
SINO-PLATONIC PAPERS

Number 241

October, 2013

On the Nature of the Vedic Gods

by
Catalin Anghelina

Victor H. Mair, Editor
Sino-Platonic Papers
Department of East Asian Languages and Civilizations
University of Pennsylvania
Philadelphia, PA 19104-6305 USA
vmair@sas.upenn.edu
www.sino-platonic.org

SINO-PLATONIC PAPERS

FOUNDED 1986

Editor-in-Chief

VICTOR H. MAIR

Associate Editors

PAULA ROBERTS

MARK SWOFFORD

ISSN

2157-9679 (print)

2157-9687 (online)

SINO-PLATONIC PAPERS is an occasional series dedicated to making available to specialists and the interested public the results of research that, because of its unconventional or controversial nature, might otherwise go unpublished. The editor-in-chief actively encourages younger, not yet well established, scholars and independent authors to submit manuscripts for consideration. Contributions in any of the major scholarly languages of the world, including romanized modern standard Mandarin (MSM) and Japanese, are acceptable. In special circumstances, papers written in one of the Sinitic topolects (*fangyan*) may be considered for publication.

Although the chief focus of *Sino-Platonic Papers* is on the intercultural relations of China with other peoples, challenging and creative studies on a wide variety of philological subjects will be entertained. This series is **not** the place for safe, sober, and stodgy presentations. *Sino-Platonic Papers* prefers lively work that, while taking reasonable risks to advance the field, capitalizes on brilliant new insights into the development of civilization.

Submissions are regularly sent out to be refereed, and extensive editorial suggestions for revision may be offered.

Sino-Platonic Papers emphasizes substance over form. We do, however, strongly recommend that prospective authors consult our style guidelines at www.sino-platonic.org/stylesheet.doc. Manuscripts should be submitted as electronic files, preferably in Microsoft Word format. You may wish to use our sample document template, available here: www.sino-platonic.org/spp.dot.

Beginning with issue no. 171, *Sino-Platonic Papers* has been published electronically on the Web at www.sino-platonic.org. Issues 1–170, however, will continue to be sold as paper copies until our stock runs out, after which they too will be made available on the Web.

Please note: When the editor goes on an expedition or research trip, all operations (including filling orders) may temporarily cease for up to three months at a time. In such circumstances, those who wish to purchase various issues of *SPP* are requested to wait patiently until he returns. If issues are urgently needed while the editor is away, they may be requested through Interlibrary Loan. You should also check our Web site at www.sino-platonic.org, as back issues are regularly rereleased for free as PDF editions.

Sino-Platonic Papers is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 2.5 License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/2.5/> or send a letter to Creative Commons, 543 Howard Street, 5th Floor, San Francisco, California, 94105, USA.

ON THE NATURE OF THE VEDIC GODS

On the Nature of the Vedic Gods

Catalin Anghelina

Columbus State Community College

"Zwei Dinge erfüllen das Gemüt mit immer neuer und zunehmender Bewunderung und Ehrfurcht, je öfter und anhaltender sich das Nachdenken damit beschäftigt: der bestirnte Himmel über mir und das moralische Gesetz in mir."

—Immanuel Kant

FOREWORD

The goal of the present study is to find a new solution to the difficult issue of the nature and significance of the Rig Vedic main gods. Obviously, since such an objective is not only ambitious, but also utterly bold, it is necessary to explain the reasons that led me to take up this enterprise.

In the preface of his recent monumental study on the *Rig Veda*, T. Oberlies (1998) expresses his admiration for the "fascinating" world ("die faszinierende Welt") of the *Rig Veda*. To the present author, given the level of current understanding of the *Rig Veda*, statements of this kind seem puzzling. How can an obscure and unintelligible text be "fascinating"? That such a natural question is neither illegitimate nor exaggerated is shown by the fact that, indeed, the obscurity of the Vedic text was seen many times by scholars as something intentionally created. To give some examples, one can start with A. Bergaigne who judged the *Rig Veda* as a "verbally and poetically sophisticated, indeed deliberately obscure text."¹ In more recent years, W. Doniger (1981: 15–6) mentions the Vedic "paradox" and "enigma" and argues that the obscurity of the Rig Vedic text leads to a divorce between words and meaning: "What does it mean? It means what it says." Her conclusion is that the *Rig Veda* is "a book of questions, not a book of answers," a book meant "to puzzle, to surprise, to trouble the mind." These few examples undoubtedly show that, essentially, the *Rig Veda* is for many scholars an irrational text, or at least a text which contains many deliberately unintelligible passages. It appears then that the question above is more than a rhetorical one.

Statements such as those above, which concern the meaning of the *Rig Veda*, could lead to the conclusion that the obscurity of this book derives from the obscurity of many of its words, passages, and/or even myths. To give some very well-known examples: the Ásvins stop their chariot on the bull's head; the whale looks at the Ásvins' chariot; Agni, the god of fire, is born twice in the waters, and the waters feed him; Varuṇa plays with the sun as with a swing, Indra, the bull, drinks the juice Soma, and kills a dragon. The *Rig Veda* is full of such examples, which completely lack a plausible interpretation. Moreover, the hermeneutical attempts to solve riddles of this type often led to the

¹ Cf. Jamison & Witzel (1992: 52), who adhere to this idea.

replacement of *obscurum* by *obscurius*. A good example of this is the opinion that certain Vedic gods can be both different and identical to one another.²

To reduce the decipherability of the Vedic text only to the understanding of such passages is very deceptive. The *Rig Veda* is not just any text, but one that represents the most important religious text of a people at a certain moment in time. Given this, the quest for the meaning of the *Rig Veda* is and should be a quest for the meaning of the Vedic religion as well. The meaning of the *Rig Veda* can be reduced neither to the morphological, syntactical or semantic aspects of the Vedic lexicon and grammar nor to the interpretation of some passages; it is far more profound than that. This meaning hinges upon these questions: who are the Vedic gods that are worshipped in this religion, and what do they represent?

Certainly, the first part of the question above has an immediate and obvious answer, since the Rig Vedic hymns are transparently dedicated to the deities the Vedic people worshipped. There is, however, nothing more difficult to answer with certainty than the second part of this question. Let me amplify this by considering the three main gods of the Vedic pantheon: Indra, Agni, and Soma. The scholarly consensus is that Indra, the most powerful Vedic deity, represents the warrior god of the Vedic people; Agni would represent the deified ritual fire, whereas Soma would be a hallucinatory juice/drink, that is, a kind of drug that the Vedic people happened to worship as well.

In conclusion: a warrior, a drug, and fire are the greatest gods of one of the most elaborated religions ever created by mankind! If we add here the Ādityas, the other great Vedic gods, which are generally regarded nowadays as gods of social contracts, the picture that emerges appears to be that of an incomprehensible hodgepodge.³

Since the obscurity of the *Rig Veda* concerns not only certain linguistic aspects of the text, but the very core of the religion this text refers to, the interpretation of one obscure passage or the other in the *Rig Veda* cannot be regarded as an individual matter pertaining to that particular passage or to

² E.g., Bergaigne's (1878–1883: I 13) analysis of the passages in which Agni is compared to the sun: "pour les poètes védiques la comparaison n'est pas éloignée de l'assimilation ... les deux termes d'une comparaison [i.e., in this case, Agni and the sun — my note] peuvent être identiques."

³ For a brief summary of the Vedic gods, see Jamison & Witzel (1992:52–55), who believe that "what is striking about the Vedic Pantheon is its lack of overarching organization."

the association of that passage with other similar ones, but should ultimately lead to the core of the Vedic religion, which contains the answer to the nature and significance of the Vedic gods.

The present study starts from the author's belief that the *Rig Veda* is not and cannot be an irrational text. In other words, to rephrase one of the scholarly comments above, my belief is that the *Rig Veda* is a book of answers, not a book of questions. The "spark" that generated this work is a study of mine published recently in *JIES*, in which I made the hypothesis that Viṣṇu, a Vedic god inferior to Indra, Soma, or Agni, is located at the North Pole of the celestial vault. That study opened up for me the path for a wholly new perspective on the Vedic gods, which was to see if other Vedic characters, especially the most important ones, are related to astronomical phenomena. Obviously, this type of approach belongs to the nature-mythology paradigm, which was popular among the scholars of the nineteenth and the beginning of the twentieth centuries, and is, inexplicably, dismissed nowadays out of hand.⁴

The results of the present research are surprising even to the author. They show that, besides of course being a religious text, the *Rig Veda* may be said to be in many instances a manual of astronomy, and that the main features of the Vedic gods refer to celestial phenomena. In other words, the study shows that the Vedic people worshipped the starry sky. More importantly, the celestial phenomena worshipped in the *Rig Veda* are those that are the most visible to the eye of an observer from the northern hemisphere. From an astronomical standpoint, on the other hand, the stars and other celestial phenomena the Vedic gods represent are not just any celestial phenomena, but those that were the most likely to be worshipped by a primitive people. This astronomical significance concerns the keeping of time, which is pivotal for determining the cycle of the seasons in a primitive agricultural society.

The Vedic people worshipped their star-gods in the morning, at dawn, or just before dawn, when the last rising stars of the night appear on the eastern horizon; in astronomical jargon, this particular appearance of a star on the horizon is called the "heliacal rising" of that star. It is, therefore, of great importance to understand both why this worship was performed at dawn and what this had to do with the keeping of time. In the ancient societies, the months of the year and the regular cycle of

⁴ Cf. Jamison & Witzel (1992: 52).

the seasons were determined by watching the relative positions of the stars with respect to the sun and the moon. Even today, we still make use of expressions such as "the sun is in Pisces" or "I was born in Taurus," which simply mean (beyond, of course, their astrological significance) the time (month) of the year when those events occurred. Thus, the statement "the sun is in Pisces" reflects the fact that during a certain period of the year (we call it a "month") the sun's trajectory in the sky appears to overlap with or to be identical to that of the constellation Pisces. To notice that the sun is in Pisces, however, requires that one can see both the sun and the constellation Pisces close to each other in the sky. Obviously, this is not possible during night time, since the sun is not present in the night sky. It is also not possible to do so during day time, since the constellation cannot be seen in the sun's glare. The only time when the sun's disk can be observed to "belong" to a certain constellation is either in the morning or in the evening. Thus, at early dawn, shortly before sunrise (one hour or so), there is always a constellation which appears "in front" of the sun and whose path the sun immediately follows. In the evening, about one hour after sunset, when the stars become visible, the same constellation will be seen as setting in the west in the sun's path. In our particular case, we then say "the sun is in Pisces." Mornings and evenings, therefore, are the only times of the day when these observations can be made. Thus, the Vedic worship of various stars at dawn during certain periods of time of the year is not an arbitrary religious rule, but has to do with one of the most important things for the survival of ancient man, which is the keeping of time. As with regard to the Vedic people's preference for morning worship, this probably had to do with the importance of sunrise in the daily life of the agricultural communities.⁵

I have already mentioned that other attempts were made to interpret the Vedic gods as representing natural or even celestial phenomena (the so-called "natural mythology"). In this respect, the present study offers a fundamentally different perspective on the Vedic gods. The reason for this is that the main objective of this study is not only to show the association between certain Vedic gods and certain natural phenomena, but to answer the fundamental question about the meaning of the

⁵ The adoration of the (rising) sun (Sūrya) must have played a role in this as well; thus, it is well known that in Sanskrit the word for "south," *dakṣiṇa*, also means "right," which implies that the cardinal points were taken from the perspective of an observer facing east (sunrise).

Rig Veda. To put it differently, the nature of the Vedic gods is viewed here as being derived from a single premise, which is that the Rig-Vedic people's object of worship was the starry sky.

The present interpretation of the *Rig Veda* has also an indirect but, nevertheless, important consequence, which concerns the obscurity of many "metaphors" in the Vedic myths. The conclusion that emerges is that not only is this "metaphorical" language not obscure or deliberately obscure, but, in many cases, the "metaphors" are nothing else but plain language used in the absence of a scientific (astronomic) jargon. Thus, the "metaphor" of Agni being born twice, or that of the chariot stopping on the bull's head expresses nothing but what ancient man actually saw in the nocturnal sky. To make a vivid comparison, which will make my point clearer: if it had been possible for the Vedic man to see an airplane in the sky, it would not have been astonishing to hear him calling it "the bird with unmoving wings"; by doing so, he would certainly not have appealed to metaphorical language but merely described in plain language an otherwise indescribable phenomenon. On the other hand, the *Rig Veda* does contain metaphors, whose features are well known, but which do not particularly belong to the Vedic culture. These metaphors concern the widely spread custom in the ancient world of identifying stars and constellations with objects or characters from Earth. What the poets of the *Rig Veda* did then was to create their own mythology by appealing to this ancient "astronomical" jargon.

The intuition that certain metaphors in the *Rig Veda* merely describe in plain language celestial phenomena proved to be a powerful tool not only for decoding "obscure" passages, but also for the interpretation of entire Vedic myths. Thus, to mention just a few such myths, Indra's addiction to Soma, his cosmic fight with Vṛtra, the presence of Pūṣan at Sūryā's wedding procession, etc., do not represent myths invented by the Vedic poets *ex nihilo*, but are based on how Vedic man imagined celestial phenomena interacting with one another.

The present work, therefore, is dedicated to the astral nature of the main Vedic gods. Its aim is not to analyze to the smallest detail the contents of the *Rig Veda*. The passages I analyze throughout the work are exclusively dedicated to the astronomical meaning of the Vedic myths and gods. These passages, which are treated in a coherent and systematic way, show that the manner in which a Vedic god relates to a celestial object is not a matter of coincidence or priestly speculation, but is a particular expression of the general astral aspect of the Vedic religion. Certainly, there are many other passages in the *Rig Veda* that do not have astronomical features. It is beyond the scope of the present

work to interpret these passages or to determine how non-astronomical elements came to coexist or to be integrated within the whole of the Vedic (or Aryan) religion. It is also beyond its scope to deal in detail with other very important issues such as eschatological ones or the world's creation; but touching upon some of these is unavoidable.

I divided this work into seven parts. The first concerns Indra and the gods associated with him: Soma, the Ásvins, the Maruts, and Rudra. The second concerns Agni. A third chapter is dedicated to the "solar aspects" of Savitr and Pūṣan. Another chapter treats the Ādityas, which represent a compact group within the *Rig Veda*. The sixth section treats the meaning of the presence of "bulls" and "cows" in the *Rig Veda*; this section also touches upon the Vedic eschatological issues. Finally, the last section treats the "universal myth" of the hero slaying the dragon in the Vedic mythology.

The translation I used for the Sanskrit text is Geldner's (1951–1957) monumental scholarly version in German, which has been and still is an indispensable tool of Vedic research (scholars at Harvard are at work these days on a new translation of the *Rig Veda* in English, which, it is to be hoped, will supersede Geldner's version). I also found it necessary to pair the Sanskrit text with the German translation. This is because I sometimes had to analyze Geldner's version at a more detailed level and then give a new and different interpretation of the Vedic text. In the vast majority of the cases, however, I found that Geldner's translation was more than sufficient to express the ideas of the original text. The most important thing that will emerge from my research is the consistency of these ideas.

This consistency is twofold. On the one hand, the passages that refer to a particular god consistently describe the astronomical properties of a certain celestial phenomenon. These properties, which mainly concern either how that god interacts with the sun or its position in the nocturnal sky, lead to the identification of the god with that celestial phenomenon. On the other hand, what emerges with clarity from the present study is that the "astronomical" jargon used to describe different gods is the same. More explicitly, all *Rig Veda* gods interact with the sun and/or are located in the sky. This shows that the Vedic gods must be considered as having the same nature, which is celestial. This latter conclusion extends to the Iranian religion, indirectly showing that the religion of the Indo-Iranians was astral as well. Obviously, a detailed treatment of the Iranian religion is beyond the scope of this study.

Thus, the present interpretation of the Vedic gods is meant to be more than a mere identification of these gods with certain celestial phenomena. My interpretation claims to be a powerful theory, according to which the Vedic gods, who are the essential part of the Vedic religious system, are treated in a systematic, coherent way with respect to their astronomical significance. Therefore, even if it could be shown that a god was wrongly identified with a certain star or constellation, the present theory implies that the nature of that god would still have to be considered celestial, and, therefore, one should find another star that better fits the description of that particular god.

To conclude: the *Rig Veda* is a book about certain stars and constellations, and, as will become apparent in what follows, these were stars rising heliacally between the winter and summer solstices. Today, the majority of these stars and constellations can be seen in the evening winter sky, when they shine in their entire splendor (they can be best seen between December and March). I confess that I watched the winter night sky many times after I started my research on the Vedic gods. First, I discovered Indra; then, the Aśvins and their chariot, the Maruts, and Rudra; then Pūṣan. And, one special night, when I felt that the final piece of the puzzle had fallen in its proper place, I went out and gazed into the sky again. The *Rig Veda* was there, in front of my eyes: the Vedic gods and their myths. For the first time, I could not help whispering to myself in the silent evening: the wonderful world of the *Rig Veda*!

C O N T E N T S

Foreword	iv
Indra the “Bull”	1
a. Who Is Indra?	1
b. The Ásvins in the <i>Rig Veda</i>	14
c. Indra and Vṛtra	32
d. An Old and Forgotten Theory	38
e. The Maruts	42
f. Rudra	48
g. Soma	50
h. Partial Conclusions I	56
The Vedic Agni	59
a. Partial Conclusions II	89
The “Solar Aspects” of Savitr̥ and Pūṣan	91
a. Savitr̥	91
b. Pūṣan	100
c. Partial Conclusions III	112
The Ādityas Mitra, Varuṇa, and Aryaman	113
a. Brief Overview of the Scholarship Concerning the Three Main Ādityas	114
b. A Recent Naturalistic View about Mitra and Varuṇa	119
c. The “Solar” Connections of the Ādityas	121
d. Mithra and Vərəθraϥna	136
e. The Other Ādityas	138
General Conclusions	142
Bulls and Cows	145
a. Bulls	145
b. Cows	148

c. A Note on Yama	159
d. Conclusion on "Bulls" and "Cows"	161
A Note on the "Universal Myth" of the Hero Slaying the Dragon	163
The Main Vedic Gods and the Stars: Synopsis	168
Appendix (Figs. 1–10)	169
List of Abbreviations	178
Bibliography	179

ON THE NATURE OF THE VEDIC GODS

INDRA THE “BULL”

A. WHO IS INDRA?

Indra is the most important god of the Vedic pantheon. This is clearly shown by the fact that a quarter of the hymns in the *Rig Veda* are exclusively dedicated to him. He is the great warrior-god, the divine champion of the Vedic tribes. In a word, Indra is the “national” god of the Vedic world.¹ In the *Rig Veda*, this importance is paralleled only by that of Agni and Soma.

In spite of his importance, it has never been clear exactly who in fact Indra is.² Certainly, he is the god who slew Vṛtra and thus created the world by “releasing the waters.” He is, therefore, a creator god. In addition, it has been noted that this myth shows Indra not only as a creator god but also as a warrior god. The passages in which Indra is said to help the Aryans in their battle against the Dasyus seem to have contributed to this view.³ On the other hand, the fact that he “released the waters” by killing Vṛtra with his powerful weapon *vajra*, which has been seen as similar to Zeus’ thunderbolt,⁴ contributed to his image as a thunder or an atmospheric god.⁵ Aside from his image as a creator god, therefore, Indra seems to be a powerful thunder god, who brings down enemies and pours water over the land.

Indra’s personality, however, features another essential aspect, which is harder to reconcile with his being the thunder god. This is his solar aspect. Thus, Indra produced the dawn and the sun (RV 2.12.7, 21.4; 3.31.15, 32.8); he has made the dawn and the sunshine (RV 1.62.5); he placed the sun in the sky (RV 1.51.4; 52.8; 8.12.30); he gained the sun (RV 1.108.6, 18; 3.34.8). These traits of Indra, which I

¹ Cf., e.g., Macdonell (1898: 54); Bhattacharji (1970: 249); Hillebrandt (1980: II 90); O’Flaherty (1981: 139–140).

² *Pace* Macdonell (1898: 54): “The significance of his character is, however, sufficiently clear”; cf. Hillebrandt (1980: II 91, 117–118).

³ Cf. RV 6.18.3; 4.26.2; see Macdonell (1898: 62).

⁴ Cf. West (2007: 252).

⁵ Cf. e.g., Eliade (1972: 199), Macdonell (1898:54), West (2007: 245–247).

will explore in more detail below, show Indra as being closely associated with the sun.⁶ Therefore, Indra's personality seems to have two aspects, which are apparently antithetical to each other. The first one associates him with rain and storm, the other one with the sun and its conquest. This dichotomy is hard to explain.⁷ Obviously, unless one finds a solution to it, there can be no complete understanding of Indra's character.

One of the most striking facts about Indra in the *Rig Veda* is that he is constantly called the "bull." The number of occurrences of this epithet for Indra in the *Rig Veda* is high. Bergaigne (1878–1883: II 169) notes that the epithet is "répété jusqu'à satiété." Astonishingly, no special attention has been paid to this so far, although it has also been long noticed that the "bull" is Indra's symbol and sacrificial animal, a fact that confirms that the epithet expresses Indra's essential feature.⁸ The Sanskrit word for "bull" is, in the majority of these cases, either *vṛṣan* (cf. e.g., RV 10.28.7; 1.32.7, 1.85.7) or *vṛṣabhá* (cf. e.g., RV 3.31.18; 4.18.10; 10.28.2; 10.28.9; 2.12.12; 1.165.7). Sometimes both words are used in the same hymn (cf. RV 10.28.2; 7).

At first glance, there seems indeed to be nothing special about this epithet, which may only poetically underscore Indra's strength and virility. Indra, however, is not just any kind of bull. As a corollary of his being the greatest god of the Vedic religion, Indra's location is said to be in the sky. Indra, therefore, is a celestial bull, who is the master of the sky (*brhatáḥ pátir*; cf. 1.52.13). This idea is repeatedly expressed in the *Rig Veda*, e.g., in the following passages:

3.47.5. *marútvantaṃ vṛṣabhám vāvṛdhānám ákavāriṃ diviyám śāsám índram*
 viśvāsáham ávase nūtanāya ugrám sahodám ihá táṃ huvema

3.47.5. Den erstarkten Bullen (*vṛṣabhá*) in Begleitung der Marutschar, der kein geiziger Herr ist, den himmlischen Gebieter (*diviyám śāsám*) Indra, den Allbezwinger, den gewaltigen Siegverleiher, den wollen wir zu erneutem Beistand hierher rufen.

⁶ Bhattacharji (1970: 267) talks about "Indra's solar character."

⁷ Cf. Hillebrandt (1980: II 91), who is aware of these dichotomies.

⁸ Cf. e.g., Hillebrandt (1980: II 132); for modern times, cf. Oberlies (1998: 261).

8.64.4. *éhi préhi kṣáyo diví*

8.64.4. Wohl an, brich auf, der du im Himmel wohnst.

8.53.1. *upamám tvā maghónām jyéṣṭham ca vṛṣabhāñām*

8.53.1. Dich, den Obersten der Freiebigen und den Größten der Bullen ... (bitten wir) ...

One passage even calls him explicitly the "bull of heaven" *vṛṣāsi divó*:

6.44.21. *vṛṣāsi divó vṛṣabhāḥ pṛthivyā vṛṣṣā síndhūnām vṛṣabhá stíyānām*

vṛṣṇe ta índur vṛṣabha pīpāya svādú ráso madhupéyo várāya

6.44.21. Du bist der Riese [Bull — my note] des Himmels, der Bulle der Erde, der Riese der Flüsse, der Bulle der stehenden Gewässer. Für dich, den Riesen, o Bulle, fließt der Trank, der schmackhafte Saft, süß zu trink, nach Wunsch über.

Certainly, the Bull in this passage is not only the "Bull of heaven," but also "the Bull of the earth" etc. The fact, however, that in other passages such as the ones quoted above the Vedic "Bull" is specifically called "the celestial master," the "greatest of all the bulls," whose location is in the sky, shows that the appellative "the Bull of heaven" is more than a mere epithet or an obscure metaphor; it shows that Indra is indeed a cosmic or celestial bull. This opens up the path for a wholly new hypothesis, which concerns the possibility that this "cosmic Bull" is not a poetical invention, but literally exists in the sky. From this perspective, there is nothing more natural than to ask whether this "cosmic bull" may have anything to do with the zodiacal constellation Taurus, whose name is, indeed, *vṛṣabhá* in Sanskrit.⁹ That such inquiry is legitimate is also supported by the fact that, in Babylon, Taurus was indeed called the "the Bull of heaven."¹⁰ Does Indra, therefore, represent the constellation Taurus in the *Rig Veda*?

⁹ It is well-known that the Hindus used a different, moon-based zodiac until Hellenistic times, when they borrowed the twelve zodiacal constellations — among them Taurus — from the Greeks; see below.

¹⁰ Cf. Horowitz (1998: 160).

Before starting to assess the validity of this new hypothesis, I will briefly mention some important facts about the history of the constellation Taurus. This is one of the twelve Babylonian constellations, which were borrowed by the Greeks from Mesopotamia as their zodiac sometime during the first millennium BC. The Babylonian twelve-constellation zodiac itself is an invention belonging to the first millennium BC.¹¹ The invention of the Babylonian zodiac in the first millennium BC, however, does not exclude the possibility that some of the zodiacal constellations had been invented at a much earlier date. This seems to be the case with Taurus. Pictographic evidence shows that awareness of this constellation was present in the Mesopotamian world around 3,200 BC, if not earlier, during the times of the prehistoric settlers of Persia, Elam, and Mesopotamia in 4000 BC. The motif of the lion-versus-bull scene, especially, which has astronomical connotations, seems to emerge around that date.¹² On the other hand, the Babylonian name of Taurus itself is of Sumerian origin (^{mul}GU₄.AN.NA "bull of heaven"), which also indicates that the origin of the constellation is much older than the emergence of the twelve-constellation zodiac. Therefore, despite the fact that its actual origins are not entirely clear, it is likely that the constellation Taurus was known to the Mesopotamian world and beyond as early as the fourth millennium BC.¹³

The astronomical importance of the constellation Taurus is that approximately during 4000 and 2000 BC it heliacally announced the spring equinox, which is one of two moments of the year when nights and days are equal in duration (cf. fig. 3). In layman's language, this means that at the spring equinoxes of that period of time, Taurus was seen as rising from due east just before sunrise; in other words, it became visible at early dawn just before the appearance of the sun in the east, and then rapidly vanished from the sky when the sun's disk approached the horizon line.¹⁴ The location of Taurus on the equinoctial circle during the above-mentioned period of time also means that this constellation was occupying the "middle" band of the sky.

¹¹ Cf. *OCD*, the entry for "constellations and star names"; cf. also Waerden (1974: 127); Rochberg-Halton (1984:121–23).

¹² Cf. Rogers (1998: 10–11, 24); Hartner (1965).

¹³ With regard to the origin of Taurus, the claim has been made that it originates in Egypt; cf. Gundel (1936) 336; Gurshtein 2005 (103–50); also cf. Helck (1972–1992) VI, 16; Hartner (1965) 1–16 argues for Sumer.

¹⁴ In astronomical jargon, this is called the "heliacal" rising of a star/constellation.

The fact that Taurus does not announce the spring equinox anymore is due to the well-known astronomical phenomenon of precession. The "precession of the equinoxes" is due to the earth's wobble around its rotation axis, which causes a shift in the apparent position of the constellations in the sky (cf. fig. 7). As a consequence of this shift, it takes about 26,000 years for one constellation to return to its previous position in the sky. If we take as a reference the twelve-constellation zodiac, then it takes about $26,000/12$ (~ 2100) years for a constellation to shift from its position to the position of the next constellation. Thus, during approximately 2000 BC and on the spring equinox was announced by Aries; today it is announced by Pisces, which replaced Aries as the constellation of the spring equinox (cf. fig. 3).

To sum up: The constellation Taurus is most likely much older than the Babylonian zodiac, being known in the Mesopotamian world during the fourth millennium BC. During the period of time between 4000 and 2000 BC, Taurus was located on the central band of the sky, which contains the equinoctial/equatorial circle. In this position, Taurus was the constellation announcing the spring equinox, which is one of two moments of the year when day and night are equal in duration.

An important issue, which needs special treatment, concerns the way those ancient people could determine the time of the year when days and nights were equal in duration. The precise day of the spring equinox is difficult to determine in the absence of a reliable scientific system of measurements. This is not the case at the solstices, which are easier to observe. At the solstices, the sun lingers several days in the same positions, which mark the limits in the sky between which the sun moves from north to south and vice-versa during the year.¹⁵ Therefore, there is no need for sophisticated astronomical computations. The situation is different in the case of the equinoxes. At that time of the year, the sun's position is altering rapidly and, therefore, it is very difficult to show that one day rather than the other should be marked as the equinox. Therefore, to assume that the Hindus knew of the equinoxes seems to be an overstatement of their astronomical knowledge.¹⁶ Nevertheless, while it is true that the exact day of the equinox is hard to determine by simply

¹⁵ In later Vedic literature, the sun's paths (each of them lasting six months) between the solstices are called *uttarāyana* 'the path upward' and *dakṣiṇāyana* 'the path to the south'; cf. Bryant (2001: 253).

¹⁶ Cf. Dicks (1966: 31–32).

observing the position of the sun at its rising/setting, there was nothing that could have prevented these ancient people from approximating the time of the year when that event took place. On the one hand, the simple observation that the duration of days and nights vary between the solstices could very easily lead to the conclusion that such a moment of the year existed. On the other hand, the Hindus could calculate that moment either by simply dividing in two the distance between the two solstices, or, more likely, by counting 180 days from one solstice to another, since their year measured 360 days.¹⁷ Thus, to assume that the ancient Hindus did know about the existence of such a moment, when day and night are equal, is not a far-fetched hypothesis. Obviously, this does not imply that the precision of their observations was accurate to the day.¹⁸

An additional difficulty, which the present study encounters from the outset when considering that the constellation Taurus was known to the Vedic Hindus, is the fact that the ancient system of Hindu constellations (*nakṣatras*) did not include Taurus among them.¹⁹ This system was a moon-based one comprising 27 or 28 constellations. The rationale of its existence is the fact that it takes 27.3 days for the moon to make a complete revolution in the sky. Therefore, the celestial sphere was divided in 27 or 28 parts, so that the moon could be observed as it was moving through each of these constellations.²⁰ This system is completely different from the well-known solar-based system of zodiacal constellations, which takes into account the sun's yearly revolution. Since Taurus belongs to this latter system, it is legitimate to ask how or whether it was possible for the Vedic people to adopt Taurus as the marker of the spring equinox.²¹ Obviously, the fact that they had their own astronomical

¹⁷ That the Hindu year comprised 360 days, cf. RV 1.164.48, Bryant (2001: 253). For different opinions on whether the Hindus knew with accuracy the day of the equinoxes, cf. Bryant (2001: 256–257).

¹⁸ They could also determine the position of the equinox by observing the North Pole/Star, *dhruva*, which is the only fixed point on the rotating vault of the sky; this is shown by the fact that the sacrificial hearths of the Hindus were placed in the east, west and south respectively; cf. e.g. Hillebrandt (1980 (1): 66). The Egyptians must have done the same thing when they constructed the Great Pyramid at Giza (~2,500 B C) with amazingly great precision with respect to the cardinal points; cf. Gingerich (2000: 297–8).

¹⁹ See above n.14.

²⁰ Cf. Bryant (2001: 253–54).

²¹ Obviously, such an import could have been possible either from the Mesopotamians or from some other people

system of constellations does not preclude their having known other constellations, which were popular throughout Eurasia; the case of the well-known seven Ṛṣis 'Ursa Major' is relevant in this respect. The next step then is to determine whether this was the case with Taurus.

As I noted above, one of the most intriguing aspects of the Rig Vedic Taurus concerns its solar aspect. I will show below that the Rig Vedic celestial bull, which is described as occupying the central part of the sky, has a close (astronomical) relation to the sun and not to the moon. This fact, which is unlikely to be coincidental, shows that the astronomical system of the Rig Vedic world was sun-based. As we shall see later in the present study, this conclusion is supported by the fact that other Rig Vedic star-gods are described in a similar way, that is, as interacting with the sun and not with the moon. All these observations strongly suggest that the Rig Vedic sun-based astronomical system precedes the well-known Hindu moon-based system of *nakṣatras*. To put it differently, it will appear that the astronomical system of constellations containing Taurus is not imported, but represents the older and original system, which was strictly related to the sun.

I present below the characteristics of the Vedic bull Indra that show that the Vedic supreme god is indeed a constellation heliacally announcing the spring equinox.

1) The hymns dedicated to Indra are sung in the morning. The following passages show that the celestial "golden" bull rises at early dawn and, along with the sun, brings light to the world. Moreover, it is specifically said that Indra "brings up" the sun to the world; this latter metaphor fits well the concept of a constellation rising heliacally (i.e., just before sunrise):

3.39.2. *divás cid á pūrvīyá jāyamānā ví jāgrvir vidátthe śasyāmānā*

bhadrá vástrāṇi ārjunā vásānā séyám asmé sanajā pítiriyā dhīḥ

3.39.2. Noch vor Tag geboren, frühwach, beim Opfer abwechselnd vorgetragen, in schöne, helle Gewänder gekleidet, ist dies unsere in alter Zeit entstandene väterliche Dichtung [the hymn to Indra is sung just before dawn — my note].

3.39.5. *... sūryam viveda támasi kṣiyántam*

3.39.5. ... fand Indra ... die Sonne, die im Dunkel weilte.

belonging to the same geographical milieu.

- 3.39.7. *jyótir vṛṇīta támaso vijānānn ...*
3.39.7. Das Licht zog er dem Dunkel vor, da er den Unterschied kennt.
- 3.44.2. *haryānn uṣásam arcayaḥ sūryaṃ haryānn arocayaḥ*
3.44.2. Gern hast du die Morgenröte erstrahlen, gern die Sonne leuchten lassen.
- 4.16.4. *súvar yád védi sudṛśīkam arkaír máhi jyótī rurucur yád dha vástoḥ*
andhā támāṃsi dúdhitā vicákṣe nṛbhyaś cakāra nṛtamo abhiṣṭau
4.16.4. Als das schön zu schauende Himmelslicht durch ihre Zaubergesänge gefunden war, als sie das große Licht am Morgen leuchten ließen, da machte der Mannhafteste das hartnäckige stockfinstere Dunkel in Hilfsbereitschaft für die Männer zum Durchblicken.
- 2.21.4. *... índraḥ suyajñá uṣasaḥ súvar janat*
2.21.4. ... Indra, der Opferherrliche, erzeugte die Morgenröten, die Sonne.
- 1.16.3. *índram prātár havāmaha*
1.16.3. Indra rufen wir am Morgen ...
- 10.112.1. Indra, trinke nach Lust vom Soma; denn dein ist die Morgenpressung, der Ersttrunk.
- 3.44.4. *jajñānó hárīto vṛṣā víśvam á bhāti rocanám ...*
3.44.4. Sobald der goldige Bulle geboren ist, erleuchtet er den ganzen Lichtraum.
- 8.50.8. Deine falben Wagenpferde ... mit denen du die Sonne einholst.
- 4.30.9. *divás cid ghā duhitāram mahān mahīyāmānām*
uṣásam indra sám piṇak
4.30.9. Die Uṣas, die doch des Himmels Tochter, die sich groß tat, hast du, der Große, zerschlagen, o Indra.

The last verse above, which describes Indra as "killing" the Dawn, was considered by Geldner as alluding to an "obscure myth": "Ein seltsamer Mythos. Die Ursache ist nirgends angegeben." The hypothesis that Indra is Taurus can perfectly explain this verse; the rising of Taurus at the equinox announces the sun, which, in turn, dissipates the dawn's feeble light.

2) As the spring-equinox marker, which is positioned close to the sun, the constellation Taurus defines the succession of the seasons; it also defines the succession and length of the days and nights:

4.16.14. Neben der Sonne dich stellend, dass deine, des Unsterblichen, Gestalt in die Augen fällt (*súra upāké tanúvaṃ dádhāno ví yát te cēti amṛtasya várpah*) ... wenn du die Waffen trägst.

4.30.3. Auch alle Götter bekämpften dich darum nicht, O Indra, als du Tage und Nacht abgrenztest (*yád áhā náktam átiraḥ*).

2.19.3. Der mächtige Indra ... erzeugte die Sonne ... regelte die Reihenfolge der Tage durch die Nacht (*aktúnā áhnāṃ vayúnāni sādhat*).

6.21.3. *sá ít támo avayunám tatanvát súriyeṇa vayúnavac cakāra.*

6.21.3. Er hat die ausgebreitete zeitlose Finsternis durch die Sonne zeitlich geregelt.

2.13.1. Die Jahreszeit ist seine Gebärerin (*ṛtúr jánitṛī*).

10.89.13. *ánv áha māsā ánu íd vánāni ánu ósadhīr ánu párvatāsaḥ
ánu índraṃ ródasī vāvaśāné ánv ápo ajihata jáyamānam*

10.89.13. Es ordneten sich die Tage, die Monate, es ordneten sich die Bäume, die Pflanzen, die Berge und willig die beiden Welthälften, die Gewässer dem Indra unter, als er geboren wurde.

3) Taurus' location on the middle band of the sky is revealed in the metaphors that describe Indra as supporting the sky, or as having the sky set on his head:

- 8.89.5. ... da hast du ... den Himmel gestützt (*tád astabhñā utá dyām*)
- 3.49.4. *dhartā divó rájasas prṣṭá ūrdhvó rátho ná vāyúr vásubhir niyútvān*
kṣapām vastā janitā sūriyasya víbhaktā bhāgām dhiṣāṇeva vājam
- 3.49.4. Der Träger des Himmels (*dhartā divó*), des Luftraums, gesucht, aufrecht stehend, der wie der Wagenheld Vāyu mit den Göttern die Niyut (als Gespann) hat, der Erheller der Nächte, der Erzeuger der Sonne, der den Anteil austeilte wie Dhiṣaṇā den Gewinn.
- 2.17.2. ... *śīrṣāṇi dyām mahinā prāty amuñcata*
- 2.17.2. ... er setzte den Himmel mit Macht sich aufs Haupt.
- 2.17.5. ... *ástabhñān māyāyā diyām avasrásaḥ.*
- 2.17.5. ... er stützte mit Zaubermacht den Himmel, dass er nicht herabfalle.

The following passages also show that Taurus is located in the middle of the sky, that is, on the celestial equator, which, as the greatest circle of the celestial spheroid,²² encompasses the whole universe:

- 1.61.8. *pári dyāvāprthiví jabhra urvī ná asya té mahimānam pári ṣṭaḥ*
- 1.61.8. ... Er hält Himmel und Erde umfasst, die weiten; nicht umschließen die beiden seine Größe.
- 1.108.12. *yád indrāgnī úditā sūriyasya mādhye diváḥ svadháyā mādáyethe*
- 1.108.12. Wenn ihr, Indra und Agni, im Aufgang der Sonne, in der Mitte des Himmels euch nach eigenem Ermessen ergötzet ...

²² I use the term "spheroid," because it cannot be irrefutably shown that the Vedic world conceived of the celestial vault as being a geometrically defined sphere. The shape of the vault, however, was seen as close to such shape; thus, in phrases like *dhiṣāṇe samīciné* (*RV* 10.44.8, *AV* 2.34.3) or *camvā samīcí* (*RV* 3.55.20), the vault is seen as a 'bowl'; cf. Kirfel (1967: 6).

- 10.111.5. *índro diváh pratimānam prthivṃá víśvā veda sávanā hānti śúṣṇam*
 mahīm cid dyām ātanot sūriyeṇa cāskāmbha cit kāmghanena skābhīyān
- 10.111.5. Indra wiegt Himmel und Erde auf; er kennt alle Somaopfer, er erschlägt den Śuṣṇa.
 Den so großen Himmel hat er mit der Sonne durchzogen und ihn mit der Stützte
 gestützt, der beste Stützter.

4) Taurus (Indra) precedes the sun or prepares the sun's path; the sun appears for him, shines upon him. All these features point again to the heliacal rising of a constellation:

- 2.12.7. ... *yáh sūriyaṃ yá uśasaṃ jajāna*
- 2.12.7. ... der (Indra) die Sonne, die Uśas erschaffen hat ...
- 8.89.7. ... *á sūryaṃ rohayo diví*
- 8.89.7. ... die Sonne ließest du am Himmel aufsteigen.
- 8.93.1. *úd ghéd abhí śrutāmaghaṃ*
 vṛṣabhāṃ náriyāpasam
 ástāram eṣi sūriya
- 8.93.1, Sūrya, du gehst für den Bullen auf, dessen Gaben berühmt, dessen Werke mannhaft
 sind, für den Schützen.
- 8.98.3. *vibhrājañ jyótiṣā súvar ágacho rocanāṃ diváh ...*
- 8.98.3. Im Licht erstrahlend gingst du zur Sonne, zum Himmelslicht ...
- 1.51.4. ... *vṛtrāṃ yád indra śávasāṁvadhīr áhim ád ít sūryaṃ diví árohaya dṛśé*
- 1.51.4. ... Als du, Indra, den Drachen mit Kraft erschlagen hattest, da ließest du am Himmel
 die Sonne zum Schauen aufsteigen (cf. 1.52.8)
- 1.52.9. *bṛhát svás candram ámavad yád ukthíyam ákrṇvata bhiyāsā róhaṇaṃ diváh*
 yán mánusapradhanā índram ūtáyaḥ súvar nṛṣáco marútó 'madann ánu

- 1.52.9. (Die Götter) machten mit Furcht den hohen Stieg zum Himmel, der selbstleuchtend, gewaltig, preisenwert ist, als die wie Menschen um den Siegerpreis kämpfenden Hilfen, als die Marut ihrem Herren folgend dem Indra als der Sonne zujubelten. (Indra and the sun appear in the sky).
- 10.89.12. *prá sósucatyā uṣáso ná ketúr asinvá te vartatām indra hetíḥ*
- 10.89.12. Wie das Zeichen der erglühenden Uṣas soll, Indra, dein verschlingendes Geschoss hervorkommen ...
- 10.111.3. Indra versteht gewiss gerade dieses (Lied), um es anzuhören, denn er ist der siegreiche Wegbereiter für den Sonnengott ... (*pathikṛt sūriyāya*): Indra prepares the sun's path.
- 10.112.3. *hāritvatā vārcasā sūriyasya śréṣṭhai rūpāis tanúvaṃ sparśayasva*
- 10.112.3. Lass dein Leib vom goldigen Glanze der Sonne, von der schönsten Farben berührt werden!
- 10.171.4. *tuvāṃ tyám indra sūriyam paścā śántam purás kṛdhi*
devānāṃ cit tiró vásam.
- 10.171.4. Bring, du Indra, diese Sonne, die hinten ist, nach vorn, selbst wider der Götter willen!
- 5.31.11. *súraś cid rátham páritakmiyāyām púrvaṃ karad úparaṃ jūjuvāṃsam*
- 5.31.11. Auch der Wagen der Sonne, der vorausgeeilt war, brachte er im entscheidenden Augenblick ins Hintertreffen.

This last verse refers to the fact that, before the spring equinox, the sun rises indeed before Taurus in the morning sky (cf. "vorausgeeilt war"). Beginning with the spring equinox, Taurus rises on the eastern horizon earlier and earlier, and dawn sees it higher and higher in the sky before its disappearance in the sun's light. The sun is left behind (*úparaṃ* "ins Hintertreffen"; cf. Grassmann).

That Indra is Taurus can be spectacularly revealed in the following passage from a Rig Vedic hymn dedicated to both Indra the "Bull" and the Ásvins (the Twin gods):

1.30.19. *ní aghniyásya mūrdhāni cakráṃ ráthasya yemathuḥ*
 pári dyām anyád īyate

1.30.19. Ihr (Ásvins) hieltet das Rad des Wagens auf dem Haupte des Stiers (*aghnyá*) an; das
 andere fährt um den Himmel.

The passage has remained unexplained to this day. The fact that the Ásvins stop their chariot on the bull's head seems indeed to be an absurd poetical invention. Geldner, who mentions some possible solutions, simply concludes that the passage is obscure: "Der Ausdruck 'Haupt des Stiers' ist nicht klar."

The hypothesis, however, that Indra represents the constellation Taurus can shed new light on this "obscure" verse. Thus, the fact that the whole hymn is dedicated to Indra shows that the bull in this passage (*aghnyá*)²³ cannot be other than Indra himself, that is, given our hypothesis, the constellation Taurus. This automatically raises the possibility that the solution of the riddle has to be looked for in the sky. Who are then the celestial chariot and the twins that are close to Taurus?

There are only two known constellations that correspond to the description above. These are Gemini (the Twins)²⁴ and Auriga (the Charioteer). Both of them lie in the proximity of Taurus, and their relative positions one to another are exactly as described in the passage above (see figs.1 and 2). Thus, Auriga is located between Gemini and Taurus, and it shares one of its stars with Taurus.²⁵ This shows Auriga as located exactly "on Taurus' head." The Twins, on the other hand, seem indeed to stop the chariot represented by Auriga on the head of Taurus. The last piece of the puzzle seems to have fallen into its right place.

There are, however, two major problems with the solution above. The first one concerns the fact that, as its Latin or Greek names show, the well-known constellation Auriga represents a charioteer (Gk. ἡνίοχος) and not a chariot. In Mesopotamia, however, the stars that compose Auriga or

²³ Etymologically, *aghnyá* means "not to be slain"; the feminine *aghnyá* is also used with regards to the inviolability of the cow; cf. Macdonell (1897: 151).

²⁴ The later Hindu name for the zodiacal constellation Gemini is *Mithuná* "the pair"; cf. Scherer (1953: 159); Grassmann. Gemini (Gk. Δίδυμοι) is an old constellation, which the Babylonians already knew; cf. Kidd (1997: 235).

