the downward sloping mountain range. (RV v.84.1)

बद् <ind. – in truth, certainly>, इत्था <ind. – thus, truly, really>, पर्वतानां <m. gen. pl. of पर्वत – of the mountain ranges, mountains, i.e. the Arms of the Milky Way>, खिद्रं <n. acc. sg. of खिद्र – (from √खिद् to press down) burden, weight>, बिभर्षि <pre. 2nd person sg. of √भृ – you bear, carry>, पृथिवि <f. voc. sg. of पृथिवी – O Pṛthivī, O Milky Way>;

प्र <ind. prefix to verb जिहोषि (√जि)>, या <f. nom. sg. of यद् – who>, भूमिं <f. acc. sg. of भूमि – soil, ground, territory>, प्रवत्वति <mn. loc. sg. of प्रवत्वत् – along the downwards sloping mountain range>, मुह्ना <n. inst. sg. of महन् – with might, power>, प्र-जिहोषि <pre. 2nd person sg. of प्र-√जि – you win, conquer, acquire>, महिनि <f. voc. sg. of महिन् (f. महिनी) – O Mighty One>.

In stanza RV v.84.2, both Wanderer and Arjunī refer to the Milky Way; the sacrificers, to the Devas who participate in the Soma Yajña to release cosmic plasmas to sustain the Milky Way.

RV v.84.2 author भौमः अत्रिः, to पृथिवी, metre अनुष्टुप् छंदः

स्तोमासस्त्वा विचारिणि प्रति शोभंत्यक्तुभिः । प्र या वाजं न हेषतं पेरुमस्यस्यजुनि ॥५.८४.२॥

स्तोमासः । त्वा । विचारिणि । प्रति । शोभन्ति । अक्तुभिः ।

प्र । या । वाजं । न । हेषतं । अस्यसि । अजुनि ॥५.८४.२॥

Upon thee, O Wanderer, the sacrificers utter the joyful hymn with celestial lights,

As thou, O Arjunī, hurlest forth the swift neighing steed. (RV v.84.2)

स्तोमासः <m. nom. pl. of स्तोम – sacrificers>, त्वा <f. acc. sg. of 2nd person pron. युष्मद् – you, thee>, विचारिणि <f. voc. sg. of विचारिन् – O Wanderer (refers to Pṛthivī, the Milky Way)>, प्रति <ind. – (as a preposition with proceeding acc.) upon, on>, शोभन्ति <pre. 3rd person. pl. of √स्तु – they hum, utter a joyful sound, make a succession of exclamations>, अक्तुभिः <m. inst. pl. of अक्तु – with rays, lights>;

प्र <ind. prefix to verb अस्यसि (√अस्)>, या <f. nom. sg. of pron. यद् – who, the person>, वाजं <m. acc. sg. of वाज – a swift horse>, न <ind. – like, as>, हेषतं <m. acc. sg. of pre. active pt. हेषत् (√हेष्) – it/he neighing>, प्र-अस्यसि <pre. 2nd person sg. of प्र-√अस् 4P – you throw, hurl forth, cast>, अजुनि <f. voc. sg. of अजुनी – O Arjunī (literally 'white' or 'of the milk', i.e. Pṛthivī, the Milky Way)>.

RV v.84.3 author भौमः अत्रिः, to पृथिवी, metre अनुष्टुप् छंदः

दृळ्हा चिद्वा वनस्पतीन्क्ष्मया दध्म्योर्जसा । यत्ते अभ्रस्यं विद्युतो दिवो वर्षति वृष्टयः ॥५.८४.३॥

दृळ्हा । चित् । या । वनस्पतीन् । क्ष्मया । दध्मि । ओर्जसा ।

यत् । ते । अभ्रस्यं । विद्युतः । दिवः । वर्षति । वृष्टयः ॥५.८४.३॥

She, who indeed is stupendous, with her might, holds the lords of the Forest on the ground,

When those rain-floods pour down from the flashing thunderbolt of the Heaven's water-bearer.

(RV v.84.3)

दृळ्हा <f. nom. sg. of adj. दृढ (दृळ्ह) – firm, strong, solid, massive>, चित् <(चिद्) ind. – even, indeed, also>, या <f. nom. sg. of यद् – she who (Pṛthivī, the Milky Way)>, वनस्पतीन् <m. acc. pl. of वनस्पति – the lords of the Forest (refer to the firestones of the Stone, the celestial ioniser)>, क्ष्मया <ind. – "on the earth", i.e. on the ground>, दध्मि <int. 3rd person sg. of √धृ – she holds, bears>, ओर्जसा <n. inst. sg. of ओजस् – with strength, power>;

यत् <(यद्) adverb conjunction – when>, ते <m. nom. pl. of pron. तद् – they, those (rains)>, अभ्रस्यं <m. gen. sg. of अभ्र – of the "water-bearer", here it refers to the Soma Pond>, विद्युतः <f. abl. sg. of विद्युत् – from the lightning, flashing thunderbolt>, दिवः <m. gen. sg. of दिव् – of the Heaven>, वर्षति <pre. 3rd person pl. of √वृष् – they pour down>, वृष्टयः <mf. nom. pl. of वृष्टि – rains, rain-floods, i.e. the floods of cosmic plasmas>.

In the stanza RV v.84.3, the lords of the Forest (वनस्पतयः m. nom. pl. of वनस्पति) refer to the firestones of the Stone, which are laid in a circular formation (see Figure 8). The Heaven's water-bearer is the Soma

Pond; the flashing thunderbolt refers to the plasma blooms filled full with the rain-floods. Here, the rain-floods refer to the cosmic plasmas that are released through the base of the Soma Pond flooding the Milky Way.

As shown in Figures 4 and 6, the twofold Heavenly Vault consists of the two bowl-shaped Heavens (द्यावा dyāvā du.), the Upper Vault of the Heaven and the Lower Vault of the Heaven, aligned vertically in the shape of the Ḍamaru (डमरुः), the sacred drum of Śiva. The Two Heavens are referred to as Dhiṣaṇe (धिषणे du. RV i.160.1), the Two Bowls. In stanza RV iv.56.5, Dyavī, the Two Heavens, are praised. Here, the Two Heavens are addressed in feminine vocative dual cases, Dyavī (द्यवी O two Heavens) and Śucī (शुची O Radiant Two).

RV iv.56.5 author वामदेवः, to द्यावापृथिव्यौ, metre गायत्री छंदः

प्र वां महि द्यवी अयुपस्तुतिं भरामहे । शुची उप प्रशस्तये ॥४.५६.५॥

प्र । वां । महि । द्यवी इति । अयि । उपस्तुतिं । भरामहे । शुची इति । उप । प्रशस्तये ॥४.५६.५॥

To both of you, O Great Heavens of Two, we offer our song of praise.

O Radiant Two! Glory upon you both. (RV iv.56.5)

प्र <ind. – forward, forth>, वां <m. dat. du. of 2nd person pron. युष्मद् – to both of you>, महि <ind. – great>, द्यवी <f. voc. du. of दिव् – O Heavens of Two>, अयि <ind. – towards, for>, उपस्तुतिं <f. acc. sg. of उपस्तुति – invocation, song of praise>, भरामहे <pre. 1st person pl. of √भृ – we bring, offer, lift up, raise>.

शुची <f. voc. du. of शुचि – O Radiant Two>, उप <ind. – upon>, प्रशस्तये <f. dat. sg. of प्रशस्ति – glory to>.

Dyavī (द्यवी f. voc. du.) takes an unusual form of the feminine declension of div (दिव् the Heaven) probably to rhyme with Śucī (शुची f. du.). Though the entire hymn RV iv.56 is addressed to the Twofold Heaven and Pṛthivī (द्यावापृथिव्यौ), the first and third stanzas praise the Two Heavens and the Milky Way (द्यावापृथिव्यौ = द्यावा Dyāvā, two Heavens + पृथिवी Pṛthivī, the Milky Way), and the fourth stanza praises Rodasī (रोदसी du.). Rodasī is the pair consisting of the Stone and the Soma Pond (see section 2.5.4). The fifth stanza, RV iv.56.5, praises the Two Heavens.