²⁵ This star is β Tauri, the tip of one of Taurus' horns.

parts of it were represented as a chariot.²⁶ This solves the first difficulty. It remains now to overcome the second weak part of my argument, which concerns the initial identification of the Ásvins with the constellation Gemini. It is, therefore, necessary to analyze in more detail the nature of the Rig-Vedic Ásvins. Is the nature of these Rig-Vedic gods indeed celestial?

B. THE ÁSVINS IN THE *RIG VEDA*

The Vedic Ásvins, the divine "Twins" or, as their name shows, the "possessors of horses," are among the greatest gods of the Vedic world, with more than 50 hymns in the *Rig Veda* being exclusively dedicated to them, which means that they are, after Indra, Agni, and Soma, the gods most frequently celebrated in the Vedic world.²⁷ Despite their importance, the nature of the Ásvins has remained an unsolved riddle. In other words, it has not been possible yet to find a plausible interpretation for these twin gods.²⁸

Several interpretations have been proposed for the Ásvins, all of which start from an analysis of their main mythological traits. The main characteristics of these gods can be summarized as follows. The Ásvins are helpers in times of trouble; they own a chariot; they appear at Dawn; they carry Sūryā, the sun's daughter, in their chariot; they always appear together and are connected with the sun; and they are fond of Soma.²⁹ Given these well-known traits, the Ásvins have been thought to represent a wide and disparate range of phenomena or characters, such as Vedic saints who help in distress, the morning and evening stars, rain gods, the constellation Gemini, or the sun and the moon.

²⁶ This was the constellation ^{mul}gīs GIGIR (cf. fig.1); cf. Gössmann (1950: 29): "ein zweirädiger Renn-oder Streitwagen," which included ε, γ Geminorum and β, ζ Tauri; cf. also Horowitz (1998: 253).

²⁷ For a recent study of the Divine Twins from a comparative standpoint, cf. West (2007: 186–89); Ward (1968: 9–28) underscores the celestial nature of the IE Divine Twins.

²⁸ The lack of plausible interpretations led many scholars to consider the nature of these gods as obscure; cf. Keith (1925: 113–119, esp. 117); Macdonell (1897: 49); Hillebrandt (1990: 36–47).

²⁹ Cf. e.g., Macdonell (1897: 49–54).

The majority of these theories were rejected by Hillebrandt.³⁰ Indeed, some of them are quite easy to dismiss. As Hillebrandt noticed, the interpretation of the Ásvins as Vedic/Indian saints does not cover the wide range of traits the Ásvins possess, among which the most important is their undeniable association with the Sun and Dawn.³¹ To see them as the evening and morning stars³² does not account for the fact that they always appear together, whereas these stars are always separated. Also, there are no compelling and obvious reasons to see them as the gods of rain, because one cannot account for the fact that they are two and not one, or, in fact, any number. The theory that they represent the sun and the moon goes back to the Vedic commentator Yāska, who tried in this way to explain the Ásvins' obvious association with light, which is, indeed, pervasive in the Vedic hymns. Hillebrandt agrees that the sun and the moon can be associated with light, but he rejects the theory on the grounds that the sun and the moon cannot be regarded as "twins." In addition, as is the case with the morning and evening stars, the sun and the moon do not appear conjointly in the sky the way the Ásvins do.

Among all these theories there is one that Hillebrandt's arguments do not seem strong enough to dismiss. This is the theory that the Ásvins represent the constellation Gemini. It was proposed a long time ago, in the nineteenth century, by Weber and Brunnhofer, who believed that the myth of the Ásvins had its origins during the astronomical era when Gemini announced the vernal equinox, that is, around 6000 BC.³³ These scholars thought that this was the best way to explain the Ásvins' association with sunrise and dawn. Hillebrandt, however, expressed his skepticism about this theory, arguing that the dating of the myth back to such early era was not acceptable or plausible. Indeed, it is hard to believe that the *Rig Veda* could preserve the myth of Gemini announcing the spring equinox for such a long time.³⁴ In addition, there is no evidence in the Vedic texts that the rising of Gemini

³⁰ Cf. Hillebrandt (1990: 36–47), who summarizes the issue excellently.

³¹ The same objection can be raised against Dumézil (1968: 49–51), who interprets them as gods of healing and fertility.

³² Cf. Oldenberg (1894: 210); West (2007: 234).

³³ Cf. Hillebrandt (1990: I 41, 371).

³⁴ Cf. Hillebrandt (1927: 53–54); another strong argument against this theory is the well-known fact that the Ásvins are not present in the Iranian religion.

occurred indeed at the spring equinox. It is, however, undeniable that numerous Rig Vedic passages show the Ásvins as belonging to the morning sky and related to the sun and dawn. This still needs to be explained. I give some of these passages below:

1.34.8. ... *tisráḥ pṛthivīr upári pravā́ divó nákaṃ rakṣethe dyúbhir aktúbhir hitám*

1.34.8. ... Über den drei Erden schwebend bewachtet ihr Tag und Nacht das errichtete Firmament des Himmels (*divó nákaṃ*).

1.46.11. Der rechte Weg ist bereitet, um glücklich ans andere Ufer zu gelangen; die Straße des Himmels ist sichtbar geworden.

1.180.10. *tám vāṃ ráthaṃ vayám adyā́ huvema stómair ásvinā́ suvitā́ya návyam áriṣṭanemim pári dyāḿ iyā́nāḿ vidyā́meṣāḿ vṛjā́naṃ jī́rādā́num*

1.180.10. Diesen Wagen von euch wollen wir heute mit Lobgesängen aufs neue zur Wohlfahrt anrufen, o Ásvin, der mit unversehrten Felgen den Himmel umfährt. Wir möchten einen gastfreien Opferbündler kennen lernen, der rasch schenkt.

4.43.5. *urú vāṃ ráthaḥ pári nakṣati dyāḿ á́ yát samudrá́d abhí vártate vām*

4.43.5. Weit überholt euer Wagen den Himmel, wenn er vom Meere (mit) euch herkommt.

4.44.5. *á́ no yā́taṃ divó áchā́ pṛthivyā́́ hiraṇyáyena suvṛ́tā ráthena*

4.44.5. Kommet her zu uns auf dem leichten goldnen Wagen vom Himmel, von der Erde ["by/travelling the earth" — my note; *pṛthivyā́́* is in the instrumental, *divó* is the ablative].

4.45.1. *eṣá syá bhā́núr úd iyarti yujyáte ráthaḥ párijmā́ divó asyá́ sánavi ...*

4.45.1. Da steigt jener Lichtstrahl (die Sonne; cf. Geldner) empor; der umfahrende Wagen wird auf dieses Himmels Rücken geschirrt.

- 5.74.1. *kúṣṭho devān aśvinā adyā́ divó manāvasū*
5.74.1. Wo seid ihr Götter Aśvin heute, (ihr Söhne) des Himmels, ihr Gedankenreichen ...
- 5.74.2. *kúha tyā́ kúha nú śrutā́ diví devā́ nāsatiyā*
5.74.2. Wo sind die zwei? Wo im Himmel hört man von den Göttern Nāsatya's?
- 6.62.1. *stuṣé nārā divó asyá prasántā aśvínā huve járamāṇo arkaíḥ*
yā́ sadyá usrá́ viúṣi jmó ántān yúyūṣataḥ pári urú́ várāṃsi
6.62.1. Ich preise die beiden ausgezeichneten Herren dieses Himmels (*nārā divó*), die Aśvin rufe ich als Frühbeter mit Preisliedern, die sogleich bei Aufgang der Morgenröte die Grenzen der Erde, die weiten Räume zu umspannen suchen.
- 8.8.4. Kommet vom Himmel her zu uns ... (*á no yātaṃ divás pári*).
- 8.8.7. *divás cid rocanád ádhi á no gantaṃ suvarvidā*
8.8.7. Selbst von des Himmels Lichtraum kommet her zu uns, ihr Sonnenfinder, auf die Gebete hin ...
- 8.26.17. Ob ihr dort in der Meerflut des Himmels schwelgt oder im Hause der Erquickung (cf. Geldner: "im Hause des nach euch verlangenden Opfers"), so höret doch auf mich, ihr Unsterbliche!
- 8.87.4. ... kommet vom Himmel zum Preislied wie Büffel an einem Rinnsal!
- 10.143.3. ... ihr Männer des Himmels (*divó narā*) ...

These passages leave little doubt that the Aśvins' place is in heaven, that is, on the sky's firmament. The Aśvins are invoked to come from the sky, from the realm of light. They reach the sky's firmament and go around the sky. They are the "men of the sky," who find the sun and appear at

dawn. This last feature, which can be met with in numerous other passages, shows the Ásvins as clearly associated with dawn and sunrise.³⁵ I give some additional examples below:

- 1.46.1. *eṣó uṣā́ ápurviyā ví uchati priyā́ diváh*
 stuṣé vām aśvinā́ brhát.
- 1.46.1. Dort leuchtet die Morgenröte wie keine je zuvor auf, die liebe (Tochter) des Himmels.
 Laut preise ich euch, ihr Áśvin.
- 1.46.7. Kommt auf dem Schiff unserer Gedanken, um ans andere Ufer zu gelangen. Schirret
 euren Wagen an, Áśvin.
- 1.46.14. *yuvór uṣā́ ánu śríyam párijmanor upácarat*
 ṛtá vanatho aktúbhiḥ
- 1.46.14. Euer, der Umherziehenden, Schönheit zog die Uṣas nach. In den Nächten gewinnt
 ihr die rechten Wege.
- 1.47.6. ... Schaffet uns Reichtum vom Meere (*samudrád*) oder vom Himmel (*divás*) herbei,
 vielbegehrten!
- 1.46.7. *á no nāvā́ matínāṃ yātám pāráya gántave*
 yuñjáthām aśvinā́ rátham
- 1.46.7. Wenn ihr Nāsatya's in der Ferne oder wenn ihr bei Turvaśa seid, so kommet von da auf
 leichtem Weg zu uns her, zugleich mit den (ersten) Strahlen der Sonne!
- 1.118.11. ... denn ich rufe euch Áśvin an unter Opferspenden bei Aufgang der Morgenröte ...
- 1.157.1. *ábodhi agnír jmá úd eti súriyo ví uṣā́s candrá mahí āvo arcíṣā*
 áyukṣātām aśvinā́ yātave rátham prāsāvīd deváh savitā́ jágat pṛthak

³⁵ Cf. e.g., Oldenberg (1894: 207); Macdonell (1897: 50); Keith (1925: 115).

- 1.157.1. Agni ist erwacht, die Sonne steigt von der Erde empor; die schimmernde große Uṣas ist mit ihrem Strahl aufgeleuchtet. Die Ásvin haben zur Fahrt ihren Wagen angeschirrt ...
- 1.183.2. Leicht rollt (euer) Wagen ... Ihr seid in Begleitung der Himmelstochter Uṣas (*divó duhitrá uṣásā sacethe*).
- 1.184.1. Euch beide wollen wir heute, euch künftig rufen, bei aufleuchtender Morgenröte ...
- 2.39.2. In der Frühe ausziehend wie zwei wagenfahrende Männer ...
- 2.39.3. ... Am Morgen ..., ihr Morgendliche, kommt heran wie Wagenfahrer, ihr Mächtige!
- 3.58.1. *ā dyotanīm vahati śubhráyāmā uṣása stómo áśvínāv ajīgaḥ*
3.58.1 (Uṣas) bringt in glänzender Auffahrt die Helligkeit. Das Loblied der Uṣas hat die Ásvin aufgeweckt.
- 3.58.4. ... diese Süßtränke ... haben sie wie Freunde euch dargereicht vor Anbruch der Morgenröte.
- 4.44.1. *tām vām ráthaṃ vayám adyā huvema pṛthujráyam áśvinā sámgaṭim góḥ*
yáḥ sūriyām váhati vandhurāyúr gírvāhasam purutāmaṃ vasūyúm
4.44.1. Diesen euren Wagen wollen wir heute anrufen, den breitbahnigen, ihr Ásvin, um die Zeit, da sich das Rind sammelt (cf. Geldner: "der Morgen"); der die Sūryā fährt, der viel Platz hat, vom Loblied gezogen, zum vielten Male auf Gutes ausgehend.
- 4.45.1. *eṣá syá bhānúr úd iyarti yujyáte*
ráthaḥ párijmā divó asyá sánavi
4.45.1. Da steigt jener Lichtstrahl empor; der umfahrende Wagen wird auf dieses Himmels Rücken geschirrt.

- 4.45.2. *úd vām prkṣáso mādhumanta irate ráthā ásvāsa uṣáso víuṣṭiṣu*
apornuvántas táma á párvīrtaṃ súvar ná śukráṃ tanuvánta á rájaḥ
- 4.45.2. Eure Wagen (und) Pferde, die stärkungs- und hönigreichen, fahren bei Hellwerden der Morgenröte aus, die ganz zugedeckte Finsternis aufdeckend, wie die helle Sonne den Raum durchziehend.
- 4.45.5. Mit schönem Opferwerk, mit Süßigkeit wachen die Feuer die Ásvin heran um das Hellwerden der Morgenröte, wenn mit gewaschenen Händen, fleißig, umsichtig (der Adhvaryu) den süßen Soma mit Steinen ausgepresst hat.
- 5.75.9. *ábhūd uṣá rúsatpaśur ágnīr adhāyi rtvíyaḥ*
áyoji vām vṛṣaṇ vasū rátho dasrāv ámartiyo mādhvī máma śrutam hávam
- 5.75.9. Die Uṣas mit dem hellfarbigen Tier ("die Sonne"; cf. Geldner) ist erschienen, Agni ward zu rechter Zeit angelegt. Euer unsterblicher Wagen ward angeschirrt, ihr schätzereichen Meister. Ihr Süßesliebende, erhöret meinen Ruf!
- 5.77.1. Opfert den Frühkommenden zuerst; sie sollen vor dem missgünstigen Geier trinken, denn am Morgen empfangen die Ásvin ihr Opfer.
- 7.67.2. *ásoci agníḥ samidhānó asmé úpo adṛśran támasaś cid ántāḥ*
áceti ketúr uṣasaḥ purástāc chriyé divó duhitúr jáyamānaḥ
- 7.67.2. Das entzündete Feuer ist bei uns entflammt; selbst der Finsternis Ende ist erschienen. Im Osten hat sich das Banner der Morgenröte, der Himmelstochter, bemerkbar gemacht, das zur Schönheit geboren wird.
- 7.68.9. Dieser sinnreiche Dichter ruft (euch) wach mit wohlgesetzten Worten, noch vor den Morgenröten munter.

- 7.69.5. Wenn dieser euer Wagen, ihr Wagenfahrer, im Frühlicht angeschirrt seine Umfahrt vollendet, so bringet uns auf diesem bei Anbruch des Morgens Glück und Segen zu diesem Opfer, o Áśvin!
- 7.71.1. Vor ihrer Schwester Uṣas weicht die Nacht, die Dunkle räumt dem rötlichen (Sūrya) den Weg.
- 7.71.3. Euren Wagen sollen am jüngsten Morgen die wohlwollenden Bullen(hengste) herfahren.
- 7.71.4. Der Wagen, der euch fährt, der dreisitzige, gutreiche, am Morgen ausfahrende, ihr Fürsten, auf dem kommet zu uns, Nāsatya's, wenn der Allgestaltige (?) zu euch geht.
- 7.72.4. Wenn die Morgenröten aufleuchten, o Áśvin, so tragen euch die Dichter ihre erbaulichen Worte vor.
- 7.74.1. Diese Frühopfer rufen euch Morgendliche, o Áśvin.
- 8.9.18. *yád uṣo yási bhānúnā sám sūriyeṇa rocase*
á hāyám aśvino rátho vartír yāti nṛpáiyam
- 8.9.18. Wenn du Uṣas mit deinem Glanze kommst, so strahlst du mit der Sonne zusammen. Dieser Wagen der Áśvin beginnt (dann) seine männerschützende Umfahrt (*vartír*).
- 8.35.10. ... *sajóṣasā uṣásā sūriyeṇa ca úrjaṃ no dhattam aśvinā*
- 8.35.10. ... kommet her und bringet Richtum, einträchtig mit Uṣas und Sūrya, bringet uns Kraft, o Áśvin!³⁶

These numerous passages show clearly that, as was the case with Indra/Taurus, the Áśvins' appearance at dawn, just before sunrise, is not coincidental, but represents one of their essential

³⁶ The idea is recurrent in several verses of this hymn: cf. 8.35.4, 9, 16, and 19.

mythological traits. In addition, the way this appearance is described in all these passages fits extremely well with the concept of heliacal rising, which is the moment of the year when a constellation rises from the east just before sunrise. The Ásvins show up in the sky along with the sun's first rays. They travel on the sky's firmament. They are invoked along with Dawn and the Sun to bring prosperity to the worshippers.

We can see, therefore, that the Ásvins' features are similar to those of Indra with regard to the way they are related to the sun and dawn. This strongly hints at the Ásvins' celestial nature. In other words, since Indra represents Taurus, the Ásvins must also represent a constellation. Which one?

The above-mentioned Vedic passage in which the Ásvins are said to stop their chariot on the Bull's head strongly indicates that this constellation is, indeed, Gemini. Thus, the picture one can see in the sky (cf. figs.1 and 2) is spectacularly described in the Vedic myth. The twin gods, who travel through the sky and "pull" their chariot (Auriga) on the sky's firmament, find a moment of rest on the Bull's head.

I will now turn attention again to the Ásvins' chariot (*rátha*), which I identified with the constellation Auriga. The chariot's constant presence next to the constellations of the Ásvins fully supports this interpretation. In addition, passages such as 1.180.10, 4.43.5, 4.44.5, 4.45.1 (cf. above) show without any doubt that, like the Ásvins, the chariot is indeed located on the sky's firmament.

The conclusion that the Ásvins' chariot represents the constellation Auriga also shows that the previous theories that the Ásvins' chariot represents the sun's chariot have no foundation. These theories are mainly based on the fact that the Ásvins are associated with the sun.³⁷ It is also possible that the numerous passages that mention the sun's daughter Sūryā³⁸ as being borne through the sky in the Ásvins' chariot also contributed to the birth of such theories. Sūryā, however, is specifically said to be seated in the Ásvins' chariot, and not in the sun's chariot. This clearly shows that this chariot does not belong to the sun. Therefore, the Ásvins' chariot clearly belongs only to the Ásvins, and represents the constellation Auriga.

³⁷ Cf. e.g., Bergaigne (1878–1883: II 509–10): "l'insistance avec laquelle on leur attribue un char ... le char du soleil et celui du sacrifice"; Hillebrandt (1990: I 369–70) also inclines to associate this chariot with the sun.

³⁸ This is certainly a feminine noun derived from Sūrya, the word for "sun."

To underscore the importance of the Chariot in the mythology of the Ásvins, I quote below other "enigmatic" passages which describe the Ásvins and/or their chariot:

- 1.30.18. *samānáyojano hí vāṃ rátho dasrāv ámartiyaḥ*
 samudré ásvinéyate
- 1.30.18. Denn euer unsterblicher Wagen fährt in einer Fahrt auf dem Meere (*samudré*)³⁹, Ihr Meister Ásvin.
- 1.46.8. Eure Ruder ist breiter als der Himmel, euer Wagen (steht) am Landungsplatz der Flüsse (*tīrthé síndhūnām*).⁴⁰
- 1.47.2. Auf eurem dreisitzigen, dreiteiligen, schönverzierten Wagen kommet, Ásvin.⁴¹
- 1.92.16. Ihr Ásvin, bis zu uns (macht) eure Umfahrt (*vartír*) ...
- 1.116.18. Als ihr Ásvin ... die Umfahrt (*vartír*) machtet, (die Rosse) antreibend, da brachte euer getreuer Wagen reiches Gut. Der Stier (*vṛṣabhá*) und das Krokodil waren daran gespannt.
- 1.180.1. Eure lenksamen Rosse (durcheilen) die Räume, wenn euer Wagen um die (Meer)fluten (*árṇas*)⁴² fliegt.
- 1.182.2. Denn ihr ... seid ... die besten Wagenfahrer (*rathíyā rathítamā*). Ihr lenket den Wagen, der mit Süßigkeit voll beladen ist (*pūrṇām rátham vahethe mádhva ácitam*).

³⁹ Cf. 7.68.7, 69.7, where it says that Bhujyu was rescued by the Ásvins from the *samudrá*.

⁴⁰ Grassmann translates *tīrthá* as "Furt des Flusses."

⁴¹ Cf. Geldner: the three seats are for the Ásvins and for Sūryā, respectively.

⁴² Cf. Grassmann: "strömende Flut der Gewässer."

- 5.73.3. *īrmānyád vápuṣe vápuś cakráṃ ráthasya yemathuḥ*
páry anyá náhuṣā yugá mahná rájāṃsi dīyathaḥ
- 5.73.3. Das eine Rad des Wagens — zum Staunen erstaunlich — habt ihr zurück gehalten;
(mit den anderen) flieget ihr über die anderen nahuschigen Geschlechter, mit Macht
über die Räume hinweg.
- 8.22.5. *rátho yó vāṃ trivandhuró hīraṇyābhīsur aśvinā*
pári dyāvāprthiví bhūṣati śrutás téna nāsatyá gatam
- 8.22.5. Euer dreisitziger Wagen mit den goldenen Zügeln, der Himmel und Erde umkreist, o
Áśvin, der berühmte, auf dem kommet her, Nāsatya's.
- 3.58.8. ... Euer Wagen, der zu rechter Zeit geborene, durch die Presssteine zur Eile getrieben,
umfährt in einem Tage Himmel und Erde (*pári dyāvāprthiví yāti sadyáḥ*).
- 7.67.8. In ein und derselben Fahrt gelangt euer Wagen über die sieben Ströme (*sra váto*), ihr
Eilige. Nicht fallen die staatlichen gottgeschirrten (Rosse) ab, die euch in euren Jochen
rasch bis ans Ziel fahren.
- 7.69.7. Ihr [the Ásvins — my note] holtet den ins Meer gestoßenen Bhujyu aus der Flut mit
euren Flügelrossen [the Chariot's horses — my note] ...
- 7.70.3. Welche Standorte ihr Áśvin eingenommen habt in den jüngsten Töchtern des
Himmels ..., wenn ihr auf dem Gipfel des Berges sitzt, (kommt von da) dem
opfernden Menschen Labsal mitbringend!
- 7.71.5. ... Den Atri erlöstet ihr aus Not, aus der Finsternis ...
- 8.5.2. Auf dem männerfahrenden, gedankengeschirrten, breitgestaltigen Wagen folget ihr
Meister Áśvin der Uṣas.

- 8.5.28. *rátham híraṇyavandhuram híraṇyābhīśumaśvínā*
á hí stháttho divispṛśam
- 8.5.28. Besteiget also den Wagen mit dem goldenen Sitz, mit goldenem Zügel, o Áśvin, der bis zum Himmel reicht!
- 8.22.4. Das (eine) Rad eures Wagen eilt herum, ein anderes bleibt im Lauf zurück (cf. 5.73.3; 1.30.19).
- 8.22.14. An sie des Abends, an sie am Morgen, an die Herren der Schönheit, an sie bei ihrer Ausfahrt (with their chariot — my note), die in Rudras Bahn wandeln (cf. e.g. 10.39.11).
- 8.22.15. *á súgmiyāya súgmiyam prātā ráthena áśvínā vā sakṣāṇī*
huvé pitéva sóbharī
- 8.22.15. Ich rufe zu guter Fahrt herbei den gutfahrenden (Wagen) am Morgen, oder die Áśvin in Begleitung ihres Wagens ...
- 10.39.12. Kommet mit dem Wagen, der schneller als der Gedanke ist ... o Áśvin, bei dessen Anschirrung des Himmels Tochter (Uṣas; cf. Geldner) geboren wird (und) die beiden schönen Tageshälften (i.e., cf. Geldner: "Tag und Nacht") des Vivasvat!
- 10.39.13. Machet eure Umfahrt (*vartír*) mit den siegreichen (Wagen) durch den Berg!
- 10.41.1. Diesen gemeisamen Wagen, den vielgerufenen, preislichen, dreirädrigen, immer wieder zu den Trankspenden kommenden, herumfahrenden, weiser Rede würdigen, wollen wir mit Lobliedern bei Anbruch des Morgens anrufen!
- 10.40.1. Wohin fährt eure Wagen, wer erwartet denn, ihr Herren, den glänzenden zu glücklicher Fahrt, den in der Frühe kommenden, der für jeden Clan zu haben ist, der jeden Morgen ausfährt, mit Dichtung und Werkdienst?

10.106.9. *bṛhánteva gambháreṣu pratiṣṭhām pádeva gādhām tárate vidāthaḥ*

10.106.9. Wie zwei Hochgewachsene im tiefen Wasser festen Stand⁴³, wie zwei Füße sollet ihr für den Durchschreitenden Grund finden.

These numerous passages show the Ásvins' chariot as having certain characteristics, which are mentioned too often in the hymns to be considered merely incidental. Thus, the chariot is full of goods and brings richness (1.47.3, 6; 1.182.2), and has three seats (1.47.2; 8.22.5).⁴⁴ As they drive their chariot, the Ásvins cross a body of water, and their chariot stops on the banks of the stream (1.46.8; 1.180.1). The Ásvins are said to stand in the water (10.106.9). The path of the Ásvins' journey is said to be circular, that is, a revolution/rotation (*vartís*); their chariot revolves around the earth and the sky in one day, through the mountain (10.39.13). The Ásvins' chariot is drawn by (winged) horses or by birds. As they cross the sea, the Ásvins save people who are about to drown or who live in darkness (e.g., Bhujyu, Atri).

All these mythological traits of the Ásvins are still completely unexplained. The conclusion that the Ásvins and their chariot represent the constellations Gemini and Auriga, respectively, can explain much of this mythology.

The first enigma that can be immediately solved is the fact that the Ásvins and their chariot are said to rotate (cf. *vartís* above, which denotes a circular movement); indeed, the celestial bodies do move in this way.⁴⁵

Another recurrent story in the hymns is that the Ásvins stand in the water and that the chariot itself passes through a body of water, which is a river.⁴⁶ In addition, the Ásvins have a connection with a celestial sea (*samudrá*), which seems to be different from the river they cross (cf. e.g., 1.30.18; 1.47.6 above). The mystery surrounding the water crossing can be explained in the following way. Thus, it is

⁴³ The Sanskrit word is *gādhām*, which Grassmann explains as "Ort im Wasser, wo man festen Fuß fassen kann."

⁴⁴ Cf. Keith (1925: 114).

⁴⁵ The idea of a celestial revolution is also present in 3.58.8 (cf. 8.22.5, above), where it is said that the Ásvins complete their revolution around the earth and sky in one day; obviously, this is perfectly applicable to any star or constellation.

⁴⁶ Cf. above 1.30.18; 1.46.7; 1.46.8; 1.47.6; 1.180.1; 7.67.8; 10.106.9.

well-known that the Milky Way passes through Auriga and the lower part of the Twins' bodies, which are their legs (cf. fig. 2).⁴⁷ In other words, the Ásvins are pictured in the sky as standing close to the bank of the Milky Way, with their legs just inside the starry stream of the Galaxy, while their chariot, i.e., Auriga, lies inside the Galaxy as well. This leads to the conclusion that, in all likelihood, the body of streaming water or river the Ásvins cross represents the Milky Way. That this is not merely speculative is shown by the fact that in other ancient cultures such as the Chinese, the Milky Way was called a "celestial river."⁴⁸ The Egyptian celestial "Winding Waterway" (*Mr nh3*), which the dead pharaoh had to cross in a boat, is often mentioned in the *Pyramid Texts*, and also is assumed to represent the Milky Way.⁴⁹

I will take up the pivotal issue of the Milky Way again below, in the section about Soma. Also, in the section about the Ādityas, I will analyze the significance of the *samudrá*, the celestial "sea," from which the Ásvins travel, and which seems to be different from the "celestial river" (Skt. *síndhu*, *sravát*; cf. e.g., 1.46.8 above).

Another spectacular passage, which can be perfectly understood in the context of the celestial relationship between Taurus and the Ásvins/Gemini, is the following:

1.116.18. *yád áyātaṃ dívodāsāya vartír bharádvājāya ásvinā háyantā*

revád uvāha sacanó rátho vāṃ vṛṣabhás ca śiṃśumáras ca yuktá

1.116.18. Als ihr Ásvin für Divodāsa, für Bharadvāja die Umfahrt (*vartír*) machtet, (die Rosse) antreibend, da brachte euer getreuer Wagen reiches Gut. Der Stier (*vṛṣabhá*) und das Krokodil (*śiṃśumára*) waren daran gespannt [Skt. *yuktá*= "attached or yoked (to it)"; "concentrated (upon it)" — my note].

The verse is a splendid metaphor for the proximity of Taurus and Auriga in the sky (cf. fig. 2). Thus, the Chariot is full of goods, which Taurus, being close to the chariot (right underneath it),

⁴⁷ Cf. Kidd (1997: 239).

⁴⁸ The Chinese called the Milky Way the "Sky River" or "Silver River"; cf. Schafer (1974: 401–7).

⁴⁹ Cf. Faulkner (1966:154); for the "Winding Waterway" in the *Pyramid Texts*, cf. Faulkner (1969: 326).

desires. Most important, however, is that the other animal yoked to or desiring the goods of the Ásvins' chariot is the *śimśumāra*, a Sanskrit word translated as "Krokodil" by Geldner, and as "Delphinus Gangeticus"⁵⁰ by Williams (1899) and Grassmann (1872). Given the context of the present discussion, it is natural to look to see whether this "Krokodil" represents another constellation in the sky, which is close to Auriga and Taurus. Not very surprisingly, such a constellation exists. The constellation Cetus "whale, dolphin" is close to Taurus (right behind it) and seems indeed to "stare" at the Chariot (cf. figs. 2, 6). Cetus is an old constellation as well, whose origins are believed to go back to Mesopotamia.⁵¹ The Vedic verse, therefore, offers a very vivid picture of the relative celestial positions of Taurus, Auriga, and Cetus.⁵²

One of the most difficult issues in the mythology of the Ásvins concerns the significance and nature of the sun's daughter Sūryā, who always travels across the sky's firmament in the Ásvins' chariot.⁵³ The Ásvins, in fact, are said to possess Sūryā. I give below some of the most important passages concerning Sūryā:

4.43.2. ... *ráthaṃ kám āhur dravádaśvam āśúm yám sūriyasya duhitāvṛṇīta*.

4.43.2. ... Welchen Wagen nennen sie den schnellen mit den raschlaufenden Rossen, den die Tochter des Sūrya sich erkor?

4.43.6. ... *tád ū śú vām ajiráṃ ceti yānaṃ yéna páti bhávathaḥ sūriyāyāḥ*

4.43.6. ... Diese eure schnelle Fahrt machte fein Aufsehen, durch die ihr die Gatten [*pāti* = probably, "the possessors," not "husbands" — my note; cf. Grassmann; cf. 7.68.3 below;

⁵⁰ English "Porpoise"; German "Meereschwein."

⁵¹ Cf. Kidd (1997: 314). Certainly, all these old constellations may have their origin in Mesopotamia; however, it is also possible that other cultures in Asia knew of them.

⁵² In Homer (*Il*.18.488 = *Od*.5.274), it is said that the constellation of the Great Bear stares at Orion; cf. Anghelina (2010); the Homeric metaphor is strikingly similar to that of the Vedic passage about Cetus.

⁵³ There are no reasonable explanations for Sūryā. Grassmann (1964 = 1872) equates Sūryā with the sun; however, in 4.43.3 it is clearly stated that Sūryā is Sūrya's daughter.

the meaning "husbands" would presuppose an unattested Vedic matriarchal polygamy!] der Sūryā werdet.

5.73.5. *ā yád vāṃ sūriyā rátham tīṣṭhad raghuṣyádam sádā*
pāri vāṃ aruṣā váyo ghr̥ṇā varanta ātápah

5.73.5. Wann Sūryā euren Wagen besteigt, den immer schnell fahrenden, dann halten eure rötlichen (Vogel)rosse die Gluten von sich ab, dass sie nicht versengen.

6.63.5. *ádhi śriyé duhitā sūriyasya rátham tasthau purubhujā śatótim ...*

6.63.5. Des Sūryā Tochter hat zur Herrlichkeit euren hunderthelfenden Wagen bestiegen, ihr Vielnützende.

7.68.3. *prá vāṃ rátho mánojavā iyarti tiró rájāṃsi áśvinā śatótiḥ*
asmábhyaṃ sūriyāvasū iyānāḥ

7.68.3. Euer gedankenschneller Wagen mit den hundert Gnaden setzt sich in Bewegung durch die Räume, o Áśvin, zu uns eilend, ihr Besitzer der Sūryā (*sūriyāvasū*).

4.44.1. Diesen euren Wagen wollen wir heute anrufen, den breitbahnigen, ihr Áśvin, um die Zeit, da sich das Rind sammelt (cf. Geldner: "der Morgen," i.e., "in the morning"); der die Sūryā fährt, der viel Platz hat (*yáḥ sūriyāṃ váhati vandhurāyúr*) ...

That Sūryā is a very important character in the mythology of the Áśvins is shown by the fact that their chariot has three seats⁵⁴; in all likelihood, these seats belong to the Áśvins and to Sūryā, respectively.⁵⁵ But who, in fact, is Sūryā?

The constellation Auriga "the Chariot" can offer a spectacular solution to this issue as well. This solution concerns one of the stars in Auriga, which is among the brightest stars in the sky of the northern hemisphere. This is Capella, the "Goat" or α Aurigae, which is a first magnitude star with

⁵⁴ Cf. above 8.22.5; 1.47.2.

⁵⁵ Cf. above n.46 (Geldner); Keith (1925: 114); Hillebrandt (1990: I 369, n. 11) is opposed to this view.

regard to its brightness (cf. fig. 1).⁵⁶ Capella is located right at the top of the Chariot, a position which perfectly accounts for the fact that Sūryā is seated in the chariot. Sūryā then represents Capella. The Sanskrit name Sūryā, which is obviously derived from that of the sun, wonderfully accounts for Capella's brightness.

The celestial nature of the Aśvins and their chariot can explain other difficult passages as well. For example, stanza 1.30.19 (quoted above, in the section about Indra), which describes the Aśvins stopping their chariot on the bull's head, contains an interesting metaphor, which is also present in 5.73.3 and 8.22.4; one wheel of the Aśvins' chariot stops upon the bull's head or "is left behind," whereas the other one keeps on revolving in and around the sky: *pāri dyām anyād īyate*.⁵⁷ Geldner interprets these passages as meaning that one wheel remains in heaven whereas the other one comes on earth to the worshipper, who would prepare himself to sacrifice a bull for the Aśvins. Therefore, the bull in these passages would be, according to Geldner, a sacrificial bull. This does not seem to be a viable argument; why and how would a chariot stop on a real bull's head? In addition, the name itself used for the "bull" in this passage, *aghnyā*, "not to be slain," shows clearly that this is not a sacrificial bull.

Given that the Bull represents Taurus, I would give a different explanation for the passage above. Thus, the shape of the constellation Auriga lets us imagine the "front" wheel of the chariot, but not the one on the other side of the chariot (cf. figs. 1 and 2), which seems indeed to be hidden in the sky.⁵⁸ The metaphor then may simply underscore this fact; the first wheel, that is, the front wheel of the chariot, rests on Taurus's head; the second one, which cannot be pictured on the two-dimensional surface of the celestial firmament, keeps on revolving in heaven and ensures the motion of the chariot.⁵⁹

⁵⁶ Cf. Kidd (1997: 239).

⁵⁷ Cf. also 5.73.3: *īrmānyād vāpuṣe vāpuś cakrām rāthasya yemathuḥ*.

⁵⁸ That this is the case is clearly stated in 10.85.16: "Deine zwei Räder, o Sūryā, kennen die Brahmanen genau, aber das eine Rad, das verborgen ist, das kennen nur die Wahrheitskenner"; cf. Geldner. In the passage it is also said that the chariot has three wheels, which is strange; this may have to do with the general three-fold form of the chariot (i.e., the three seats of the chariot; cf. above); obviously, the "front wheel" is represented by the tip of Taurus's horn, i.e. β Tauri = γ Aurigae.

⁵⁹ That this fact is enigmatic is expressed in 5.73.3: *vāpuṣe vāpuś* "zum Staunen erstaunlich."

I would finally speculate about the meaning of two other passages, in which the Ásvins are invoked either to come down to earth from the top of the "mountain" (*párvatasya mūrdhāni*; cf. 7.70.3 above) or to make their celestial revolution through the "mountain" (*párvatam*; cf. 10.17.13). Since the Ásvins' trip is through the sky, it is likely that this "mountain" is celestial as well. The most likely candidate for this is the celestial meridian, which defines the highest point in the sky a star reaches. Such a metaphor would not be as strange as it might first seem, since this is actually what happens in the sky; indeed, during its nocturnal course, a star is seen as "climbing up" in the sky until it reaches its highest point, which is the celestial meridian ("the mountain"); once it reaches this point, the same star is seen as "descending" towards its setting point in the west.

The fact that the Ásvins and their chariot represent Gemini and Auriga, respectively, raises another important issue, which concerns the transparent etymology of the Ásvins' name. Thus, it is likely that the "possession of horses" that is implied by this name has to do with the Ásvins' chariot. In other words, the existence of the chariot implies the existence of horses yoked to the chariot.⁶⁰ Were these horses represented in the sky by stars or constellations? A clear answer to this question is not possible to give, but the issue is less important. What is important is that the Ásvins possess a chariot, which naturally has horses yoked to it.

* * *

In the above discussion I explored some of the most intriguing aspects of the Ásvins' mythology including their nature; I showed that, in all likelihood, these gods represent the constellation Gemini. There is, however, one essential aspect that still remains to be explained. This concerns the fact that the Ásvins are — as the numerous passages above show — constantly invoked at dawn to bring their chariot laden with goods/wealth to earth. What is the significance of this wealth and why is their chariot laden with it? And, most importantly, why are they invoked at dawn?

To answer this question we need to go back to the discussion about Indra. It is impossible to fully grasp the role of the Ásvins in the *Rig Veda* without a complete understanding of Indra's nature

⁶⁰ It has been noted many times, e.g., by Keith (1925: 114) and Macdonell (1897: 50), that sometimes the Ásvins' chariot is drawn by birds (swans etc.). However, this may be only metaphorical language. The fact that the chariot is in the sky may have contributed to the idea that these horses were winged; in fact, this is how Geldner translates adjectives such as *patatrín* (cf. 7.69.7, "Flügelrossen").

and role in this religion. Certainly, as the present study shows, Indra represents the constellation Taurus during an age when the constellation was announcing the spring equinox. He is the great celestial bull supporting the sky on his head, regulating the succession of the seasons or the alternation between day and night, preparing the sun's path at dawn. Indra's myth, however, has much more to offer. This concerns the most important aspect of Indra's mythology, which is the god's well-known fight with the demon Vṛtra. Therefore, Indra's role in the Vedic mythology cannot be completely understood without addressing the issue of this cosmic fight.

C . I N D R A A N D V R T R A

The identification of Indra with the constellation Taurus immediately raises a pivotal issue, which concerns the significance of Indra's fight and victory against the demon Vṛtra. Therefore, given that Indra represents Taurus, who can Vṛtra be? Most importantly, why is there a fight between the two? Is this a meaningless myth?

A closer examination of some passages in the *Rig Veda* shows that, as is the case with Indra, Vṛtra's location is also in the sky, where he was placed by Indra:

10.138.6. *etā tiyā te śrútiyāni kévalā yád éka ékam ákṛṇor ayajñám*

māsām vidhānam adadhā ádhi dyávi tváyā víbhinnam bharati pradhím pitá

10.138.6. Auf diese rühmlichen Taten hast nur du Anspruch, dass du der Eine den Anderen opferlos machest. Du setzest (ihn = Vṛtra; cf. Geldner) als Einteiler der Monate an den Himmel; den von dir Zerspalteten trägt der Vater (the sky; cf. Geldner) als Scheibe.

10.49.6. ... ich der Vṛtratöter ... den sich auswachsenden, gehörig sich ausbreitenden (Vṛtra) am fernen Ende des Raumes im Himmelslichter verwandelte (*dūré pāré rájaso rocanākaram*).

1.80.4. *nír indra bhūmīyā ádhi vṛtrám jaghantha nír diváh.*

1.80.4. Du, Indra, hast von der Erde, vom Himmel den Vṛtra vertrieben.

Vṛtra, therefore, represents certain "lights" of the sky at the end of the celestial space (cf. above RV 10.49.6). As in Indra's case, these lights function as regulators of the seasons/months, which show clearly that *rocaná*, the Sanskrit word for "lights," does refer to "lights" located in the sky, that is, to stars. In other words, given that Indra is Taurus, these characteristics of Vṛtra strongly hint to the fact that, in all likelihood, Vṛtra represents another constellation in the sky. Surprisingly, however, Vṛtra is also said to have been banished from the sky by Indra; this seems to be in contradiction with Vṛtra's celestial nature.

To determine who the celestial Vṛtra is, it is important to notice from the outset that the cosmic fight between Indra and Vṛtra is about conquering the sun. Here are some relevant examples:

- 1.100.6. *sá manyumíḥ samádanasya kartá asmákebhír nṛbhiḥ sūriyaṃ sanat
asmínn áhan sátpatiḥ puruhūtó marútvān no bhavatu índra ūtí*
- 1.100.6. Der Vereitler der bösen Absicht, der Erreger des Streits möge mit unseren Mannen das Sonnenlicht gewinnen, an diesem Tag vielgerufen als der rechtmäßige Herr — der Indra soll uns in Begleitung der Marut zu Hilfe kommen.
- 3.34.8. *satrásāhaṃ vāreṇiyaṃ sahodāṃ sasavāṃsaṃ súvar apás ca devíḥ
sasāna yáḥ prthivīm dyā́m utémām índram madanti ánu dhíraṇāsaḥ*
- 3.34.8. Dem vollständigen Sieger, dem vorzüglichen Siegverleiher, der die Sonne und die göttlichen Wasser gewonnen hat (*sasavāṃsaṃ*), der die Erde und diesen Himmel gewonnen hat (*sasāna*), dem Indra jubeln die Liederfrohen Beifall zu.
- 6.17.8. *ádha tvā víśve purá índra devá ékaṃ tavásaṃ dadhire bhárāya
ádevo yád abhí aúhiṣṭa devān súvarṣātā vṛṇata índram átra*
- 6.17.8. Da stellten dich allein, den Starken, alle Götter an die Spitze, um (den Sieg) zu gewinnen, o Indra; als der Ungott sich über die Götter überhob, da erwählten sie im Kampf um die Sonne [*súvarṣātā* = "in the fight for light" — my note] den Indra.

The fact that at the spring equinox Taurus "conquers" the sun by killing Vṛtra shows that the constellation Vṛtra is also related to the spring equinox. The decisive element for determining this

constellation is Vṛtra's location at "the end of the celestial space." Thus, it is well-known that the constellation Scorpio is diametrically opposed in the sky to Taurus. This means that at the spring equinox the heliacal rising of Taurus occurs at the same time as the setting of Scorpio, which is indeed located at "the end of celestial space" with respect to Taurus. Vṛtra then cannot be other than Scorpio, a constellation that, like Taurus, functions as a "regulator" of the seasons (in particular, during the Taurus era, Scorpio announced the fall equinox!). The Vedic myth, therefore, captures a precise moment in the early-morning sky; this is the moment when, at the spring equinox, Taurus heliacally rises in the east, and, simultaneously, Scorpio sets in the west, disappearing from the sky. Metaphorically, the sun is "conquered" by Taurus-Indra, and Scorpio-Vṛtra is "banished" from the sky.

The identification of Vṛtra with Scorpio raises the important issue of how the Vedic people got to know this constellation. Scorpio is an old constellation, known by the Babylonians and, most likely, even before them by the Sumerians.⁶¹ Therefore, like Taurus, this constellation also seems to have been known in Mesopotamia as early as the third millennium BC. The Indo-Aryans then could have borrowed Scorpio either from the Mesopotamians, or from other people belonging to the same geographical milieu.

I would add here another strong element which undeniably shows that Vṛtra represents the constellation Scorpio. This is the fact that Vṛtra is often presented as a sort of dragon or snake (*áhi*).⁶² Given Scorpio's shape in the sky (cf. figs. 9; 10), this is unlikely to be a coincidence. Indeed, Scorpio's shape can be easily interpreted as either a scorpion or a snake/dragon. That this is not very speculative is shown by the fact that the Javanese people also imagine Scorpio as a snake.⁶³ Therefore, the interpretation of Scorpio as representing a dragon or snake is not only possible, but, in the context of the present argument, also very probable. Certainly, I do not mean by this that the Vedic constellation was identical to the zodiacal sign Scorpio as we know it. In fact, it is well-known that the

⁶¹ The Sumerian name for Scorpio was ^{mul}GIR.TAB; cf. Hartner (1965: 3–5).

⁶² For references, cf. Grassmann (1964), the entry for *áhi*.

⁶³ Cf. Staal (1988: 225); the information comes from the Zeiss library of planetarium projections (cf. Staal xii); Scorpio is also pictured as a snake by tribes in Brazil; I did not, however, have access to the original source.

Babylonian constellation known as Scorpio included the constellation Libra as the scorpion's claws.⁶⁴ It is clear, however, that the Vedic world imagined Scorpio's general shape as representing a dragon or a snake.

Therefore, the battle between Indra and Vṛtra is a metaphor for the cosmic/astronomical event occurring at the spring equinox, when Taurus appears on the eastern horizon at dawn, and Scorpio sets in the west. Taurus "wins" the sun and "defeats" the dragon Scorpio.⁶⁵ This interpretation of the myth points immediately to an additional and important issue. Thus, since the battle between Indra and Vṛtra ends at the spring equinox with Indra's victory, could this possibly mean that the Vedic myth tells the story of the spring's victory over the winter season? In order to answer this new question, other parts of the myth need to be explained.

One of the most important elements of the myth is represented by the metaphor of the "release of the waters," which occurs through Indra's victory over Vṛtra. The "release of the waters" has been interpreted in various ways.⁶⁶ J. Muir (1868–1873 (5): 95) thought that Vṛtra was the demon of drought, whom Indra conquers in order to bring back the rain. The same opinion, with some variations, was supported by A. Ludwig (1876–1888 (3): 337), A. Bergaigne (1969–1972 (2): 207), and A. A. Macdonell (1897: 91). A. B. Keith (1925:127) also finds this opinion plausible. Recently, W. D. O'Flaherty (1981: 152) has explained the "release of the waters" in similar terms. H. Oldenberg (1913: 137), on the other hand, considers that the "waters" do not represent the rain, but the rivers spreading from the springs when the winter season is over. This opinion is shared by A. Hillebrandt (1990 (2): 104–105, 109), who believes that the myth of "the release of the waters" expresses a reality found in temperate regions, in which the rivers free themselves from ice during spring time.⁶⁷ All these

⁶⁴ Cf. Hartner (1965: 15).

⁶⁵ Oberlies (1998: 363–66, 369–70) argues that this myth is cosmogonic and that Vṛtra is the primeval dragon, who holds in himself the primordial waters. This observation is not in conflict with my hypotheses here; in fact, in 10.49.6 (see above) it is said that Indra placed Vṛtra in the sky after he defeated him, which makes this myth etiological as well; the "battle" between Taurus and Scorpio at the spring equinox then can be interpreted as the reenactment of the primordial battle between Indra and Vṛtra *illo tempore*.

⁶⁶ For a synopsis of the older views, cf. Hillebrandt (1980 (2): 94–119).

⁶⁷ Hillebrandt's hypotheses, however, have nothing to do with the astronomical event of the spring equinox.

hypotheses will prove to be extremely important to my argument here, because they bring up the issue of seasonal change from winter to spring.

The hypothesis that the myth of Indra slaying Vṛtra is a metaphor for the change of the seasons at the spring equinox, with Indra and Vṛtra representing the equinoctial constellations, hints indeed at the idea that the "release of the waters" may have to do with a shift in the weather pattern at the spring equinox. Is this shift related to the start of the rainy season?

It is well known that the rainy (monsoon) season in India starts in late June and ends in September/October. This period of time does not include the spring equinox. This is a great impediment to the theory of a rainy season beginning at the spring equinox.⁶⁸ Hillebrandt's assumptions managed to get around this difficulty by assuming that the myth originated in a region in which the spring season could indeed determine such a change in the weather pattern. This is the case only in the northern, temperate regions of Asia. Moreover, Hillebrandt's argument, according to which the waters are generated by the melted ice, is not very compelling, since ice does not seem to play a role in the myth. Therefore, the solution I am proposing here is slightly different from Hillebrandt's; it combines Hillebrandt's argument with those relating the waters to the spring rain.

In the temperate regions of Eurasia the beginning of spring is associated with rain, which is essential for the development of the crops. I argue, therefore, that the "release of the waters," which is the result of Indra's victory over Vṛtra, represents the spring rain occurring at the beginning of the spring season in the temperate regions of Eurasia. In astronomical and meteorological terms, this means that Taurus' equinoctial rising in March, when the fields start to germinate, brings rain to the land. This explains perfectly why Indra was so often invoked to bring prosperity to the Vedic tribes. The most important consequence of this argument, however, is that the myth must have been created in those regions in which the Indo-Aryans found themselves before they entered the Indian sub-

⁶⁸ Oberlies (1998: 419–24), drawing on post-Vedic evidence, relates Indra to the beginning of the Vedic new year, which started, in his opinion, at the winter solstice (the time when the sun "conquers" darkness); however, he eventually acknowledges that his theory cannot explain the "release of the waters." One should note, however, that there is no certainty that the new year started at the winter solstice in the *Rig Veda*; cf. Bryant (2001: 253–54). The Iranian evidence shows that the pre-Zoroastrian new year began at the spring equinox; cf. Blois (1996: 48–49).

continent. This must have occurred before 2000 BC,⁶⁹ since Taurus announced the spring equinox between 4000 and 2000 BC.

The observation that the myth of Indra killing Vṛtra goes back to before 2000 BC raises an important question; can this astronomical myth be an Indo-Iranian creation? The answer to this question is apparently in the negative. On one hand, the status of Indra in the Avesta is not as prominent as in the *Rig Veda*; in the Avesta, Indra is only a minor deity.⁷⁰ On the other hand, the demon Vṛtra is not present in the Iranian religion (Avesta), which means that this religion did not know the myth of Indra slaying Vṛtra. Therefore, this myth seems to be an Indo-Aryan creation.

A connection between the *Rig Veda* and the Avesta, however, does exist. Thus, in the Avesta there is a deity called Vṛθragna. This immediately brings to mind that one of the most important epithets of Indra is Vṛtrahan "Vṛtra's killer" (cf. Skt. *han-* = "to kill"). Given this, a natural question arises: what is the relation between Vṛtra and Vṛθragna?

In his comprehensive study about Vṛtra and Vṛθragna, Benveniste (1934: 177–199) argues that Vṛθragna does not refer to a demon Vṛθra. His arguments are the following. First, as I have already pointed out, there is no mention of a demon Vṛtra in the Iranian texts. Secondly, the word Vṛθragna in the Avesta has a different meaning from its Vedic counterpart, since it refers neither to a demon Vṛtra nor to Indra. According to Benveniste, the name of the god Vṛθragna in the Avesta has its origin in the neuter noun vṛθra, which derives from the root *vṛ- "to cover" and means "defense." Therefore, the meaning of the word Vṛθragna would be "the one who destroys the defenses," and Vṛθragna would be "the god of victory" in the Avesta. Benveniste concludes that the myth of Indra and Vṛtra is a purely Vedic creation that derives from an Indo-Iranian background; thus, starting from the Indo-Iranian character, the Indo-Aryans would have invented the demon named Vṛtra and the myth of Vṛtrahan (Indra) slaying it.⁷¹

⁶⁹ The split of the Aryans into Indo-Aryans and Iranians seems to have occurred around or even before 2000 BC; cf. Mallory (1989: 38–39).

⁷⁰ Cf. e.g., Macdonell (1897: 66); Hillebrandt (1980: I 257–59).

⁷¹ Benveniste also notices that a fight between a hero and a snake/demon does exist in the Avesta; these characters are Θraitauna and Aži Dahāka (cf. Skt. *āhi*). Benveniste argues that this myth, which represents the general IE myth of the hero fighting the dragon, continued to exist in the myth of Indra and Vṛtra. Therefore, the Indo-Aryans would have

Benveniste's arguments are extremely interesting from the standpoint of comparative mythology. The absence of Vṛtra from the Iranian religion, however, does not exclude the possibility that the Indo-Iranian *Vṛtraghan, the "god of victory," represented Taurus in Indo-Iranian times.⁷² Certainly, if Benveniste is right about the origins of Vṛtra, this would mean that the Indo-Iranians celebrated Taurus in a religious context lacking Scorpio. It would also mean that the further development of the myth, which contains the fight between Indra/Taurus and Vṛtra/Scorpio, was an Indo-Aryan invention dating back to at least 2000 B C, during the time when Taurus still announced the spring equinox.⁷³ Even in such circumstances, which seem unlikely to me, the myth would still have to be seen as created outside India, in the more northern and more temperate Asian regions.⁷⁴ I will take up these issues again in the section on the Ādityas.

D . A N O L D A N D F O R G O T T E N T H E O R Y

The hypothesis that Indra represents a constellation is not new.⁷⁵ E. M. Plunket (1903) was struck by the astronomical connotations of some of the passages in the *Rig Veda* and thought that Indra was the god of the summer solstice and that Vṛtra represented the constellation Hydra. In her view, the victory

adapted the character of Vṛtrahan to their new myth, inventing a demon Vṛtra, which they further used in the myth of the hero slaying the dragon.

⁷² Schmidt (2006) argues that the Vedic Indra replaced the Indo-Iranian *Vṛtragna; for a synopsis of the whole issue, cf. Oberlies (1998: 247–250); Gnoli & Jamzadeh (1988).

⁷³ In my opinion, the dating of this myth to before 2000 B C is unavoidable. Thus, Indra defines the succession of the seasons, and supports the sky on his head; these are transparent hints to his being located on both the celestial equator and the ecliptic. In addition, the existence of the Indo-Iranian Vṛtrahan, who is likely to be identical with Indra/Taurus, also supports the same dating, since the Indo-Iranian group must have existed only before 2000 B C. On the other hand, the myth of the "release of the waters," which marks the beginning of the spring season, makes perfect sense only in respect to the spring equinox. In other words, if one assumes that the myth was created on Indian soil after 2000 B C, when Taurus rose heliacally in April, there is no way to reconcile the myth with the Indian monsoon season in June! Finally, it is worth noting that the mere fact that Indra is the greatest Vedic god means that he must have been astronomically important; this is the case of Taurus before 2000 B C.

⁷⁴ For the chronological issues, also cf. Oberlies (1998: 152–62).

⁷⁵ It is worth mentioning that Plunket was not a specialist in Vedic studies.

of Indra and the release of the waters would symbolize the beginning of the monsoon season in India, which occurs around or shortly after the summer solstice (late June). Plunket, therefore, tries to connect the myth of Indra with the seasonal cycle of the Indian subcontinent; obviously, for her this myth is a creation belonging to the Indian subcontinent.

This interesting idea, however, is unlikely to be true. The summer solstice at the time when the Vedic people arrived in India (most likely not before 2000 BC) was represented by the constellation Cancer. It is hard to see any connection between the "great Bull of the sky" and Cancer.⁷⁶ Why would Cancer be the Vedic "great Bull of the sky" when Taurus had already been fulfilling this role in several cultures for thousands of years? This single objection renders Plunket's theory and dating of the myth untenable. Another problematic aspect of Plunket's theory concerns the identification of the dragon Vṛtra with Hydra. Thus, as I showed above, Vṛtra is a constellation indicating the seasons. Hydra does not fulfill this role, since it is not located on the ecliptic. Finally, as we shall see below, another strong argument against Plunket's theory is that the identification of Indra with Cancer cannot account for the close relationship existing between Indra and Soma.

The arguments against Plunket's theory are strong. It is worthwhile, however, to explore Plunket's apparently strongest argument for the identification of Indra with the summer solstice constellation. This is based on those few passages in the *Rig Veda* in which Indra is said to "stop" the horses of the sun:

10.92.8. *súraś cid á haríto asya rīramad índrād á kás cid bhayate távīyasaḥ*

10.92.8. Selbst die Sonne hielt ihre falben Stuten an. Vor Indra als Stärkerem fürchtet sich ein jeder ... (cf. Geldner's note: "Auch dem Svar brachte er seine Falbinnen zum Stillstand").

1.121.13. *tuvám súro haríto rāmayo nṛñ*

1.121.13. Du Indra hieltest die Falbinnen des Sonnengottes an den Männern (beistehend) ...

⁷⁶ Plunket does not seem to notice that Indra is the "Bull" *par excellence*.

The Sanskrit verb *ram* in these passages can indeed mean to "stop," as translated by Geldner (Germ. *halten* "to stop"). Plunket, who follows Griffith's English translation, in which the verb is translated as "to stop" as well, interprets this as a transparent allusion to the summer solstice, the time of the year when the sun's horses would "stop."⁷⁷

The passage Plunket mentions, however, can be interpreted in a different way. Thus, there are other Rig Vedic passages in which Indra apparently does not "stop" the sun's horses, but brings them behind/next to him.

5.29.5. *ádha krátvā maghavan túbhyam devá ánu víśve adaduḥ somapéyam*
yát súriyasya harítaḥ pátantīḥ puráh satīr úparā étaśe káh

5.29.5. Da gestanden dir alle Götter nach Wunsch den Somatrank zu, du Gabenreicher, als du des Sūrya fliegende Falbinnen, die voraus waren (*puráh satīr*) unter Etaśa ins Hintertreffen (*úparā*) brachtest.

8.50.8. Deine falben Wagenpferde, die ohne Unfall zu erleiden des Windes Kraft überholen, mit denen du den Dasyu vor Manu zum Schweigen brachtest (?), mit denen du die Sonne einholest (*yébhiḥ súvaḥ parīyase*).

The story of Indra catching up with the sun's horses then may be the same with that in the passage quoted by Plunket. If this is the case, then the meaning of the verb *ram* in that passage should be reconsidered. Monier-Williams gives one possible meaning of *ram*, as "to calm; to set to rest"; this seems indeed to have been one of the main meanings of *ram*, since in other Indo-European languages and in Sanskrit as well words derived from the same root have similar meanings (cf. Lith. *rìmti* "to be calm"; Gk. *erêmos* "lonely"; Skt. *rāmá, rāmyā* "night" = "time for rest").⁷⁸ It is then possible that the meaning of the passages Plunket alluded to is that Indra calmed the sun's horses so that he could catch up with them at the spring equinox. As I noted above, this is precisely what happens at the equinox. The verb *ram* in the passages quoted by Plunket then may mean "to calm down." In fact, in

⁷⁷ In fact, the sun's horses never stop, since the sun never stops.

⁷⁸ Cf. Mallory & Adams (2006: 355).

the passage describing the Ásvins "stopping" their chariot on the bull's head, the word for "to stop" is *ni-yam* (cf. also 5.73.3), not *ram*.

To sum up: the Rig Vedic evidence that Indra represents the constellation Taurus makes the interpretation of Indra as the god of the summer solstice unlikely. Plunket's merit, however, is incontestable, since she had the intuition that the Rig Vedic passages and myths express celestial phenomena.⁷⁹

Indra's myth, therefore, concerns the advent of the prosperous spring. It is in this context that one can best understand the Ásvins' role in bringing wealth to the land/people. The heliacal rising of Taurus at the spring equinox (in March) implies that the heliacal rising of Gemini occurred in the second part of April. In the temperate regions of Eurasia, this is the time of the year when, after the rains of the early spring, the fields begin to produce the early green foliage, which will eventually become the crops to be harvested at the end of summer. The Ásvins' wealth, therefore, is not an abstract notion. As was the case with the "release of the waters" in the myth of Indra, the invocation of the Ásvins' chariot to bring wealth to the people has a clear correlate in nature. Therefore, since the worship of these gods most likely took place in April, there is no need to assume — as Brunnhofer and Weber assumed a long time ago — that the myth was created during a period of time when the Ásvins announced the spring equinox, i.e., between 6000 and 4000 B.C.⁸⁰ In addition, the probable absence of the Ásvins in the Iranian religion also shows that the myth was created later, after the separation of the Indo-Aryans from their Iranian brethren.⁸¹

⁷⁹ Plunket also identifies other Vedic gods with known constellations. I do not find her hypotheses very attractive. To give an example: she identifies the Ásvins with the late Hindu *nakṣatra* *Áśvinī*, which represents β and γ Arietis. If this were true, the Ásvins' chariot would be directed in the sky in a direction opposed to that assumed in the present paper. *Áśvinī*, however, is a feminine noun, and, therefore, cannot represent the Ásvins.

⁸⁰ I explained above that the constellation announcing the spring equinox changes every 2000 years because of the "the precession of the equinoxes."

⁸¹ The *communis opinio* is that the origin of the Ásvins is Indo-European, since similar twin gods can be met with in different IE cultures such as the Greek, Baltic or Germanic ones; however, this does not constitute a proof that the astronomical Ásvins were of Indo-Iranian origin, as e.g. Macdonell (1897: 53), Keith (1925: 117) or Hillebrandt (1990: I 36) think. The Ásvins are not present in Iranian religion, although it is known that they are present in the Indo-Aryan branch

The Vedic religion, therefore, celebrated the advent of the spring through the worship of the constellations Taurus and Gemini in March and April, respectively. Before these months, these constellations were invisible in the sky for most of the night time. One can, therefore, easily understand why they were worshipped with such devotion; their sudden appearance in the morning sky coincided with the advent of the spring, the season of the year that brought prosperity to the land and its people.

The present astronomical interpretation of Indra and the Ásvins raises the possibility that other important Vedic gods might enjoy the same celestial status. The next gods who immediately come to mind as potential candidates for a celestial place are Indra's associates, the Maruts.

E . THE MARUTS

Among the most important deities in the *Rig Veda* are the enigmatic Maruts, thirty-three hymns being dedicated to them alone, seven at least to them conjointly with Indra, and one hymn with Agni and Pūṣan.⁸² The Maruts are intimately associated with Indra. Thus, they increase Indra's strength and prowess (3.35.9; 6.17.11), and they assist Indra in his fight against Vṛtra (8.65.2–3; 10.113.3); they even strike Vṛtra assisted by Indra (1.23.9). Their chief is Indra (1.23.8); they are accompanied by Indra (10.128.2). These associations with Indra made Macdonell (1897: 81) think they were, like Indra, gods of the storm. The hypothesis, however, that Indra is the constellation Taurus forces us to reevaluate the meaning of these gods and their mythological traits.

One of the most important qualities of the Maruts is their brightness, which lights darkness. The Maruts appear at dawn with the first sun rays. They are located in a place which is said to be the seat of the world order (*ṛtásya sádaneṣu*). I give below these passages which describe the attributes of the Maruts.

1.37.2. ... von selbst glänzend (*svábhānavaḥ*)

of the Mitanni people. In any case, even if they could be shown to be present in the Iranian religion, this would not mean that their worship goes back to before 4000 B.C.

⁸² Cf. Macdonell (1897: 77).

- 1.37.4. ... die Heerschar von funkelndem Glanze
- 1.64.8. ... die Nächte belebend ... (*kṣápo jínvantaḥ*)
- 2.34.12. *té dásagvāḥ prathamā yajñám ūhire té no hinvantu uṣáso víuṣṭiṣu*
uṣá ná rāmír aruṇaír áporṇute mahó jyótiṣā śucatā góarṇasā
- 2.34.13. *té kṣoṇībhir aruṇébhīr ná añjībhi rudrá ṛtásya sádaneṣu vāṛdhuḥ*
niméghamānā átiyena pájasā suścandrām várṇam dadhire supésasam
- 2.34.12–13. Die Daśagva's haben zuerst das Opfer ausgeführt. Die sollen uns bei dem Aufgang der Morgenröte anspornen: Wie die Morgenröte mit ihrem rötlichen (Farben) die Nächte aufdeckt, (so deckten sie die Kuhhöhle auf) mit dem herrlichen, glühenden, rinderwogende Lichte./ Die Rudrasöhne [the Maruts are Rudra's sons — my note] sind mit ihren Scharen wie (die Uṣas') mit ihren rötlichen Farben an den Sitzen der Weltordnung (*ṛtásya sádaneṣu*) groß geworden. In Rossgestalt herabharnend nahmen sie ihre leuchtende, schöne Farbe an.
- 5.61.12. *yéṣāṃ śrīyádhi ródasī vibhrájante rátheṣu á*
diví rukmá ivopári
- 5.61.12. Die durch ihre Schönheit auf ihren Wagen Himmel und Erde überstrahlen wie der Goldschmuck (i.e., the sun; cf. Geldner) oben am Himmel.
- 7.57.3. ... Himmel und Erde schmückend ...
- 8.7.8. Sie lassen mit Macht der Sonne den Zügel schießen, dass sie ihre Bahn laufe. (Zugleich) mit deren Strahlen haben sie sich zerstreut.
- 8.7.36. *agnír hí jáni pūrviyás chāndo ná súro arcīṣā*
té bhānúbhir ví tasthire

- 8.7.36. Denn Agni ward als erster geboren; wie ein Verführer (lacht) die Sonne im Strahlenglanz. (Zugleich) mit der Sonnenstrahlen haben sie sich zerstreut.

Many passages show the Maruts as connected with the sky; they can appear in the night sky, travel along the sky, and come up in the sky. Most importantly, they are located in the sky:⁸³

- 1.37.7 Vor eurer Auffahrt weicht der Menschensohn ...
- 1.38.2. Wohin jetzt - was ist eure Reiseziel?
- 1.85.2. ... *diví rudráso ádhi cakrire sádaḥ*
- 1.85.2. ... die Rudra(söhne) haben sich im Himmel einen Sitz erworben.
- 5.52.3 Sie springen über die Nächte weg wie die sprunglustige Stiere ...
- 10.77.2. *śriyé máryāso añjīṃr akṛṇvata sumárutaṃ ná pūrvīr áti kṣápaḥ*
divás putrása étā ná yetira ...
- 10.77.2. Zur Schönheit legten die Jünglingen ihre Zierraten an, wie ihr schönes Marutwetter über viele Nächte. Des Himmels Söhne haben sich wie Antilopen zusammengeschlossen ...
- 2.34.10–11. Diese eure wunderbare Fahrt, ihr Marut, ist denkwürdig ... Die großen, eilig gehenden Marut ...
- 7.58.1. ... sie kommen bis zum Himmel aus dem Reiche des Todes ...
- 5.53.8. Komm her, ihr Marut, vom Himmel ... (*á yāta maruto divá*).
- 8.7.11. *máruto yád dha vo diváḥ sumnāyánto hávāmahe ...*

⁸³ In fact, they are literally called the heroes (*vīrāḥ*) of heaven; cf. 1.64.4; 1.122.1; 5.54.10; Macdonell (1897: 78).

- 8.7.11. Ihr Marut, wenn wir euch vom Himmel rufen um Wohlwollen bittend ...
- 1.166.4. ... Wunderbar ist eure Auffahrt ...
- 5.55.7. ... ihr fahret um Himmel und Erde ... (*utá dyāvāprthivī yāthanā pári*)
- 5.61.1 Wer seid ihr Herren, die ihr als Allerschönste einer nach dem anderen aus fernster Ferne gekommen seid?

Like Indra, the Maruts are connected with the sun; they are the "men of the sun" who surround Indra; they prepare the path for the sun; Indra, the "Bull," is their leader and brother (cf. e.g. 1.170.2 and 8.20.9):

- 1.166.11. ... *sámmiślā índre marútaḥ pariṣṭúbhaḥ*
- 1.166.11. ... die Marut, dem Indra gesellt als seine Umjauchzer ["attached to" — my note, cf. Grassman: "verbunden mit"].
- 5.57.5. ... *divó arkā amṛtaṃ nāma bhejire.*
- 5.57.5. ... des Himmels Chöre, wurden sie unsterblichen Namens teilhaft.
- 5.54.10. *yán marutaḥ sabharasaḥ suvarṇaraḥ sūrya údite mādathā divo naraḥ*
ná vo áśvāḥ śrathayantāha sísrataḥ sadyó asyá ádhvanaḥ pāram aśnutha
- 5.54.10. Wenn ihr gleichgewichtigen Marut, ihr Sonnenmänner, ihr Mannen des Himmels bei Sonnenaufgang ausgelassen seid, so lassen eure Rosse in ihrem Laufe niemals locker. An einem Tage erreicht ihr das Ende dieses Weges.
- 8.7.8. *srjánti raśmím ójasā pánthāṃ sūryāya yátave*
té bhānúbhir ví tasthire
- 8.7.8. Sie lassen mit Macht der Sonne den Zügel schießen (*srjánti raśmím*), dass sie ihre Bahn laufe. (Zugleich) mit deren Strahlen haben sie sich zerstreut.

All these attributes of the Maruts, which underscore their association with the night (or early-dawn) sky and with Indra, point to their celestial origin and place. Since Indra is Taurus, who might these bright men of the sky be?

Given the context of the present discussion, the answer to this question seems to come from itself. The celestial Maruts, who accompany Indra, i.e., Taurus, their leader, cannot be other than a set of stars or constellations. Which ones?

A brilliant hypothesis concerning the nature of the Maruts was made long ago by Hillebrandt (1980: II 381), who believed that the Maruts represented the star-cluster of the Pleiades.⁸⁴ Indeed, the Pleiades, which represent an asterism belonging to the constellation Taurus, are a very good candidate for being the Vedic Maruts.⁸⁵ Thus, their proximity to Taurus perfectly explains why Indra is said to be the Maruts' brother or leader and why the Maruts are able to help Indra in defeating Vṛtra; it also explains why the Maruts are said to "prepare" the path for the sun, since the Pleiades are, like Taurus, an equinoctial asterism; finally, it explains why the Maruts are said to bring rain to earth (the advent of the spring season).⁸⁶

The number of the Maruts, which is said to be either three times sixty, i.e., 180 (8.96.8), or thrice seven, i.e., 21 (1.133.6), reflects well the fact that the Pleiades appear in the sky as a cluster of many stars.⁸⁷

An interesting feature of the Maruts is that they are located *ṛtásya sádaneṣu*, that is, on the "seat of *ṛtá*." The Vedic concept of *ṛtá* has remained obscure and unexplained to this day. Geldner translates it in very different ways such as "world order" (Germ. *Weltordnung*, as above), "truth"

⁸⁴ The later Hindu name of this star-cluster is *Kṛttikās*; the renaming process of this constellation, therefore, seems to be similar to that of the Aśvins. Witzel (1999) analyzes the presence of the *Kṛttikās* in later literature (*ŚB*) and raises the possibility that this asterism (that is, *Kṛttikās*, not the Maruts!) was known to the Aryans in the third millennium B.C.

⁸⁵ I would not exclude the possibility that the Maruts represent the Hyades (the head of Taurus), a constellation known by the ancient Greeks.

⁸⁶ Cf. 1.64.5: *bhūmim pinvanti páyasā párijrayaḥ* " ... Sie überschwemmen herumfahrend die Erde mit Nass"; 1.85.5: *cármevodábhīr ví undanti bhūma* "Wie ein Fell begießen sie die Erde mit Wasser."

⁸⁷ Certainly these numbers do not represent the exact number of the Maruts. For the Greeks, for example, the Pleiades comprised seven stars, which were the most visible.

(Germ. *Wahrheit*), or "law" (Germ. *Gesetz*); the variety of these translations shows how difficult it is for scholars to interpret this concept.⁸⁸ I do not see how "truth" or "law" could explain the passage in which the Maruts are said to reside on the "seat of *ṛtá*." The interpretation of *ṛtá* as the "world order," however, can perfectly explain the passage. Thus, as I noted above, the Pleiades are an equinoctial asterism; this means that they are located on the sun's path, that is, on the ecliptic. It is well known that in the ancient world the ecliptic was pivotal for the keeping of time. Given this role of the ecliptic, the interpretation of *ṛtá* as the "world order" makes perfect sense in the context above. The Vedic "world order" represents the order that refers to the keeping of time, that is, to the regular succession of days, months, seasons, etc. (that is, "Time"!). It appears then that the Vedic concept of *ṛtá*, the "world order," refers to the ecliptic.

This interpretation of *ṛtá* can also explain why this concept is mentioned in 1.46.11 (quoted above in the section on the Áśvins), a verse that belongs to a hymn dedicated to the Áśvins:

1.46.11. *ábhūd u pāráṃ étave pánthā ṛtásya sādhyá*

ádarśi ví srutír diváh

1.46.11. Der rechte Weg ist bereitet, um glücklich ans andere Ufer zu gelangen; die Straße des Himmels [*srutír diváh* — a more accurate translation would be the "celestial stream" or "the stream of heaven" — my note] ist sichtbar geworden.

Geldner translates the first two lines as "Der rechte Weg ist bereitet (*sādhyá*), um glücklich ans andere Ufer zu gelangen (*pāráṃ étave*)." This translation, however, is not accurate. The phrase *pánthā ṛtásya* "der rechte Weg" literally means the "way/road of *ṛtá*." The conclusion that *ṛtá* represents the ecliptic (or the "cosmic order" derived from it) puts the whole passage into a completely different perspective. Thus, it is well known that, like the Pleiades, the constellation Gemini (i.e., the Áśvins) is also located on the ecliptic. Given this observation, the mention of *ṛtá* or of the "road of *ṛtá*" in the context of the Áśvins' appearance in the morning sky makes perfect sense;

⁸⁸ Cf. 7.64.2 (Mitra and Varuṇa are called *ṛtasya gopā* "the lords of *ṛtá*," that is, "Herren des Gesetzes" for Geldner); 7.60.5 (Mitra and Varuṇa are said to grow in the "house of *ṛtá*" *imá ṛtásya vāvr̥dhur durōṇé*, "im Hause der Wahrheit" for Geldner).

indeed, the Ásvins, *alias* Gemini, "travel" on *pánthā ṛtásya*, that is, on the ecliptic. As with regards to *srutír diváh*, which Geldner translates as "the heavenly road," a more appropriate translation would be "the stream of heaven." As I showed in the section on the Ásvins, this celestial river represents the Milky Way; it is the "river" in which the twin gods stand (cf. fig. 2).

The Ásvins and the Maruts, therefore, share the common feature of being located on the ecliptic (*ṛtásya sádaneṣu ~ pánthā ṛtásya*) which is described by the Vedic concept of *ṛtá*. It is well known, however, that other gods are even more intimately associated with *ṛtá*; these are the Ādityas. Therefore, I will take up the issue of *ṛtá* in more detail in the chapter on the Ādityas. Before that, however, in the section below on Soma, we will see why Soma is also associated with this Vedic concept.

The hypothesis that the Maruts represent the Pleiades opens up the path for another new and interesting possibility, which concerns the nature of Rudra, the Maruts' father.⁸⁹ Given the celestial nature of the Maruts, it is natural to ask whether Rudra is a celestial god as well.

F . R U D R A

Rudra's essential feature is that he is a divine archer armed with a bow and arrows. This is clearly stated in the *Rig Veda*:⁹⁰

2.33.10. Mit Fug und Recht trägst du Pfeile und Bogen ... (*árhan bibharṣi sáyakāni dhánva*)

5.42.11. Preise den, der guten Pfeil und guten Bogen hat ... (*tám u ṣṭuhi yáh suiṣúḥ sudhánvā*)

7.46.1. *imā rudráya sthirádhanvane gírah kṣipráiṣave deváya svadhāvane ...*

7.46.1. Dem Rudra mit festem Bogen und schnellem Pfeile bringet diese Lobrede dar, dem eigenmächtigen Gotte ...

⁸⁹ Cf. RV 1.114.6, 9; 2.33.1; Macdonell (1897: 74); the Maruts are also called the *Rudrāḥ*; cf. e.g., Hillebrandt (1980: II 173–174).

⁹⁰ Rudra is also a divine archer in the Atharva Veda; cf. 1.28.1; 6.93.1; 15.5.1–7; Macdonell (1897: 74).

10.125.6. *ahám rudráya dhánur á tanomi brahmadvíṣe śárave hántavá u*

10.125.6. Ich spanne für Rudra den Bogen, dass sein Geschoss den Feind der heiligen Rede töte

...

These characteristics of Rudra hint at a constellation, one well known for its proximity to the Pleiades. This is Orion, the hunter. Orion is already present in Homer (λ 572–575), where his weapon is a club (ρόπαλον) and not the bow. Certainly, this creates a difficulty in equating Orion with Rudra, which confers a speculative character upon this hypothesis. Some other facts, however, point in the same direction. Thus, Rudra is called sometimes *paśupati* "the shepherd" in the Atharva Veda,⁹¹ which reminds us of Orion's origins in Babylon, where he was called ^{mul}SIBA.ZI.AN.NA "the true shepherd of the sky."⁹² In addition, the Chuckchee people in Siberia also seem to identify Orion's weapons with a bow and arrows.⁹³ The fact that the Ásvins' journey with their chariot takes place close to Rudra's path (8.22.14) also hints at the fact that Rudra is Orion; indeed, Orion neighbors Gemini in the sky.

Therefore, while there is no irrefutable proof that Rudra is Orion, the corroboration of all the elements above makes this hypothesis very attractive.⁹⁴

The discussion about the origins of the Maruts started from the fact that they are said to be Indra's associates in the sky. The Maruts, however, are not the only deities that are closely associated with Indra. Soma, one of the greatest gods of the Vedic religion, is also associated with Indra.

⁹¹ Cf. Macdonell (1897: 75); I could not verify this information.

⁹² Cf. Kidd (1997: 303).

⁹³ Cf. Staal (1988: 63); I could not verify the original source; cf. above n.68.

⁹⁴ Plunket (cf. above) identifies Rudra with Sagittarius, "the Archer," which is a constellation opposed to Orion and the Pleiades in the sky. I can see no relationship between Sagittarius and the Pleiades, which may justify considering Sagittarius to be the "father" of the Pleiades.

G . S O M A ⁹⁵

The relationship between Indra and Soma is a very special one. Indra is the great Soma-drinker; his addiction to Soma, which is his favorite nutriment (RV 8.4.12), is unique among gods and men (RV 8.2.4). After he drinks Soma, Indra is capable of performing cosmic actions such as the slaying of Vṛtra (RV 2.15.1; 19.2; 6.47.1–2; 5.29.7; 6.17.11).⁹⁶

One can, therefore, say that, along with the slaying of Vṛtra, the other most important mythological trait of Indra is his association with Soma. This is also shown by Indra's frequent epithets *somapá* or *somapávan* "Soma-drinker." Given the present hypothesis that Indra represents the constellation Taurus, the association between him and Soma raises the possibility that Soma's place is also in the sky.⁹⁷ This is the direction that I will further explore.

That Soma is located in the sky is clearly shown throughout Book 9 of the *Rig Veda*, which is entirely dedicated to Soma. Soma flows through the sky, being the "milk" of heaven or a stream in the sky; the rivers generated by Soma flow through the sky; Soma runs to certain places of the sky, which he loves the most; his place is in the lap of the stars, on the sky's firmament; Soma is as bright as the sun and holds up the sky, whose child he is; Soma was born in the sky and brought to earth from the sky; Soma is the "lord of the sky":

9.3.7. Dieser durchheilt den Himmel (*eṣá dívam ví dhāvati*).

9.12.8. *abhí priyá divás padā sómo hinvānó arṣati*

9.12.8. Zu den lieben Stätten des Himmels fließt Soma zur Eile getrieben ...

9.38.5. ... des Himmels Kind (*diváh śísuḥ*), der Saft ...

⁹⁵ Since it is well known that Soma has been interpreted so far as a hallucinatory drug/juice ("Soma-Rausch"), I will not repeat here what others said in this respect; for a synopsis, cf. e.g., Oberlies (1998: 149–52, 449–55).

⁹⁶ Cf. e.g., Macdonell (1897: 56).

⁹⁷ In fact, that the origin of Soma as celestial has been long recognized; cf. e.g., Hillebrandt (1980: 190); Macdonell (1898: 111). Astonishingly, the celestial aspect of Soma (see below) has sometimes been seen as being caused by the hallucinatory effect of imbibing the juice/drug Soma; cf. e.g., Oberlies (1998: 452–53).

- 9.48.1. *tām tvā nṛmñāni bībhṛataṃ sadhástheṣu mahó diváh ...*
9.48.1. Dir da, der die Manneskräfte bringt an den Stätten des hohen Himmels ...
- 9.54.2. *ayám sūrya ivopadṛg ayám sārāṃsi dhāvati*
saptá pravāta á divam
9.54.2. Dieser ist ein Anblick wie die Sonne; dieser lässt Seen, sieben Ströme zum Himmel fliegen.
- 9.54.3. *ayám víśvāni tiṣṭhati punāno bhūvanopári*
sómo devó ná sūriyaḥ
9.54.3. Dieser sich läuternde Soma steht über allen Welten wie Gott Sūrya.
- 9.61.10. *uccā te jātām ándhaso diví śád bhūmi á dade.*
9.61.10. In der Höhe ist deines Tranks Geburt. Den im Himmel befindlichen (Trank) nehme ich auf der Erde an mich.
- 9.66.30. *yásya te dyumnávat páyaḥ pávamānābhṛtaṃ diváh.*
9.66.30. Du Pavamāna, dessen glänzende Milch (páyas) vom Himmel gebracht wurde ...
- 9.73.4. *sahásradhāre áva té sám asvaran divó náke mādhujihvā asaścataḥ ...*
9.73.4. Auf (die Seihe) mit tausend Abtraufen brausten sie herab, an des Himmels Firmament die Ströme ...
- 9.74.2. *divó yá skambhó dhariṇaḥ súātata*
9.74.2. Der die tragende schöngerichtete Säule des Himmels ist ...
- 9.76.1. Der Träger des Himmels (*dhartá diváh*) ...
- 9.88.8. Dein Gebote sind wie des Königs Varuṇa ...
- 9.86.11. ... des Himmels Herr (*pátir diváh*)

- 9.108.1. ... der himmlischste Rauschtrank (*máhi dyukṣátamo mádaḥ*) ["a drink whose abode (Skt. *kṣi* = "wohnen") is in heaven" — my note].
- 9.109.6. Du bist der Träger des Himmels (*divó dhartāsi*) (cf. 9.110.8).
- 10.85.2. ... *átho nákṣatrāṇām eṣām upásthe sóma áhitaḥ*.
- 10.85.2. ... in den Schoß dieser Sternbilder ist Soma gestellt.⁹⁸

The idea that Soma is (celestial) milk, a white cream that shines brightly in the night sky, in darkness (cosmic light), can also be met with in the following:

- 9.54.1. *asyá pratnām ánu dyútaṃ súkrām duduhre áhrayaḥ*
páyaḥ sahasrasām ṛṣim
- 9.54.1. Seinem altbekannten Glanze gemäß haben die nicht Schüchternen aus dem tausendgewinnenden Ṛṣi die helle Milch (*páyas*) herausgemolken.
- 9.97.14. ... von Milch (*páyasā*) schwellend ...
- 9.107.13. Der Begehrenswerte hat sich in ein weißes Gewand gehüllt ...
- 9.108.8. *sahásradhāraṃ vṛṣabhám payovṛdham priyám deváya jánmane*
ṛténa yá ṛtájāto vivāvṛdhé rájā devá ṛtám bṛhát
- 9.108.8. Den tausendstrahligen Bullen, den milchreichen, lieb dem göttlichen Geschlechte, der aus dem Gesetze geboren durch das Gesetze groß geworden ist, der König, der Gott, das hohe Gesetz selbst.
- 9.108.12. ... der das Dunkel mit dem Lichte erglüht (*pratápañ jyótiṣā támaḥ*)

⁹⁸ Geldner — probably following Hillebrandt's well-known theory — interprets this passage as referring to Soma "the moon"; cf. Macdonell (1898: 113).

9.17.5. *āti trī soma rocanā rōhan ná bhrājase dīvam*
iṣṇán sūryam ná codayaḥ

9.17.5. Wie der über die drei Lichträume zum Himmel steigende (Sonnengott) erstrahlst du, Soma.

Soma shines and banishes darkness; he is the eternal light where people want to go; he is associated with *ṛtá* (cf. also 9.108.8 above):

9.66.24. *pavamāna ṛtām brhác chukráṃ jyótir ajījanat*
kṛṣṇā támāṃsi jāñghanat

9.66.24. Pavamāna hat das hohe Gesetz (*ṛtá*), das helle Licht erschaffen, die schwarze Finsternis vertreibend.

9.70.3. *té asya santu ketávo ámṛtyavo ádābhiyāso janúṣī ubhé ánu ...*

9.70.3. Diese seine Lichtstrahlen, die unsterblichen, untrüglichen sollen zu beiden Geschlechtern dringen ...

9.113.7. *yátra jyótir ájasraṃ yásmiṃ loké súvar hitám*
tásmin mām dhehi pavamāna ...

9.113.7. Wo das ewige Licht ist, in welche Welt die Sonne gesetzt ist, in diese versetzt mich, o Pavamāna ...

To sum up: Soma's place is in the night sky, where he shines brightly as an eternal light. He is often compared with milk (*páyas*), being called the "heavenly drink." He is a white cream. He flows through the sky as a stream or river (of milk). He banishes darkness with his light. He is the master of the sky, a white and bright heavenly stream in the middle of the stars. He gave birth to light and *ṛtá*.

Soma's celestial nature as revealed in the passages above points transparently to a well-known astronomical phenomenon. In all likelihood, as a heavenly stream, Soma represents the Milky Way.⁹⁹

⁹⁹ The Chinese called the Milky Way the 'Sky River' or 'Silver River'; cf. n.53 above.

Our Galaxy has all the properties that are attributed to the celestial Soma in the *Rig Veda*.¹⁰⁰ Certainly, among its most important attributes are its brightness and resemblance to a river, which is similar to a milk stream.¹⁰¹ In fact, in Greek, the word *gála*, which denotes the Milky Way, means "milk."¹⁰²

Soma, therefore, is very likely to represent the Milky Way.¹⁰³ It remains now to explain the close association of celestial Soma with Indra, who represents the constellation Taurus. The position of Taurus in the sky with regards to the Milky Way can give an answer to this issue. Thus, Taurus' horns and head lie close to the band of the Milky Way (cf. figs. 1; 2; 10).¹⁰⁴ Given this position of Taurus, the association of the two gods in mythology finds a reasonable explanation; Indra drinks Soma because Taurus' head lies close to the band of the Milky Way.¹⁰⁵ Interestingly, Soma is sometimes considered as being Indra's bolt (*vajra*), with which Indra kills Vṛtra.¹⁰⁶ This fact can also be explained

¹⁰⁰ Witzel (1984) suggests that the Milky Way (*svargaloka*) is represented by the Vedic mythical river Sarasvatī, which has indeed the quality of being bright. This is an interesting suggestion, but the evidence for it is tenuous; the characteristics of Soma listed above clearly show this great god as being the best candidate for representing the great celestial phenomenon of the Milky Way.

¹⁰¹ An additional and, at the same time, interesting feature of the celestial Soma is that he wears a *drāpī-* "bright garment" (cf. 9.86.14: "Einen Mantel umlegen ..."), which encompasses the world. On the Iranian side, this garment is a belt embroidered with stars, which Haoma wears; cf. Hillebrandt (1980: I 258); Eisler (1910: 94–5, 99 n.3); it goes without saying that this belt perfectly fits the appearance of the Milky Way.

¹⁰² The earliest attestation of this metaphor for the Milky Way is in Parmenides (fr. 11.2), who calls our Galaxy *gála t'ouránion* "the heavenly milk"; cf. Kidd (1997: 352–3).

¹⁰³ Soma is not only "milk," but also "divine sperm"; cf. 9.86.39 (Soma is *retodhā* "the one who places the seed"); 1.164.35 (Soma is *rétas* "seed"); 9.74.1 (Soma is called *divó rétasā* "(through) the celestial seed/sperm"); cf. also Lüders (1959: 703); Oberlies (1999: 42–44).

¹⁰⁴ In fact, the constellation Auriga, which shares one of its stars with Taurus (β Tauri, the tip of Taurus' horn), is mostly located on the Milky Way; cf. Kidd (1997: 239).

¹⁰⁵ That Soma as the Milky Way reaches Taurus is apparent in 9.86.16ab: *pró ayāsīd índur índrasya niṣkṛtām/ sákhā sákhayur ná prá mināti samgíram* "Der Saft hat sich auf den Weg zu Indra's Treffort gemacht; der Freund bricht nicht die Abrede mit dem Freunde."

¹⁰⁶ Cf. 9.72.7; 77.1; 111.3; it is known that Soma also receives Indra's epithet Vṛtrahan; cf. Macdonell (1898: 109). Interestingly, in 6.47.28, the divine Chariot is also said to be Indra's *vajra*; this makes sense, because Auriga is located both on Taurus'

in astronomical terms. Thus, it is well known that Scorpio's position in the sky is also on the band of the Milky Way (cf. fig. 10). Under these circumstances, Indra's weapon, the *vajra*, may be the part of the Milky Way that stretches from Taurus to Scorpio (cf. fig. 10).¹⁰⁷ That this is the case is confirmed by the *Rig Veda* itself:

8.14.13. *apám phénena námuçeh śíra indród avartayaḥ*
 víśvā yád ájaya spṛdhah

8.14.13. Mit Wasserschaum [the stream of the Milky Way — my note] hast du das Haupt des
 Namuci (Vṛtra) in die Höhe gewirbelt, o Indra, als du alle Gegner besiegtest.

Thus, during the third millennium BC, the appearance of the dawn sky at the spring equinox must have been spectacular; starting from the horns of Taurus, the arch of the Milky Way stretched across the whole sky to reach the other side of the vault, where Scorpio was located (cf. fig. 10); it was the time of the year when Indra's *vajra* finally defeated the dragon, which slowly sank under the western horizon and thus freed the day sky from its presence.

The conclusion that Soma represents the Milky Way can also explain the relationship between Soma and *ṛtá* (see above). As I already showed in the section on the Maruts, the association between the Maruts (the Pleiades) and *ṛtá* strongly suggests that *ṛtá* refers either to the ecliptic or to the cosmic order ("Time") derived from it. Since the Milky Way stretches from Taurus to Scorpio, the association between Soma and *ṛtá* becomes natural; during the age of Taurus, the Milky Way crossed the ecliptic near the equinoctial points (cf. fig. 10), thus defining or representing the "world order."

We can see that the concept of *ṛtá* is pivotal for the Vedic religion. This concept will be fully explained in the chapter on the Ādityas, which are the gods of *ṛtá*.

I conclude the discussion on the association between Indra and Soma with some remarks on Soma's relationship with the Aśvins. As I noted above, the great twin-gods also enjoy a special relation

horns and on the band of the Milky Way. Therefore, both Auriga and Soma can be said to be the *vajra*.