Rodasī (रोदसी du.):

According to RV iii.55.12 and 13, Rodasī is the pair of milch Cows: Mātā (माता) and Duhitā (दुहिता). Mātā, the mother milch Cow, is also called Devī Ilā (इळा). The mother milch Cow is the Stone (ग्रावा grāvā), the celestial ioniser, who yields milk, the cosmic plasmas, by breaking up the ionic bonds of hydrogen. Duhitā, the daughter milch Cow, is the Udder, the Soma Pond, who drinks in all of the discharged milk, the cosmic plasmas. In RV iii.55.13, the mother milch Cow, the Stone, is called the Inexhaustible, for it produces milk, the cosmic plasmas, uninterrupted.

The author of stanzas RV iii.55.12-13 is Prajāpati Vaiśvāmitra Vācya (प्रजापतिः वैश्वामित्रः वाच्यः). Vaiśvāmitra is Prajāpati's patronymic, Vācya, his matronymic. Both stanzas are addressed to Rodasī. As has been explained on a number of occasions, the authors of the R̥gveda hymns are personified celestial objects or phenomena and not necessarily the actual personages. The authors are always associated with the Deva(s) or Devī(s) to whom the hymns or stanzas are addressed, and often the names of the poets provide a key to interpreting and translating the stanzas.

RV iii.55.12 author प्रजापतिर्वैश्वामित्रो वाच्यो वा, to रोदसी, metre त्रिष्टुप् छंदः

माता च यत्र दुहिता च धेनू सबर्दुधे धापयैते समीची । ऋतस्य ते सदसीळे अंतर्महदेवानामसुरत्वमेकं ॥३.५५.१२॥

माता । च । यत्र । दुहिता । च । धेनू इति । सबर्दुधे इति सबःऽदुधे । धापयैते इति । समीची इति संऽईची ।

ऋतस्य । ते इति । सदसि । ईळे । अंतः । महत् । देवानां । असुरत्वं । एकं ॥३.५५.१२॥

When the two milch Cows, Mātā and Duhitā, together, yield milk and nourish

At the seat of sacrifice, I praise the two. Great is the one and only supreme spirit of the Devas. (RV iii.55.12)

यत्र <ind. – on which occasion, when>, माता <m. nom. sg. of मातृ – a mother>, च <ind. – and>, दुहिता <f. nom. sg. of दुहितृ – “a daughter (the milker or drawing milk from her mother)”>, च <ind. – and>, धेनू <f. acc. du. of धेनु – two milch Cows>, सबद्धे <f. nom. du. of adj. सबद्ध – yielding milk or nectar>, धापयेते <pre. 3rd person du. of धे – the two nourish>, समीची <f. nom. du. of adj. सम्यञ्च or समीच् – together, turned towards each other, facing one another>;

ऋतस्य <n. gen. sg. of ऋत – of sacrifice>, सदसि <n. loc. sg. of सदस् – at the seat, in the assembly>, अंतः <(अन्तर) ind. – (with loc.) in, at>, ईळे <(=ईडे) pre. 1st person sg. of ईड् – I praise>, ते <f. acc. du. of pron. तद् – the two>, महत् <n. nom. sg. of adj. महत् – great, important, eminent>, देवानां <m. gen. pl. of देव – of the Devas>, असुरत्वं <n. nom. sg. of असुरत्व – supreme spirit, divine dignity>, एकं <n. nom. sg. of adj. एक – alone, solitary, that one only>.