¹⁰⁷ In the preface/summary of Tilak (1893), Tilak mentions a Persian tradition in which Mithra's *vazra* (Skt. *vajra*) represents the Milky Way; see the section on Mithra, below.

with Soma, being often invoked to come down to the worshipper and drink Soma.¹⁰⁸ Given that the Ásvins represent the constellation Gemini, their association with Soma is logical and natural, since this constellation is partly situated on the band of the Milky Way.¹⁰⁹ In addition, the location of the Ásvins' chariot on the Milky Way, in the "immortal" heavenly stream, explains why this chariot is "laden with wealth." Finally, the position of Gemini on the other side of the Milky Way with regards to the Chariot may have contributed to their image as good seafarers and rescuers from all sort of difficult situations.¹¹⁰

H. PARTIAL CONCLUSIONS I

The first part of the present study shows that the nature of some of the most important gods in the *Rig Veda* is celestial. Indra represents the equinoctial constellation Taurus, which announced the spring equinox between around 4000 and 2000 B.C. At the same time, Indra's foe, Vṛtra, represents the constellation Scorpio, which is diametrically opposed in the sky to Taurus. The myth of the fight between Indra and Vṛtra represents the cosmic fight between darkness and light, which takes place between the fall and spring equinoxes.¹¹¹ This fight ends with Indra's victory at the spring equinox, when Indra "conquers" the sun (that is, the sun is in Taurus). Indra is helped in this fight by his close companions, the Maruts, who represent the asterism of the Pleiades.

The mysterious Ásvins represent the huge constellation Gemini; their divine chariot represents parts of the constellation Auriga, which seems to have been imagined as a chariot in ancient Mesopotamia.

¹⁰⁸ Cf. above 3.58.4; 4.55.5; 7.67.4; 7.74.3; 8.87.1; for other examples, cf. Macdonell (1897: 50).

¹⁰⁹ Cf. 1.46.11 quoted above (a hymn dedicated to the Ásvins), in which Soma is called *srutír diváh* "the stream of heaven"; for the relationship between the Ásvins and Soma, see my discussion above, in the section on the Ásvins.

¹¹⁰ In other words, the Twins have already "crossed the river" safely.

¹¹¹ That Vṛtra belongs to the fall season (Scorpio rises heliacally at the autumn equinox) is shown by the fact that his "fortresses," which Indra destroys, are autumnal (*púro śáradīr*); cf. 1.131.4; 1.174.2; 6.20.10; in other words, Scorpio's domination begins in autumn.

Indra and the Ásvins are spring constellations, which were invoked to bring prosperity during the early spring season in the temperate regions of Asia. The heliacal rising of Taurus at the spring equinox announced the rainy season, which was essential for the development of the crops. The Ásvins were probably invoked during the next month (April) to bring wealth to the worshippers, which also meant rich crops; this was the time of the year when, in the Asian temperate regions, the seeds were starting to grow.

One of the greatest gods in the *Rig Veda*, Soma, represents the Milky Way, which in ancient times was the most conspicuous and spectacular phenomenon in the night sky. Its association with Indra and the Ásvins is due to its close proximity to Taurus and Gemini, respectively. Therefore, the "divine juice" of the *Rig Veda* does not have its origin in a specific plant, but in the sky. In fact, why would a plant or its juice be regarded as among the greatest gods of any religion? The conclusion then is that the well-known Vedic plant that produced "soma" must have been only a means to "metaphorically" represent the "celestial river" in the ritual (cf. 9.61.10 above).

Soma can also be met with in the Iranian religion (cf. Haoma). This shows that the myth about the "celestial river" must have been conceived at least during the Indo-Iranian period, a fact that supports the dating of these myths to before 2000 B.C.

Since Taurus announced the spring equinox between 4000 and 2000 B.C., this means that Indra's astronomical myth was conceived during that period of time. This conclusion further implies that the Vedic religion was brought to India from the outside. In addition, the fact that the Ásvins apparently are not present in the Iranian religion suggests that the myths about them were invented after the Indo-Aryans split from their Iranian brethren.¹¹² This possibly shows that the split must have occurred before 2000 B.C.

The most important conclusion so far, however, is that the Vedic religion was not concerned with obscure or — from the modern perspective — unintelligible deities. The Vedic religion is essentially an astral religion, which means that its greatest gods are celestial with respect to both their origin and nature. The Vedic people who created or developed this religion watched the sky with great

¹¹² This is obviously an *argumentum ex silentio*. Given the changes that the Zoroastrian reform performed on the Aryan (Indo-Iranian) religion, the possibility that the Ásvins *alias* Gemini were known to the Indo-Iranians cannot be completely excluded; cf. above n. 86; Puhvel (1987: 41).

attention. The objects of their worship were those natural phenomena that have always left the human race in astonishment and will certainly continue to do so in ages yet to come.

With these things in mind, we can now explore the nature of the other important Vedic gods.

THE VEDIC AGNI

Agni is among the greatest and most celebrated gods of the Vedic religion. One of his most mysterious characteristics is his dual nature. Thus, on the one hand, the Vedic hymns show Agni as being the terrestrial fire, which is started during a mysterious early-morning ritual; this role is consonant with the etymological/semantic association of the word "agni" with the PIE or Sanskrit words for "fire."¹³ On the other hand, the hymns of the *Rig Veda* leave little doubt that Agni does not represent merely the cultic terrestrial fire, but also a "higher" divine character, whose origins are celestial.

One of the most important issues in Vedic mythology has been to determine the relation between Agni's two aspects. Interestingly, the celestial Agni has been treated so far as something secondary and derived from the fire cult. Therefore, it is not surprising to find Agni listed as a "terrestrial deity" in the major studies of the Vedic religion.¹⁴ In all these studies, Agni's celestial role is completely overshadowed by his "terrestrial" role. The present study attempts, from a totally different perspective, to reassess the importance of the celestial Agni.

The most striking characteristic of Agni, which clearly relates him to the sky, has been long noticed and concerns Agni's celestial origin and birth; this origin is reflected in the myth of the mysterious Mātariśvan, who, similarly to the Greek Prometheus, brings the fire (Agni) from heaven to earth.¹⁵ As I noted above, this celestial origin of Agni has not been seen as an indication of Agni being a celestial god in his own right;¹⁶ on the contrary, the worship of the celestial Agni has always been thought to have its origin in the worship of the "terrestrial" Agni, that is, in the fire cult. To mention

¹³ The PIE word for fire was reconstructed as *h₂ngʷni- (cf. Lat. *ignis*); cf. West (2007: 266); of course, in Sanskrit the common noun designates the fire.

¹⁴ Cf. e.g., Macdonell (1897); Keith (1925): "The appearance of Agni is clearly merely a description of the fire"; Oldenberg (1894: 102–105).

¹⁵ Cf. e.g. Macdonell (1897: 92); Keith (1925: 156); Oldenberg (1894: 105–109; 121–122); Bergaigne (1878–1883: I 11–31); Hillebrandt (1990: I 48–55).

¹⁶ A notable exception is Geldner (1951–1957), who acknowledges that there are two distinct Agnis: "das Opferfeuer" and "der Himmels-gott" (n.1 on 1.44.8).

some previous theories, Bergaigne argued that fire became divine when the sacrificial fire started to be worshipped as an intermediary between gods and men: "L'attribution au feu terrestre du caractère divin s'expliquerait déjà par la puissance effective de cet élément. Elle serait mieux justifiée encore pour le feu du sacrifice par le rôle d'intermédiaire qu'il joue, ainsi que nous le verrons, entre les hommes et les dieux."¹¹⁷ Oldenberg followed the same idea with some variations when he thought that the heavenly Agni would merely represent the personification of the force of the cultic fire.¹¹⁸ In a similar way, Hillebrandt also starts from the importance of the fire cult; Keith thinks that the god Agni is "intimately connected with the element of which he is the deity," i.e., with the domestic/cultic fire; Macdonell argues that "Agni comes to be celebrated as the divine counterpart of the earthly priesthood."¹¹⁹ Obviously, this latter opinion refers to Agni's well-known feature of being a divine priest. I will return to this interesting characteristic later in the present study.

It is clear that the accounts above are all based on the firm belief that the fire-cult could generate the personification of the fire and, subsequently, the emergence of a fire celestial deity. At first glance, this does not seem to be implausible. We will see, however, that the worship of Agni in the cult contains elements indicating that Agni is more than a mere personification of fire and that his origins cannot be simply derived from the cultic fire.¹²⁰ In fact, even the word "personification" is in this case somewhat misleading. Agni has, indeed, some characteristics such as being flame-haired, tawny-haired, butter-backed, with seven tongues etc, which could indeed describe individualized objects; these features of Agni, however, do not represent the description of any personified object but represent mere metaphors. To give a clear example, it is well known that Agni is imagined as representing very different beings such as a priest (*hotr*), a bird, a horse or a bull. All these attributes, which are irreconcilable with one another, must be considered as metaphors and not as properties of a person/being. In other words, they do not show Agni as being a persona.¹²¹

¹¹⁷ Cf. Bergaigne (1878–1883: I 12)

¹¹⁸ Cf. Oldenberg (1894: 102–103): "Man personficirte es [das Feuer — my note] als starken, reinen, weisen Gott ... "

¹¹⁹ Cf. Hillebrandt (1990: 48–49); Keith (1925: 154); Macdonell (1897: 96).

¹²⁰ Hillebrandt (1990: 49) is aware of these issues.

¹²¹ Keith (1925: 154) noted that Agni is not anthropomorphic.

Among the elements that are hard to reconcile with the theory that the fire-cult is at the origin of the divine Agni, two seem to be of extreme importance. These are, on one hand, Agni's associations with natural phenomena such as the sun or lightning, and, on the other hand, his mysterious birth in the water(s). In the first case, it is not plausible that the Vedic sun could be conceived as having its origins in the cultic fire, or as being a form of fire. Sūrya is a highly individualized figure in the Vedic pantheon and his traits do not seem to be derived from fire. In the second case, it is hard to see how one can derive fire and water from each other, since they are two completely different elements. I will take up these issues below one by one.

It has been argued that, in some Rig Vedic passages, Agni is to be identified with the sun. Bergaigne, for example, thinks that the sun is often seen as a form of Agni and that the identification of the two gods originates in the comparison between them: "pour les poètes védiques la comparaison n'est pas éloignée de l'assimilation ... les deux termes d'une comparaison peuvent être identiques."¹²² He exemplifies his argument with two passages from 6.4.6 and 3.14.4. His first example, however, shows precisely the opposite, namely that Agni is different from the sun; we can see below that the comparison particle "ná" leaves no doubt that Agni and the sun are only compared with each other, being therefore different from each other: *á sūryo ná bhānumádbhir arkaír ágne tatántha ródasī ví bhāsá.*¹²³ The translation given by Bergaigne "en qualité de soleil" is only a means to make the Sanskrit text fit his hypothesis. In the second case he quotes, however, there is no comparison particle present in the text and Agni is indeed said to be "the sun of men"; thus, the second hemistich of 3.14.4 goes as follows: *yác chocísā* [from *śócís* "flame" — my note] *sahasas putra tīṣṭhā abhí kṣitīḥ pratháyan sūryo nṛṇ* "(Agni) dass du, o Sohn der Kraft, mit deiner Flamme aufstehen mögest, über die Länder, sie ausbreitend, die Sonne der Männer."¹²⁴ The passage, however, still does not show that Agni is to be

¹²² Cf. Bergaigne (1878–1883: I 13); in the same passage, talking about "l'identité d'Agni sous les différentes manifestations de la chaleur et de la lumière," Bergaigne also asserts that " ... certain traits ne permettent guère de douter que cet astre [the sun — my note] ne soit encore désigné sous le nom d'Agni" Bergaigne considers lightning to also belong to these categories.

¹²³ Cf. Geldner: "Agni! Du hast wie die Sonne mit den glänzenden Strahlen mit deinem Lichte beide Welten durchzogen."

¹²⁴ Geldner rejects translations such as "als Sonne die Länder ausbreitend für die Männer," which compare Agni with the sun.

identified with Sūrya. The phrase "the sun of men" seems to indicate as well that Agni is only compared with the sun and not identical to it. Otherwise, Agni would have been called simply "the sun," and not "the sun of/for men."¹²⁵

Oldenberg also notes that Agni and the sun are indeed in a very close connection. Unlike Bergaigne, however, he makes it clear that Agni is not the sun: "Agni, das irdische Feuer, das mit der Sonne am Himmel vielmehr verglichen als ihr gleichgesetzt wird."¹²⁶ To prove his argument, Oldenberg quotes 5.85.2, in which the sun is clearly different from Agni: "Im Herzen schuf Varuṇa den Willen, im Wasser den Agni, die Sonne am Himmel, auf den Felsen den Soma."

Macdonell's opinions on this issue, on the other hand, are not consistent with one another. Thus, in one place he says that "Agni is to be identified with the sun; for the conception of the sun as a form of Agni is an undoubted Vedic belief." In the same passage, however, he seems to believe the opposite: "Agni is usually thought of in his terrestrial form, being compared rather than identified with the sun."¹²⁷ Therefore, in this latter quote he seems to share Oldenberg's opinion.

Hillebrandt also thinks that the sun is a form of Agni.¹²⁸ To support his argument he gives 10.88.11 as an example. This is a hymn dedicated to Sūrya and Vaiśvānara (Agni), which Hillebrandt thinks are the same. The verse in question runs as follows: "Als die opferwürdigen Götter ihn an den Himmel setzten, den Sūrya, der Aditi Sohn, als das wandelnde Paar erschien, da erst sahen alle Welten."¹²⁹ The exact meaning of this verse, however, is obscure. Different Vedic commentators such as Yāska (fourth century B C) and Sāyaṇa (fourteenth century AD) interpreted the passage differently. Thus, if Sāyaṇa thought that the pair referred to Sūrya and Vaiśvānara, Yāska assumed that the pair represented the dawn and the sun. Therefore, it is not clear at all that Sūrya and Vaiśvānara are to be identified with each other in this passage. In fact, that Sūrya and Vaiśvānara are different is proved by

¹²⁵ Both Geldner and Bergaigne take *nṛ̐nas* an abbreviated G.pl. of the usual form *nṛ̐nām*.

¹²⁶ Cf. Oldenberg (1894:108–109).

¹²⁷ Cf. Macdonell (1897: 93).

¹²⁸ Cf. Hillebrandt (1990: I 90).

¹²⁹ In Sanskrit: *yadéd enam ádadhur yajñíyāso diví devāḥ sūryam āditeyám/ yadā carīṣṇú mithunāv ábhūtām ád ít prāpaśyan bhúvanāni víśvā*.

other verses in the same hymn, e.g., by 10.88.2, in which it is said that the sun became visible when Agni was born: *āvíḥ sūvar abhavaj jāté agnaú*; obviously, the passage would not make any sense if Agni and the sun were the same.

Another controversial issue concerning Agni's mythology is his mysterious birth, growth, and hiding place in the (celestial) waters. There are different interpretations of this myth. The commonest position can be exemplified by Bergaigne and Macdonell, who both consider this myth as a metaphor for Agni representing lightning.¹³⁰ The basis for such an interpretation is certainly the fact that lightning is associated with rain/water.¹³¹ From a somewhat different perspective, Hillebrandt thinks that the waters represent the rainy season which obliterates the sun (Agni).¹³² With this latter opinion, we are back to the identity Agni = the sun. Oldenberg, on the other hand, is more prudent when he states that "gewöhnlich wird er [Agni — my note], wo er mit dem Blitz zusammen genannt wird, mit diesem — oder dieser mit ihm — verglichen und eben dadurch von ihm unterschieden."¹³³ Agni and lightning, therefore, are in his vision different from each other. Consequently, Oldenberg proposes another interpretation, which is based on the obvious fact that fire in general can be extinguished by water.¹³⁴ In his opinion, Agni's "dwelling/hiding in the waters" would be just a metaphor for the quenching of fire with water. Furthermore, probably because he could not make the connection between the "quenching of fire" and the existence of a personalized deity, Oldenberg makes the hypothesis that the myth of Agni dwelling in the waters is the result of the contamination of two earlier myths/stories; the first one would be about Agni as the cultic fire, whereas the second one would be about a water-demon (called Apām Napāt in the *Rig Veda*) with whom Agni would have been later identified.¹³⁵ The combination of these two myths then would have led to the story of Agni

¹³⁰ Cf. Macdonell (1897: 92); Bergaigne (1878–1883: I 15.16).

¹³¹ In verse 2.6.5 (see Geldner's translation below), Agni is invoked to bring rain.

¹³² Cf. Hillebrandt (1990: I 95).

¹³³ Cf. Oldenberg (1894: 112).

¹³⁴ Cf. Oldenberg (1990: 120).

¹³⁵ Cf. 3.9.1; Macdonell (1897: 70); see below for an ampler commentary about Apām Napāt.

dwelling in the water. The scenario proposed by Oldenberg is certainly not impossible, but the probability of its existence is, from the perspective of Occam's razor, low.

All the theories above, regardless of the degree of plausibility some of them may have, ultimately fail to explain what is the fundamental nature of Agni and why Agni is celebrated as one of the greatest gods in the *Rig Veda*. In particular, the theory of Agni being originally the sacrificial fire fails to explain why it was this particular fire that needed to be celebrated, and not others, and why there should be a connection between the sacrificial fire and the sun or the waters. Last but not least, these theories fail to explain why fire was mainly celebrated at dawn. I do not see any reason for the celebration of fire at the beginning of the day. To my mind, evenings (dusks) are more appropriate times to celebrate fire.

Therefore, I think that Agni's nature should be investigated from a totally different perspective. This perspective concerns a detailed analysis of Agni's celestial nature and of his associations with phenomena pertaining to the sky. Below, I enumerate these celestial characteristics of Agni, which are revealed in numerous Rig Vedic passages.

The following verses show Agni as being a strong light connected with dawn:

- 1.79.1. ... hell strahlend [Agni — my note], der Vertraute der Uṣas ... (*śúcibhrājā uṣáso návedā*)
- 1.94.5. Du bist der Hirt der Ansiedlungen; als seine Angehörigen kommen Zweifüßler und Vierfüßler während der Nächte. Du bist der prächtige große Vorgesicht der Morgenröte (*citráḥ praketa uṣáso mahám asi*) ...
- 3.2.14. *śúciṃ ná yāmann iṣiráṃ suvardṛśaṃ ketúṃ divó rocanasthām uṣarbúddham agnīm mūrdhānaṃ divó apratiṣkutaṃ tám īmahe námasā vājīnam brhát.*
- 3.2.14. Emsig wie die helle (Sonne) auf der Fahrt, sonnenaugig, des Himmels Banner, im Glanze weilend, am frühen Morgen wach, das unbestrittene Oberhaupt des Himmels, den sieggewinnenden Agni gehen wir mit hoher Verbeugung an.
- 3.6.7. ... den vielen erglänzenden Morgenröten glänzest du nach ...

- 3.15.2. Sei du beim Aufleuchten dieser Morgenröte, du nach Sonnenaufgang unser Hüter!
- 3.20.1. Der mit den Lobliedern Fahrende ruft am Morgen den Agni, die Uṣas ...
- 4.3.11. ... *āvīḥ sūvar abhavaj jāté agnaú.*
- 4.3.11. ... die Sonne kam zum Vorschein als Agni geboren war.
- 4.13.1. *prāti agnir uṣásām ágram akhyad ... út sūriyo jyótiṣā devá eti.*
- 4.13.1. Agni hat den Anbruch der Morgenröten erwartet ... Gott Sūrya geht mit seinem Lichtglanz auf.
- 7.6.7. Gott Vaiśvānara hat bei Aufgang der Sonne die Schätze der Tiefe an sich genommen ...
- 7.9.1. *ábodhi jārā uṣásām upásthād.*
- 7.9.1. Der Buhle der Morgenröten ist erwacht aus ihrem Schoße (aufleuchtend) ...
- 7.9.3. ... *citrābhānur uṣásām bhāti ágre apām gárbhaḥ prasúva á viveśa.*
- 7.9.3. ... Er (Agni) leuchtet noch vor den Morgenröten in prächtigem Glanz; der Wasser Kind ist er in die sprossenden Pflanzen eingegangen.
- 10.3.5. *svanā ná yásya bhāmāsaḥ pávante rócamānasya bṛhatáḥ sudívaḥ*
jyēṣṭhebhīr yás téjiṣṭhaiḥ krīlumádbhīr várṣiṣṭhebhīr bhānúbhīr nákṣati dyām
- 10.3.5. Dessen Strahlen rein werden wie die Töne, wenn der Hohe erglänzt, der den schönen Tag (*sudívaḥ*) bringt, der mit den vorzüglichsten, schärfsten, spielenden, höchsten Lichtern den Himmel erreicht.
- 10.3.3. *bhadró bhadráyā sácamāna ágāt svásāraṃ jāró abhí eti paścāt.*
supraketaír dyúbhīr agnir vitíṣṭhan rúsadbhīr várṇair abhí rāmám asthāt

- 10.3.3. Der Löbliche ist in Begleitung der löblichen (Uṣas) gekommen; ihr Buhle geht er hinter der Schwester her. Mit den glückverheißenden Tagen breitet sich Agni aus; mit seinen hellen Farben hat er das Dunkel bemeistert.
- 10.8.4. Denn du gehst jeder Uṣas voraus (*uṣásám ety ágram*), du Guter ...
- 10.88.12. *vísvasmā agnīm bhúvanāya devā vaiśvānarām ketúm áhnām akṛṇvan
 á yás tatāna uṣáso vibhātír ápo ūrṇoti támo arcīṣā yán*
- 10.88.12. Für die ganze Welt machten die Götter den Agni Vaiśvānara zum Zeichen der Tage; der die aufleuchtenden Morgenröten ausgebreitet hat, er deckt auch die Finsternis ab, wann er mit seinem Lichtstrahl kommt.

Agni, therefore, is born in the morning. He brings the sun up in the sky, anticipating the day; he appears at dawn, he is the dawn's lover; the sun rises after Agni appears. Most importantly, he is called the "head of the sky" (*agnīm mūrdhānaṃ divó*; cf. 3.2.14 above), which is an indication that Agni's place might be in the sky. Numerous other Vedic passages confirm the idea that, indeed, the "celestial" Agni is located in the sky:

- 1.59.2. *mūrdhā divó nábhīr agnīḥ pṛthivyā ...*
- 1.59.2. Das Haupt des Himmels, der Nabel der Erde ist Agni ...
- 1.96.5. ... Zwischen Himmel und Erde erglänzt er (wie) ein Goldschmuck (*dyāvākṣāmā rukmó antár ví bhāti*). Die Götter erhalten (*dhārayan*) Agni, den Schätzespender.
- 1.108.12. *yád indrāgnī úditā sūriyasya mādhye diváḥ svadhāyā mādāyethe
 átaḥ pári vṛṣaṇāv á hí yātám áthā sómasya pibatam sutásya*
- 1.108.12. Wenn ihr, Indra und Agni, im Aufgang der Sonne, in der Mitte des Himmels euch nach eigenem Ermessen ergötzet, so kommet doch ja von dort her, ihr Bullen, und trinket vom gepressten Soma!

- 1.141.4. Wenn er vom höchsten Vater her geholt wird ... (vom Himmel; cf. Geldner)
- 1.143.2. Als er [Agni — my note] im höchsten Himmel geboren wurde (*sá jáyamānaḥ paramé víomani*) ... / ... Als er nach seinem Ratschluss in (voller) Größe entflammt wurde, erleuchtete seine Glut Himmel und Erde.
- 1.150.3. Der Sterbliche ist glänzend, o Redegewaltiger, groß, der Höchste im Himmel (*sá candró vipra mártiyo mahó vrādhantamo divi*) ...
- 2.1.15. Du bist diese alle zusammen und wiegst sie an Größe auf und überragst sie noch, du edelgeborener Gott Agni, wenn sich deine Kraft hier in (voller) Größe entfaltet, über Himmel und Erde ...
- 2.2.1. Erbauet durch Opfer den Jātavedas, verehret den Agni mit Opfergabe, den himmlischen Hotṛ ...
- 2.6.5. (Bring) uns Regen vom Himmel ...
- 3.2.12. *vaiśvānarāḥ pratnáthā nákam áruhad*
divás prṣṭhám bhándamānaḥ sumánmabhiḥ
- 3.2.12. Vaiśvānara hat in alter Weise das Firmament erstiegen, zum Rücken des Himmels, von den Sinnreichen beneidet. Wie früher dem Menschen Reichtum schaffend zieht er wachsam im Kreise die gleiche Bahn.
- 3.2.13. *ṛtāvānaṃ yajñíyaṃ vípram ukthíyam á yáṃ dadhé mātariśvā divi kṣáyam*
táṃ citráyāmaṃ háríkeśam īmahe sudītīm agnīm suvitāya návyase
- 3.2.13. Den wahrhaften, opfergewaltigen, redefertigen, preislichen, den Mātariśvan an sich nahm, da er im Himmel wohnte, ihn, dessen Auffahrt prächtig ist, den goldhaarigen, schön leuchtenden Agni gehen wir zu erneuter Wohlfahrt an.

- 3.6.2. Du erfüllst bei deiner Geburt die beiden Welthälften und du Opfersamer (?) ragtest auch noch an Größe sogar über Himmel und Erde hinaus, o Agni.
- 3.6.4. Der Große, der dauernd an seinen Platz gesetzt ist, (verkehrt) als Begehrter (*hāryamānaḥ*) zwischen Himmel (und Erde) ... ¹³⁶
- 3.13.4. Dieser Agni soll unserer (Götter)ladung seinen heilsamsten Schutz gewähren, daraus er das Gut im Himmel and im Wasser über unsere Lande ausschütten möge.
- 3.22.3. Agni, du gehst zur Flut des Himmels ...
- 3.25.1. Agni, du bist des Himmels kluger Sohn (*agne divāḥ sūnúr asi prācetās*) ...
- 3.25.3. *agnír dyāvāprthivī viśvājanye ā bhāti devī amṛte amūraḥ*
- 3.25.3. Agni beleuchtet Himmel und Erde, die allen Völkern gehörenden, unsterblichen Göttinnen ...
- 3.25.4. Agni und Indra! Kommet hierher in das Haus des Opferspenders ...
- 3.26.5. Die allbekannten Marut, durch Agni verschönt ...
- 3.26.8. ... er überschaute Himmel und Erde (... *ād id dyāvāprthivī páry apaśyat*).
- 3.27.12. *ūrjó nāpātam adhvaré dīdivārsam úpa dyāvi*
agnīm īle kavíkratum
- 3.27.12. Das Kind der Kraft, der bei der Opferhandlung zum Himmel leuchtet, den Agni rufe ich an, der Sehergabe besitzt.

¹³⁶ This was seen as a "Paradoxon" by Geldner.

- 3.5.10. Durch das Brennholz sich aufrichtend hat Agni das Firmament emporgerichtet (*úd astambhūt samídhā nákam ṛṣvó*), indem er das höchste Lichter wird (*agnír bhávann uttamó rocanānām*) ...
- 3.4.4. ... *divó vā nábhā ní asādi hótā*
- 3.4.4. ... im Nabel des Himmels hat der Hotṛ sich niedergelassen.
- 4.3.8. ... du den Himmel kennst (*divó jātavedas'*) ...
- 4.5.1. *vaiśvānarāya mīlhūṣe sajóṣāḥ kathā dāśema agnáye bṛhád bhāḥ*
ánūnena bṛhatā vakṣáthena úpa stabhāyad upamín ná ródhaḥ
- 4.5.1. Wie könnten wir einmütig dem Agni Vaiśvānara, dem Belohnenden, hohen Glanz verleihen? In vollkommenen, hohem Wachstum stützt er (den Himmel) wie der Pfeiler den Deich.
- 6.1.7. ... Du führest die Clane leuchtend mit dem hohen Lichte des Himmels, Agni (*tuvám víśo anayo dídiyāno divó agne bṛhatā rocanéna*).
- 6.7.1. Das Haupt des Himmels (*mūrdhānam divó*) ...
- 6.7.6. *vaiśvānarāsyā vímitāni cákṣasā sánūni divó amṛtasya ketúnā*
tásyéd u víśvā bhúvanādhi mūrdhāni ...
- 6.7.6. Durch das Auge des Vaiśvānara, durch das Wahrzeichen der Unsterblichkeit sind die Höhe des Himmels ausgemessen. Auf seinem Haupte (stehen) alle Welten ...
- 7.5.2. Im Himmel erstarkt ward Agni auf Erden eingesetzt ...
- 7.5.7. Im höchsten Himmel geboren (*sá jāyamānaḥ paramé víoman*)
- 7.15.4. *nāvaṃ nú stómam agnáye diváh śyenāya jījanam ...*
- 7.15.4. Ein neues Lied will ich jetzt für Agni, den Falken des Himmels hervorbringen.

- 8.44.16. Agni ist das Haupt, die Spitze des Himmels, der Herr der Erde (*agnír mūrdhā diváh kakút pátiḥ prthiviyā ayám*) ...
- 8.60.19. Agni ... bist du der Große, des Himmels Wächter (*divás pāyúr*) ...
- 10.3.2. *kṛṣṇām yád énīm abhí várpasā bhūj janáyan yóṣām brhatáḥ pitúr jám ūrdhvám bhānūṃ sūriyasya stabhāyán divó vásubhir aratír ví bhāti*
- 10.3.2. Wenn er in einer Verwandlung die schwarze buntfarbige (Nacht) beschlich, die junge Frau erzeugend (Uṣas — cf. Geldner) so erglänzt der Lenker des Himmels mit den Vasu's, indem er den aufgerichteten Strahl des Sūrya stützt.

I shall now briefly summarize the main ideas present in the numerous passages above. Agni is the head of the sky and shimmers between the sky and the earth; both Indra and Agni are located in the sky; Agni is brought down to the earth from the sky (the well-known myth of the mysterious Mātariśvan, the character interpreted as the Hindu Prometheus, who brings the heavenly fire to mankind);¹³⁷ Agni was born in heaven, in the sky's navel; he is the sky's son or the sky's hawk; the sky and the earth received his light; Agni is mortal, but he is the highest in the sky; his strength reaches the sky and the earth; Agni lives in the sky, goes up in the sky; his place is eternal, and he is wanted both on earth and in the sky (3.6.4), a fact that Geldner thought to be a paradox; Agni goes to the celestial river; he lights up both the sky and the earth; he knows the sky and supports the sky's firmament as a pillar; he is the light of the sky and measures the height of the sky; all the worlds stand on Agni's head; he is the sky's master, guardian, and guide.

It is obvious that all these passages are not the result of some fancy views about Agni's relation with the sky. Their great number and consistency with one another show that not only is the celestial Agni born in/from the sky, but also that he is located in the sky itself. In particular, the verses 3.2.12, in which Agni climbs up the firmament on the sky's back, and 3.5.10, in which he becomes the highest light, leave no doubt that Agni is not the fire, but something else, which has to do with a certain light in the sky. Certainly, the case can be made again that, in all these instances, Agni, the great, divine

¹³⁷ Oldenberg (1894: 122) calls Mātariśvan "der Prometheus des Veda."

light of the sky, is the sun. We already saw that this was not likely. In fact, some of the passages above also show Agni as clearly different from the sun; thus, in 4.11.1 Agni shines besides the sun, and in 4.13.1, 10.3.2 Agni supports the sun. These examples are not isolated; other passages also make it clear that Agni is different from the sun:

- 1.148.1. ... prächtig [Agni — my note] wie die Sonne zur Schönheit erstrahlend (*súvar ná citráṃ vápuṣe vibhāvam*).
- 3.2.14. *śúcīṃ ná yāmann iṣirāṃ suvardṛśaṃ ketúṃ divó rocanasthām uṣarbúddham
agnīm mūrdhānaṃ divó apratiṣkutaṃ tām īmahe námasā vājīnam bṛhāt*
- 3.2.14. Emsig wie die helle (Sonne) auf der Fahrt, sonnenaugig, des Himmels Banner, im Glanze weilend, am frühen Morgen wach, das unbestrittene Oberhaupt des Himmels, den sieggewinnenden Agni gehen wir mit hoher Verbeugung an.
- 3.5.5. ... der Jüngste hütet den Weg der Sonne (*pāti yāhvás cáraṇaṃ sūriyasya*).
- 3.3.5. Den schimmernden Agni ... der das Sonnenlicht findet ...
- 4.3.11. ... die Sonne kam zum Vorschein als Agni geboren war (*āvīḥ súvar abhavaj jāté agnaú*)
- 7.6.7. Gott Vaiśvānara hat bei Aufgang der Sonne die Schätze der Tiefe an sich genommen (*á devó dade budhníyā vásūni vaiśvānará úditā sūriyasya*) ...

Therefore, the celestial Agni is not the sun, although he is present in the sky. Agni is also different from lightning as the following verse clearly shows:

- 3.1.14. Hohe Strahlen begleiten den glanzverschönten Agni wie die hellen Blitze (*agnīm sacanta vidyúto ná śukráḥ*). Ihm, der gleichsam heimlich in seiner Heimat groß geworden war im unermesslichen Ozean, (stehen) die den Göttertrank milchenden (Kühe zur Seite).

To sum up: Agni, which is neither the sun nor lightning, is consistently shown as a light in the sky, appearing at dawn, being inexplicably celebrated at dawn. All these facts change completely the perspective on Agni, and point in a transparent way to his real nature. Thus, as a bright light in the sky, Agni must be a star or a constellation.¹³⁸ In fact, in 10.88.12–13, Agni is called *expressis verbis* a "star" (*nákṣatram*)," which casts away any remaining doubt about Agni's celestial nature:

10.88.12. *vísvasmā agním bhúvanāya devā vaiśvānarām ketúm áhnām akṛṇvan*
ā yás tatāna uśáso vibhātír ápo ūrṇoti támo arcíṣā yán.

10.88.12. Für die ganze Welt machten die Götter den Agni Vaiśvānara zum Zeichen der Tage; der die aufleuchtenden Morgenröten ausgebreitet hat, er deckt auch die Finsternis ab, wann er mit seinem Lichtstrahl kommt.

10.88.13. *vaiśvānarām kaváyo yajñíyāso agním devā ajanayann ajuryám*
nákṣatram pratnám áminac carīṣṇú yakṣásyādhyakṣam taviṣám bṛhántam

10.88.13. Die opferwürdigen Seher, die Götter, erschufen den Agni Vaiśvānara, den alterlosen, das uralte, nie (die Richtung) verfehlende, wandelnde Gestirn (*nákṣatram*), den starken, hohen Aufseher des Geheimnisses.

The conclusion that Agni is a star/constellation is not unexpected, since in the previous chapter I showed that the main Vedic gods represent celestial bodies.¹³⁹ It is then natural for Agni, one of the greatest Vedic gods, to be of the same kind. In fact, the way in which Indra/Taurus and Agni are invoked leaves, again, no doubt that Agni's nature is identical to that of Indra, that is, celestial (star or constellation):

8.38.5. ... Indra und Agni kommet her ...

8.40.8. *yá nú śvetāv avó divá uccárāta úpa dyúbhiḥ*

¹³⁸ Agni is compared to gold or has a golden body (e.g., RV 2.2.4; 7.3.6; 4.3.1; 10.20.9).

¹³⁹ Indra, the Áśvins, and Soma represent Taurus, Gemini, and the Milky Way, respectively.

8.40.8. Die beide [Indra and Agni — my note] Weißglänzenden, die unterhalb des Himmels Tag für Tag aufzugehen pflegen ...

1.108.3. ... Lasst euch vereint nieder, Indra und Agni; ihr Bullen, schüttet in euch vom bullenstarken Soma! (*tāv indrāgnī sadhrīāñcā niṣādyā vṛṣṇaḥ sómasya vṛṣaṇā vṛṣethām ...*)

Agni, therefore, represents a star or a constellation. This explains why Agni, like Indra and the Ásvins, is invoked at dawn and why he is said to appear at dawn. In other words, Agni is celebrated at dawn not because he represents the god of fire but because he is a star appearing on the eastern horizon just before sunrise, that is, in astronomical terminology, a star rising heliacally. The passages that describe Agni's appearance at dawn then describe the heliacal rising of this star.

It is obvious that, in order for him to receive such cultic importance, Agni must have been a special and astronomically significant bright star in the sky. To identify this star, I will first appeal to the other important aspect of Agni's mythology, which is his association with the waters (*ápah*). Thus, the waters are Agni's abode (8.43.9; 5.85.2; 7.49.4; 10.9.6; 10.91.6); Agni's abode is in *apām upásthe* "the lap of the waters" (6.8.4), in the dark (6.9.7); strangely for his nature, Agni is kindled in the waters (10.45.1). Agni is called *apām gárbham* "the germ of the waters" (3.1.12–13; 3.5.3; 1.70.3) and *apām nápāt* "the son of the waters" (3.9.1), which is one of his mythical appearances (2.35). The hymn 2.35, in particular, is very important for the present discussion, since it is entirely dedicated to Apām Napāt, whom the poet associates or identifies with Agni. I quote below some relevant verses.

2.35.3. Während die einen sich vereinigen, münden andere (ins Meer); die Flüsse füllen den gemeinsamen Ozean. Diesen reinen, leuchtenden Apām Napāt umgeben die reinen Gewässer (*apām nápātam pári tasthur ápaḥ*).

2.35.4. *tám ásmerā yuvatáyo yúvānam marmṛjyámānāḥ pári yanti ápaḥ*
sá śukrēbhiḥ śíkvabhī revád asmé dīdāyānidhmó ghṛtānirṇig apsú

2.35.4. Ohne (verschämt) zu lächeln, umkreisen (ihn) die Jungfrauen, die Gewässer, den Jugendlichen putzend. Mit seinen hellen, geübten (Gliedern) leuchtet er reichlich bei

uns, ohne Brennholz (leuchtet er) in den Gewässern, dessen Festgewand das Schmalz ist.

2.35.7. In dessen eigenem Hause die gutmelke Kuh steht, die schwellt seine Lebenskraft; er isst die gutbekömmliche Nahrung. Apām Napāt, der in den Gewässern kräftige Nahrung hat, erstrahlt, um dem Verehrer seine Schätze zu spenden (*só 'pām nápād ūrjáyann apsú antár vasudéyāya vidhaté ví bhāti*).

2.35.9. *apām nápād á hí ásthād upástham jihmánām ūrdhvó vidyútaṁ vásānaḥ
tásya jyēṣṭham mahimānaṁ váhantīr hīraṇyavarṇāḥ pári yanti yahvīḥ.*

2.35.9. Denn Apām Napāt hat ihren Schoß bestiegen, aufrecht stehend, während sie quer liegen, in Blitz sich kleidend. Seine höchste Hoheit tragend umkreisen ihn die goldfarbigen Jugendlichen.

2.35.10. *hīraṇyarūpaḥ sá hīraṇyasamḍrg apām nápāt séd u hīraṇyavarṇaḥ
hīraṇyáyāt pári yóner niśádyā hīraṇyadā dadati ánnam asmai*

2.35.10. Goldähnlich (*hīraṇyarūpaḥ*), wie Gold aussehend ist der Apām Napāt, derselbe auch goldfarbig, nachdem er sich niedergelassen hat aus goldenem Schoße (kommend). Die Goldgeber geben ihm Nahrung.

2.35.11. *tád asyānīkam utá cáru náma apīcíyaṁ vardhate náptur apām
yám indháte yuvatáyaḥ sám itthā hīraṇyavarṇaṁ ghṛtām ánnam asya*

2.35.11. Dieses sein Antlitz und der teuer Name des Apām Napāt wird Heimlich groß, den die Jungfrauen hier entzünden. Goldfarbige Schmalz ist seine Speise.

2.35.13. *sá īm vṛṣājanayat tásu gárbham sá īm śísur dhayati táṁ rihanti
só 'pām nápād ánabhimlātavarṇo anyásyevhá tanúvā viveṣa*

2.35.13. Er erzeugte als der Bulle in ihnen die Leibesfrucht. Als Kind saugt er ab ihnen; sie lecken ihn. Apām Napāt von unverwelklicher Farbe wirkt hier gleichsam mit dem Körper eines anderen.

- 2.35.14. *asmín padé paramé tasthivāṃsam adhvasmábhīr viśvāhā dīdivāṃsam
āpo náptre ghṛtām ánnam váhantīḥ svayám átkaiḥ pári dīyanti yahvīḥ*
- 2.35.14. Ihn, der an diesem fernsten Orte seinen Stand hat, der allezeit mit fleckenlosen (Flammen) leuchtet und sich selbst mit Gewändern (bekleidet), umschweben die jüngsten Gewässer, in dem sie dem (Apām Napāt) ihr Schmalz als Speise bringen.
- 2.35.15. *áyāṃsam agne suksītīm jánāya áyāṃsam u maghávadbhyaḥ suvṛktīm*
- 2.35.15. Ich habe, o Agni, dem Volke, gute Wohnung gewährt, ich habe den Lohnherren ein gutes Lied gewährt ...

The hymn dedicated to Apām Napāt is extremely important for the present argument because it identifies Apām Napāt "the son of the waters" with Agni, as the last verse 2.35.15 clearly shows.¹⁴⁰ This identification is also supported by the fact that Apām Napāt's attributes are strikingly similar to those of Agni. Thus, Apām Napāt is surrounded by waters; he shines like lightning in spite of being lit without firewood, and his food is in the waters; he resembles gold; he is the bright child of the waters, who grows in the waters. Below, I present other significant passages about Agni, in which his characteristics are similar to those of Apām Napāt in the hymn mentioned above (2.35):

- 1.65.9. Er zischt dasitzend wie der Schwan im Wasser (*śvāsiti apsú haṃsó ná sídan*) ...
- 1.67.9–10. *víyó vīrútsu ródhan mahitvá utá prajā utá prasúṣv antáḥ
cittir apāṃ dáme viśvāyuh sádmeva dhírāḥ sammāya cakruḥ*
- 1.67.9–10. Der in den Pflanzen mächtig wächst, sowohl das (neugeborene) Kind, als in den befruchteten (Pflanzen), der Geist der Wasser, lebenslänglich im Hause. Wie der Werkmeister ein Wohnhaus haben sie gleichmäßig seinen Sitz bereitet.

¹⁴⁰ Cf. Geldner at 2.35.15; Macdonell (1897: 70): "the deity is invoked as Agni and must be identified with him."

- 1.95.8. *tveṣám rūpám kṛṇuta úttaram yát samprñcānāḥ sádane góbhir adbhiḥ*
1.95.8. Er nimmt seine funkelnde Gestalt an, die sein oberes (Gewand) ist, wenn er an seinem Platz mit (Kuh)schmalz, mit Wasser in Berührung kommt.
- 1.143.3. *asyá tveṣā ajārā asyá bhānāvaḥ susaṃdṛśaḥ suprátikasya sudyútaḥ
bhátvakṣaso áti aktúr ná síndhavo agné rejante ásasanto ajārāḥ*
1.143.3. Seine funkeln den alterlosen (Flammen), seine Strahlen, des schönleuchtenden, schön zu schauenden von schönem Angesicht, des lichtstarken Agni, zittern die Nacht über gleich dem Farbenspiel der Flüsse, nicht schlafend, nicht alternd.
- 1.149.4. *abhí dvijánmā trí rocanāni vísvā rájāṃsi śúsucānó asthāt
hótā yájiṣṭho apám sadhásthe*
1.149.4. Der Zweigeborene hat flammend sich über die drei Lichträume, über alle Welten erhoben, der bestopfernde Hotṛ am Sammelort der Gewässer.
- 3.1.4. *ávardhayan subhágaṃ saptá yahvíḥ śvetám jajñānám aruṣám mahitvá*
3.1.4. Die sieben jüngsten (Ströme) zogen den Holden groß, den weiß und rötlich in voller Größe geborenen.
- 3.3.5. *candrám agníṃ candrārathaṃ hárivrataṃ vaiśvānarám apsuśadaṃ suvarvídā
vigāhám túrṇiṃ táviṣibhir ávrtam bhúrṇiṃ devāsa ihá suśríyaṃ dadhuḥ*
3.3.5. Den schimmernden Agni mit schimmerndem Wagen, dessen Werk golden ist, den Vaiśvānara, der im Wasser wohnt, der das Sonnenlicht findet, den untertauchenden, zielerreichenden, von Stärken umgebenen, ungeduldigen, herrlichen haben die Götter hierhergesetzt.
- 3.9.2. *kāyamāno vanā tuvám yán mātṛ ājagann apāḥ
ná tát te agne pramṛṣe nivártanaṃ yád dūrē sánn ihābhavaḥ.*

- 3.9.2. Wenn du, der du an den Hölzern deine Freude hast, in deine Mütter, die Gewässer, eingegangen bist, so sollst du, Agni, die Rückkehr nicht vergessen, (und) dass du, der in Ferne weilende, (früher) hier warst.
- 10.45.1. *divás pári prathamám jajñe agnir asmád dvitīyam pári jātavedāḥ*
ṛtīyam apśu nṛmāṇā ájasram índhāna enaṃ jarate suādhīḥ
- 10.45.1. Vom Himmel wurde Agni zuerst geboren, ein zweites Mal von uns, der Jātavedas. Den zum dritten im Wasser (Geborenen), den nie Ermattenden entzündend, ruft ihn in guter Absicht der wie ein Herrscher Denkende wach.
- 10.45.3. *samudré tvā nṛmāṇā apśu antár nṛcákṣā īdhe divó agna ūdhan*
ṛtīye tvā rājasi tasthivāṃsam apām upásthe mahiṣā avardhan
- 10.45.3. Dich ... den im Euter des Himmels (Weilenden) ... dich, den im dritten Dunkelraum Weilenden, im Schoße des Wassers zogen die Büffel groß.
- 10.46.1. *prá hótā jātó mahān nabhovín nṛśádvā sīdad apām upásthe ...*
- 10.46.1. (Neu)geboren (tritt) der große Hotṛ vor, der Wolkenkundige; der unter Männern Sitzende saß im Schoße der Gewässer.
- 10.121.7. *ápo ha yád bṛhatīr víśvam áyan gárbhaṃ dádhanā janáyantīr agnīm*
- 10.121.7. Als da die hohen Gewässer kamen, das All als Keim empfangend, den Agni erzeugend, da entstand er daraus ...