RV iii.55.13 author प्रजापतिर्वैश्वामित्रो वाच्यो वा, to रोदसी, metre त्रिष्टुप् छंदः

अनयस्या वत्सं रिहती मिमाय कया भुवा नि दधे धेनुरूधः ।

ऋतस्य सा पर्यसापिन्वतेळा महदेवानामसुरत्वमेकं ॥३.५५.१३॥

अनयस्याः । वत्सं । रिहती । मिमाय । कया । भुवा । नि । दधे । धेनुः । ऊधः ।

ऋतस्य । सा । पर्यसा । अपिन्वत । इळा । महत् । देवानां । असुरत्वं । एकं ॥३.५५.१३॥

She bellows praising the Udder of the Inexhaustible. With which sacrificial fire has the milch Cow laid her Udder? This llā has been overflowing with the milk of sacrifice. Great is the one and only supreme spirit of the Devas. (RV iii.55.13).

अनयस्याः <f. gen. sg. of अन्या – of the inexhaustible>, वत्सं <mn. acc. sg. of वत्स – the breast, udder (refers to the Soma Pond)>, रिहती <(रिहति) pre. 3rd person sg. of रिह् – she praises>, मिमाय <prf. 3rd person sg. of मी – she bellows>, कया <ind. or f. inst. sg. of interrogative pron. किं – in what manner? with which?>, भुवा <f. inst. sg. of भू – with “sacrificial fire”>, नि <ind. prefix to verb दधे (√धा)>, नि-दधे <prf. 3rd person sg. of नि-√धा – she has put or laid down>, धेनुः <f. nom. sg. of धेनु – a milch cow>, ऊधः <n. acc. sg. of ऊधस् – the udder>;

ऋतस्य <n. gen. sg. of ऋत – of sacrifice>, पर्यसा <n. inst. sg. of पर्यस् – with juice, milk, water, i.e. with cosmic plasmas>, अपिन्वत <ipf. 3rd person sg. of पिन्व् – she has been overflowing>, इळा <(=इडा) f. nom. sg. of इळा – the goddess llā (इळा), also written as lḍā (इडा)>, महत् देवानां असुरत्वं एकं <see RV iii.55.12 – Great is the one and only supreme spirit of the Devas>.

As noted, the Inexhaustible refers to Mātā, the mother milch Cow, the Stone, the celestial ioniser. The sacrificial fire, with which the milch Cow laid her Udder, the Soma Pond, is Trita (त्रितः), tritium (³H). Trita is one of the three fires of Agni, proton. The three fires of Agni are Ekata, Dvita, and Trita (see section 7.1.4).

In stanza RV i.105.1, the Soma Pond is described as the Moon (चंद्रमा: candramāḥ) with beauteous wings gliding in the celestial Waters. The flashing thunderbolts refer to the plasma blooms and they are compared to the beauteous wings of the Moon. In the Moon are the abodes of the flashing thunderbolts; and the flashing thunderbolts seek out their abodes in the Moon, the Soma Pond. The author Āptya Trita, tritium, the fire of Agni, declares to Rodasī that the abodes of the thunderbolts in the Moon and the pressed out Soma drinks are his riches (RV i.105.1 and 2). The golden rims refer to the individual sheaths of plasma blooms. Though the stanzas RV i.105.1 and RV i.105.2 presented here are addressed to Viśve Devas (विश्वे देवाः viśve devāḥ, pl.), the stanzas explain the cosmic plasma phenomena that occur in the Soma Pond.

RV i.105.1 author आस्यस्त्रितः कुत्सो वा, to विश्वे देवाः, metre पङ्क्तिः छंदः

चंद्रमा अप्सवर्षं तरा सुपुष्णो धावते दिवि ।

न वौ हिरण्यनेमयः पदं विंदति विद्युतो वित्तं मे अस्य रोदसी ॥१.१०५.१॥

चंद्रमाः । अप्सु । अंतः । आ । सुपुष्णः । धावते । दिवि ।

न । वः । हिरण्यनेमयः । पदं । विंदति । विद्युतः । वित्तं । मे । अस्य । रोदसी इति ॥१.१०५.१॥

In the Heaven, the moon with beauteous wings glides in the celestial Waters,

As flashing thunderbolts with golden rims seek your abode, the riches of mine, O Rodasī.