Agni's mysterious and still unexplained presence in the waters certainly does not reveal *per se* who Agni is. The Vedic identity/close relationship between Apām Napāt and Agni, however, is echoed in the Avesta. Thus, in a hymn dedicated to the star Tištriya (*Yašt* 8), the deity called Apām Napāt is put in connection with Tištriya. I quote the most relevant passages of the Avestan hymn in Lommel's translation (1927):

2. Den prächtigen glänzenden Stern Tištriya verehren wir, der friedliches Wohnen, gutes Wohnen gewährt, den hellen, leuchtenden, hervorblinkenden, umherstrahlenden, heilkräftigen, im Lauf schnaubenden, erhabenen, der mit leuchtenden, lauterem Schein weit umherstrahlt, - und das Wasser, das weite Meer bildet ...

3. Wegen seiner Pracht und seines Glanzes will ich ihn mit lautem Gebet und Opfergüssen verehren, den Stern Tištriya. Den prachtvollen glänzenden Stern Tištriya verehren wir.

4. Den prächtigen glänzenden Stern Tištriya verehren wir, den regenerzeugenden (*afščišram*)¹⁴¹ erhabenen Helden, den kräftigen, in der Ferne blinkenden, erhabenen, übermächtigen; von ihm ... vom Wasserkind (sein?) Geschlecht (*apqm nafδδrat hača čišram*) ...¹⁴²

5. Den prächtigen glänzenden Stern Tištriya verehren wir, nach dem sich Klein- und Großvieh sehnen, und die Menschen ... Wann wird uns der prächtige glänzende Tištriya aufgehen ... ?

7. Da half ihm der Weise Herr¹⁴³, der Schöpfer, da die Wasser und Pflanzen ...

8. Den prächtigen glänzenden Stern Tištriya verehren wir ... Zu der rossgestalteten wahrhaftigen Flut des kräftigen schöngeformten, tiefen Sees Vurukurta mit seinen weiten Wassern kommt er [Tištriya — my note] fürwahr herzu und lässt die Flut heranwogen ...

¹⁴¹ This is an Avestan word, which Darmsteter (1882) translates as "the seed of the waters," and Panaino (1990: I 30, 92) as "the origin of rains" (cf. Lommel); Herzfeld (1947: 585–586) translates it as "kindred to water," and considers it to mean "the son of Apām Napāt."

¹⁴² Bartholomae (1904) translates *čišram* as "Ursprung, Herkunft, Nachkommenschaft," namely "origin"; *hača* means "from"; therefore, literally, the passage can be translated as "whose origin/nature is from Apām Napāt; cf. also Lommel (1927: 50); *nafδδrat* is another morphological form of Napāt (in the ablative here; cf. Skt. *naptr-*); cf. Bartholomae (1904); Grassmann (1964).

¹⁴³ "Der weise Herr" is the supreme Zoroastrian god Ahura Mazdāh; cf. Panaino (1990: I 33, 59).

11. Wenn die Menschen mich dem Gebet, das meinen Namen nennt, verehren würden, so wie die anderen Götter mit Gebeten, die ihre Namen nennen, verehrt werden, so käme ich zu den wahrhaftigen Männern (zur bestimmten Lebenszeit?)¹⁴⁴

...

32. Von da an, o Spitāma Zarathuštra, steigt der prächtigen glänzenden Tištriya wieder aus dem See Vurukurta ...

35. Den prächtigen glänzenden Stern Tištriya verehren wir, der von da an zugleich mit der strahlenden Morgenröte daherfliegt auf fernumbiegender Weg auf der von den Göttern bestimmten Bahn, der vorgeschriebenen wasserreichen, zur Freude des Weisen Herr ...

36. Den prächtigen glänzenden Stern Tištriya verehren wir, nach welchem die Jahresbestellung des Menschen und die raterteilenden Herrn und die wilden Tiere ... ausblicken, wenn er emporsteigt.

37. Den prächtigen glänzenden Stern Tištriya verehren wir, der sich schnell dahinschwingt, der im Schwung dahinfährt ... zum See Vurukurta ...

44. Den prächtigen glänzenden Stern Tištriya verehren wir, den der weise Herr zum Herrn und Aufseher über alle Sterne bestellte ...

45. Den prächtigen glänzenden Stern Tištriya verehren wir, dem der weise Herr tausend Zauberkräfte verlieh als dem gewaltigsten unter den Wassererzeugern¹⁴⁵, der mit Wassererzeugern herbeikommt, inmitten der Himmelslichter sich bewegend.

The Avestan passages strikingly echo the Vedic passages about Agni and Apām Napāt. Thus, Tištriya shines brightly in the sky and originates in the waters or has a close connection to them; the waters and the plants take care of it. It shines in the east and is venerated by men. It appears in the sky at dawn. It is the lord and overseer of all stars and is associated with the deity called Apām Napāt.

These characteristics of Tištriya strongly indicate that this star is, in all likelihood, identical

¹⁴⁴ "At the appointed time"; cf. Panaino (1990: 104).

¹⁴⁵ Cf. Av. *ašciθraēbiō*, which Panaino (1990: 135) translates as "among the rain-originators" (i.e. the stars)."

with the star Agni. This conclusion is indeed bold, but, as I have shown above, it is not the result of a mere comparison between the Vedic and Avestan texts. Independently of the Iranian texts, the *Rig Veda* showed that Agni's nature was celestial (stellar). On the other hand, the deity called Apām Napāt must be of Indo-Iranian origin, since he belongs to both the Vedic and the Iranian pantheons. Certainly, it is still unclear at this point whether this deity is identical with Tištriya /Agni or not.¹⁴⁶ The clear association of Apām Napāt with both Tištriya and Agni, however, along with the similar jargon used to describe these stars, supports the hypothesis that Agni is, indeed, the star Tištriya.

The identity of Tištriya is a thorny issue. The scholarly consensus is that it represents the star Sirius, the brightest fixed star in the northern hemisphere.¹⁴⁷ This identification is based on a passage in Plutarch (first century AD), who states that, in the Persian religion, the star Sirius was created by Horomazes (Ahura Mazdā) to be the guardian and scout for the other stars.¹⁴⁸

The theory that Tištriya is identical with Sirius encounters some difficulties.¹⁴⁹ One of these concerns the fact that, as some Avestan verses above show, Tištriya is said to bring rain. As is well known, Sirius' heliacal rising occurred in the middle of the summer heat.¹⁵⁰ This is hard to reconcile with the idea of Sirius bringing rain to the land. Panaino's theory (1995: 19–21) that the "rain" in such passages is to be identified with shooting stars or meteor showers, which would occur most frequently

¹⁴⁶ Boyce (1982: I 40–48) identifies Apām Napāt with Varuṇa; her evidence is based on *Yt.* 13.95, in which Mitra's association with Apām Napāt (invoked as "protectors of the lands") would be similar to that between Mitra and Varuṇa in the *Rig Veda*. This theory is questionable. Unlike Agni, Varuṇa, who is indeed associated with the watery element, is never called Apām Napāt in the *Rig Veda*.

¹⁴⁷ Sirius was well known in the ancient world; the Greeks called it κύων "the Dog"; cf. *Il.* 22.27–30; Σείριος (cf. Lat. *Sirius*) is also used by the Greeks from ancient times (cf. e.g., Hes. *Op.* 417; 587; 609). Sirius was highly venerated in Egypt (as the goddess Isis), where its heliacal rising announced the flooding of the Nile.

¹⁴⁸ Plut. *De Is. et Os.* 47: "He (Horomazes) set up among them [the stars — my note] one star, Sirius, before the rest, to be as it were a sentinel and a scout"; cf. Panaino (1995: 6); Panaino (2005); Boyce (1982: II 204–206); Scherer (1953: 113).

¹⁴⁹ For discussion, cf. Panaino (1995: 1–14).

¹⁵⁰ For the Greeks and the Romans, the heliacal rising of Sirius during the summer time announced torrid days, which could bring unbearable heat, with the subsequent parching effect on the crops, diseases etc. Since Sirius was part of the Canis Maior "the Dog," the Romans nicknamed this star Canicula "the little dog," a word which in Romance languages ended up meaning "burning heat" (e.g., Fr. *canicule*); cf. Kidd (1997: 306–08).

after the rise of Sirius (during the summer), is hardly credible.

The considerations above are an impediment to the theory that identifies Tištriya/Agni with Sirius. In spite of this, some of Agni's mythological features can be explained through Agni's identification with Sirius. Thus, it is well known that Sirius has a long period of invisibility in the sky, which is due to its position towards the south of the celestial vault.¹⁵¹ The rebirth of Agni then may be a metaphor for Sirius's reappearance in the sky after a long period of invisibility. Obviously, this period of invisibility would be able to account for why the Vedic people invoked Agni with so much fervor. It seems then that Sirius can still be considered a good candidate for a possible identification with Agni. The biggest obstacle against the identification of Agni with Sirius, however, lies elsewhere. Thus, the star Agni is said to "hide and grow" in the waters. I do not see how Agni's possible identification with Sirius could explain this part of the myth.

To solve the riddle, I will appeal to verse 45 of the Tištriya hymn, in which it is said that the star Tištriya moves in the midst of the stars. At first glance, this seems to be strange, since a star does not move relative to the other stars. There are, however, stars that are not fixed; these are the planets. The possibility that Tištriya represents a planet gives an expected twist to the present argument. Thus, it is well known that, among the planets, there is one that represents the brightest object in the sky after the sun and the moon; this is the planet Venus, which is an object even brighter than Sirius and which has indeed the property of moving amongst stars.¹⁵² Is Agni *alias* Tištriya Venus?

That the hypothesis above is not without foundation is shown by the following Rig Vedic passages (10.88.13 already quoted above):

10.88.13. Die opferwürdigen Seher, die Götter, erschufen den Agni Vaiśvānara, den alterlosen, das uralte, nie (die Richtung) verfehlende, wandelnde Gestirn (*nákṣatram ... áminac carišnú*), den starken, hohen Aufseher des Geheimnisses.

¹⁵¹ Because of its location, which presupposes a shorter trajectory in the sky, Sirius is absent from the sky about 70 days before its heliacal rising in the summer; cf. Evans (1998: 3–5, 195–196).

¹⁵² The brightness of Venus also perfectly explains its association with fire (Agni).

- 4.13.5. *ánāyato áñibaddhaḥ katháyāṃ níāññ uttānó áva padyate ná
káyā yāti svadháyā kó dadarśa divá skambháḥ sámṛtaḥ pāti nákam*
- 4.13.5. Wie kommt es, dass er nicht kopfüber herabfällt, obwohl er nicht festgehalten, nicht angebunden (*ánibaddhaḥ*) ist? Durch welchen Eigengesetz geht er, wer hat (es) gesehen? Als Säule des Himmels angebracht schützt er das Firmament (*divá skambháḥ sámṛtaḥ pāti nákam*).¹⁵³

Agni's attributes in these two passages (or, at least, in the former one) point to his being a planet rather than a fixed star. Thus, Agni is a "moving" star (*carīṣṇú*); he is not "bound" and follows his own law. The hypothesis that Agni is Venus seems to be on solid ground.

In order to explain Agni's mythological features it is necessary to mention some of the astronomical properties of Venus. Before this, however, it is worth noting the well-known fact that, in the middle of the first millennium BC, the Iranian name for Venus was Anāhiti, "the Pure One." This might be considered indeed an obstacle to the present theory, in which Venus is identified with Tištriya. The worship of Venus as the goddess Anāhiti, however, is not attested in the Avesta, but only in western Iran. The only deity with a similar name known in the Avesta is the one called *arədvī sūrā anāhita* "the moist, mighty, pure one"; this deity, however, was not Venus, but the goddess of a mythical/celestial river.¹⁵⁴ This shows that a possible presence of Venus in the Avesta implies a different name for this planet. Tištriya then remains a very good candidate for representing Venus.¹⁵⁵

The most important astronomical feature of Venus, which belongs to the planet Mercury as well, is that it is an "inferior" planet. Venus and Mercury are called "inferior" planets because their

¹⁵³ Geldner interprets this passage as referring to Sūrya (mentioned in the previous verse). This is, indeed, possible. However, since the whole hymn is dedicated to Agni, it is also possible that this verse refers to Agni. In fact, the same idea (Agni supports the sky) is expressed in: 4.5.1cd *ánūnena br̥hatá vakṣáthēna úpa stabhāyad upamín ná ródhaḥ* "In vollkommenen, hohem Wachstum stützt er (den Himmel) wie der Pfeiler den Deich"; 3.5.10a *úd astambhīt samídha nákam r̥ṣvó* "Durch das Brennholz sich aufrichtend hat Agni das Firmament emporgerichtet."

¹⁵⁴ Cf. Lommel (1927: 26–44); Boyce (1982: II 29–30; 201–03).

¹⁵⁵ This hypothesis also answers Panaino's concerns (1995: 67–68) that the Avesta reveals no apparent knowledge of the planets.

orbits lie between the orbit of the Earth and the sun, whereas the other planets, which are farther from the sun than the Earth is, are called "superior." Given that their orbits lie between the orbit of the Earth and the sun, Venus and Mercury are always seen close to the sun, which means that they can be seen either before sunrise (as morning stars) or after sunset (as evening stars). During the day, they obviously disappear in the sun's glare and cannot be seen.

Venus — and Mercury as well — has another extremely important property. Given that it can move to one side or the other of the sun, thus alternatively being either a morning or an evening star, during the year Venus twice becomes invisible in the sky. The period of invisibility occurs when, from the perspective of an observer from the Earth, the planet crosses the sun's disk. What is of crucial importance for the present argument is the fact that the passage from visibility to invisibility does not occur instantaneously but gradually. In astronomical jargon, this means that Venus has "phases" — like the moon — that is, its size increases or decreases depending on its relative position with respect to the sun and the Earth.

The astronomical characteristics of Venus can perfectly explain Agni's myth of "hiding and growing in the waters" or Agni's being born many times. Indeed, because of its phases, the planet Venus appears to either "hide in the waters" (when it becomes invisible), or "grow" (when it is born) and reach full brightness.¹⁵⁶ I give below two more examples illustrating Agni's growth in the waters:

10.8.1. ... Im Schoße der Gewässer ist der Büffel groß geworden (*apám upásthe mahiśó vavardha*).

10.45.3. Dich ... im Schoße des Wassers zogen die Büffel groß (*apám upásthe mahiśá avardhan*).

¹⁵⁶ I would also make the hypothesis that Mātariśvan, whose name probably means "grown/growing in his mother" (cf. Macdonell (1897: 72)), and who is sometimes identified with Agni (cf. 3.26.2), symbolizes Venus's full phase, that is, the time when Agni "the fire" is "brought to earth" (this explains the apparent contradiction that Agni is both identical with Mātariśvan and brought to earth by Mātariśvan); cf. 3.29.11: Agni is called (*ucyate*) "Mātariśvan" when he is undiminished in his mother *mātariśvā yád ánimīta mātāri* "wenn er in der Mutter sich bildete." Venus's new phase is probably represented by Narāsaṃsa (cf. 3.29.11: ... zum Narāsaṃsa wird Agni, wenn er geboren wird ... "). The intermediary phase of Venus is probably Tanūnapāt (cf. 3.29.11: *tānūnapād ucyate gārbha*).

The hypothesis that the Vedic people were able to observe Venus's phases is not as peculiar as it might seem at first. It is known that the Babylonians were able to record Venus's phases in the first half of the second millennium B.C.¹⁵⁷

A difficult issue in Agni's myth is to establish the nature of the "waters" in which the star Agni hides and grows. One possibility is that they represent the sky's light-blue surface at early dawn. Another possibility, which is more plausible, is that the presence of the waters in Agni's myth is just a metaphor accounting for why Agni, that is, fire, gets extinguished. In other words, it is possible that these waters did not represent any visible celestial object, and that their presence in the sky was assumed only indirectly, through the phases of Agni/Venus. In fact, it may be that, in essence, Agni's waters are identical with those released by Indra at the spring equinox. This hypothesis can explain why Venus was invoked to bring rain; indeed, since it always "follows" the sun's path through the constellations, Venus can be seen as a seasonal marker and, therefore, invoked to bring rain at certain times.¹⁵⁸

Agni's growth in the waters can also explain why he is called "Apām Napāt"; obviously, since he is "born in the waters," Agni, the "child of the waters," can rightly be called Apām Napāt. Apām Napāt then may represent the transition phases through which a planet passes before reaching its fully developed phase.¹⁵⁹ It is then possible that, without representing a separate deity in the Indo-

¹⁵⁷ Cf. Waerden (1974: 49–59); Roscher (1965: 1478).

¹⁵⁸ Another possible interpretation for the "waters" would be that they represent the surface of the sky that is closer to the horizon, that is, the space in which Venus moves; in the section on the Ásvins, I interpreted the "mountain" the Ásvins climb as the celestial vault from the horizon to the celestial meridian; the "waters" then may represent the "inferior" part of this "mountain" since waters can be found at the base of any mountain; this can also apply to the "wood" through which Agni burns; cf. n.158 above. It may also be that these celestial waters are related to the "celestial Sea" (cf. the constellation Aquarius), which I will mention in detail in the chapter on the Ādityas; this latter hypothesis, however, would imply that this part of Agni's myth was conceived when Venus was in certain places of the sky (in the "Sea"); I do not consider this hypothesis very attractive.

¹⁵⁹ For the nature of Savitrī, who is also called "Apām Napāt" (cf. 1.22.6; 10.149.2), see the next chapter of the present study.

Iranian religion, Apām Napāt was the generic name designating the inferior planets Venus and Mercury.¹⁶⁰

I will now turn attention to another important feature of Agni, which is that he is a priest (*hotr*).¹⁶¹ This feature may be explained as well through Venus's travel in the sky during the year. Thus, as the sun moves through the zodiacal constellations during the year, Venus does the same, that is, it moves through these constellations along with the sun. The fact that Taurus and Gemini, which are zodiacal constellations, are heavenly gods (Indra and the Ásvins, respectively) shows that, in all likelihood, the other (zodiacal) constellations were also considered to be celestial gods. This perfectly explains why in the myth Agni "the priest"¹⁶² serves or is received by different gods.¹⁶³

Interestingly, Agni "the priest" and Indra "the warrior" are the greatest gods of the Vedic religion. This means that, from a wider perspective, at the cosmic level, Agni and Indra reflect the most important functions of the Vedic society.

In addition to being a priest, Agni is also *dūtó devánām* "the gods' messenger" (cf. e.g., 3.3.2; 6.15.9; 10.4.2); this feature can also be explained through Venus's movement from one constellation to another.

¹⁶⁰ The characteristics of Apām Napāt (cf. 2.35) perfectly apply to the moon, which is obviously also a celestial body displaying phases; interestingly, Hillebrandt (1927 I: 365–80) already associated Apām Napāt with the moon, which he identified with Soma; however, his hypothesis has nothing to do with the moon's phases. The moon in the *Rig Veda* is *candrāmas* (cf. Grassmann) and has no relationship to Apām Napāt.

¹⁶¹ Cf. 2.2.1 above, or, e.g., 8. 49.1; 6.16.1; 9.66.20; 10.7.5; Macdonell (1897: 96–97).

¹⁶² A less important Vedic "priestly" god is Bṛhaspati, who is identified with the planet Jupiter in later literature. Hillebrandt (1990: I 107–8) thinks this is the result of the transfer of the Vedic god's name to the planet. Given the "priestly" nature of Bṛhaspati (*puróhitaḥ*; cf. 2.24.9), which is similar to that of the planet Agni, this god may indeed represent Jupiter. Other features that point to his celestial nature: Bṛhaspati was born in the sky (cf. 4.50.4: *jāyamāno mahó jyótiṣaḥ paramé víoman*), drives away darkness with his light (cf. 10.68.5: *ápa jyótiṣā támo antárikṣād ... ājat*), climbs up in the sky (cf. 10.67.10: *á dyám áruḥṣad úttarāṇi sádma*), shines "in the house" (cf. 5.43.12: *dāma á dīdivámsam*); he is also invoked together with "the Bull" Indra (cf. 4.49; 7.97).

¹⁶³ Cf. 1.95.6 above: " ... Die Götter erhalten (*dhārayan*) Agni ... "

That Agni is Venus is shown by other features of Agni. Thus, given that Venus is always perceived as close to the sun, it is appropriate to say that Agni/Venus guards the sun's path, precedes the day, or adds to the sun's brightness:

- 3.5.5. ... er [Agni — my note] hütet den Weg der Sonne (*páti yahvás cáraṇaṃ sūriyasya*).
- 10.3.2. ... indem er den aufgerichteten Strahl des Sūrya stützt (*ūrdhvám bhānúṃ sūriyasya stabhāyán*).
- 10.88.12. Für die ganze Welt machten die Götter den Agni Vaiśvānara zum Zeichen der Tage (*ketúm áhnām akṛṇvan*, literally "the banner of the days"); der die aufleuchtenden Morgenröten ausgebreitet hat, er deckt auch die Finsternis ab, wann er mit seinem Lichtstrahl kommt (already quoted above).

It is also appropriate for Agni to show up before sunrise, since the rising of Venus as a morning star occurs before sunrise (cf. also the many passages I quoted above):

- 2.1.1. "Du, Agni, (wirst) mit Tagesanbruch (geboren)."
- 4.3.11. ... die Sonne kam zum Vorschein als Agni geboren war.

These latter features are beautifully echoed in the Odyssey in a passage in which Venus is described astonishingly similarly to the Rig Vedic Agni (13.93–5):

Εὖτ' ἀστὴρ ὑπερέσχε φαάντατος ὅς τε μάλιστα
ἔρχεται ἀγγέλλων φάος Ἡοῦς ἠριγενείης ...

At the time when shines the brightest star, which beyond others
Comes with announcement of the light of the young Dawn goddess...¹⁶⁴

¹⁶⁴ Cf. Heubeck (1990: 169).

Another interesting feature of Agni is that he "organizes the times":

- 1.95.3. ... *púrvām ánu prá díśam párvhivānām ṛtún praśásad ví dadhāv anuṣṭhú*
- 1.95.3. ... Die östliche Gegend der irdischen Räume (kennend) hat er die Zeiten bestimmend richtig eingeteilt.
- 5.12.3. Der Gott (Agni), der der Hüter der Zeiten ist (*ṛtupá*) ...
- 6.7.7. *ví yó rájāṃsi ámimīta sukrátur vaiśvānaró ví divó rocanā kavīḥ*
pári yó víśvā bhūvanāni paprathé ádabdhó gopá amṛtasya rakṣitā
- 6.7.7. Vaiśvānara, der klugsinnige Seher, der die Räume ausgemessen hat und die Lichter des Himmels, der sich über alle Welten ausgebreitet hat, der untrügliche Hüter, der Wächter der Unsterblichkeit.
- 10.2.1. Stelle die verlangenden Götter zufrieden, du Jüngster; der (Opfer)zeiten kundig, du Herr der Zeiten, opfere hier! (*vidvám ṛtúṃr ṛtupate yajehá*)
- 10.2.3. ... *agnír vidván sá yajāt séd u hótā só adhvarán sá ṛtún kalpayāti*
- 10.2.3. ... Agni is der Kundige, er soll opfern; er allein ist der Hotṛ, er soll die Opfer, er die Zeiten (*ṛtún*) einteilen (*kalpayāti*).¹⁶⁵
- 10.2.4. ... *agníṣ ṭád víśvam á prṇāti vidván yébhír devám ṛtúbhiḥ kalpayāti.*
- 10.2.4. ... so möge der kundige Agni das alles wieder gutmachen nach den Zeiten, auf die er die Götter verteilen wird (cf. Geldner: "bei jedem Gotte zu seiner Zeit").

Geldner argues that the "times" (Skt. *ṛtú*) in such cases are those when the sacrifices for different gods are due.¹⁶⁶ This is an interesting suggestion, which, in the context of the present

¹⁶⁵ Skt. *kalpayāti* can also mean "to organize" (Germ. "ordnen, in die richtige Ordnung bringen, verteilen"; cf. Grassmann).

¹⁶⁶ Cf. Geldner at 10.2.3 above: "die Opferzeiten oder die Reihenfolge der Götter im Sinne der *ṛtávaḥ*."

argument, implies that the constellations representing celestial gods were worshipped when Agni/Venus passed through them. I would make, however, another hypothesis, which is slightly different from Geldner's. This concerns again the fact that, during the solar year, Venus passes through all the constellations that are located on the sun's path, i.e., through the zodiacal constellations.¹⁶⁷ It is probably because of this astronomical feature that Agni/Venus was seen as "the guardian/lord (*ṛtupá*) of the times." Indeed, since in antiquity the stars/constellations on the sun's path had the role of measuring time (or "the times"), the association between Venus and the constellations is an association between the planet and the "times" (of the year).

Another interesting feature of Agni is his well-known epithet of *Vṛtrahán* (cf. e.g. 1.74.3; 3.20.4). We saw that, although this epithet is intimately associated with Indra, other gods such as Soma may share it. Soma (the Milky Way) is called *Vṛtrahán* because of its relative celestial position with respect to Indra (Taurus) and *Vṛtra*. One can explain Agni's epithet in a similar way. Thus, when Taurus announced the spring equinox (that is, when the sun was in Taurus at the spring equinox), Venus, which is always close to the sun, must have also been close to Taurus (perhaps even in Taurus, depending on when this myth was created). This made Agni/Venus a participant at the cosmic drama that was taking place in the sky at the spring equinox; consequently, like Indra and Soma, Agni was also called *Vṛtrahán*.

I conclude this section with a final word concerning the fact that Agni's worship seems to have been mainly performed at dawn, which means that Venus was worshipped as a morning star. The question arises whether the Vedic people knew of the identity between Venus's evening and morning aspects.¹⁶⁸ The following passages show that these people worshipped Agni in the evening as well:

4.2.8ab. *yás tvā doṣá yá uṣási praśámsāt priyám vā tvā kṛṇáivate havíṣmān ...*

¹⁶⁷ The Babylonians considered that Venus, the sun, and the moon governed the zodiac; they also called Venus the "queen of heaven"; cf. Roscher (1965: 1478).

¹⁶⁸ Not all peoples in antiquity knew that the two stars are one and the same; the Greeks for example attributed this discovery to either Parmenides or Pythagoras; the Babylonians or the Sumerians, on the other hand, knew about their identity; cf. Scherer (1953: 78); Waerden (1974: 56); Roscher (1965: 1478).

4.2.8. Wer dich [Agni — my note] des Nachts [evening — my note], wer am Morgen lobt
oder dich mit Opfergaben zum Freunde macht ...

7.1.6. *úpa yám éti yuvatíḥ sudákṣaṃ doṣá vástor haviṣmatī ghṛtācī*
úpa svaínam arámatir vasūyúḥ

7.1.6. Der Verständige [Agni — my note], dem die Jungfrau, die Schmalzkelle, abends und
morgens mit der Opfergabe naht und Gutes wünschend die ihm gebührende
Andacht.¹⁶⁹

It is not clear, however, whether Agni in such cases represents the "celestial fire" as well and not only the "terrestrial" one. Consequently, at this point it cannot be established with certainty whether the Vedic people knew of the identity between the two aspects of Venus. I will take up this issue again in the last chapter ("Bulls and Cows") of the present study.

A . P A R T I A L C O N C L U S I O N S I I

The second part of the present study challenges the universally accepted idea that Agni, one of the greatest Vedic gods, mainly represents the sacrificial fire. It also challenges the idea that it was the sacrificial fire that generated the cult of the other aspect of Agni, which is essentially celestial.

The celestial Agni plays a well-defined role in the *Rig Veda*, and his worship at dawn has, as expected, nothing to do with the fire cult. It has also nothing to do with the sun or with lightning as it has generally been assumed; the evidence shows that Agni is only compared to the sun or to lightning, and is never identical to them. The celestial Agni is consistently shown as being located in the sky or on the sky's firmament. He is a bright light in the dawn sky, which precedes the appearance of the morning sun. These characteristics clearly point to Agni being a star rising heliacally. That this is not merely speculation is shown by a Vedic passage in which Agni is specifically called a "star" (*nákṣatra*). To determine the nature of this star I used evidence from the Iranian Avesta. This evidence shows that Agni is identical to the Avestan Tištriya. Drawing on both Avestan and Vedic evidence, I showed that

¹⁶⁹ Cf. also 2.8.3; 4.12.2; 7.3.5; Oldenberg (1894: 439); for the Agnihotra ritual performed both at dawn and in the evening, cf. Oberlies (1998: 313–14).

Agni or Tištriya are likely to represent the planet Venus, which is the brightest object in the sky after the sun and the moon. The identification of Agni with Venus can explain the myth of Agni hiding and growing in the "waters." Thus, these mythological features "metaphorically" represent the phases of Venus. The planet Venus has a period of invisibility in the sky and a period of "growing" depending on its relative position with respect to the Sun and the Earth. The period of invisibility is described by the metaphor of Agni "hiding" in the celestial waters; the "growth" of Agni is related to Venus's passage from the new phase to the full phase (after having been invisible).

Another very important conclusion of the present study concerns the relation between the celestial Agni, alias Venus, and the worship of the sacrificial fire. It is known that the Iranians venerated fire (Avestan *Ātarš*).¹⁷⁰ The existence of the "terrestrial" Agni probably shows that this cult of fire goes back at least to the Indo-Iranian period. Obviously, the worship of Venus must also go back to Indo-Iranian times. Therefore, since the Iranians do not seem to have associated the fire-cult with the cult of Venus, the Vedic Agni's origins are probably to be looked for in the conflation of two different cults, the fire-cult and the cult of Venus. Be it as it may, the association of Venus with fire and the further Vedic development of the myth is the result of a splendid metaphor, by which the brightest star in the sky came to be compared with fire.

¹⁷⁰ Cf. Boyce (1987); the etymology of this name is unknown.

THE "SOLAR ASPECTS" OF SAVITṚ AND PŪṢAN

A. SAVITṚ

The nature of the important Vedic god Savitṛ has been a keenly debated issue. Despite the uncertainty surrounding this god's origins, role, or significance, however, there has been a general agreement among scholars that Savitṛ's most important characteristics relate him to the sun. Moreover, the "solar aspect" of Savitṛ caused many scholars to identify him with the sun. I will try to explore Savitṛ's "solar aspect" in more detail and assess whether this god can be indeed interpreted as representing either an aspect of the sun or the sun itself.

Savitṛ, therefore, has been partially or totally identified with the sun-god Sūrya. This identification is old, going back to the ancient Vedic commentators. Thus, Yāska (fourth century BC) identified the sun with Savitṛ; Sāyaṇa (fourteenth century AD) argued that the sun is called Savitṛ before his rising, but Sūrya from his rising to his setting.¹⁷¹ In modern times, similar opinions, with some nuances, were held by Muir (1872 V: 155–56), Bergaigne (1878–1883 III: 38), Macdonell (1894: 34), Hillebrandt (1990: 67–75), among others. It is important for the present discussion to examine the "nuances" of these arguments. Thus, in Muir's opinion "There are two other gods ... who are exact personifications of the sun, viz., Sūrya and Savitṛ. It is under these two different appellations that the sun is chiefly celebrated in the Rig-veda; and although it may be difficult to perceive why the one word should be used in any particular case rather than the other, the application of the names may perhaps depend upon some difference in the aspect under which the sun is conceived, or on some difference in the functions which he is regarded as fulfilling." Along the same line of thought, Macdonell argued that "Savitṛ was originally an epithet of Indian origin applied to the sun as the great stimulator of life and motion in the world ... but ... as differentiated from Sūrya he is a more abstract deity. He is in the eyes of the Vedic poets the divine power of the sun personified, while Sūrya is the more concrete deity" ... In Bergaigne's opinion, "Le personnage de Savitṛ est dans un rapport

¹⁷¹ Cf. Yāska (*Nir.* 10.32); Sāyaṇa (on 5.81.4); Macdonell (1897: 33).

particulièrement étroit avec les phénomènes solaires, quelquefois identifié au soleil (Sūrya)."¹⁷² Keith (1925: 105–106), on the other hand, drawing on the probable etymology of Savitṛ¹⁷³, defined the "solar aspect" as follows: "While Sūrya represents the concrete aspect of the sun, Savitṛ, the stimulator or instigator, seems to denote the sun as the motive power which drives men to action ... Savitṛ is one aspect of Sūrya, the most important aspect of the power which wakens man to his work and the priest to his sacrifice."¹⁷⁴

Arguments such as those above, however, are not convincing. The reason for this is the existence of Vedic passages in which the two gods are clearly different and not merely aspects of each other. Thus, Muir (1872: 168–69) notes that the verse 1.35.9, in which Savitṛ is said to "bring or approach Sūrya" (*veti sūryam*), clearly shows that the two gods are different. Sāyaṇa's explanation for this verse that it would show two different forms of the same god approaching each other is, obviously, artificial, to say the least.

In order to explain why Savitṛ and Sūrya seem to be both identical and different, Hillebrandt (1990:72) invents an evolutionary model, according to which these gods would have been originally identical but would have become differentiated over the course of time; the Rig Vedic passages then would reflect the different stages of this development. This theory should be rejected because it presupposes that an older and "rational" stage of the Vedic religion evolved to practically a nonsensical one. There is no evidence on which to postulate such a development.

The main difficulty in identifying Savitṛ with Sūrya, therefore, lies in that there are Rig Vedic passages in which the two gods are clearly distinct from each other. This was clearly stated by Oldenberg, who challenged the theory that these two gods should be seen as identical.¹⁷⁵ For Oldenberg, Savitṛ is the personification of the abstract concept revealed by his name, which

¹⁷² In another passage, Bergaigne (1878–1883 III: 51) is more prudent: "... [Savitṛ — my note] ne pouvait représenter purement et simplement le soleil, ainsi que l'entendent les partisans d'un naturalisme exclusive."

¹⁷³ The consensus among scholars is that the word "Savitṛ" is built on *sū "to stimulate, impel."

¹⁷⁴ Obviously, Keith refers to Savitṛ's well-known features of waking up creatures in the morning and putting them to rest in the evening.

¹⁷⁵ Cf. Oldenberg (1894; 1897; 1905).

etymologically means "the enlivener, impeller, or stimulator"¹⁷⁶: "Das Wesentliche an der Conception des Savitar ist nicht die Vorstellung der Sonne, auch nicht die Vorstellung der Sonne in einer bestimmten Richtung, insofern sie nämlich zu Leben und Bewegung antreibt: sondern das Wesentliche ist der abstrakte Gedanke dieses Antreiben selbst. Er giebt sozusagen den Rahmen her, welcher den Savitar betreffende Vorstellungen umfasst."¹⁷⁷ This represents a new and totally different perspective on Savitṛ. According to Oldenberg, therefore, it is not the case that one of the sun's aspects (Sūrya "the enlivener") became a separate god Savitṛ, as Hillebrandt assumed in his evolutionary model, but Savitṛ — originally an abstract deity, the "enlivener" — was eventually identified with a concrete deity that is the "enlivener" par excellence, that is, with the sun. Oldenberg calls the process by which the two gods came to be associated "Annäherung" (i.e. "approach"): "Dort (im höheren Altertum) finden wir eben nur Annäherungen an den Sonnengott, höchst begreiflich bei der natürlichen Verknüpfung des Antriebs zu Leben und Bewegung mit der Morgenstunde, bei der Kraft der Sonne, aufgehend die Welt wie Savitar zur Tätigkeit anzuspornen, untergehend sie wiederum wie Savitar zur Ruhe einzuladen."¹⁷⁸

We can, therefore, see that, regardless of how they explain the historical relation between Savitṛ and the sun, all the previous theories acknowledge these two apparently irreconcilable facts: Savitṛ seems to be both identical to and different from the sun Sūrya. In addition, since the sun is obviously the more "concrete" deity, these theories explain Savitṛ as the more "abstract" god. This abstractness, therefore, would be revealed in the etymology of the word "Savitṛ."

Oldenberg's belief that an ancient and "abstract" deity could change with time into a "more concrete" one is not convincing. To put it differently, there is no reason to assume that "abstract" deities evolve to a more "concrete" stage. On the contrary, it seems more natural to assume the

¹⁷⁶ In Oldenberg's own words "Gott Antreiber" (1897: 478).

¹⁷⁷ Cf. Oldenberg (1894: 64; 1897: 473).

¹⁷⁸ Cf. Oldenberg (1905: 264).

opposite.¹⁷⁹ That Savitṛ's "solar" features are not younger than his "abstract" aspect but inherent to his character is clearly shown by Dandekar (1939), who keenly argues against Oldenberg's theory.¹⁸⁰

Oldenberg's theory, however, has a great merit. Thus, in Oldenberg (1905:259–63), which is directly intended to refute Hillebrandt's assumptions that Savitṛ is to be identified with the sun in some Vedic passages, Oldenberg unequivocally shows that Savitṛ is different from the sun everywhere in the *Rig Veda*. I give below three of these passages, which were considered by Hillebrandt as evidence for the identity between Savitṛ and Sūrya:

4.13.1–2. *prāti agnīr uśásām ágram akhyad vibhātínám sumánā ratnadhéyam
yātám aśvinā sukṛto duroṇám út sūriyo jyótiṣā devá eti /
ūrdhvám bhānúṃ savitá devó aśred drapsám dávidhavad gaviṣó ná sátvā
ánu vratám váruṇo yanti mitró yát sūriyam divi āroháyanti.*

4.13.1–2. Agni hat den Anbruch der Morgenröten erwartet, der freundlich Gesinnte die Schatzspende der Erstrahlenden. Kommet, ihr Aśvin, ins Haus des Frommen. Gott Sūrya geht mit seinem Lichtglanz auf/ Gott Savitṛ hat sein Licht aufgesteckt, sein Banner schwingend wie ein Krieger, der auf Rinder auszieht. Mitra und Varuṇa folgen seinem Gebot, wenn sie den Sūrya am Himmel aufsteigen lassen.

4.14.2–3. *ūrdhvám ketúm savitá devó aśrej jyótir víśvasmai bhúvanāya kṛṇván
áprā dyāvāpṛthiví antárikṣam ví sūriyo raśmíbhíś cékitānaḥ/
āváhanti aruṇír jyótiṣágān ...*

4.14.2–3. Gott Savitṛ hat sein Banner aufgerichtet, der ganzen Welt Licht bereitend. Sūrya hat Himmel und Erde, die Luft angefüllt, mit seinen Strahlen prangend./ Auf ihrer Herfahrt ist die Morgenröte mit ihrem Lichte gekommen ...

¹⁷⁹ This was clearly stated by Keith (1925: 106).

¹⁸⁰ In fact, Dandekar (1939: 305) dismisses all the previous theories about Savitṛ: "... the explanations regarding the true nature of Savitṛ proposed by Oldenberg, Hillebrandt, Macdonell ... Bergaigne are either one-sided and incomplete or definitely beside the mark"; unfortunately, Dandekar's own theory is also "beside the mark," since he eventually identifies Savitṛ with Varuṇa; his arguments concern some putative "solar aspects" of these two gods.

5.81.2. *viśvā rūpāṇi prāti muñcate kavīḥ prāsāvīd bhadraṃ dvipāde cātuṣpade*
vi nākam akhyat savitā vāreṇiyo ānu prayāṇam uśaso vi rājati

5.81.2. Alle Gestalten legt der Seher [Savitṛ — my note] an. Zweifüßler und Vierfüßler hat er jetzt Gutes zugewiesen. Savitṛ, der Vorzügliche, hat jetzt nach dem Himmelsraum Ausblick gehalten; nach der Ausfahrt der Uśas führt er das Regiment.

Oldenberg rightly argues that there is nothing in these passages that would justify the identification of Savitṛ with Sūrya. On the contrary, the mere fact that, in the first two passages, these gods bear different names shows them as being different from each other. In the third passage, on the other hand, Savitṛ's appearance at dawn does not necessarily mean that he is the sun, although he is said, as if he were Sūrya, to bring light to the world. Oldenberg, who acknowledges that Savitṛ and Sūrya seem to have similar functions, argues that the passages above only show the approach ("Annäherung") that took place between the "sun-god" and an original "enlivener god" ("Antreiber"), and not the identity between the two gods. In other words, Oldenberg's belief is that Savitṛ borrows some of his characteristics from the sun, although he is originally completely different from this one. As we have seen above, it is difficult to explain why and how this process took place.

The association of Savitṛ with the sun does not seem to be, as Oldenberg thought, an addition to Savitṛ's original character. As Dandekar noted, the god's "solar aspect" is not the result of a later development, but an inherent feature of his character. What is more interesting, however, is that Savitṛ's features concern not only the morning "solar aspects," but also those of evening or night time. In other words, Savitṛ is also related to darkness.

The following passages make it clear that Savitṛ's action, which is to put nature to rest, takes place during night time:

1.35.1. *... hváyāmi rátrīṃ jágato nivésanīm hváyāmi devāṃ savitāram ūtāye*

1.35.1. ... Ich rufe die Nacht, die alles Lebende zur Ruhe bringt, ich rufe den Gott Savitṛ zur Hilfe.

1.35.2. *ā kṛṣṇéna rájasā vartamāno niveśáyann amṛtam mártiyaṃ ca*
hiraṇyāyena savitā ráthēna ā devó yāti bhúvanāni pásyan.

- 1.35.2. Indem er mit dem schwarzen Dunst sich heranbewegt und Gott und Mensch zur Ruhe bringt, kommt Gott Savitr̥ auf goldenem Wagen, die Wesen beschauend.
- 1.35.5–6. Die weißfüßigen Rappen haben alle Menschen beschaut, während sie seinen Wagen mit der goldenen Deichsel ziehen. Allezeit ruhen die Menschenstämme, alle Welten im Schoße des göttlichen Savitr̥/ Drei Himmel gibt es, zwei sind der Schoß des Savitr̥, der eine ist in der Welt des Yama ...
- 2.38.6. *samāvavarti viṣṭhito jigīṣúr viśveṣāṃ kámas caratām amābhūt*
śáśvāṃ ápo víkṛtaṃ hitvī ágād ánu vratām savitúr daíviyasya
- 2.38.6. Wer auf Gewinn ausgezogen war, kehrt heim; aller Wanderer Wunsch ging heimwärts. Jeder ließ die Arbeit halbgetan liegen und ist heimgekehrt nach dem Gebot des göttlichen Savitr̥.
- 1.35.10. Der Asura mit der goldenen Hand, der gute Weiser ... die Unholde und Zauberer abwehrend steht der Gott allabendlich da, der gepriesene.
- 2.38.3. ... Auf des Savitr̥ Gebot ist die Nacht gekommen (*ánu vratām savitúr móki ágāt*).
- 4.53.1. Diesen [Schirm — my note] hat der große Gott alle Nächte für uns aufgerichtet.
- 6.71.2. ... der du die Ganze Erde, Zweifüßler und Vierfüßler, zur Ruhe zu bringen und aufzutreiben da bist.
- 6.71.4. *úd u śyá deváh savitā dāmūnā hiraṇyapāṇiḥ pratidoṣām asthāt ...*
- 6.71.4. Dort hat sich Gott Savitr̥, der Gebieter mit goldenen Händen, allabendlich erhoben ...

In all these passages, Savitr̥, who is never said to be the sun, is a god appearing at night-time. Savitr̥, however, can appear both in the morning and at night or in the evening:

- 4.53.6. *brhátsumnaḥ prasavitā nivésano jágata sthātúr ubháyasya yó vaśí*
sá no deváh savitā śárma yachatu asmé kṣáyāya trivárūtham áṃhasaḥ
- 4.53.6. Großes Heil bringend, aufweckend und zur Ruhe bringend, der Gebieter von beidem, was lebendig ist und was fest steht, dieser Gott Savitṛ möge unserem Wohnsitze den Schutz gewähren, der dreifach vor Not schützt.
- 4.53.7. *ágan devá ṛtúbhir várdhatu kṣáyam dádhātu naḥ savitā suprajám ísam*
sá naḥ kṣapábhir áhabhiś ca jinvalu prajávantaṃ rayím asmé sám invatu
- 4.53.7. Gott Savitṛ ist zu seinen Zeiten gekommen; er soll unseren Wohnsitz mehren, soll uns das Labsal guter Kinder gewähren. Er soll uns Nacht und Tag stärken und uns Kinderreichtum verschaffen.
- 5.81.4. *utá yāsi savitas tríṇi rocaná utá súryasya raśmíbhiḥ sám ucyasi*
utá rátrīm ubhayátaḥ páriyasa utá mitró bhavasi deva dhármabhiḥ
- 5.81.4. Und du kommst zu den drei Lichtreichen, o Savitṛ, und wohnst mit den Strahlen der Sonne zusammen, und du umkreisest auf beiden Seiten (*ubhayátaḥ*) die Nacht, und du bist nach deinen Eigenschaften der Mitra, o Gott.
- 7.45.1. Gott Savitṛ ... die Welt zur Ruhe bringend und erweckend (*niveśáyāñ ca prasuvāñ ca bhúma*)
- 4.53.3. *áprā rájāṃsi diviyáni pāṛthivā ślókam deváh kṛṇute sváya dhármaṇe*
prá bāhú asrāk savitā sávīmani niveśáyan prasuvánn aktúbhir jágat
- 4.53.3. Er hat die himmlischen, die irdischen Räume erfüllt, der Gott erlässt seinen Weckruf nach eigener Bestimmung. Savitṛ hat die Arme ausgestreckt, um anzuweisen, alle Nächte die Welt zur Ruhe bringend und (wieder) aufweckend.