(RV i.105.1)

चंद्रमा: <m. nom. sg. of चन्द्रमस् – the moon>, अप्सु <f. loc. pl. अप् – in the celestial Waters>, अंतः <ind. – within, between>, आ <ind. – (with a preceding loc.) in, at, on>, सुपर्णः <m. nom. sg. of adj. सुपर्ण – having beautiful wings>, धावते <pre. 3rd person sg. of √धव् – it (the moon) runs, flows>, दिवि <m. loc. sg. of दिव् – in the Heaven>;

न <ind. – like, as>, वः <m. gen. pl. of युष्मद् – your (pl.)>, हिरण्यनेमयः <f. nom. pl. of adj. हिरण्यनेमि – having golden fellies or wheels or circular rims>, पदं <n. acc. sg. of पद – station, abode, home>, विदंति <pre. 3rd person pl. √विद् 6P – they find, discover, seek out>, विद्युतः <f. nom. pl. of विद्युत् – lightnings, flashing thunderbolts>, वित्तं <n. nom. sg. of वित्त – wealth, property>, मे <m. gen. sg. of 1st person pron. अस्मद् – mine, my>, अस्य <m. gen. sg. of pron. इदं – of this (emphasis of मे)>, रोदसी <n. voc. du. of रोदस् – O Rodasī (the pair of the Stone and Soma Pond)>.

RV i.105.2 author आस्यस्त्रितः कुत्सो वा, to विश्वे देवाः, metre पङ्क्तिः छंदः

अर्थमिद्वा उ अर्थिन् आ जाया युवते पति । तुंजाते वृष्ण्यं पयः परिदाय रसं दुहे वित्तं मे अस्य रोदसी ॥१.१०५.२॥

अर्थ । इत् । वै । ऊं इति । अर्थिनः । आ । जाया । युवते । पति ।

तुंजाते इति । वृष्ण्यं । पयः । परिदाय । रसं । दुहे । वित्तं । मे । अस्य । रोदसी इति ॥१.१०५.२॥

Surely one who seeks wealth draws it to one's self as a wife her husband.

The two strike and I yield mighty Soma juice, bestowing this elixir, the riches of mine, O Rodasī. (RV i.105.2)

अर्थ <mn. acc. sg. of अर्थ – aim, object, wealth>, इत् <इद् ind. a particle of affirmation – even, just>, वै <ind. a particle of emphasis and affirmation, followed by उ – indeed, truly>, उ <ind. an enclitic copula>, अर्थिनः <m. dat. sg. of अर्थिन् – to one who wants or desires>, जाया <f. nom. sg. of जाया – a wife>, आ-युवते <pre. middle 3rd person sg. of आ-√यु 6Ā – he/she procures, draws or pulls towards one's self>, पतिं <m. acc. sg. of पति – a husband>;

तुंजाते <(तुंजाते) pre. middle 3rd person du. of √तुज् 7Ā – the two (the upper and lower discs of the Stone) hit, strike>, वृष्ण्यं <n. acc. sg. of adj. वृष्ण्य – manly, vigorous, mighty>, पयः <n. acc. sg. of पयस् – "juice, (esp.) milk, water, rain", i.e. Soma juice, or celestial Waters, or cosmic plasmas>, परिदाय <ind. pt. of परि-√दा – granting, bestowing>, रसं <m. acc. sg. of रस – sap, nectar, elixir>, दुहे <pre. middle 1st person sg. of √दुह् 2Ā or 6Ā – I, Āptya Trita, give milk (cosmic plasmas), yield any desired object>, वित्तं मे अस्य रोदसी <see RV i.105.1 – the riches of mine, O Rodasī>.

In RV i.105.2 above, 'the two' refers to the upper and the lower discs of the Stone. 'The two' strike hydrogen atoms, and I, Āptya Trita, tritium, the fire of the Stone, yield Soma juice, the celestial elixir.