In other passages, Savitṛ is said to appear with the sun at dawn, the time when he wakes up all beings:

10.139.1. *sūryaraśmir hárīkeśaḥ purástāt savitá jyótir úd ayāṁ ájasram.*

10.139.1. Mit der Sonne Strahlen, mit goldigem Haare hat Savitṛ im Osten sein unverlöschliches Licht aufgesteckt.

5.82.9. *yá imá víśvā jātāni āsrāváyati ślókena prá ca suvāti savitá*

5.82.9. Der alle diese Geschöpfe mit seinem Weckruf anruft, wenn Savitṛ seine Weisung gibt.

Savitṛ has also another special relationship with the sun; thus, he drives the sun forward, and the sun listens to his command; this obviously shows that Savitṛ and Sūrya are different from each other:

1.35.9. *hiraṇyapāṇiḥ savitá vícarṣaṇir ubhé dyāvāprthiví antár īyate*

ápāmīvām bádhate véti sūriyam abhí kṛṣṇéna rájasā dyām ṛṇoti

1.35.9. Savitṛ mit der goldenen Hand, der Ausgezeichnete, fährt zwischen beiden, zwischen Himmel und Erde. Er vertreibt die Krankheit, treibt die Sonne an; er reicht mit den schwarzen Dunst bis an den Himmel.

7.45.2. *úd asya bāhú śithirá bṛhántā hiraṇyáyā divó antām anaṣtām*

nūnām só asya mahimá pañṣṭa sūraś cid asmā ánu dād apasyām

7.45.2. Seine gelockerten großen goldenen Arme haben sich bis zu den Grenzen des Himmels erstreckt. Jetzt sei diese seine Größe gepriesen; auch die Sonne ordnet ihre Tätigkeit ihm unter.

To sum up: Savitṛ is bright and has rays; he is different from the sun and appears with him at sunrise and (after) sunset; the sun is subordinated to him; importantly, Savitṛ can appear in the sky during night time (cf. 1.35.9 above).

Given all these features of Savitṛ, it is understandable why this important god was considered to be the sun or one of its aspects. Savitṛ, however, is clearly different from the sun and, at the same time, does not seem to be an abstract deity. That this is the case is clearly shown by his bright appearance at night time, which would be strange if Savitṛ were the sun or an abstract deity.

Savitṛ's attributes, however, do point to a celestial object, which is not the sun; thus, Savitṛ's features represent the main characteristics of the inferior planets, which are Venus and Mercury. Below I explain why this is indeed the case.

As I already mentioned in the previous chapter on Agni, the planets Venus and Mercury are called "inferior" because their orbits lie between the Earth's orbit and the sun. In particular, Mercury is the innermost planet of the solar system, which means that Mercury is the nearest planet to the sun. The other planets, which are called "superior," are farther from the Sun than the Earth is. Because their orbits lie between the Earth and the sun, the inferior planets are always seen close to the sun, which means that they cannot be seen for most of the night time, except for the short periods before sunrise and after sunset. Because of these features, these planets are either morning stars or evening stars. Their aspects as morning or evening stars depend on what side of the sun they are from the perspective of an observer from the Earth.

The periods of time during which Venus and Mercury can be seen before sunrise or after sunset depend on their elongations. This astronomical term is defined by the angle between the sun and the planet as viewed from the Earth. Thus, the greatest elongation of Venus is about 48° , whereas Mercury's is about 28° . This means that, when, for example, Venus is at its greatest elongation, it appears at an angle of 48° from the just-rising sun. In such a case, obviously, Venus can appear at the eastern horizon even three hours before sunrise, during night time; the same goes for Venus as an evening star.¹⁸¹ For Mercury, this interval is shorter, less than two hours.

These characteristics of the inferior planets can easily explain Savitṛ's features. Thus, Savitṛ "impels" nature to either wake up or go to rest/sleep because, as an inferior planet, it appears in the sky shortly either before sunrise or after sunset, respectively. It is also natural for Savitṛ to belong to the night sky, since he is a star. The fact that the inferior planets appear in the sky close to the sun (cf. 1.35.9; 7.45.2; 10.139.1 above) explains why Savitṛ is said to "drive" the sun forward; it also explains why night comes through the laws of the planet Savitṛ (cf. 2.58.3 above). Finally, Savitṛ's features of being bright or having rays, which previously led scholars to identify him with the sun, also belong to all the stars.

¹⁸¹ The celestial vault makes a complete rotation (360°) in 24 h, which means that it moves $360^\circ/24 \text{ h} = 15^\circ$ every hour.

Savitṛ, therefore, is likely to represent either the planet Venus or Mercury. In addition, Savitṛ's attributes show that he represents both the morning and evening aspects of the same planet.¹⁸² It remains now to try to determine which planet Savitṛ represents.¹⁸³ Obviously, since Savitṛ's features can apply to either planet it is hard to decide between the two. There is, however, a feature that can be helpful in making this decision. Thus, Savitṛ is said to wake nature up to life in the morning. This feature points to Savitṛ as representing Mercury rather than Venus. Indeed, given that Mercury's elongation is much shorter than that of Venus (almost half of it), this planet appears in general closer to sunrise than Venus and, therefore, is a better candidate for being the "awakener." It is then more likely that Savitṛ represents the planet Mercury, a fact which is consistent with my conclusion in the previous chapter that Agni represents Venus.

The identity between Savitṛ and Mercury can explain why, like Agni, this god is also called Apām Napāt (cf. 1.22.6; 10.149.2). Indeed, since it is, like Agni, an inferior planet, Savitṛ/Mercury also displays "phases," that is, wanes and waxes according to his relative position to the sun.

The Vedic worship of Mercury is not as singular and strange as it might seem at first. It is well-known that other people in Asia such as the Babylonians did the same.¹⁸⁴

B . P Ū S A N

It is known that, like Savitṛ, the Vedic Pūṣan has been also long recognized as having a "solar aspect," and thus identified with the sun. This theory found an echo among the majority of the scholars.¹⁸⁵ It is also well known that there have been other interpretations of Pūṣan, among which the most popular ones are those identifying him with a pastoral god or with the god of the paths.¹⁸⁶ The variety of these

¹⁸² Cf. above n.173.

¹⁸³ One can see that I establish which planet Savitṛ represents independently of the previous conclusion that Agni represents Venus.

¹⁸⁴ Mercury was represented by the god Nabu in Babylon; cf. Waerden (1974: 187).

¹⁸⁵ Yāska (*Nir.*7.9) held this view in antiquity; for modern views, cf. e.g., Atkins (1941: 14) who also summarizes all the interpretations of Pūṣan (cf. 2–30); Kramrisch (1961: 105); Hillebrandt (1990: II 208–09); Macdonell (1997: 37).

¹⁸⁶ Cf. e.g., Oldenberg (1897: 229–233).

theories shows how difficult it is to reconcile Pūṣan’s features or aspects to one another. In this respect, Hillebrandt (1990: II 208–09), for example, rightly argued that it was not possible to account for Pūṣan’s “solar aspect” if he were originally a “lord of the paths,” and that it would be easier to assume the opposite.¹⁸⁷

As was the case with Savitṛ, the theories that identify Pūṣan with the sun encounter major difficulties. Thus, if Pūṣan is an aspect of the sun, it is hard to understand what this aspect is and why it was necessary to invent another sun-god besides Sūrya.

The hypothesis that Savitṛ represents not the sun, but the inferior planet Mercury puts the whole issue of Pūṣan into a new perspective. What if Pūṣan’s “solar aspect” is not related to the sun, but to the stars? To answer this question, I will reevaluate the passages in which Pūṣan seems to be connected with the sun.

One of the main reasons why Pūṣan has been thought of as representing an aspect of the sun is that he is invoked as *āghṛṇi* “the glowing one.”¹⁸⁸ Other possible “solar aspects” were identified by Atkins (1941: 11–14). I give below some of his examples:

- 6.58.1. Licht ist deine eine, opferwürdig deine andere (Form) (*śukráṃ te anyád yajatām te anyád*) ...

- 5.81.5. ... du bist der Pūṣan durch deine Fährten, o Gott (Savitṛ) ... (*utá pūṣá bhavasi deva yāmabhiḥ*)

- 2.40.2. Über die Geburt dieser beiden Götter [Soma and Pūṣan — my note] freuten sich (alle Götter); sie beseitigten die unerfreuliche Finsternis (*imaú támāṃsi gūhatām ájuṣṭā*) ...

- 2.40.4. Der eine (Pūṣan) nahm einen Sitz hoch im Himmel (*diví anyáḥ sádanaṃ cakrá uccā*), der andere (Soma) auf der Erde, in der Luft ...

¹⁸⁷ Also, cf. Keith (1925: 104).

¹⁸⁸ Etymologically, *āghṛṇi* is related to *ghar “glühen, warm sein” (“to glow with heat”); cf. Grassmann; Atkins (1941: 12).

2.40.5. Der eine (Soma) hat alle Wesen erschaffen, der andere (Pūṣan) wandelt alles beschauend (*víśvam anyó abhicákṣāṇa eti*). Soma und Pūṣan begünstigt mein Gedicht ...

6.58.2. ... *bhúvane víśve árpitaḥ*

áṣṭrām pūṣá śithiráṁ udvárīvrjat saṁcákṣāṇo bhúvanā devá īyate

6.58.2. ... über die ganze Welt eingesetzt, die biegsame Gerte schwingend fährt der Gott Pūṣan, die Welten überschauend.

These passages allow us to summarize Pūṣan's "solar aspects" as follows: Pūṣan's essence is light, and darkness vanishes when he appears; Pūṣan's place is in the sky, on the firmament, from where he beholds all beings; Pūṣan is sometimes associated with Soma and Savitṛ.

The immediate conclusion that emerges from the summary of Atkins' examples is that there is nothing in the *Rig Veda* indicating that Pūṣan represents the sun in one way or another. To put it differently, the evidence from the *Rig Veda* shows that there is neither a direct nor an indirect association between Pūṣan and Sūrya, the sun-god.¹⁸⁹ In fact, that Pūṣan and Sūrya are two different entities may be revealed in the following passage:

10.139.1. *sūryaraśmir hárīkeśaḥ purástāt savitá jyótir úd ayāṁ ájasram*

tásya pūṣá prasavé yāti vidván sampáśyan víśvā bhúvanāni gopāḥ

10.139.2. *nṛcákṣa eṣá divó mádhyā āsta āpapriván ródasī antárikṣam*

sá víśvácīr abhí caṣṭe ghṛtácīr antarā pūrvam áparam ca ketúm

10.139.3. *rāyó budhnáḥ saṁgámano vásūnāṁ víśvā rūpá abhí caṣṭe śácībhiḥ*

devá iva savitá satyádharma índro ná tasthau samaré dhánānām

¹⁸⁹ Pūṣan's well-known association with the sun's daughter Sūryā, which, as I showed, represents the star Capella, certainly does not imply that he represents an aspect of the sun; for this myth, cf. Kramrisch (1961: 114–15) and below. On the other hand, Pūṣan's association with Savitṛ does not indicate any relationship with the sun either, since Savitṛ is not the sun.

10.139.1–3. Mit der Sonne Strahlen (*sūryaraśmir*), mit goldigem Haare hat Savitṛ im Osten sein unverlöschliches Licht aufgesteckt. Auf seine Anweisung (*prasavé*) wandelt der kundige Pūṣan, der Hirt, der alle Geschöpfe überwacht./ Mit dem Herrenaue sitzt dieser (*eṣáh*)¹⁹⁰ in der Mitte des Himmels, nachdem er beide Welten und den Luftraum erfüllt hat. Er schaut auf die Allseitigen, die Schmalzreichen zwischen dem östlichen und westlichen Zeichen.¹⁹¹/ Die Grundlage des Reichtums, der Sammler von Schätzen,¹⁹² gewahrt er alle Gestalten nach seiner Macht. Von unverbrüchlichen Regeln wie Gott Savitṛ, steht er wie Indra inmitten der Anhäufung von Reichtümern.

According to this passage, Savitṛ appears at dawn, in the east, together with the sun's rays; his appearance enlivens Pūṣan. Since Savitṛ is not the sun, the passage reveals that Pūṣan and Sūrya are different from each other as they are also different from Savitṛ. Geldner's assumption that the demonstrative pronoun *eṣáh* in 139.2 refers to the sun is not very plausible, since the actors of the previous verse were Savitṛ and Pūṣan.¹⁹³ In addition, verse 139.3 shows that the god indicated by *eṣáh* above belongs to the same category as Indra and Savitṛ, whose nature is stellar; this may be a strong indication that Pūṣan's nature is stellar as well.

The theory of Pūṣan's "solar aspect" then is based on a misunderstanding, which is the fact that the sun is the only celestial body that can have the attributes of Pūṣan. The question now is to determine what star Pūṣan represents. Certainly, as is the case with Indra and Savitṛ, this star must be a significant one. In addition, Pūṣan's epithet *āghṛṇi* leaves no doubt that this star must be a bright one. All these attributes of Pūṣan, however, are still not enough to determine the star he represents. For this, it is necessary to take into account other aspects of Pūṣan's mythology.

¹⁹⁰ Geldner assumes that the demonstrative *eṣáh* refers to Sūrya.

¹⁹¹ Atkins (1941: 12) argues that this passage would show the identity between Pūṣan and Sūrya in their midday aspect (the zenith); however, Sūrya is not the only celestial body that can reach the zenith; the stars can do it as well.

¹⁹² Cf. 8.29.6, in which Pūṣan is said to know the treasures: "er kennt die verborgenen Schätze."

¹⁹³ Oldenberg (cf. Geldner) assumed that the demonstrative referred to Pūṣan, which is more likely.

Pūṣan's identity may be revealed in the myth of Sūryā's wedding procession (cf. 10.85). The Áśvins, who are said to be Pūṣan's fathers, carry Sūryā in their chariot to her wedding with Soma. Pūṣan, who acts as an intermediary, is supposed to meet Sūryā and take her by the hand.¹⁹⁴

10.85.14. Als ihr Áśvin um (sie) anhaltend auf dem Dreirad zur Hochzeit der Sūryā ginget (*yád aśvínā pṛchámānāv áyātāṃ tricakréṇa vahatūṃ sūriyāyāḥ*), da gaben alle Götter euch ihre Einwilligung dazu. Pūṣan, der Sohn, wählte (euch) zu Vätern (*putráḥ pitārāv avṛṇāta pūṣā*).

1.184.3. *śriyē pūṣann iṣukṛteva devā nāsatiyā vahatūṃ sūriyāyāḥ*

1.184.3. Die Götter Nāsatiya's (kamen) auf die Hochzeit der Sūryā, um ausgezeichnet zu werden wie Pfeilschmiede, o Pūṣan ...

10.85.26. *pūṣā tvetó nayatu hastagṛhya aśvínā tvā prá vahatāṃ ráthena*

10.85.26. Pūṣan soll dich [Sūryā — my note] von hinnen führen, deine Hand fassend; die Áśvin sollen dich auf ihrem Wagen weiterfahren [*prá vahatāṃ* = "move forward" — my note] ...

This spectacular wedding procession can be clearly seen in the sky (cf. fig. 2). The Áśvins, who represent the huge constellation Gemini,¹⁹⁵ carry Sūryā, i.e., the bright star Capella, in their wagon, which is the Chariot constellation (Auriga). Since this procession is said to move forward (cf. *prá vahatāṃ* above), one of the key elements in determining who Pūṣan is must be the direction in which this procession "moves." If my interpretation of the way the wedding procession moves forward is correct then there must be a significant star just in front of the Áśvins; indeed, this seems to be the case.

¹⁹⁴ The meaning of this myth has remained obscure so far; for different interpretations, cf. Atkins (1941: 10); Geldner to 10.85.

¹⁹⁵ See the first chapter of the present study.

Two significant stars can be said to be located "in front" of the Twins. These are Prokyon,¹⁹⁶ the brightest star in the constellation Canis Minor (α Canis Minoris), and Sirius, the brightest fixed star in the sky,¹⁹⁷ in the constellation Canis Major (α Canis Majoris). In all likelihood, one of these stars represents the destination of Sūryā's wedding procession. In other words, one of them is Pūṣan.

Prokyon and Sirius are close to each other; they are located in front of each other, on the two banks of the Milky Way (that is, "the celestial river" Soma), respectively (cf. fig. 2).¹⁹⁸ This explains well why Pūṣan is an intermediary between the Aśvins/ Gemini and Soma/Milky Way. Both Prokyon and Sirius are bright stars. This accounts well for Pūṣan's epithet *āghr̥ṇi*.

At this point, it is necessary to mention some of the astronomical properties of these stars. I start with Sirius.

It is well known that in Greek and Roman times the heliacal rising of Sirius took place after the summer solstice during the summer heat (July). For the Greco-Roman world, the morning rising of Sirius during the summer time announced torrid days.¹⁹⁹ Homer describes Sirius as a star "whose conspicuous brightness/ far outshines the stars that are numbered in the night's darkening/ the star they give the name of Orion's Dog,²⁰⁰ which is the brightest among the stars,/ and yet is wrought as a sign of evil and brings on the great fever for unfortunate mortals."²⁰¹ Virgil mentions how Sirius affected ("burned") the Hindus: "*... iam rapidus torrens sitientis Sirius Indos/ ardebat caelo....*"²⁰²

All these features of Sirius are certainly consistent with Pūṣan being the "glowing one." In the *Rig Veda*, on the other hand, the idea that the star Pūṣan brings heat to the land seems to be present in the following verse:

¹⁹⁶ Cf. Arat. 450: "Prokyon shines brightly beneath the Twins"; Vitr.9.5.2: *Geminos autem minusculus Canis sequitur*; both Prokyon and Sirius were known to the Babylonians; for Prokyon's characteristics, cf. Kidd (1997: 341–42).

¹⁹⁷ The brightest "star" in the sky in general is obviously the planet Venus.

¹⁹⁸ For Pūṣan's association with Soma/Milky Way, cf. 2.40.

¹⁹⁹ Cf. n. 155 above.

²⁰⁰ Cf. n. 152 above.

²⁰¹ Cf. *Il*.22.27–30; I used Lattimore's standard translation.

²⁰² *Georg.* 4.425–6.

- 1.42.8. Führ [invocation to Pūṣan — my note] zu guter Weide (*abhí sūyávasaṃ naya*), nicht komme zu der Reise (*ádhvane*) neue Aufregung (*navajvāró*) ...

In this verse, a prayer to Pūṣan is made that there be no heat to the crops. The word *navajvāró* is built on *jvar, which means "heat."²⁰³ This is consistent with Pūṣan's attribute *ághṛṇi*, which also implies the concept of "heat." Therefore, like Sirius, Pūṣan is a star that can bring heat to the land.

Another well-known fact is that Sirius was of paramount importance for the Egyptians of the times of the pyramids because of its role in announcing the flooding of the Nile (Sirius also represented the Egyptian goddess Isis). This flooding took place around the summer solstice,²⁰⁴ and, therefore, Sirius's heliacal rising must have occurred shortly before the solstice, after its well-known period of invisibility in the sky.²⁰⁵ That Sirius rose heliacally before the summer solstice may be revealed in the following enigmatic Rig-Vedic verse (10.17.6):

- 10.17.6. *prápathe pathám ajaniṣṭa pūṣá prápathe diváh prápathe pṛthivyāḥ ...*

- 10.17.6. In der Ferne der Wege (*prápathe pathám*) ist Pūṣan geboren, in der Ferne des Himmels, in der Ferne der Erde ...

Geldner, following Grassmann's similar translation, translates the phrase *prápathe pathám* as "in der Ferne der Wege" ("at the far end of the paths"). Kramrisch (1961: 106) and Atkins (1941: 13), who believed that Pūṣan was the sun, interpreted the passage as referring to the sun's path, which, in this case, would be the winter tropic, the "farthest path" during the sun's yearly course; obviously, since Pūṣan is not the sun, this interpretation must be discarded. There is, however, one element in this interpretation that seems to be consistent with one of Sirius's astronomical properties. Sirius's

²⁰³ Cf. Grassmann.

²⁰⁴ The Nile, swollen by the monsoon rains in Ethiopia, flooded over the surrounding valleys every year between late June and September; cf. Shaw & Nicholson (1995: 203; the "Nile" entry).

²⁰⁵ In Greco-Roman times, Sirius's heliacal rising occurred later (in the middle of the summer) because of the precession of the equinoxes; today it occurs even later (late summer); cf. Kidd (1997: 306); West (1978: 262). The long absence of Sirius from the sky (about two months) is obviously due to its position towards the south of the celestial vault (cf. n.156 above).

trajectory is located towards the winter tropic, and, therefore, it would be plausible to say about Sirius that it is located "on the farthest (or far-away) path" (of the stars).²⁰⁶ However, this solution encounters a difficulty; this is the fact that Indra, that is, the constellation Taurus, is also related to *prápatha*. Indeed, Indra is called *prapathín* two times in the *Rig Veda* (6.31.5; 8.1.30) and one time *prapathíntamam* (1.173.7). Geldner's translations, which are based on the meaning of the word *prápatha* in Grassmann's dictionary,²⁰⁷ do not shed any light on the meaning of this epithet of Indra; more precisely, they do not seem to reflect the morphological structure of Indra's epithet, which contains the possessive suffix — *in*. If, therefore, *prápatha* were related to the winter tropic, there would be no way to explain what Taurus has to do with the winter tropic.

I propose a new interpretation for *prápathe pathám*; this phrase could mean "on the forward-leading path" and thus refer to the sun's course between the winter and the summer solstices; during this half of the solar year, the sun ascends ("moves forward") from the south to the north. What this passage may say, then, is that the birth of Sirius, that is, its reappearance in the sky after a long absence, takes place when the sun is still on its "forward-leading path" (that is, before the summer solstice). Obviously, this solution presupposes that the myth was created when Sirius was rising heliacally before the summer solstice, that is, around or even before 2000 B C (cf. the Egyptian case).

The interpretation of *prápatha* as referring to the sun's course between the winter and summer solstices may explain Indra's epithet. Thus, since Indra is located on the celestial equator and represents the equinox, it perfectly makes sense for him to be called *prapathín* "the one who holds the *prápatha*." Taurus is, indeed, the most important constellation between the winter and summer solstices. We will see below, however, that this is not the only possible solution to the issue of *prápatha*.

²⁰⁶ Sirius's latitude today is about 16° south of the celestial equator, whereas the winter tropic is at about 23°. The Stellarium, which is a software used to determine the positions of the stars in antiquity, shows that Sirius was even closer to the winter tropic in ancient times; in 2500 B C, Sirius's declination was -20° 42' (the right ascension was 3h 24 min); in 2000 B C, -19° 17' (RA 3h 47 min).

²⁰⁷ Cf. Geldner: "Reisiger" (8.1.30), "am meisten auf der Kriegsfahrt" (1.173.7).

Sirius has also other properties that are consistent with the description of Pūṣan in the *Rig Veda*. Thus, Sirius’s well-known absence from the sky for more than two months before its summer heliacal rising can explain why Pūṣan “hides” (cf. below *vavri*):

10.5.5d. *ichán vavrim avidat pūṣaṇásya*

10.5.5. ... ein Versteck (*vavrim*) suchend hat er [Agni — my note] das des Pūṣaṇa (Pūṣaṇásya) gefunden.²⁰⁸

Sirius’s absence from the sky may be also alluded to in the following passage, in which Pūṣan is said to have been present (“following”; cf. Skt. *sácā*) when Indra was “leading” the waters:

6.57.4. *yád indro ánayad ríto mahír apó vṛṣantamah*

táttra pūṣābhavat sácā

6.57.4. Als Indra, der Bullenhafteste, die strömenden großen Gewässer (in ihre Bahnen) leitete (*ánayad*), da war Pūṣan dabei (*táttra pūṣābhavat sácā*).

As I showed in the first chapter of the present study, the myth of Indra alias Taurus releasing the waters is a metaphor for the advent of the rainy season at the spring equinox. Given this, the time when (Skt. *yad*) Indra “is leading” the waters is likely to represent the time period after the spring equinox. This last passage then may allude to the astronomical fact that during the rainy (spring) season Sirius was still present in the sky. Indeed, since Sirius’s heliacal rising at the summer solstice occurred after a period of invisibility of approximately two months, it means that Sirius was still present in the sky during late March and early April,²⁰⁹ when Indra was “leading” the waters.

Sirius’s characteristics, therefore, seem to account well for Pūṣan’s. There is, however, another possible solution to the issue of Pūṣan. This is the fact that an even better candidate for representing the direction in which the Áśvins’s procession moves is Prokyon (cf. fig. 2). The description of Prokyon

²⁰⁸ The word “Pūṣaṇa” is not clear; cf. Geldner.

²⁰⁹ Cf. Evans (1998: 195–96).

provided by Aratus (cf. above n. 201) shows that this might be more than a subjective impression; Prokyon is indeed right in front of the wedding procession led by the Ásvins whereas Sirius seems to be at its left rather than in front of it. How are Prokyon's astronomical characteristics different from those of Sirius?

Prokyon's name means "before the Dog," underscoring the fact that Prokyon rises in the east shortly before Sirius "the Dog" (Canis Major). This means that, like Sirius, this star also rises heliacally during the hottest time of the year (in a matter of days before Sirius' heliacal rising). Therefore, most of Pūṣan's astronomical and meteorological characteristics can be identified with those of Prokyon as well.

There is, however, a major difference between Sirius and Prokyon; this concerns their positions in the sky. Thus, while Sirius' location is towards the winter tropic, Prokyon lies close to the celestial equator. An important consequence of this observation is that Prokyon and Taurus share the common astronomical feature of being located on the celestial equator.²¹⁰ Given this, one can interpret Pūṣan's birth on *prápathe pathám* in a new way. Thus, since Indra/Taurus is also closely related to *prápatha* (cf. *prapathín*), I advance the hypothesis that the Sanskrit word refers to the celestial equator. The meaning of this word then is probably not the "forward-leading path" or the "farthest path," but, more likely, the "leading path."²¹¹ This "leading path" (of the stars) may refer to the fact that the spring equinox (the celestial equator) marks the beginning of the year. Indeed, this does not seem to be a hypothesis without foundation. It is well known that the Babylonians started the New Year at the spring equinox; the Iranians apparently did the same;²¹² last but not least, the well-

²¹⁰ Prokyon's declination today is 5° 13', which means close to the celestial equator (0°). Since Prokyon is close to Gemini ("underneath" it), and Gemini was just above the celestial equator during the age of Taurus, Prokyon must have been even closer to the equator during that astronomical age. The Stellarium confirms this; in 2500 B C Prokyon's declination was 4° 31' (RA 3h 39 min); in 2000 B C 5° 49' (RA 4h 5min). The right ascensions of Sirius and Prokyon show that the rising of these two stars were separated through 15' of RA.

²¹¹ Perhaps even the "first path" or the "front path"; cf. Williams (1899), the entry *prá*.

²¹² Cf. Blois (1996: 48–49).

known fact that Indra is the "leader"²¹³ of the Vedic gods may also have to do with the beginning of the New Year at the spring equinox.

Pūṣan's location close to the celestial equator, therefore, is able to explain in a satisfactory way why he was born on *prápathe pathám* and why he is the "lord of every path" (*pathás-pathaḥ páripatiṃ*; cf. 6.49.8). It seems then that Pūṣan is more likely to represent Prokyon and not Sirius.

This celestial location of Pūṣan may also be able to explain his possible relation to the dead. Thus, it is well known that some (few) Rig Vedic passages show Pūṣan as conducting the souls of the dead to the world of the Fathers:²¹⁴

10.17.3. *pūṣā tvetás cyāvayatu prá vidvān ánaṣṭapaśur bhúvanasya gopāḥ*

sá tvaitébhyaḥ pári dadat pitṛbhyo agnir devébhyaḥ suvidatríyebhyaḥ

10.17.3. Pūṣan soll dich von hier befördern, der Kundige, dem kein Vieh verloren geht, der Hirt der Welt (*bhúvanasya gopāḥ*). Er übergabe dich diesen Vätern (*sá tvaitébhyaḥ pári dadat pitṛbhyo*), Agni den leichtauffindbaren Göttern.

10.17.5. *pūṣémā áśā ánu veda sárvāḥ só asmám ábhayatamena neṣat*

10.17.5. Pūṣan kennt diese Gegenden alle genau; er möge uns auf gefahrlosestem (Wege) führen ...

The ideas behind these verses may have to do with an eschatological conception according to which the souls of the dead belong to the celestial region between the sun's tropics. The following verse from the Soma hymn 9.113, in which the worshipper wants to reach that celestial region, seems to confirm this conception:²¹⁵

²¹³ Cf. e.g., 1.131.1 (d; e) *índraṃ víśve sajósaso deváso dadhire puráḥ* ... "Den Indra stellten alle Götter einmütig an ihre Spitze"; cf. Oberlies (1998: 267).

²¹⁴ Cf. e.g., Kramrisch (1961: 109).

²¹⁵ Whether the Vedic world of the dead is generally located in the sky or not is a keenly debated idea; that some Vedic material shows the world of the dead as celestial is certain; cf. Oberlies (1998: 466–473). I will take up this issue again in the last chapter ("Bulls and Cows").

9.113.7. *yátra jyótir ájasraṃ yásmiṃ loké súvar hitám*
 tásmin mām dhehi pavamāna amṛte loké ákṣita

9.113.7. Wo das ewige Licht ist, in welche Welt die Sonne gesetzt ist, in diese versetze mich, o
 Pavamāna [that is, Soma — my note], in die unsterbliche, unvergängliche Welt ...

If these assumptions are right, then Pūṣan’s location in the sky, on the celestial equator, accounts well for his relation with the celestial world of the dead (he is “in the center” of this world).²¹⁶

Finally, I bring up a very interesting passage, in which Pūṣan is invoked to drive a wolf away from the worshipper’s path:

1.42.2. *yó naḥ pūṣann aghó vṛko duḥséva ādideśati*
 āpa sma tám pathó jahi

1.42.2. Den bösen, unheilvollen Wolf (*vṛko*), der uns bedroht, o Pūṣan, den jage von dem
 Wege (*pathó*) fort!

This passage can be explained in celestial terms as well. The constellation Lupus, which is thought to be of Mesopotamian origin,²¹⁷ is located next to Scorpio and Libra (cf. fig. 9). This constellation is likely to represent the Vedic wolf that Pūṣan “drives away” from the path. Indeed, because of its relative position with respect to Scorpio, in the age of Taurus Lupus was close to the celestial equator as well; in other words, the “wolf” was in Pūṣan’s way.

²¹⁶ This eschatological conception would not be singular in the history of religions. The Neoplatonist Porphyry (third century AD; in *De Antr. Nymph.* 22–28) mentions Pythagorean doctrines, in which the souls of the dead ascend to heaven (sky) through the (constellation of) the winter tropic, and redescend on earth (reincarnate) through the summer tropic; cf. Ulansey (1989: 61). I would also advance the possibility that the two well-known dogs of Yama (cf. 10.14.10–11) represent the constellations Canis Maior and Canis Minor (cf. fig. 2); these “dogs” may have played the role of preventing the souls of the wicked that were located south of the winter tropic to reach the “world of the Fathers”; cf. Macdonell (1897: 173).

²¹⁷ Cf. Condos (1997: 82).

PARTIAL CONCLUSION III

The "solar aspects" of the important Vedic gods Savitṛ and Pūṣan are not related to the sun but to the stars. Savitṛ, who always accompanies the sun, represents the planet Mercury; this identification explains why Savitṛ is always associated with either dawn or dusk. Pūṣan is likely to be Prokyon, the brightest star in Canis Minor. The mythology of Pūṣan reflects Prokyon's celestial position in the Vedic times. Thus, Pūṣan is the "lord of every path" because Prokyon was close to the celestial equator in those times; this position may also justify his possible role as a psychopomp. Most importantly, Prokyon's position close to the constellation Gemini (the Ásvins) is the reason for the close association between Pūṣan and the Ásvins; the celestial "wedding procession" led by the Ásvins seems to move towards Pūṣan, who is waiting for the celestial bride Sūryā (the star Capella).

There is no evidence that Pūṣan was present in the Iranian religion. Since, in all likelihood, the Ásvins are not present in that religion either, the myth of the wedding procession led by these gods must have been created after the Vedic tribes separated from their Iranian brethren.

It appears now that the main Vedic stellar gods are located "close" to one another and grouped around the main Vedic god Indra, alias Taurus, who represented the marker of the spring equinox before 2000 B.C. These stars and constellations are Gemini (the Ásvins), the Pleiades (the Maruts), and Pūṣan (Prokyon), which can be spectacularly seen today close to one another in the winter evening sky. The planets Mercury (Savitṛ) and Venus (Agni), on one hand, and the great Vedic god Soma (the Milky Way), on the other hand, are also integrated in the mythologies of the main fixed stars and constellations.

It is time to turn attention to the last group of extremely important gods. This is the compact group of the Ādityas.

THE ĀDITYAS MITRA, VARUṆA, ARYAMAN

It is well known that the Vedic gods Mitra, Varuṇa, and Aryaman form a divine triad sometimes called generically "the Ādityas," which is reflected in the fact that they are often mentioned together; in particular, Mitra and Varuṇa are also often invoked together through the *dvandva* compound Mitrāvaruṇā. It is also well known that the generic name "Ādityas" applies to other deities as well, whose number in the *Rig Veda* is twice said to be seven.²¹⁸ The importance of Mitra, Varuṇa, and Aryaman in the *Rig Veda*, however, leaves little doubt that, of all the Ādityas, these three gods are the most significant ones, which is why the present study is dedicated mainly to them. On the other hand, any hermeneutical attempt at determining the nature of these three gods cannot pass over the other Ādityas in silence. The reason for this is obvious; there can be no complete understanding of Mitra, Varuṇa, and Aryaman as the main Ādityas, unless one ultimately explains why these gods are called "the Ādityas," and why other gods also bear this name. The title of the present study, therefore, makes it clear that Mitra, Varuṇa, and Aryaman are treated in the context of their being "the Ādityas."

The great importance Mitra, Varuṇa, and Aryaman have in the Vedic pantheon is clearly underscored by the common cosmic role they play. Thus, these gods are associated with the concept of *ṛtá*, whose most common translation is "(cosmic) order";²¹⁹ more specifically, the three main Ādityas are the gods that maintain this cosmic order. An identical situation can be met with in the Iranian religion, in which Mithra and Ahura Mazdāh (probably identical to Varuṇa²²⁰) are also said to

²¹⁸ Cf. 9.114.3; 10.72.8–9; there are also other passages in which the lists with Ādityas contain three (e.g., 7.60.4), five (8.18.3), or six names (2.27.1); it is, however, nowhere said that these lists are comprehensive; cf. Brereton (1981: 3–5).

²¹⁹ In the chapter on Indra, I interpreted *ṛtá* as the celestial "world order" associated with the keeping of time (the ecliptic); Lüders (1927 II, e.g., 405) translates this concept as the "Truth"; we saw that sometimes Geldner translates it as the "truth" (Germ. Wahrheit); see below for a more detailed analysis of this concept.

²²⁰ Boyce (1984) does not consider Ahura Mazdā and Varuṇa to be originally identical, and, based on Varuṇa's well-known association with the waters, identifies Varuṇa with Apām Napāt; given that there seems to be no relation between Apām Napāt and Varuṇa, I found this hypothesis unlikely; with regards to the identity between Ahura Mazdāh and Varuṇa, cf. Oberlies (1998: 261–64).

maintain the (cosmic) order (Av. *aša*).²²¹ Given that Aryaman appears in the Iranian religion as well (Av. Airyaman), it is clear that these three gods must be considered as belonging to the Indo-Iranian pantheon. In addition, since these Indo-Iranian gods are responsible for preserving the **ṛtá*, it is obvious that without determining the meaning of this Indo-Iranian concept it is not possible to solve the mystery surrounding the three main Ādityas, in particular, and the other Ādityas, in general.

There have been various interpretations of the nature of the three main Ādityas. Below, I briefly present the main ones, starting with Mitra, and continuing with Varuṇa and Aryaman.²²²

A. BRIEF OVERVIEW OF THE SCHOLARSHIP CONCERNING THE THREE MAIN ĀDITYAS

Mitra

One of the main interpretations of the Indo-Iranian Mitra is that he represents either the sun-god or one of his aspects. This opinion, which was current among the Western scholars of the nineteenth and twentieth centuries, was based mainly on Mithra's later role as *Sol Invictus* in the Mithraic mysteries of the Roman Empire, but was also supported by the fact that both the Vedic Mitra and Avestan Mithra seem indeed to have "solar" aspects.²²³ Obviously, the interpretation of Mitra as the sun-god is essentially naturalistic, since it identifies the god with a natural phenomenon, which is the sun.

The traditional view that the Indo-Iranian Mitra represents the sun was challenged even early in the nineteenth century, and rejected. The rejection was based on the observation that, alongside the proper name Mitra, in Sanskrit and Iranian there is a common noun *mitrá*, which can have different meanings such as "friend" or "contract." This observation led scholars such as Bergaigne (1878–1883: III 110) and Gonda (1972:112–113) to interpret Mitra as the god of friendship. A different

²²¹ Cf. Boyce (1984); Schmidt (2006); Gershevitch (1959: 6), who follows the theory of Lüders (cf. n. 224 above), translates Av. *aša* as the "truth."

²²² A useful overview is presented by Brereton (1981); Schmidt (1978).

²²³ In antiquity, Strabo 15.13.732 notes that the Persians worship Mithra as the sun: τιμῶσι τὲ καὶ ἥλιον ὃν καλοῦσι Μίθρην. For an overview of the whole issue, see Beck (2002); Schmidt (2006); also, cf. Lommel (1970: 366–67; 370–71); Brereton (1981: 16).

position is taken by Meillet (1907: 144–146), who argues that Mitra is the personification of the Indo-Iranian concept *mitra, whose meaning would be "contract."²²⁴ In Meillet's own words, the Indo-Iranian *Mitra would be "le contrat, la puissance mystique du contrat, et une personne."²²⁵ Consequently, Meillet rejects the theories that consider Mitra to be the god of friendship. His argument is based on those passages in the *Rig Veda* in which Mitra does not seem to be as friendly as a god of friendship should be; on the contrary, the Rig Vedic Mitra can be vengeful and full of wrath as well, which is irreconcilable with the character of a god of friendship.

Meillet's position is also adopted by Brereton (1981: 43–45), who, refining Meillet's arguments for the Vedic case, reaches the conclusion that Mitra is the god of alliances or of any other human relationships based on mutual obligations. On the Iranian side, Gershevitch (1959: 26–28) also follows Meillet's theory and interprets Mithra as the god of contracts.

To sum up: the scholars who reject the naturalistic interpretations of Mitra interpret this god as the personification of an abstract idea, which is expressed by the common word *mitrá meaning "contract" in Indo-Iranian.

Varuṇa

The interpretation of Varuṇa has been, in Brereton's words (1982: 63), "a forbidding task." Indeed, Varuṇa has been interpreted so far as representing very different things such as the sky, the moon, the god of the waters, or even the personification of an abstract concept such as an agreement between persons.²²⁶ This wide spectrum of interpretations (obviously irreconcilable with one another) shows that it has not been possible so far to explain the complexity of Varuṇa's character coherently. Below, I review these theories briefly.

²²⁴ In Iranian, the common noun *mithra* can be both neuter and masculine; cf. Brereton (1981: 25).

²²⁵ Meillet's position was keenly supported by Thieme (1938: 134; 1957: 18–20); most recently, Oberlies (1998: 187–192) thinks that "Mitra ist ein klassischer Funktionsgott."

²²⁶ For Varuṇa as representing the sky, cf. e.g. Roth (1852: 71–72); Bergaigne (1878–1883 III: 110–112); Macdonell (1897:27); for Varuṇa the moon, cf. e.g. Oldenberg (1896: 62–64); Hillebrandt (1990 II: 46); for Varuṇa the god of the waters, cf. Pischel (1895: 448–449); for Varuṇa the god of contracts, see below; for an overview, cf. Brereton (1981).

Varuṇa's identification with the sky was influenced by the putative linguistic equivalence of the Skt. *váruṇa* with the Gk. *ouranós* "sky"; this equivalence, however, was shown to be untenable by Wackernagel (1916: 296–297). The basis for equating Varuṇa with the moon was the theory that the Ādityas must represent, as the sons of Aditi "the unboundedness," the planets; thus, since Mitra was identified with the sun, it appeared natural to see Varuṇa, who is associated with darkness in the later Hindu literature, as the moon. Finally, Varuṇa's well-known association with the waters, which is clearly expressed in the *Rig Veda*,²²⁷ led to the conclusion that he must be the god of the waters (the "Vedic Poseidon/Neptune").²²⁸ This latter theory, however, encounters a major difficulty, which makes it untenable; this is the fact that the Vedic waters seem to be connected with the sky rather than with any earthly waters.²²⁹

As in Mitra's case, there have also been anti-naturalistic interpretations of Varuṇa, an approach which is prevalent today. According to these views, Varuṇa is the god of bonds, oaths or contracts. One of the main reasons for this type of approach is Varuṇa's close association with Mitra, who, as we have seen above, was already interpreted as the god of agreements. Thus, Thieme (1957: 60) argues that "If Mitra is the personification of an ethical abstract ('contract, agreement, treaty'), Varuṇa must be the personification of a similar abstract." Similar ideas have been put forth even earlier by H. Güntert (1923: 147–50), who believes that Varuṇa, along with Mitra and Aryaman, holds men in mighty bonds and determine how they should act.²³⁰ Unlike Mitra, however, who would represent the "friendly" god, Varuṇa would be the god punishing those who violate these laws. Variations on the same theme were proposed by Lüders (1951–1959 I: 28–40) and Brereton (1981: 126–127). For Lüders, Varuṇa's chief characteristics are his being the master of *ṛtá*, which Lüders translates

²²⁷ Cf. e.g., 1.161.14 (*adbhír yāti váruṇaḥ samudraḥ* "in den Wassern, in den Meeren geht Varuṇa"); 7.49.3–4; 88.3; 8.69.11–12; 9.90.2; 9.73.3; also, see Lüders (1951: I 9–13, 50–56), who clearly shows that one of Varuṇa's essential features is his association with the celestial waters/ocean.

²²⁸ It is well known that Varuṇa became a sea-god in post-Vedic times; cf. e.g., Lüders (1951: I 9–13, 41–50).

²²⁹ Cf. Lüders (1951: I 9–13, 50–56); Macdonell (1897: 25); Keith (1925: 97); Oldenberg (1894: 202–203); Hillebrandt (1990 II: 11).

²³⁰ Cf. Brereton (1981: 66); Güntert argues that Varuṇa's name can be derived from PIE **wer* "to bind" (Germ. "binden, fesseln").

as "Wahrheit" ("the truth"²³¹), and his dwelling in the waters; in Lüders' view, this latter characteristic has to do with the fact that oaths, whose master is Varuṇa, were sworn on water. Brereton, on the other hand, makes the connection between Varuṇa and the concept of *vratá* "commandment, authority," which is often met with in connection with Varuṇa; according to Brereton, Varuṇa would be the god of authority, and this authority would extend over the whole world, including over waters, which are important because they bring prosperity to the earth in the form of rain.

It is difficult to accept these interpretations. Why would Varuṇa be the "god of authority"? Is it the case that he represents the "authority" and all the other gods are not (as) "authoritative"? Why would Varuṇa dwell in the waters if he was the god of oaths, and oaths were to be sworn on water? Or, why would those ancient people consider Varuṇa as having his dominion specifically in the waters, since this dominion extends to the whole world anyway?

Aryaman

The god Aryaman has been even more difficult to interpret, since there are not many passages in the *Rig Veda* that describe him. Among these passages, the most expressive ones are those mentioning the "path of Aryaman," which cannot be transgressed.²³² The existence of this "path of Aryaman" led to the opinion that Aryaman himself represents a celestial body such as the sun, the planet Venus, or the Milky Way.²³³

There are also, as expected, non-naturalistic interpretations of Aryaman. They all start from hypotheses concerning the etymology of the word *aryamán*. The most notable ones are those of Thieme (1938: esp. 106) and Brereton (1981:162–163 and 181–82), who consider the word *aryamán* as ultimately derived from *arí-* "stranger." Thus, from *arí-* one would derive *aryá-* meaning "hospitable" (Thieme) or "civilized" (Brereton), and then *aryamán* "hospitality" (Thieme) or "civility, customs" (Brereton). Aryaman, therefore, would be the god of hospitality (Thieme), or of customs (Brereton).

²³¹ Cf. above n. 224; 225.

²³² Aryaman is called *átūrtapanthāḥ* "whose path cannot be transgressed"; cf. 1.105.6; 10.64.5; Hillebrandt (1990 II: 49).

²³³ In later Brāhmaṇic traditions, Aryaman was identified with the sun, and his path was seen as the sun's path (the ecliptic); cf. Brereton (1981: 150 n.1). Oldenberg (1917: 190 n.1), who believes that the Ādityas represent the planets, thinks that Aryaman represents Venus; for Weber (1893: 138), Aryaman is the Milky Way.

For Brereton, in particular, Aryaman is, like Mitra and Varuṇa (already seen as gods of contracts and alliances), the god of a similar principle (customs) that governs society. The similar roles of these three gods then would justify their being mentioned together in the *Rig Veda*.

These non-naturalistic interpretations can be objected to in many particular ways. For example, it is not possible for the proponents of such theories to explain the solar aspects of the three main Ādityas.²³⁴ Indeed, if these gods were gods of sophisticated agreements, why would they be in close relation to the sun as some Rig Vedic passages make it clear? The main reason, however, why these interpretations are not convincing lies somewhere else. Thus, a religion whose three major gods represent "contracts, alliances and customs," respectively, would be — to say the least — peculiar.²³⁵ In addition, the distinctions between such concepts seem to be rather bureaucratic and artificial. Last but not least, these theories ultimately fail to explain what the connection is between *ṛtá* interpreted as the "truth" and all these agreements that "govern" society.

I would like to make myself clear at this point by saying that I do not deny that Mitra and Varuṇa have indeed a connection with oaths or alliances. Some passages quoted by the proponents of such theories leave no doubt that these gods are sometimes invoked during the ceremonies of the closing agreements. What I question and reject here is the idea that these gods are the personification of such concepts. In fact, to make a comparison, arguing that Mitra or Varuṇa represent the contract/alliance itself would be the same with saying that the Old Testament Yahweh is the embodiment of the ten commandments, i.e., the ten commandments themselves.²³⁶

It is in this context I would like to quote Gershevitch (1959: 28), who, in spite of adopting Meillet's position with regards to the nature of Mithra and Varuṇa (that is, he thinks they are personifications of agreements), makes an interesting remark: "The question now to consider is whether the Avestan Mithra's association with the contract is a secondary development due to a

²³⁴ For these "solar" aspects, see the next section.

²³⁵ One can invoke in favor of this argument the Greek case, in which Dike or Themis are gods of justice; however, the Greek gods do not have the religious status the three Ādityas have; in addition, it is questionable whether the Greek gods are merely personifications of abstract concepts; cf. Kuiper (1976:36).

²³⁶ Lommel (1970: 369) adopts the same skepticism: "Diese Götter waren für ihre Verehrer lebendige Wesen, nicht abstrakte Begriffe; nicht Deifikation einer Idee (Vertrag, Bündnis) ... sondern Personen, die man kannte."

fortuitous identity of his name with a word for 'contract', or represents a, or the, primary function of the god. Theoretically, the first position alternative is quite possible ... But obviously, unless the study of all ancient sources on Mithra/Mitra reveals that the god's primary function cannot have been the guardianship of contract, or/and that another function of Mithra must be the primary one, it would be unreasonable to reject as not genuine the equation Mithra = contract ... "

It is beyond the scope of this paper to speculate about the origin and etymology of the words Mitra and Varuṇa, or whether these words are derived from PIE roots having to do with contracts/commandments or anything of the sort. Gershevitch's remark is interesting because it shows that, indeed, even for a scholar like him, who believes that Mithra/Mitra is the embodiment of contracts, there still exists the possibility — albeit a remote one — that these gods do not represent abstract concepts such as agreements, but something else, from which the concept of contract can be derived. This is the direction that the present study will explore further.

B. A RECENT NATURALISTIC VIEW ABOUT MITRA AND VARUṆA

In the brief historical overview above, I purposely left aside a relatively recent study, which treats Mitra and Varuṇa from a new perspective. This is Simson (1997:1–35), who took a radically different approach in explaining the natures of Mitra and Varuṇa. Thus, Simson does not focus on the relations the main Ādityas may have with the social agreements; rather, he starts from those passages that show Mitra and Varuṇa as related to celestial phenomena; in other words, Simson's approach is naturalistic. His conclusion is that Mitra and Varuṇa represent the planet Venus at sunrise and sunset, i.e., they are the morning and evening stars. I will briefly present his main arguments because they will prove to be useful to the present study.

Simson provides evidence from the *Rig Veda*²³⁷ that Mitra and Varuṇa are related to different astronomical phenomena such as the sun, sky, seasons, dawn, and twilight. This would be difficult or impossible to account for if these gods were mere personifications of abstract concepts such as contracts or alliances. Therefore, Simson argues that all the connections between Mitra and Varuṇa,

²³⁷ For all the *Rig Vedic* passages Simson relies on the translations of Lüders (1927); I use only Geldner's standard translation of the *Rig Veda*.

on one hand, and the natural phenomena, on the other hand, can be explained through the identification of these gods with the planet Venus in its morning and evening appearances. In addition to the Vedic material, Simson presents evidence from the Avesta, which shows the Iranian Mithra as also related to celestial phenomena. One of Simson's main arguments relies on a passage from Herodotus (1.131), in which the Greek historian includes Aphrodite among the different gods the Persians of his time venerated; Herodotus relates that the Persians adopted Aphrodite from the neighboring Semitic peoples, and that Aphrodite's Persian name was Mitra.²³⁸

Simson's perspective on Mitra and Varuṇa is extremely refreshing and shows that a naturalistic interpretation of these gods is not only possible but also probable. As we shall see below, these gods are so intimately related to celestial phenomena that it is not possible to interpret them other than as being celestial in origin. Before starting to interpret the Rig Vedic material, however, I will evaluate Simson's theory and show some of the shortcomings that actually make it untenable. This will not take away any merits from Simson's article, which is a clear advance toward the understanding of the astronomical significance of some Rig Vedic passages. My objections to the theory that Mitra and Varuṇa represent the planet Venus are the following:

- The theory cannot account for the association of Aryaman with Mitra and Varuṇa; in other words, this theory cannot give an explanation for why Aryaman is grouped together with the planet Venus. It also does not account for why these gods are called "the Ādityas."
- The theory cannot explain one of Varuṇa's main traits, which is his association with the waters.
- It is known that Varuṇa's Iranian counterpart is Ahura Mazdāh. If the Iranian Mithra is the planet Venus, who is Ahura Mazdāh, a god whose function has been recognized to be similar, if not identical to that of Varuṇa?
- In the history of astronomy, it is assumed that the discovery of the identity between the morning and evening stars is preceded by the belief that these two stars are different from

²³⁸ Herodotus's statement was seen as a misinterpretation of the historical facts; cf. Benveniste (1929: 27–8); Simson (1997: 20–21 and n. 96).

each other.²³⁹ Simson assumes the opposite, namely that the Indo-Iranians knew of this identity and that later the Indo-Aryans considered them to represent two different gods/stars. Simson's theory, therefore, cannot account for why the Indo-Aryans had to split an original Mithra/ Venus into two entities.

These are the main reasons why I think Simson's theory is untenable. This theory, however, has the great merit of bringing to attention the close relation that exists between Mitra and Varuṇa, on one hand, and the astronomical phenomena, on the other hand. Starting from these considerations, below I analyze again those passages that connect the main Ādityas with such phenomena. I will try then to offer a new solution to the issue of the nature of the three main Ādityas.

C. THE "SOLAR" CONNECTIONS OF THE ĀDITYAS

Mitra and, especially, Varuṇa are closely related to the sun. These "solar" aspects are apparent in numerous Rig Vedic passages, a fact that excludes coincidences:

1.24.8. *urūṃ hí rājā várūṇas cakāra sūryāya pánthām ānuetavá u*

1.24.8. Denn König Varuṇa hat der Sonne den weiten Weg bereitet, um ihn zu wandeln.

1.25.8. *véda māsó dhṛtávrato duvādaśa prajāvataḥ védā yá upajāyate.*

1.25.8. Er kennt die zwölf Monate mit ihrem Nachwuchs, der Gesetzwollstrecker; er kennt den, der nachgeboren wird.

7.87.5. *... gṛtso rājā várūṇas cakra etām divi preñkhām hiraṇyāyaṃ śubhé kām*

7.87.5. ... Der geschickte König Varuṇa hat für sich diese goldene Schaukel [the sun — my note] zum Prangen an den Himmel gebracht.

8.41.3. *sá kṣāpaḥ pári śasvaje ní usró māyāyā dadhe*

sá víśvam pári darśatáḥ

tásya vénīr ānu vratām uśás tísro avardhayan

²³⁹ Cf. Scherer (1953: 78); Waerden (1974: 56).

- 8.41.3. Die Nächte hält er umschlungen; durch seine Zaubermacht hat er die Morgenröten eingesetzt; er ist rings um die Welt sichtbar. Nach seinem Gebote haben seine Liebenden die drei Morgenröten gro gezogen.
- 5.85.5. ... der (Varuṇa) in der Luft stehend wie mit dem Messstabe die Erde mit der Sonne abgemessen hat.
- 1.136.2. *ádarśi gātúr uráve várīyasī pánthā ṛtásya sám ayaṃsta raśmibhiś*
cákṣur bhágasya raśmibhiḥ
dyukṣám mitrásya sádanam aryamṇó váruṇasya ca
áthā dadhāte bṛhád ukthíyaṃ váya upastútyam bṛhád váyaḥ
- 1.136.2. Die weitere Bahn für das weite (Licht) [i.e., the sun — my note] ist sichtbar geworden, sein Weg ward durch die Zügel des Gesetzes gelenkt, das Auge durch die Zügel des Bhaga. Der himmlische Sitz des Mitra, des Aryaman und Varuṇa (ward sichtbar) und beide besitzen hohe preiswürdige Kraft, löbliche, hohe Kraft.
- 5.63.2. *samrājāv asyá bhúvanasya rājatho mītrāvaruṇā vidátthe suvardṛśā*
- 5.63.2. Als Allherrscher herrschet ihr über diese Welt, Mitra und Varuṇa, in Weisheit, durch die Sonne sehend ...
- 5.63.7. *... ṛténa víśvam bhúvanaṃ ví rājathaḥ sūryam á dhattho divi cítriyam rátham*
- 5.63.7. ... Mit dem Gesetz herrschet ihr über die ganze Welt; die Sonne setzt ihr an den Himmel als weitkentlichen Wagen.
- 7.60.1. Wenn du heute, o Sūrya, die Schuldlosen melden wirst, so sollst du bei deinem Aufgang dem Mitra und Varuṇa die Wahrheit (melden) ...
- 7.60.4. *úd vām prkṣáso mádhumanto asthur á sūriyo aruhac chukráṃ árṇaḥ*
yásmā ādityá ádhvano rádanti mitró aryamá váruṇaḥ sajósāḥ

- 7.60.4. Eure starken, honigreichen (Rosse) sind heraufgekommen; Sūrya hat jetzt das lichte Meer erstiegen, dem die Ādityas einträchtig die Wege vorzeichnen: Mitra, Aryaman, Varuṇa.
- 7.64.2. ... ihr Hüter des großen Gesetzes ... (*á rājānā maha ṛtasya gopā*)
- 7.65.1. *prāti vāṃ sūra údite suuktaír mitráṃ huve váruṇam pūtádaḥsam*
- 7.65.1. Ich rufe bei Sonnenaufgang euch beide wieder mit Liedern, den Mitra und den Varuṇa von lauterem Wollen ...
- 7.87.1. *rádat pathó váruṇaḥ sūriyāya prá árṇāṃsi samudrīyā nadínām*
sárgo ná sṛṣṭó árvatīr ṛtāyāñ cakāra mahír avánīr áhabhyaḥ
- 7.87.1. Varuṇa zeichnet der Sonne die Wege vor, (er ließ) die zum Meer gehenden Fluten der Ströme laufen wie ein abgelassenes Rennen die Rennstuten, den rechten Weg einhaltend. Er hat den Tagen die große Bahnen gemacht.

The main idea emerging from these passages is that, in all likelihood, the three main Ādityas, especially Varuṇa, are regulators of the sun's path. Thus, Varuṇa is the god who prepares the sun's path (cf. 1.24.8) and knows the twelve solar months.²⁴⁰ Varuṇa plays with the sun as if the sun were his swing; he measures the earth by using the sun, and sets the dawns in their places. The sun's path is regulated by Varuṇa's law, which represents the cosmic order. Mitra, Varuṇa, and Aryaman placed the sun in the sky and show him its path. The sun's path is regulated by the cosmic order (*ṛtá*).

The succession of the twelve months that Varuṇa knows is closely and essentially associated with the cosmic order (*ṛtá*):

- 1.164.11. *duvādaśāraṃ nahí táj jārāya várvarti cakráṃ pári dyām ṛtasya*
á putrá agne mithunáso átra saptá śatáni viṃśatís ca tasthuḥ

²⁴⁰ Interestingly, Varuṇa also knows the intercalary month (cf. Geldner on 1.25.8 above).

- 1.164.11. Dies zwölfspeichige Rad der Zeit (Ordnung) (*ṛtasya*) dreht sich immer wieder um den Himmel, denn nicht kann es sich abnutzen. Darauf stehen, Agni, die Söhne paarweise, siebenhundert und zwanzig.

Simson (1997: 14–15) notes very well that, in cases such as the ones above, Lüders’ translation of *ṛtá* as “the truth” is not appropriate. The succession of the months cannot be regarded as an expression of the “truth,” but as an astronomical phenomenon pertaining to the cosmic order. The same idea is expressed in the following passage, in which Mitra, Varuṇa, and Aryaman regulate not only the succession of the months, but also that of the seasons and days, and, in general, the succession of time:

- 7.66.11. *ví yé dadhúḥ śarádam māsam ád áhar yajñám aktúṃ ca ád ṛcam
anāpiyám varuṇo mitró aryamá kṣatráṃ rájāna āsata*

- 7.66.11. Die den Herbst, den Monat und Tag, das Opfer und die Nacht und die Strophe festgesetzt haben, (diese) Könige Varuṇa, Mitra und Aryaman haben die unerreichbare Herrschaft erlangt.

- 4.55.2. *prá yé dhāmāni pūrvīyāṇi ārcān ví yád uchān viyotāro amūrāḥ
vidhātāro ví té dadhur ájasrā ṛtádhitayo rurucanta dasmāḥ*

- 4.55.2. Die die alten Satzungen ehren sollen, wenn die klugen Trenner (von Tag und Nacht?) aufleuchten, sie haben als unermüdlichen Ordner (die Zeiten) geordnet. Die Meister, die die Wahrheit erkannt haben, sollen erleuchtet werden.

The idea of “regulating” time also emerges in the following passage, in which Mitra und Varuṇa are said to bring the year to completion:

- 7.61.2. *prá vām śa mitrāvaruṇāv ṛtāvā vípro mánmāni dīrghaśrúd iyarti
yásya bráhmāṇi sukratū ávātha á yát krátvā ná śaradaḥ pṛṇaithe*

- 7.61.2. Auf euch, Mitra und Varuṇa, hebt der wahrhafte redekundige Sänger [“singer whose sacred songs are sung according to *ṛtá*” — my note] within hörbar seine Dichtung an,

dessen erbauliche Worte ihr Wohlwollende günstig aufnehmen möget, auf dass ihr seine Jahre vollzählig machete, wie er es im Sinn hat.

All these passages clearly show that *ṛtá* has a concrete astronomical significance. Other examples are also relevant in this respect. Thus, dawn is an important part of this cosmic order, and its daily appearance is also regulated by *ṛtá*:

4.51.8. *tā ā caranti samanā purástāt samānātaḥ samanā paprathānāḥ*
ṛtāsya devīḥ sádaso budhānā gávāṃ ná sárgā uśáso jarante

4.51.8. Sie [Uṣas — my note] kommen gleichmäßig aus Osten, von der gleichen Stelle aus gleichmäßig sich ausbreitend. Vom Sitze der Ordnung (*ṛtá*) erwacht sind die Göttinnen Uṣas's früh munter wie die Schwärme der Kühe.

Similarly, the path of the stars is also connected to the cosmic order:²⁴¹

1.24.10. *amīyá ṛkṣā níhitāsa uccā náktam dádṛśre kúha cid díveyuḥ*
ádabdhāni váruṇasya vratāni vicākaśac candráma náktam eti

1.24.10. Jene Sterne [*ṛkṣā* “the Bear(s)” represents the constellation of the Great Bear — my note; cf. Grassmann], die oben befestigt des Nachts erschienen sind, sie sind am Tag irgendwohin gegangen. Unverletzlich sind Varuṇa's Gesetze: Des Nachts wandelt Umschau haltend der Mond.

The association of Mitra, Varuṇa, and Aryaman with the sun and the stars offers a strong hint as to their cosmic nature. Thus, as regulators of time connected with the sun's path, these gods are, in all likelihood, stars or constellations. In addition, the connection between them and the solar months show that Mitra, Varuṇa, and Aryaman do not represent just any constellations in the sun's path, but the most important ones; these are the zodiacal constellations on the ecliptic. This leads to the conclusion that the Vedic *ṛtá*, “the world's order,” represents either the ecliptic itself or the “order”

²⁴¹ The cosmic order in this case is Varuṇa's laws (Germ. “Gesetze”; Skt. *vratāni*).

directly deriving from it ("time" perhaps?). This conclusion is not unexpected. Independently of these latter considerations, the same conclusion on the nature of *ṛtá* was reached above, in the section about the Maruts. Thus, the two conclusions confirm each other.

The theory that the three main Ādityas represent the zodiacal constellations may at first seem far-fetched, and one could object to it by arguing that the succession of time can also be regulated by "abstract" deities such as the ones representing contracts, alliances etc. A strong argument against such objection, however, is that these gods are not said to regulate an abstract time-entity, but bits of time, represented by months, days etc., which are well known to be intimately related to the paths of the stars and the sun. Even so, a skeptical person's final objection would be that the connections between the Ādityas and the succession of months or seasons represent only a coincidence or even a figure of speech of the poetic arsenal. Therefore, it is necessary to put forth additional evidence in favor of the conclusion above.

The following passages doubtless show that, as was the case with the other Vedic gods, the nature of the main Ādityas is stellar. The three main Ādityas are bright and located in the sky; they ascend the sky with their chariots (with what else?!); they oversee earth and all the creatures from the sky. The language used to describe these gods is essentially the same as that used to describe Indra, Agni etc.:

5.63.1. *ṛtásya gopān ādhi tiṣṭhatho ráthaṃ sátyadharmāṇā paramé víomani*

5.63.1. Ihr Hüter des Gesetzes (*ṛtásya gopān*), deren Satzungen gültig sind, ihr beide besteigt den Wagen im höchsten Himmel ...

7.82.10. *asmé índro váruṇo mitró aryamá dyumnám yachantu máhi śárma sapráthaḥ*

7.82.10. Uns sollen Indra, Varuṇa, Mitra, Aryaman Glanz und ihren großen Schirm in ganzer Breite gewähren ...

6.67.6. *tá hí kṣatrám dhāráyethe ánu dyúṁ dṛṃhéthe sánūm upamád iva dyóḥ
dṛlho náksatra utá viśvádevo bhúmim á atān diyām dhāsínāyóḥ*

6.67.6. Denn ihr behauptet eure Herrschaft Tag für Tag; ihr festiget die Höhe (des Himmels) gleichsam vom höchsten Himmel aus. Und das gefestete Gestirn, das allen Göttern gehört, hat Erde und Himmel mit dem Labsal beider gezogen.²⁴²

8.25.7. *ádhi yá brható divó abhí yūthéva páśyataḥ*
rtāvānā samrājā nāmase hitā

8.25.7. Die vom hohen Himmel her (die Geschöpfe) wie die Herden überschauen, die gesetzhegenden Allkönige, recht für die Huldigung geschaffen.

These passages support the hypothesis that the main Ādityas, which are celestial bright objects, represent, as time-regulators located in the sky, stars in the sun’s path. The issue now is to try to determine with precision what stars or constellations the three main Ādityas represent. The considerations above leave little doubt that these constellations must bear great astronomical significance for the solar year. In other words, these constellations represent, in all likelihood, the most significant points on the sun’s path; obviously, the first remarkable points that come to mind are those defined by the two tropics (winter and summer) and the equinoctial circle. This means that Mitra, Varuṇa, and Aryaman are stars or constellations associated with the solstices and equinoxes. Is it possible to refine this conclusion and determine which stars these gods represent?

It is well known that Varuṇa is associated with the “waters” and the “ocean.” The clearest examples occur in hymns 1.164 and 7.49, in which Varuṇa is said to move in the middle of the waters:²⁴³

²⁴² Geldner thinks that *dīlho náksatra* (Germ. ‘das gefestete Gestirn’) refers to the sun; this does not seem likely since the sun is always in motion; I would conjecture that the “fixed star” refers to the pole star, which, in Vedic times (around 2000 B C and before) was represented by the star Thuban. What the verse says then is that the pole star “stretched the earth and the sky” (Skt. *atān*) through (establishing) the seats (Skt. *dhāsínā* — instr. from *dhāśi*) of Mitra and Varuṇa. These stars therefore are important bounds that ensure the cosmic order and the spatial configuration of the cosmos.

²⁴³ For 1.164.14, cf. n.232 above; 7.49 is dedicated to the waters.

7.49.2. *yá ápo divyá utá vā srávanti khanítrimā utá vā yáh svayamjáh
samudrárthā yáh śúcayaḥ pavākás tá ápo devír ihá mām avantu*

7.49.3. *yásām rájā varuṇo yāti mādhye satyānṛté avapásyañ jánānām
madhuścútaḥ śúcayo yáh pavākás tá ápo devír ihá mām avantu*

7.49.2–3. Die himmlischen Gewässer (*ápo divyá*) oder die, welche fließen, die Gegrabenen oder Selbstentstandenen, deren Ziel das Meer (*samudrá*) ist, die reinen, lauterer, diese göttlichen Gewässer sollen mich hier betreuen. /In deren Mitte König Varuṇa wandelt (*yásām rájā varuṇo yāti mādhye*), Wahrheit und Lüge der Leute erspähend, die honigträufenden, reinen, lauterer, diese göttlichen Gewässer sollen mich hier betreuen.

Another passage in a Varuṇa hymn presents Varuṇa as the ocean itself (or as closely connected to the ocean), which is located on the sky's firmament; certainly, this is another strong indication that Varuṇa's place is in the sky:²⁴⁴

8.41.8. *sá samudró apīcīyas turó dyām iva rohati
níyád āsu yájur dadhé
sá māyá arcínā padá ástrñān nákam áruhan ...*

8.41.8. Er, der verborgene Ozean (*samudró*), steigt als Machthaber wie (die Sonne) zum Himmel, wenn er in ihnen den Opferspruch niedergelegt hat. Er brachte mit dem Strahl als Fuß die Zaubereien zu Fall; er hat das Firmament erklommen ...

Apparently, there is nothing special about Varuṇa's association with the celestial Ocean/Sea. The possible identification of Varuṇa with the solstices or equinoxes, however, gives an unexpected twist to the interpretation of this issue. Before exploring this in detail, it is necessary to make some observations with regards to the constellations announcing the solstices and equinoxes.

²⁴⁴ Lüders (1951: I 9–13) notes that Varuṇa's ocean is in the sky; cf. n.232 and 234 above.

It is well known that the constellations that defined the tropics and the equinoxes from about 4000 to 2000 BC (the "era" of Taurus) were Aquarius (the winter solstice), Scorpio (the autumn equinox), Leo (the summer solstice), and Taurus (the spring equinox). The constellations that announce the solstices and equinoxes today are different (Sagittarius, Virgo, Gemini, and Pisces, respectively) because of the well-known astronomical phenomenon of the precession of the equinoxes, which causes a constant shift of the stars' position in the sky.

The reason I mentioned the constellations that announced the solstices and equinoxes between 4000 and 2000 BC is that the three main Ādityas are of Indo-Iranian origin; this means that these gods were invented during that period of time to represent the solstices and equinoxes.

The position of Aquarius in the sky bears a great importance to the present argument. Thus, it is known that Aquarius "the Water-pourer" is part of the area of the sky that the Greeks called "Υδωρ" "Water," and the Babylonians the "Sea."²⁴⁵ Aquarius itself corresponds to the Babylonian GULA "waterman." The existence of a celestial sea in this part of the sky is clearly shown by the fact that all the constellations that populate this region represent marine creatures. Thus, in the vicinity of Aquarius we can find Capricorn "goat-fish," Cetus "whale," Pisces "fish," which all belong, as marine creatures, to the Sea. The "existence" of a celestial sea in this sky-region is due to the vicinity of the winter tropic, which is the cause of rain and bad weather in general.²⁴⁶

Aquarius then is located "in the sea."²⁴⁷ Consequently, Varuṇa, who dwells in the waters, is likely to be Aquarius.²⁴⁸ The same conclusion applies to the Iranian Ahura Mazdāh, who is also known

²⁴⁵ Cf. Kidd (1997: 288).

²⁴⁶ Cf. Kidd (1997: 288).

²⁴⁷ The identification of Varuṇa with Aquarius may support the hypothesis that, in fact, Pūṣan represents Prokyon, the main star in Canis Minor (cf. fig. 2), towards which the wedding procession led by the Ásvins seems to move (cf. the section on Pūṣan, above). Thus, the Ásvins are said in 4.43.5 (quoted in the section about the Ásvins) to come from the sea: "Weit überholt euer Wagen den Himmel, wenn er vom Meere (mit) euch herkommt" (*urú vāṇ ráthaḥ pári nakṣati dyām á yát samudrád abhí vártate vām*); as it can be seen in fig. 2, if the Ásvins come indeed from the Sea (Cetus), and cross the "celestial river," they must go towards Prokyon, which is on the other side of the Milky Way from the perspective of a traveller "coming from the Sea." In other words, the Ásvins cannot cross the Milky Way to reach Sirius.

²⁴⁸ Witzel (1995) also had the intuition that Varuṇa may represent a star/constellation.

for being associated with waters.²⁴⁹ Varuṇa, therefore, represents the southern limit of the sun's path during the year.²⁵⁰ As such, he is rightly said to be the regulator of time, the god who "knows" the months, the guardian of the celestial order.

The astronomical role of Aquarius is vividly expressed through the splendid metaphor of the sun being Varuṇa's swing (Skt. *preṅkhá*; cf. 7.87.5 above). The god, who is located at the southern limit of the sun's path, "pushes" the sun back to the summer tropic; the sun is indeed a swing, which, pushed by Varuṇa, oscillates back and forth between the tropics.²⁵¹ The same idea seems to be expressed in the following passage, in which *nákṣatram* probably refers to the sun (cf. Geldner):

7.86.1cd. *prá nākam ṛṣvām nunude bṛhántam dvitā nákṣatram papráthac ca bhūma*

7.86.1cd. Er [Varuṇa — my note] hat hoch nach oben den Himmel gestoßen, doppelt dem Himmelsgestirn (einen Anstoß gegeben), und er hat die Erde ausgebreitet.

Varuṇa's role is not only to guard the sun's path. Being located in the sky, Varuṇa supports the sky, keeps the firmament fixed in its place. Sometimes he is associated with Mitra in this task:

4.42.4. *ahám apó apinvam ukṣámāṇā dhārāyaṃ dívaṃ sádana ṛtásya*
ṛténa putró áditer ṛtāvā utá tridhātu prathayad ví bhūma

4.42.4. Ich [Varuṇa — my note] ließ die tiefenden Gewässer [the ocean again! — my note] anschwellen, im Sitz des (ewigen) Gesetzes (*sádana ṛtásya*) halte ich den Himmel. Nach dem Gesetz ist der Sohn der Aditi der gesetzmäßige (Herr) und er hat die Erde dreifach verbreitert.

²⁴⁹ In the oldest parts of the Avesta, the Iranian waters are called *ahurānī* "daughters or wives of Ahura"; cf. Gershevitch (1959: 45). The Avesta also knows of a celestial sea called Vouru.kaša "with large bays" (cf. Bartholomae 1904), which brings rain to earth; cf. Oberlies (1999: 20, 25–27); the name of this Avestan celestial sea is strikingly echoed by Varuṇa (< I-Ir. *Vouruna).

²⁵⁰ Interestingly, Varuṇa is identified with winter in MS. 1.10.12:151.16 (*hemantó hí váruṇaḥ*); cf. Oberlies (1999: 116 n.472). In Zoroastrianism, on the other hand, Ahura Mazdāh was celebrated during the month of December-January (i.e. around the winter solstice); cf. (Boyce 1984).

²⁵¹ Varuṇa's role, therefore, is to prevent the sun from sinking below the winter tropic.

- 5.62.3. Ihr festiget Himmel und Erde, Mitra und Varuṇa ... (*ádhārayatam pr̥thivīm utá dyām mītrarājānā varuṇā máhobhiḥ*)
- 7.61.4. *śáṃsā mitrásya váruṇasya dhāma súṣmo ródasī badbadhe mahitvā*
- 7.61.4. Ich will das Werk (die Macht) von Mitra und Varuṇa preisen; ihr Eifer hält Himmel und Erde mächtig in Schranken ...
- 8.41.10. ... der mit einem Pfeiler die beiden Welten auseinander (hält) und wie der Ungeborene den Himmel festigte (*yá skambhéna ví ródasī ajó ná dyām ádhārayan*).

That Varuṇa is located on the winter tropic (the limit of the sun's path) is also shown by the fact that the god's path cannot be "transgressed" (by the sun!):

- 1.105.16. *asaú yáḥ pánthā ādityó divi pravácīyaṃ kṛtáḥ ná sá devā atikráme ...*
- 1.105.16. Jenen Ādityaweg [Varuṇa's — my note; cf. 1.105.15], der am Himmel als rühmliches (Werk) bereitet ist, den keiner übertreten (*atikráme*), ihr Götter...²⁵²

The identification of Varuṇa with Aquarius (or with parts of it) opens up the path for determining who the other two main Ādityas are. Let us start with Mitra. It seems tempting to assume that, since Varuṇa is often invoked together with him, Mitra represents the constellation opposed to Aquarius in the sky; this is Leo, which was the summer solstice's marker between 4000 and 2000 BC. The *Rig Veda*, however, does not seem to offer additional evidence for this hypothesis. Fortunately, on the Iranian side, there is the famous Avestan hymn to Mithra (*Yašt* 10), which contains more information about Mithra's stellar nature than any of the passages in the *Rig Veda*.²⁵³ I quote below, in Gershevitch's translation (1959), some of the passages that are relevant to the present argument.

²⁵² Obviously, the sun also enters this category.

²⁵³ This is also the reason Simson (1997) quotes many passages from this hymn.

12–13. Grass-land magnate (*vouru.gaoyaoitīm*) Mithra we worship ... who is the first (*paoiryō*) supernatural god to approach across the Harā, in front of the immortal swift-horsed sun; who is the first to seize the beautiful gold-painted mountain tops; from there the most mighty surveys the whole land inhabited by Iranians.

49–51. Grass-land magnate Mithra we worship ... for whom Ahura Mazdāh, the creator, fashioned an abode above ... which (abode) the incremental Immortals (*Aməša Spənta*) built, all in harmony with the sun ...

70–71. Grass-land magnate Mithra we worship ... in front of him flies Ahura-created Vərəθraγna in the shape of a wild, aggressive, male boar (*varāza*) with sharp fangs and sharp tusks ... as he (the boar) catches up with the opponents ... he knocks them ...

95–96. Grass-land magnate Mithra we worship ... who goes along the whole width of the earth after the setting of the glow of the sun, sweeping across both edges of this wide, round earth whose limits are far apart: everything he surveys between heaven and earth holding his mace (*vazrəm*) in his hand ...

99. Grass-land magnate Mithra we worship ... from whom all supernatural evil goods, and the concupiscent owners of Falsehood, recoil in fear. Along flies grass-land magnate Mithra, master of countries, over the right-hand (*dašinəm*) border of this wide, round earth whose limits are far apart.

142–3. Grass-land magnate Mithra we worship ... the well-created, very great god who in the morning (*sūrəm*)²⁵⁴ brings into evidence the many shapes ... as he lights up his body, being endowed with own light like the moon; whose face blazes like (that) of the star Sirius (*Tištīya*) ... (him) I will worship ... who shines like the majestic sun's most beautiful creature, guides the star-decked, supernaturally fashioned chariot ...

144. ... we worship Mithra when he faces the country, we worship Mithra when he is between (two) countries, we worship Mithra when he is inside the country, we

²⁵⁴ Cf. Gershevitch (1959: 288): "the light Mithra brings is that which pervades the earth at daybreak."

worship Mithra when he is above the country, we worship Mithra when he is below the country, we worship Mithra when he makes the round of the country, we worship Mithra when he is behind the country.

145. ... we worship Mithra and Ahura — the two exalted owners of Truth (*aša*) that are removed from danger –, as well as the stars, the moon and the sun ...

These passages reveal Mithra's stellar nature through several metaphors. Thus, his countenance blazes like that of the star *Tištriya*.²⁵⁵ Mithra has his own light and shines like the sun; when he appears at dawn, Mithra brings light to all creatures; his chariot is studded with stars (142–143); he is invoked along with other celestial bodies (145). All these features clearly support the hypothesis that Mitra's nature is celestial. In addition, the comparison with *Tištriya* shows that Mithra is not a constellation, but a star. This observation may be of paramount importance in determining who Mithra is.

One of Mithra's strangest features is revealed in verses 12–13. There, it is said that Mithra is the first (star) that appears before the sun.²⁵⁶ Simson (1997: 22) takes this as a proof that Mithra represents the planet Venus, which, indeed, as the morning star, appears before the sun. We saw, however, that Mithra was not Venus. Therefore, one needs to find another explanation for why the star Mithra is the first to appear in front of the sun.

As I already noted in the present study, the morning "appearance" of a star before the sun is called the star's heliacal rising. Each morning the sun's rising is preceded by that of a star, which is the last of the stars appearing on the eastern horizon before all the stars vanish in daylight. Obviously, there are many stars that appear before the sun during its yearly course. The Avestan passage, however, speaks about Mithra as being the first star that precedes the sun. Since there are many stars that precede sunrise, this metaphor seems at first to be without any natural foundation. There is,

²⁵⁵ *Tištriya* has been generally interpreted as Sirius, the brightest fixed star in the sky; cf. Panaino (2005). I showed in the present study that both *Tištriya* and Agni represent the planet Venus.

²⁵⁶ This verse clearly shows that Mithra is different from the sun; Gershevitch (1959: 39–40) does not have an interpretation for this; he only assumes that "Mithra, as never-sleeping watcher of the covenant and its infringers, has to tour the earth incessantly."

however, an element that puts this whole issue into a new perspective. This concerns the heliacal rising of a star on the day that marks the beginning of the solar year. In that situation, the star rising heliacally can be indeed said to be the "first" to precede the sun. The beginning of the Iranian year in the pre-Zoroastrian era occurred at the spring equinox.²⁵⁷ This shows that the initial premise of the present argument that Mithra represents the star/constellation announcing the summer solstice needs to be changed. It appears now that Mithra represents the star announcing the spring equinox. As I noted above, given the precession of the equinoxes, such an important star must have belonged to the constellation Taurus, which announced the spring equinox before 2000 B.C. This star is well known; it is one of the brightest stars in the northern hemisphere and represents the "Bull's eye": Aldebaran or α Tauri.²⁵⁸ Since Aldebaran located centrally with respect to the whole Taurus constellation, the time period during which this star announced the spring equinox must have been closer to 3000 B.C. than to 2000 B.C. This possibly shows the antiquity of the Indo-Iranian religion.²⁵⁹

The conclusion that Mitra is Aldebaran can provide an explanation for the verse 99 of the Avestan hymn, in which it is said that Mithra goes over the right side of the earth (*dašinam*). The Iranian word *dašinam* "the right side," which is related to the Sanskrit word *dakṣiṇa*, can also mean "to the south." The meaning "to the south" is due to the fact that the cardinal points are set from the perspective of an observer facing (due) east; for such an observer, the south is obviously to his right. These considerations perfectly explain the Avestan passage. Thus, it is well known that, for an observer facing due east in the northern hemisphere, the stars rise from the east and go over his head to the south, that is, to his right. The reason then why Mithra is said to go over the right side of the earth is that Aldebaran (or any star for that matter) goes indeed over the right side of an observer facing due east.

There now remains Aryaman, which, obviously, must be the star that announced the summer solstice around 3000 B.C. As was the case with Aldebaran, such a star is also well known; it is Regulus

²⁵⁷ The first month of the year was called *Frawardīn* in the Achaemenid inscriptions, and started at the spring equinox; cf. Blois (1996: 48–49).

²⁵⁸ In astronomical jargon, the designation of a star as α shows that that star is the brightest star in that constellation.

²⁵⁹ The later Hindu name for Aldebaran is *Rohinī*; cf. Scherer (1953: 117–18).

or α Leonis. The path of Aryaman, therefore, is the path of Regulus, that is, the summer tropic. As in Varuṇa's case, it makes perfect sense to say that Aryaman's path cannot be transgressed, since the sun never gets past the summer tropic in its course to the north.²⁶⁰

Consequently, the three main Ādityas represent the stars/constellations that between 4000 and 2000 BC defined the sun's yearly path; Varuṇa is Aquarius, Mithra is Aldebaran, and Aryaman is Regulus.²⁶¹ These gods are obviously of Indo-Iranian origin, since they can be met with in both the Vedic and the Iranian religions. In addition — given their shared main characteristic of maintaining the cosmic order — it is likely that, despite some possible differences, the Iranian Ahura Mazdāh and the Vedic Varuṇa are originally identical.²⁶² Therefore, whatever the origin of their two names may be, these two gods, who are associated with both *Mitra and the cosmic order, represent Aquarius, the constellation located in the "celestial sea."

The stellar nature of the three main Ādityas shows that their association with certain types of agreements is only secondary and probably due to the fact that, as the main seasonal markers during the solar year, the three main Ādityas could be seen as gods of limits or of bounds. It is then their cosmic role that conferred upon them the characteristics of being gods of contracts, alliances etc, and not vice-versa. In other words, the invocation of these gods on the occasion of certain agreements within society is based on and derives from their being the enforcers and upholders of the cosmic order.

²⁶⁰ Cf. 10.65.5 Geldner "Aryaman, der seinen Weg noch nicht zurückgelegt ist"; the Sanskrit word that describes Aryaman as above is *ātūrthapanthan*, which Geldner explains " ... dessen Weg (von keinem anderen) zurückgelegt oder überholt wird" (cf. 1.105.6; n.237 above).

²⁶¹ Certainly, if one considers the Avestan information as late or irrelevant, one can assign the summer solstice to Mithra; however, Plutarch (*De Is. et Os.* 46) notes that the Persians call Mithra *mesītēs* "mediator" and place him between Hōromazēs (Ahura Mazdāh) and Areimanios (cf. Oberlies (1998: 188 n.187)), which is a strong indication that Mithra represents indeed the equinox. Whatever the case may be, the three main Ādityas represent the solstices and the spring equinox.

²⁶² For a discussion of the differences, see Gershevitch (1959: 44–58).

D. MITHRA AND VƏRƏΘRAYNA

As I noted in the chapter on Indra, the Avestan Vəṛəθrayna is obviously related to Indra's epithet vṛtrahan in the *Rig Veda*; this points to the existence of an Indo-Iranian deity *Vṛtraghan.²⁶³ This identification between the Vedic and the Avestan gods raises a pivotal issue, which concerns the presence of Vṛtra in the Aryan religion. We saw that Benveniste argued against this possibility. For him, the creation of Vṛtra is secondary and derived from the Aryan concept of *vṛtraghan "victory." More recently, Gnoli & Jamzadeh (1988) shared the same view; for them, the principal function of the Aryan *Vṛtraghan was not to slay the dragon Vṛtra, but rather to destroy the obstacle *vəṛəθra* that was blocking the flow of the primordial waters.

One of the arguments against Benveniste's theory is the existence of an Armenian myth, in which the god Vahagn slays a dragon. The fact that Vahagn is certainly derived from the Iranian Vəṛəθrayna (probably through direct borrowing) was seen as implying that there was indeed a dragon (who else than Vṛtra?) in the old Iranian religion.²⁶⁴ Benveniste, who mentions this myth, argues that this aspect of the myth is only secondary and due to local (Armenian) elements. There are, however, other elements in the Iranian myth that could possibly show that Benveniste was not right.

The Avestan hymn dedicated to Vəṛəθrayna (*Yašt* 14) does not seem to contain elements that would justify the complete identification of this god with Taurus. Interestingly, in 14.7, Vəṛəθrayna is imagined as a bull with golden horns:

14.7. Zu ihm [der Weise Herr, that is, Ahura Mazdā — my note] kam zum zweitenmal
herbeigefahren der gottgeschaffene Sieg in der Gestalt eines schönen goldgehörnten
Stieres; auf seinen Hörnern war sichtbar wohlgebildete, schöngewachsene Kraft; so
kam der gottgeschaffene Sieg herbei ...

²⁶³ Cf. Oberlies (1998: 247–49), who identifies Indra with Vəṛəθrayna; Lommel (1927: 132–33) does the same in his analysis of *Yašt* 14, which is dedicated to Vəṛəθrayna; cf. also Gnoli & Jamzadeh (1988).

²⁶⁴ De Menasce (1947: 5–18) brings to attention Mazdean texts in which Bahrām, that is, Vəṛəθrayna fights and defeats a dragon; he argues that the story is similar to the Armenian one; this possibly shows that the Armenian myth represents the older Iranian version of the Vəṛəθrayna myth (in the Iranian religion, Vəṛəθrayna eventually becomes Bahrām, the great warrior god of Zoroastrianism; cf. Gnoli & Jamzadeh (1988)).

Vərəθraϥna's golden horns bring immediately to mind Virgil's first Georgic:

Candidus auratis aperit cum cornibus annum

Taurus et adverso cedens Canis occidit astro. (1. 217–218)

In these verses, the bright Taurus constellation opens the year with his golden horns while the constellation Canis Major (containing Sirius) sets in the west. It seems then tempting to see Vərəθraϥna's golden horns mentioned in 14.7 as an allusion to the presence of Taurus in the Iranian religion.²⁶⁵ Unfortunately, such conclusion would be far-fetched; the fact that in the same hymn Vərəθraϥna takes various other shapes such as those of a horse (14.9), a bird (14.19–21), a boar (14.15) etc. shows that this argument is too tenuous to be taken into consideration.

A much more interesting issue, however, is the relation between the Avestan Mithra and Vərəθraϥna. Thus, in two passages of the Mithra hymn (cf. verses 70–71 and 95–96 above), it is said that Vərəθraϥna flies in front of Mithra (in the shape of a boar this time), who holds his weapon *vazrəm* in his hands. Obviously, Mithra's weapon is identical to Indra's weapon, the well-known bolt *vajra*, with which Indra kills Vṛtra. This identity has not been explained so far. Is it coincidental?

The fact that Mithra represents the star Aldebaran in Taurus puts these latter issues into a new perspective. First, the association between Mithra and Indra's weapon becomes understandable since Mithra alias Aldebaran belongs to Taurus.²⁶⁶ Secondly, the same association supports the identification of Mithra with Aldebaran, and not with Regulus (cf. above). Finally, the fact that Vərəθraϥna flies "in front" of Mithra strongly hints to Vərəθraϥna's nature. Indeed, since Mithra/Aldebaran is located approximately in the middle of Taurus, Vərəθraϥna cannot be other than Taurus, whose body always rises in the east "in front" of Aldebaran.²⁶⁷

²⁶⁵ Cf. Oldenberg (1894: 76 n.2).

²⁶⁶ In the chapter on Indra, I made the hypothesis that this weapon represents either Auriga or the section of the Milky Way that stretches from Taurus to Scorpio.

²⁶⁷ That Vərəθraϥna is a constellation may also be revealed in *Yt.* 14.13, in which his eye (Aldebaran!) is said to shine in the dark night: "Ein hellfarbiger, dessen fernblickendes Auge in die Ferne leuchtet durch die dunkle Nacht ... ;" cf. Lommel (1927: 137). Also, the fact that Vərəθraϥna *alias* Taurus is a constellation located on the celestial equator ("between the regiments of stars") is possibly shown in 14.47: "Ahura-created Vərəθraϥna we worship, who goes up and down between the

The most important conclusion of the present argumentation, however, concerns the presence of Vṛtra in the Iranian religion. The corroboration of all the elements above (the Armenian myth, the stellar natures of Mithra and Vərəθraϥna, and Mithra's *vazrəm*) shows that the associations between the Vedic and Avestan myths are not coincidental or meaningless. The Indo-Iranian celestial myth of the advent of the spring, which is symbolized by the "release of the waters," and in which *Vṛtraghan/Taurus plays the main role, does not make any sense in the absence of Scorpio *alias* Vṛtra.

The astral nature of the three main Ādityas is essential in determining the natures of Vṛtra and Vərəθraϥna. It remains now to determine who the other gods named "Ādityas" are.

E. THE OTHER ĀDITYAS

The "three main" Ādityas represent the main seasonal markers during the solar year. This conclusion may be helpful in determining who the other Ādityas are.

It has been difficult to establish the exact number of the Ādityas.²⁶⁸ The reason for this is that the lists with the names of the Ādityas in the *Rig Veda* contain different numbers of these gods.²⁶⁹ There are, however, two passages in the *Rig Veda* that give the number of the Ādityas as seven or eight. Below I quote the first of these passages in Brereton's translation (1981: 4):

9.114.3. Seven are the directions, each one with its own sun. Seven are the ceremoniants and hotars. With these, who are the seven gods, the Ādityas, guard us, Soma.²⁷⁰

Brereton thinks that the number of the Ādityas in this passage is meaningless. Oldenberg, on the other hand, whom Brereton actually mentions in his argument, believes that the number seven indicates the older and original number of the Ādityas. To support his position, Oldenberg cites 10.72.8–9, which I quote below in Geldner's translation:

lined-up regiments. Together with Mithra ... he inquires right and left: who is false to Mithra ... ?"

²⁶⁸ Cf. Brereton (1981: 3–6).

²⁶⁹ Cf. n.223 above.

²⁷⁰ The Sanskrit original is: *saptá díśo nánāsūryāḥ saptá hótāra ṛtvījaḥ/ devā ādityā yé saptá tébhiḥ somābhī rakṣa naḥ ...*

- 10.72.8. *aṣṭáu putráso áditer yé jātās tanúvas pári*
deváñ úpa praít saptábhiḥ párā mārtaṇḍám āsiyat
- 10.72.9. *saptábhiḥ putraír áditir úpa praít pūrvīyám yugám*
prajāyai mṛtyáve tuvat púnar mārtaṇḍám ábharat
- 10.72.8–9. Acht Söhne der Aditi sind es, die aus ihrem Leibe geboren wurden. Mit sieben ging sie zu den Göttern, den Mārtaṇḍa schob sie beiseite./ Mit sieben Söhnen trat Aditi in das erste Zeitalter. Den Mārtaṇḍa holte sie wieder, damit er (bald) sich fortpflanze und bald sterbe.

Another important Rig Vedic passage is 8.52.7, in which Indra is said to be *túrīyāditya* “the fourth Āditya.” Brereton argues that this passage is also meaningless, and that the poet would have only placed Indra, the greatest Vedic god, among the original three main Ādityas. Brereton, however, does not explain why it was necessary to place Indra among the Ādityas.

It is also worth noting that in the Brāhmaṇas and later Hindu literature the number of the Ādityas is said to be twelve, which was interpreted as representing the number of months of the solar year. Brereton, who mentions these facts, argues that the number twelve is a late innovation and, therefore, not indicative of the original number of the Ādityas.²⁷¹ Certainly, in the context of Brereton’s theory that the Ādityas in general represent gods of contracts, alliances etc, these discrepancies in numbers do not mean anything.²⁷² The present study, however, showed that the nature of the main three Ādityas is not abstract. Given these circumstances, it is worthwhile to investigate whether the line of thought of the present study can also account for both the number of the Ādityas and their nature.

Let us go back again to the main Ādityas, Mitra, Varuṇa, and Aryaman. These gods are — as their generic name shows — Aditi’s sons. It is well known that one of the commonest interpretations

²⁷¹ Cf. Brereton (1981: 4); also, Keith (1925 I: 99). For the identification of the Ādityas with the twelve months of the solar year, cf. *ŚB.11.6.3.8*.

²⁷² Brereton (1981: 318–20) concludes that, given their common name, all the Ādityas are gods of agreements. I would say that Brereton’s conclusion should be a reason in itself for the rejection of his theory.

of Aditi's name is "boundlessness."²⁷³ Given the role of the main Ādityas, which is to preserve the cosmic order, this interpretation of Aditi's name can, in a simple way, explain why these gods are called Ādityas. Thus, the myth about the origin of the Ādityas is likely to be similar to other myths such as the Biblical one, in which the cosmic order appeared from chaos. The Ādityas, therefore, are likely to be — as primeval gods — the exponents of the cosmic order that emerged from the primordial state of "boundlessness."

These considerations strongly hint to the nature of all the Ādityas. Thus, as primeval gods ensuring the cosmic order and time, these gods are likely to represent the zodiacal constellations of the solar year.²⁷⁴ In other words, the Ādityas Bhaga, Aṃśa, or Dakṣa (cf. 2.27.1) must be stars or constellations in the sun's path. It is then natural for Indra (Taurus) or the Maruts (the Pleiades) to also belong to this category,²⁷⁵ since they are constellations located on the sun's path. This conclusion also explains why the Ādityas ended up as being twelve, since this is the classical number of the zodiacal constellations marking the twelve-month solar year.

One can explain now why the seven Ādityas represent seven directions. Thus, in a zodiac such as the Western one²⁷⁶, the number of zodiacal points between the solstices is seven²⁷⁷; this number is

²⁷³ Cf. e.g., Macdonell (1897: 122–23).

²⁷⁴ This conclusion is logical given the nature of the three main Ādityas.

²⁷⁵ Cf. Brereton (1981: 2). Interestingly, the Aśvins (Gemini), who are also on the ecliptic, are not mentioned among the Ādityas. This may have to do with their being added later to the Indo-Aryan pantheon.

²⁷⁶ That is, the Greco-Babylonian zodiac of the first millennium B.C.

²⁷⁷ Thus, between Sagittarius (the winter solstice today) and Gemini (the summer solstice), one can find five constellations, which are Capricornus, Aquarius, Pisces, Aries, Taurus; the total is obviously seven. The fact that the original Ādityas may have been seven is supported by a passage in the *Śatapatha Brāhmaṇa* (2.1.3), in which we read: 'now when he (the sun) moves northward, then he is among the gods, then he guards the gods; and when he moves southward then he is among the fathers, then he guards the fathers; the passage shows that only the constellations (the "gods" among which the sun is) between the winter and summer solstices (when the sun moves from south to north) were considered gods; it is likely that these gods were the Ādityas. There is also the case of the eighth Āditya, Mārtāṇḍa (cf. above 10.72.8–9), the "egg born dead," which Geldner interprets as representing the sun. I would speculate that Mārtāṇḍa may be Vṛtra, i.e. the constellation Scorpio (cf. 10.49.6), who is "killed" by Indra (Taurus) at the spring equinox. Scorpio was not "among the gods" (the tabu of "the dead egg") because he was located on the southern course of the sun.

likely to represent the seven directions mentioned in the Rig Vedic passage above.

The Ādityas represent more than the zodiacal constellations; in a more general way, they are the constellations marking the sun's path. This is shown by the presence of Mitra (Aldebaran), Indra (Taurus), and the Maruts (the Pleiades) among them.²⁷⁸ These stars/constellations, which are on or close to the ecliptic, do not belong together to a "classical" twelve-month zodiac.

A special case is represented by Sūrya, the sun, which is frequently called Āditya (cf. e.g., 1.50.13, 163.3, 191.9; 8.101.11).²⁷⁹ His presence among the Ādityas can be explained through its role of maintaining the cosmic order. In this sense, it is not surprising to find the sun grouped together with the stars, since all of them participate in the preservation of the cosmic order, which includes the keeping of time.

²⁷⁸ We remember that the Maruts are located on *ṛtāsya sádaneṣu* "the seat of the world's order" and that the Áśvins are connected to *pánthā ṛtāsya* (however, cf. n.280); see the section on the Maruts above.

²⁷⁹ Cf. Brereton (1981:2).

GENERAL CONCLUSIONS

In the last chapter of the present study I have argued against the theory that the three main Ādityas, Mitra, Varuṇa, and Aryaman represent personifications of abstract concepts such as contracts, alliances, or other social covenants. The connection between these gods and such agreements is only secondary and derived from the nature of these gods; this nature is stellar. The three main Ādityas represent the main star markers on the yearly path of the sun, that is, those that define the two solstices and the spring equinox (cf. fig. 5). Mitra is the star Aldebaran in the constellation Taurus, which announced the spring equinox around 3000 B C; Aryaman represents the star Regulus in the constellation Leo, which was the summer-solstice marker; finally, the most important of the Ādityas and one of the most important Vedic gods is Varuṇa, who represents the constellation Aquarius, the marker of the winter solstice. Varuṇa's cosmic importance is that he prevents the sun from sinking below the winter tropic. The other Ādityas are, with the exception of the sun, also stars and constellations on the sun's path.

The Ādityas, among whom the sun is included, maintain the cosmic order (Skt. *ṛtá*, Av. *aša*), which includes the keeping of time. They are, as cosmic primeval bounds, Aditi's sons, that is, the sons of "boundlessness." The "world order" these gods "preserve," namely *ṛtá*, refers to either the ecliptic or the time order derived from it (i.e. Time).

These conclusions open up the path for some considerations about the Indo-Iranian religion. The three main Ādityas are gods of Indo-Iranian origin, since they are also present in the Avesta.²⁸⁰ It is also likely that, given their role in the Iranian pantheon, they were supreme gods for the Indo-Iranians. The Indo-Aryans, on the other hand, introduced some innovations into the religion of their ancestors; they kept the main Ādityas among their most important gods, but, at the same time, they differentiated themselves from the Iranians by identifying Indra, who was only a minor deity in the Indo-Iranian pantheon, with Vṛtrahan, the great Indo-Iranian god representing the constellation

²⁸⁰ Thieme (1970) argues that the Ādityas in general are identical to the Zoroastrian *Aməša Spənta*, which would mean that these "zodiacal" constellations are of Indo-Iranian origin; the problem with this theory is that Mithra does not belong to the Iranian group; cf. Lommel (1927: 63).

Taurus.²⁸¹ The Indo-Aryans also added the Ásvins (Gemini) and the Maruts (the Pleiades),²⁸² which are spring constellations, to their pantheon as important divinities.²⁸³

The Indo-Iranians also venerated the planet Venus, which the Iranians called Tištriya. The Indo-Aryans worshipped Venus as one of their greatest gods, whom they called Agni "fire." This name reflects the fact that Venus is the brightest star in the sky. The general picture of the Indo-Iranian supreme gods is completed by the Milky Way (Skt. Soma, Av. Haoma), which, at that time, when electricity was not keeping people away from observing the celestial phenomena, must have been the most mysterious and spectacular phenomenon of the night sky.

The Indo-Iranian religion, therefore, is astral par excellence, which shows that those people of the third millennium BC had complex astronomical knowledge. The immediate question that arises concerns the origins of this knowledge. Certainly, its antiquity precludes it from being an import from the Babylonians. The older Sumerian culture, on the other hand, seems to be a good candidate for the origin of this putative import. This, in turn, would presuppose the existence of contacts between the Sumerians and the Indo-Iranians, a hypothesis that cannot be proved. The strongest reason, however, why such a connection is not possible is the fact that, while the Mesopotamian astronomical system is based on the moon, the Vedic system is based on the sun.²⁸⁴ The most plausible hypothesis, then, is that the Indo-Iranians got their astronomical knowledge from the shamanistic cultures of the Asian

²⁸¹ I would not exclude the possibility that the supreme god of the Indo-Iranians was, in fact, *Indra Vṛtraghan. Obviously, this would mean that the Iranians demoted the Indo-Iranian *Indra to an inferior position in their religion (a religious or ethnic dispute? Zoroastrianism?); in such case, the *Rig Veda* would represent better the Aryan religion.

²⁸² There is no indication that the Iranians venerated the Pleiades and Gemini (cf. n.117 above); therefore, until new evidence is put forth, these gods belong to the Indo-Aryan pantheon.

²⁸³ Oberlies (1998: 345–47) defines these two aspects of the Vedic religion as the (older) "Āditya-Religion" and the (younger) "Indra-Marut-Religion"; this is an overstatement, since Indra and Vṛṣṇa represent the same constellation (Taurus).

²⁸⁴ Obviously, this means that the well-known moon-based 27–28 Hindu constellation-system was invented/ adopted (Mesopotamia?) later than the Rig-Vedic system, which is clearly about the sun, and not about the moon (Skt. *candrāmas*; cf. Grassmann); this observation supports the idea that the Vedic religion was brought into India from the outside; Brennand (1896: 10; 17) argues that the prehistoric nomads of Central Asia used the solar zodiac before the luni-solar zodiac. Thompson (1989) discusses the sophisticated astronomical knowledge present in the Purāṇic literature (post-RigVedic and dealing with the luni-solar system).

steppes, whose mythologies reflect such knowledge;²⁸⁵ this hypothesis is supported by the fact that Indra's myth of the "release of the waters" at the spring equinox reveals the temperate climate conditions of the Asian steppes.

It is, therefore, not possible to assess with precision the origins of the Indo-Iranian astronomical knowledge. On the other hand, the question itself about the origins of this knowledge may be unanswerable in general, since astronomical lore may have been available and common to many cultures in Asia.²⁸⁶ Certainly, one cannot exclude the possibility that the Indo-Iranians could get some of this knowledge by themselves. In any case, given the complexity of the associations between myth and astronomical knowledge, unrivaled in any other known religion, this religion seems to be a spiritual product elaborated by the Aryans themselves.

²⁸⁵ The Altaic and Arctic peoples had astronomical knowledge; cf. Eliade (1972) 259–66.

²⁸⁶ Obviously, this conclusion seriously undermines the well-known belief that the oldest and most sophisticated astronomical knowledge in the region belongs to the Mesopotamian world.

BULLS AND COWS

A . BULLS

The nature of the Vedic gods, therefore, is celestial. The supreme god of the Vedic pantheon is Indra, who represents the constellation Taurus, the Great Bull of the sky, the greatest of all bulls (cf. e.g., 8.53.1: *jyēṣṭham ca vṛṣabhāṇām*), the bull par excellence, that is, the most representative bull (cf. e.g., 1.100.2: *vṛṣantamaḥ*). The characterization of Indra/Taurus through such epithets seems to be the result of a deliberately prolix religious language. Indeed, passages such as the one below appear to confirm this idea:

5.36.5. *vṛṣā tuvā vṛṣaṇam vardhatu dyaúr vṛṣā vṛṣabhyāṃ vahase háribhyām*
 sá no vṛṣā vṛṣarathaḥ suśipra vṛṣakrato vṛṣā vajrin bháre dhāḥ

5.36.5. Der bullenhafte Himmel (*dyaúr vṛṣā*) soll dich, den Bullen, stärken. Als Bulle fährst du mit den bullengleichen Falben. Du bist unser Bulle mit den Bullenwagen, der Schönlippiger. Du Bullenmutiger verhilf (uns) als Bulle (Anführer) zur Beute, o Keulenträger!

Surprisingly, however, Indra's epithets represent much more than a matter of religious verbosity. Thus, the epithet of "bull" does not apply only to Indra, but, sporadically, also to the other main Vedic gods. This fact is totally unexplained. I give below some relevant cases:

Agni:

10.8.1. *prá ketúnā bṛhatá yāti agnír á ródasī vṛṣabhó roravīti*
 divás cid ántām upamám úd ānaḥ apám upásthe mahiśó vavardha

10.8.1. Mit hohem Banner geht Agni voran; der Bulle brüllt beide Welten an. Er recichte hinauf selbst bis zu den äußersten Enden des Himmels. Im Schoße der Gewässer ist der Büffel groß geworden.

1.31.5. Du Agni bist ein Stier ... (*tu váṃ agne vṛṣabháh*)

1.108.3. *cakráthe hí sadhríāṇ nā́ma bhadráṃ sadhrīcīná vṛtrahaṇā utá sthaḥ*
tāv indrāgnī sadhríāñcā niśádyā vṛṣṇaḥ sómasya vṛṣaṇā́ vṛṣethām

1.108.3. Denn ihr habt euch vereint einen guten Namen gemacht und ihr seid vereint die Vṛtratöter. Lasst euch vereint nieder, Indra und Agni; ihr Bullen, schüttet in euch von bullenstarken Soma!

The Maruts:

1.37.5. *prá śaṃsā góṣu ághniyaṃ krī́lāṃ yác chárdho mārutam*

1.37.5. Preise das tändelnde marutische Heer, das unter Kühen der Bulle ist!

Soma:

9.2.1. ... Geh du, der Bulle, in Indra ein, o Saft [indo, i.e. the Soma drop — my note]! (*índram indo vṛṣā́ víśa*)

9.19.3. Der Bulle, der sich bei den Āyu's läutert ... (*vṛṣā́ punā́ná āyúṣu*)

The Ādityas:

5.63.3. *samrájā ugrá vṛṣabhá divás páti pṛthivyá mitrávaruṇā vícarṣanī ...*

5.63.3. Allherrscher, gewaltige Bullen, Herren des Himmels und der Erde sind Mitra und Varuṇa, die Ausgezeichneten.

The Ásvins:

7.70.7. *iyám manīṣá iyám ásvinā gír imáṃ suvṛktīm vṛṣaṇā́ juṣethām ...*

7.70.7. Dies Gedicht, diese Lobrede (ist für euch), ihr Ásvin. Erfreuet euch an diesem Lobpreis, ihr Bullen!

- 7.74.3. *á yātam úpa bhūṣatam mādghvaḥ pibatam aśvinā*
dugdhām páyo vṛṣaṇā jeniṣvāsū má no mardhiṣtam á gatam
- 7.74.3. Kommet her, machet euch fertig, trinket vom Süßtrank, Aśvin! Die Milch ist
 gemolken, ihr Bullen, ihr Besitzer angestammten Gutes.

These examples show clearly that the characterization of Indra as “the greatest of all the bulls” is not a matter of prolix language, but underscores the simple fact that Indra is, indeed, the “head” of the Vedic bulls, that is, the most powerful god among the other Vedic gods. He is the (greatest) Bull among the other bulls.

The fact that all the star-gods of the Vedic religion are called “bulls” point to a spectacular conclusion. In all likelihood, this epithet refers to the celestial nature of the Vedic gods. The verse 1.108.3 quoted above, for example, supports this idea, since Indra and Agni are invoked together as “bulls.” The celestial “bulls” then represent the main star-gods of the Vedic religion.²⁸⁷ Among them, the greatest is Indra, that is, Taurus.

The conclusion that the Vedic main star-gods are “bulls” may provide the answer to the issue whether the celestial Agni (Venus) was venerated as evening star as well. Thus, in the following passage Agni’s worship is performed both at dawn and in the evening; the fact that he is specifically called “bull,” that is, “star,” implies that the Vedic people knew of the identity between Venus’s two aspects:

- 7.3.5. *tám id doṣá tám uṣási yáviṣṭham agním átyam ná marjayanta nárah*
niśísānā átithim asya yónau dīdāya śócír áhutasya vṛṣṇaḥ
- 7.3.5. Ihn putzen die Männer abends, ihn am Morgen, den jüngsten Agni wie ein Rennpferd,
 indem sie dem Gast an seiner Geburtsstätte Appetit machen. Es leuchtet seine
 Flamme, wenn der Bulle (mit Schmalz) begossen ist.

The bulls are not the only extremely significant bovines in the *Rig Veda*; the Vedic cows are very important characters as well in this religion.

²⁸⁷ The Sky Dyaus is also a “bull” (cf. 5.36.5 above); this is expected, since he is also “celestial” (*sic!*).

B . C O W S

The "cows" considered as a collective noun represents an extremely important character in the myth of Indra slaying the dragon Vṛtra. It is well known that by slaying Vṛtra Indra released the "waters" and won/found the cows and the sun. These are the most important consequences of Indra's victory over the dragon. The "cows" are mentioned very often in the hymns addressed to Indra.²⁸⁸ To give some examples:

1.33.10cd. *yújaṃ vájraṃ vṛṣabhás cakra índro nír jyótiṣā támaso gá́ adukṣat*

1.33.10. ... Indra der Bulle hatte die Keule zu seinem Verbündeten gemacht; durch Licht hat er die Kühe aus dem Dunkel gezogen.

2.12.3. *yó hatvāhim áriṇāt saptá síndhūn yó gá́ udájad apadhá valásya*
yó ásmanor antár agníṃ jajāna saṃvṛk samátsu sá janāsa índraḥ

2.12.3. Der den Drachen erschlug und die sieben Ströme laufen ließ, der die Kühe heraustrieb nach Beseitigung des Vala, der zwischen zwei Steinen Feuer erzeugte, der Spielgewinner in den Kämpfen, der, ihr Leute, ist Indra.

2.19.3. *sá máhina índaro árṇo apám prá airayad ahihāchā samudrám*
ájanayat sūriyaṃ vidád gá́ aktúnā áhnām vayúnāni sādhat

2.19.3. Der mächtige Indra, der Drachentöter, trieb die Flut der Gewässer hin zum Meere. Er erzeugte die Sonne, fand die Kühe; er regelte die Reihenfolge der Tage durch die Nacht.

3.30.9–10. *ní sāmanām iṣirām índra bhūmim mahīm apārāṃ sádane sasattha*
ástabhnād dyāṃ vṛṣabhó antárikṣam árṣantu ápas tváyehá prásūtāḥ
alātrṇó valá índra vrajó góḥ purá hántor bháyamāno ví āra
sugān pathó akrṇon niráje gáḥ právan vāñiḥ puruhūtāṃ dhámantīḥ

²⁸⁸ Indra is the "lord of the cows" (*pátir gávām*; cf. below 3.31.4).

- 3.30.9–10. Du, Indra, hast die gütige (?), eifrige, große, unbegrenzte Erde an ihren Platz gesetzt. Er stützte den Himmel, der Bulle, den Luftraum; auf dein Geheiß sollen hier die Gewässer fließen./ Ohne zurückzufordern (?) hat sich Vala, der Rinderpferch, noch vor deinem Schlage furchtsam aufgetan. Er machte die Wege frei, um die Rinder herauszutreiben. Die blasende Chöre (der Marut) ermutigten dich, den Vielgerufenen.
- 10.89.7. *jaghāna vṛtrām svádhitir váneva rurója puro áradan ná síndhūn*
bibhēda girīm návam ín ná kumbhām á gā índro akṛṇuta svayúgbhiḥ
- 10.89.7. Er erschlug den Vṛtra wie die Axt die Bäume, er brach die Burgen, er fürchte gleichsam die Ströme. Er zerbrach den Berg wie einen neuen Krug, Indra trieb die Kühe ein mit seinen Verbündeten.

It has not been possible so far to find a satisfactory solution to the issue of the meaning of these cows. I mention here just two interpretations, which are the most important ones.²⁸⁹

The first theory is that the cows refer to the "waters" Indra released. This interpretation is based on the fact that, indeed, in some Rig Vedic passages the waters are compared to cows. The following two passages are relevant in this respect:

- 1.32.2. *áhann áhim párvate śísriyāṇám tvāṣṭāsmāi vājraṃ svaríyaṃ tatakṣa*
vāśrá iva dhenávaḥ syándamānā āñjaḥ samudrām áva jagmur ápaḥ
- 1.32.2. Er erschlug den Drachen, der sich auf dem Berge gelagert hatte. Tvaṣṭṛ hatte ihm die sausende Keule geschmiedet. Wie die brüllende Kühe (zu den Kälbern) eilend liefen die Gewässer stracks zum Meere.
- 1.61.10. *asyéd evá śávasā śuśántaṃ ví vṛṣcad vājreṇa vṛtrām índraḥ*
gā ná vrāṇā avánīr amuñcad abhí śrávo dāvāne sácetāḥ

²⁸⁹ Cf. Macdonell (1894: 59–63).

- 1.61.10. Durch seine Kraft allein zerhieb Indra mit der Keule den wütenden Vṛtra. Die Flüsse, die wie die Kühe eingesperrt waren, befreite er, auf Ruhm (ausgehend), zu schenken einverstanden.

One can see, however, that in these passages the cows are not identified with the waters, but only compared to them (cf. Skt. comparative particles *iva* and *ná*). More precisely, the released waters are compared to freed or lowing cows. This fact raises doubts on the presupposed identity between the two. In fact, in many of the passages quoted above (cf. above 2.12.3; 2.19.3; 3.30.9–10; 10.89.7), the waters and the cows seem to be different from each other, since Indra is said to both release the waters and find/win the cows. To put it differently, the fact that these two deeds of Indra are mentioned together would certainly be strange, if they were identical.

That the waters and the cows are not identical²⁹⁰ but clearly different entities may be revealed in the following verse:

- 3.35.8. *imāṃ náraḥ párvatās túbhyam ápaḥ sám indra góbhīr mādhumantam akran ...*

- 3.35.8. Diesen Soma haben die Männer, die Berge, die Wasser zusammen mit der Kühen für dich, Indra, zu einem Süßen bereitet ...²⁹¹

Another reason why the cows in the myth of Indra cannot be identified with the "waters" is their frequent association with Dawn, which would be hard to account for if these cows represented the waters. I give below some relevant passages, in which it is unlikely that the cows could be equated with the waters.

- 1.92.2. *úd apaptann aruṇá bhānávo vṛthā suāyújo áruṣīr gá ayukṣata
ákrann uṣáso vayúnāni pūrváthā rúśantam bhānám áruṣīr aśíśrayuḥ*

²⁹⁰ Geldner remarks that in hymn 10.19, which is dedicated to the cows, the waters are not mentioned, in spite of the ancient traditions (*Anukramaṇī*) that considered the two as being the same thing. The same goes for 6.28, which is also dedicated to the cows.

²⁹¹ Geldner interprets the passage as referring to the preparation of the Soma-drink.

- 1.92.2. Die rötlichen Lichter sind plötzlich aufgefliegen; sie (Uṣas — cf. Geldner) haben ihre rötlichen leichtgeschirrten Kühen angeschirrt. Die Uṣas haben sie wie früher die Zeiten bestimmt; die Roten haben ihr helles Licht aufgesteckt.
- 1.124.11. *áveyám aśvaid yuvatīḥ purástād yuñkté gávām aruṇānām ánikam
ví nūnám uchād ásati prá ketúr grhám-grham úpa tiṣṭhāte agníḥ*
- 1.124.11. Im Osten schimmerte die junge Frau [Uṣas; the hymn is dedicated to Dawn — my note] hernieder, sie schirrt die Reihe ihrer roten Rinder an. Jetzt möge sie aufleuchten; ihr Banner soll vorausgehen: in jedem Hause stelle sich das Feuer an.
- 3.31.4. *abhí jaítrīr asacanta sprdhānām máhi jyótis támaso nír ajānan
tām jānatīḥ práty úd āyann uṣásah pátir gávām abhavad éka índrah*
- 3.31.4. Dem Streiter schlossen sich die siegreichen (Scharen?) an; sie fanden das große Licht aus dem Dunkel heraus. Die Morgenröten erkannten ihn und kamen ihm entgegen aus (der Höhle). Indra wurde der alleinige Besitzer der Kühe.
- 4.52.2. *ásveva citrá áruṣī mātá gávām ṛtāvarī
sákhābhūd aśvínor uṣáḥ*
- 4.52.2. Buntfarbig, rötlich wie eine Stute, die zeitige Mutter der Kühe, ist Uṣas die Freundin der Ásvin geworden.
- 7.75.7. *satyā satyébhir mahatí mahádbhir deví devébhir yajatā yájatraiḥ
rujád dṛlḥāni dádad usrýāṇām práti gáva uṣásam vāvaśanta*
- 7.75.7. Die Wahrhafte soll mit den Wahrhaften, die Große mit den Großen, die Göttin mit den Götter, die Opferwürdige mit den Opferwürdigen, die Verschlüsse erbrechen und Kühe verschenken. Die Rinder brüllen der Uṣas entgegen.
- 7.79.2. *ví añjate divó ánteṣu aktún víso ná yuktá uṣáso yatante
sám te gávas táma á vartayanti jyótir yachanti savitéva bāhū*

7.79.2. Sie färben das Dunkel an des Himmels Saum; wie kampfgerüstete Stämme wetteifern die Uṣas' miteinander. Deine Rinder rollen die Finsternis zusammen; sie halten das Licht hoch wie Savitr̥ seine Arme.

In all these passages, no presence of a watery element can be detected. The cows are associated with the rising sun and dawn (1.62.5); dawn harnesses its ruddy cows (1.192.2; 1.124.11); dawn is the cows' mother; the cows low towards the dawn (7.75.7); finally, the cows roll up darkness and, like Savitr̥, hold (or stretch; cf. Skt. *yam/yachanti*) their arms (or light!) up.

Passages such as the ones above gave rise to the second important theory concerning the meaning of the cows. Thus, the cows would represent the ruddy rays of morning light, or the red morning clouds.²⁹²

This latter theory seems to explain well some passages in which the cows are associated with dawn. I do not see, however, how it can explain the fact that these cows "low" towards dawn. In addition, if these cows represented the beams of morning light, that is, dawn itself, it would make no sense for them to be invoked along with dawn (cf. above 1.62.5). Also, it cannot explain why Indra the "Bull" is called "the lord of the cows." Finally, there seems to be no connection between Dawn and the waters.

To find a more powerful interpretation of the cows, I quote below a passage that shows that the cows are associated not only with dawn but also with the night.

3.34.3. *índro vṛtrám avṛṇoc chárdhanītiḥ prá māyínām aminād várpaṇītiḥ*

áhan víaṃsam uśádhag váneṣu āvír dhénā akṛṇod rāmiyáṇām

3.34.3. Indra wehrte den Vṛtra ab durch das Mittel der Stärke; er vereitelte (die Listen) der Listigen durch das Mittel der Verwandlung. Er erschlug Vyāṃsa in den Hölzern gierig brennend. Er machte die Stimmen der Nächte offenbar.

Geldner's translation of this passage ("he made the voices of the night visible") is not very accurate. The last hemistich above (3.34.2d), *āvír dhénā akṛṇod rāmiyáṇām*, literally means "he (Indra)

²⁹² Cf. Macdonell (1894: 47).

made the cows of the night visible." Given the context of the present discussion, this new translation completely changes the perspective on the meaning of the cows.

Let's sum up. Indra "the Bull" represents the constellation Taurus, which appears in the morning sky at the spring equinox and brings rain to the land. Indra is the "lord of the cows." He finds/wins the cows by releasing the waters. The cows appear at dawn, and they low towards dawn. The cows also belong to the night. Indra makes the night cows visible after he defeats Vṛtra (and releases the waters). The cows are associated with light.

All these facts transparently hint at the real nature of the cows; in all likelihood, the "cows of the night," whose "lord" is Indra, represent the stars.

The identification between the cows and the stars explains why Indra, the "lord of the cows," "finds" the cows and makes them "visible"; it also explains why the cows are so often associated with the waters. Thus, the sky clears at the spring equinox when Taurus appears in the sky and provokes the spring rain to fall; in other words, this is the time of the year when the stars become visible again on the sky's firmament. As for the cows of dawn, these must be the stars that rise from the east just before dawn; the splendid metaphor of the cows "lowing at the dawn" wonderfully describes the transition from night to day.

The fact that the cows do represent the stars may also be revealed in 4.52.2 (quoted above), in which Dawn is said to be "the 'lawful' or 'law-abiding' mother of the cows" (Skt. *mātā gāvām ṛtāvarī*). The Sanskrit word *ṛtāvarī* is derived from *ṛtā* "(cosmic) order," which, as I have showed in this study, has to do with the keeping of time. The whole passage then makes perfect sense, since, indeed, the keeping of time in the Vedic times (and in antiquity, in general) was possible only through the observation of the positions of the stars at dawn.

There is also a special Cow whose role is pivotal in the cosmic creation. This Cow is Aditi, the "unboundlessness," "die Ursprünglichkeit".²⁹³

8.101.15d. Tötet nicht die unschuldige Kuh, die Aditi! (*mā́ gā́m ánāgām áditim vadhiṣṭa*)

1.153.3a. Es strotzt Aditi, die Milchkuh (*pīpā́ya dhenúr áditir*) ...

²⁹³ For Aditi, cf. Oberlies (1998: 231–34); see also the section above on the Ādityas.

Who Aditi is has remained a mystery so far, although it has been conjectured that this divine cow represents either the earth or the atmosphere, that is, the space between the sky and the earth.²⁹⁴ An additional and difficult issue concerns the interpretation of the phrase *áditer upástha* "the lap of Aditi," which appears in a few Vedic passages (cf. e.g., 7.88.7; 9.74.3; 10.5.7). Oberlies (1998: 232), who identifies Aditi with the earth, equates the lap of Aditi with the lap of earth. Let us consider the following passage:

9.74.5. *árāvīd aṃśúḥ sácāmāna ūrmínā devāvíyam mánuṣe pinvati tvácam*

dádhāti gárbham áditer upástha á yéna tokám ca tánayam ca dhāmahe

9.74.5. Der Stengel (Soma plant) hat gebrüllt, sich mit der Woge vereinend; er schwellt für dem Menschen den göttereinladenden Schlauch an. Er legt in der Aditi Schoß den Keim, durch den wir Samen und leibliche Nachkommenschaft erlangen.

In this passage, Soma (that is, the ritualic plant that symbolizes the celestial Soma) puts his seed in the lap of Aditi. Soma's seed eventually generates offspring for the human race. Soma, however, does not generate the human race only, but all beings in general; he is a Creator:

9.86.28. *távemāḥ prajā diviyásya rétasas tuvám víśvasya bhúvanasya rājasi*

áthedám víśvam pavamāna te váse tuvám indo prathamó dhāmadhá asi.

9.86.28. Von deinem himmlischen Samen sind diese Geschöpfe; du herrschest über die ganze Welt, und in deiner Gewalt ist dieses All, o Pavamāna; du, o Saft, bist der erste Schöpfer.

The passages above clearly show that Soma "the bull" impregnates Aditi "the cow" (or Aditi's lap) with his divine seed (sperm).²⁹⁵ Therefore, the creation of the Universe is the result of the divine union between the "bull" Soma and the "cow" Aditi.

There is, however, another sacred union that generates the world. This is that between heaven

²⁹⁴ Cf. Oberlies (1998: 232).

²⁹⁵ Cf. n. 108 above.

(Dyaus) and earth (Pṛthivī). It is well-known that the sky, which is a "bull" (cf. above), impregnates mother Earth with its seed.²⁹⁶ This latter union seems to be different from the former.

The conclusions of the present study, however, show that it is possible to reconcile these two apparently different sacred unions. I conjecture that these two versions symbolize the same process, which is the creation of cosmos through the sacred union between a bull and a cow. The common element of these sacred unions is the Sky. Indeed, since Soma represents the Milky Way (the divine sperm), whose place is obviously in the sky, the seed that generates the world is celestial. This seed belongs both to the Sky and to Soma.²⁹⁷

It remains now to analyze the relation between the earth and Aditi. It seems clear that whatever Aditi might represent this thing must include the earth in it. The fact that Aditi's name most likely means "unboundedness" seems to indicate that Aditi is more than the earth; this would mean that, in fact, Aditi represents the whole cosmos between the sky and the earth; this is the space that was ordered by the Ādityas. Given this, "the lap of Aditi" might represent the earth; this is, of course, conjectural.

The generation of cosmos through the celestial seed seems to have a spectacular eschatological correlate. This concerns the possibility that the Rig Vedic world of the dead is indeed celestial.²⁹⁸ The *Rig Veda* shows this world as located between the sun's tropics, a celestial region that represents the "seat" of *ṛtá* (cf. fig. 5); this is the place in which the greatest Vedic gods are located. I requote below 9.113.7 (already quoted in the section on Pūṣan):

²⁹⁶ Cf. Oberlies (1998: 261–62); Parjanya is also an "impregnator"; cf. Oberlies (1998: 200).

²⁹⁷ Parjanya also enters this category; cf. above n.301.

²⁹⁸ See the section on Pūṣan (n.221); Oberlies (1998: 468–72, esp. 471 n.89) notes that the *Rig Veda* displays the eschatological belief that the dead reach (become) the stars; however, following some of Oldenberg's hypotheses (1894: 546–48), he argues that this conception is late, appearing mostly in the tenth Maṇḍala; the example below shows that this conception is also present in the ninth Maṇḍala, which is older than the tenth; for a discussion about the age of the Maṇḍalas, cf. Oberlies (1998: 541–45); Bodewitz (1994). The eschatological conceptions do not appear in the "family" books (II–VII) probably because those mainly contain hymns dedicated to the Vedic main stars, and, therefore, are less likely to express concern for the world of the dead.

9.113.7. *yātra jyótir ájasraṃ yásmiṃ loké súvar hitám*

tásmin máṃ dhehi pavamāna amṛte loké ákṣita ...

9.113.7. Wo das ewige Licht ist, in welche Welt die Sonne gesetzt ist, in diese versetze mich, o Pavamāna [that is, Soma — my note], in die unsterbliche, unvergängliche Welt ... ²⁹⁹

That the world of the dead is celestial emerges even clearer in 10.68.11, in which the (dead) fathers are said to be stars that ornament the sky:

10.68.11. *abhí śyāvāṃ ná kṛśanebhir áśvaṃ nákṣatrebhiḥ pitáro dyám apiṃśan*

rātryāṃ támo ádadhur jyótir áhan bṛhaspátir bhinád ádriṃ vidád gāḥ.

10.68.11. Die Väter schmückten den Himmel mit den Gestirnen aus wie eien Rappen mit Perlen. Die Finsternis verlegten sie auf die Nacht, auf den Tag das Licht. Bṛhaspati spaltete den Fels, er hat die Kühe gefunden.

There are also other passages in which the same idea emerges; thus, in 10.107.2, the pious (fathers) go to the sky, to the region between the sun's tropics:

10.107.2a. *uccá diví dáksṣiṇāvanto asthur yé áśvadāḥ sahá té súriyeṇa*

10.107.2a. Hoch oben im Himmel haben die Dakṣiṇāgeber ihren Stand, die Rosseschenker, die sind bei der Sonne.

10.154.5. *sahásraṇīthāḥ kaváyo yé gopāyānti súriyam*

ṛṣīn tápasvato yama tapojám ápi gachatāt

10.154.5. Die als Seher tausend Weise kennen, die die Sonne behüten [the tropics — my note!], zu den Kasteiung übenden Ṛṣi's, o Yama, zu den durch Kasteiung (neu)geborenen soll er gelangen!

²⁹⁹ The Avestan Haoma is also a vehicle to the celestial world; cf. Oberlies (1998: 469 n.75).

That the pious sacrificer or the wise one goes to the celestial world (the place of the pious!) can be also revealed in the following:³⁰⁰

1.31.15cd. ... *svādukṣādmā yó vasataú siyonakṛj jīvayājāṃ yájate sópamā diváh*

1.31.15cd. ... Wer süße Speise vorsetzt, in seiner Wohnung ein gutes Lager bereitet und ein lebendes Tier opfert, der kommt zu oberst im Himmel.

1.73.7.ab. *tuvé agne sumatím bhíkṣamāṇā diví śrávo dadhire yajñíyāsaḥ ...*

1.73.7. Indem sie von dir, Agni, sich die Gunst ausbitten, haben die Opferwürdigen im Himmel Ruhm erworben.

1.125.5ab. *nākasya pṛṣṭhé ádhi tiṣṭhati śritó yáḥ pṛṇāti sá ha devéṣu gachati*

1.125.5. Auf die Höhe des Himmels versetzt bleibt er da. Wer spendet, der kommt zu den Göttern.

10.15.14. *yé agnidagdhā yé ánagnidagdhā mādhye diváh svadháyā mādáyante
tébbhiḥ svaráḥ ásunītim etāṃ yathāvaśāṃ tanúvaṃ kalpayasva*

10.15.14. Die im Feuer verbrannt und nicht im Feuer verbrannt, in der Mitte des Himmels sich der Geisterspeise erfreuen, mit denen (geh) als freier Herr diesen Weg ins Jenseits! Nimm nach Wunsch einen (neuen) Leib an!

10.56.1. *idám ta ékam pará ū ta ékaṃ trtíyena jyótiṣā sám víśasva
saṃvéśane tanúvaś cārur edhi priyó devānām paramé janítre*

10.56.1. Dies ist dein eines (Licht) und im Jenseits dein eines: mit dem dritten Lichte vereinige dich! Bei der Vereinigung mit einem Leib sei schön, den Göttern lieb in der höchsten Heimat!

These considerations show that, if the interpretation of the world of the pious dead as celestial

³⁰⁰ For a detailed treatment of the issue, cf. Bodewitz (1994: 23–41 esp. 32–34).

is correct, the Vedic religion is a coherent religion about reaching for the stars.³⁰¹ The essence of the human race is purely celestial (stars); born from the stars,³⁰² man goes back to the stars after death.³⁰³ Most importantly, the vehicle that brought him to earth is the same with the one that will take him back to the stars;³⁰⁴ this is Soma, that is, the Milky Way.³⁰⁵

³⁰¹ As the examples above show, not everybody reaches the celestial yonder world but only the pious (cf. Oldenberg (1894: 534)); evil (impious) people go to a place of darkness, some sort of cosmic gloomy pit, which is described by phrases such as *nírṛter upásthāt* (cf. e.g., 10.18.10d; 10.161.2c), *támas* (cf. e.g., 10.89.15c = 10.152.4d), *kartá* (2.29.6: " ... ihr Götter ... behütet uns vor dem Fall in die Grube"), *vavré* (7.104.3: Indra und Soma! Stoßet die Übeltäter in die Grube ["hidden place" — my note] ...), *ásat* (4.5.14: *anāyudhása ásatā sacantām* "Wehrlos sollen sie (the impious) dem Nichts verfallen!"); Bodewitz (1994, esp. 24, 29–36) notes that there is no certainty that this place ("the Underworld") is the equivalent of hell since, in his view, judgment and punishment do not play a role ("moral aspects"). I would argue for the opposite; since the pious go to heaven (the "moral aspect!"), the impious must go to the opposite place; where this place is located is not certain, but, in any case, it is outside the region between the sun's tropics; the Vedic word *núrṛti* shows this clearly since it is opposed to *ṛtá*, which is "the world of the sun." One can further speculate that, since this place is "hidden" and "gloomy," its location is towards the southern celestial pole (within the Antarctic circle), which can never be seen from Earth (the "dark" and "hidden" place!); for this celestial southern location, cf. above n.221; in ŚB. 13.8.1.5, it is said that the gate to the world of the Fathers is located in the south-east (the winter tropic!); cf. Oldenberg (1894: 547).

³⁰² Cf. 1.164.33.ab: *dyaúr me pitá janitá nábhīr átra bándhur me mātá prthivī mahīyām* "Der Himmel ist mein Vater, der Erzeuger, dort ist mein Nabel; diese große Erde ist meine Sippe, die Mutter."

³⁰³ The way birth and death are related in the *Rig Veda* (from the stars, back to the stars) shows that, in all likelihood, this Vedic eschatological belief is not a later addition to this religion, but represents the original Vedic (Aryan!) conception of the afterlife. Therefore, this is not a conception that belongs to a non-Aryan, Dravidian influence, as some assumed; cf. Bodewitz (1994: 30, 37). The Underworld (Hell!) must also be seen as part of this Aryan conception (*pace* Bodewitz (1994: 25)); cf. Oldenberg (1894: 544).

³⁰⁴ The ritualic ascension to the stars is wonderfully described in 8.48.3ab: *ápāma sómam amṛtā abhūma/ áganma jyótir ávidāma devān* "Wir haben jetzt Soma getrunken, unsterbliche sind wir geworden; wir sind zum Licht gelangt, wir haben die Götter gefunden"; cf. also 10.95.18cd: *prajā te devān haviṣā yajāti suvargá u tvám ápi mādayāse* "Deine Nachkommenschaft wird die Himmlischen mit Opferspenden verehren. Und im Himmel wirst auch du dich erfreuen"; cf. Oberlies (1998: 468).

³⁰⁵ That Soma is related to the stars is shown in RV 1.91.22, in which Soma is said to have generated the stars ("the cows"): *tuvám imá óṣadhīḥ soma víśvās/ tuvám apó ajanayas tuvám gāh/ tvám á tatantha urú antárikṣam/ tuvám jyótiṣā ví támō vavartha* "Du hast alle diese Pflanzen, o Soma, du die Gewässer, du die Kühe hervorgebracht. Du hast den Luftraum

C. A NOTE ON YAMA

The existence of a celestial world of the dead raises the issue of the nature of Yama, the well-known Vedic king of the dead.³⁰⁶

It is important to note that, although there are only a few Rig Vedic passages that describe Yama's location, there can be no doubt that Yama resides in the sky.³⁰⁷ Thus, in the verse 9.113.7 mentioned above, the worshipper invokes Soma to take him to the sky; the following verse (9.113.8) makes it clear that the sky is the place of Yama:

9.113.8. *yátra rájā vaivasvató yátrāvaródhanam diváh*
 yátrāmúr yahvátīr āpas tátra mām amṛtaṃ kṛdhi
 índrāyendo pári srava

9.113.8. Wo Vivasvat's Sohn (Yama) König ist, wo der verschlossene Ort des Himmels ist, wo jene jüngsten Gewässer sind, dort mache mich unsterblich! Fließe für Indra ringsum ab, o Saft!

The same idea is present in the following verse:

10.14.8ab. *sám gachasva pitṛbhiḥ sám yaména*
 iṣṭāpūrténa paramé víoman

10.14.8. Triff mit den Vätern zusammen, mit Yama, mit deinen Opfern und den (anderen) guten Werken im höchsten Himmel.

In other passages, it is said that Yama was the first to find the way that leads to the sky; this is the way the worshipper wants to take:

ausgespannt; du hast mit dem Lichte (Milky Way!) das Dunkel aufgedeckt"; Soma's light was seen as hallucinatory, that is, generated by a state of *enthusiasmós* (!!!); cf. Oberlies (1998:495–96 and 495 n.181); also, Bodewitz (1994:39).

³⁰⁶ It is well known that Yama is Indo-Iranian (Ir. Yima); cf. Oberlies (1998: 487–89).

³⁰⁷ This was seen by Oldenberg (1894: 534).

- 10.14.2ab. *yamó no gātúm prathamó viveda naiṣā́ gávyūtir ápabhartavá u*
- 10.14.2. Yama hat uns zuerst den Weg aufgefunden; dieser begangene Weg ist (uns) nicht mehr zu entreißen ...
- 10.14.7. *préhi préhi pathíbhiḥ pūrviyébhīr yátrā naḥ pūrve pitáraḥ pareyúḥ
ubhá́ rájānā svadháya mādantā yamám paśyāsi váruṇaṃ ca devám*
- 10.14.7. Geh hin, geh hin auf den früheren Wegen, auf denen unsere Vorväter verzogen sind. Beide Könige, die sich an der Geisterspeise ergötzen, den Yama und den Gott Varuṇa sollst du schauen.

To sum up: Yama is located in the sky³⁰⁸ along with the Fathers, whose king he is; the Fathers are stars; Yama was the first who ascended to the sky; Yama and Varuṇa are the two kings whom the dead man sees on reaching heaven.

Yama's characteristics hint at his celestial nature; as king of the stars of the Fathers, Yama must be a star as well. Given that the world of the dead is located between the sun's tropics, this star must also be related to the tropics. In addition, as the verse 10.14.7 shows, Yama must be close to Aquarius *alias* Varuṇa, which was located on the winter tropic in the Indo-Iranian times.

The significant star that is located on or close to the winter tropic is Sirius, the brightest fixed star in the sky (cf. figs. 2; 8–9). As I noted above, in the chapter on Pūṣan, this star was located very close to the winter tropic in 2000 BC ($\sim -20^\circ$ southern declination). In other words, Sirius' trajectory in the sky was the same as that of Aquarius. This accounts well for its being mentioned together with Aquarius as the first stars the deceased sees on reaching the celestial region between the sun's tropics.

³⁰⁸ An interesting passage is 1.35.6ab: *tisró dyávaḥ savitúr dvá upásthāñ ékā yamásya bhúvane virāṣāt* "Drei Himmel gibt es, zwei sind der Schoß des Savitṛ, der eine ist in der Welt des Yama, der männerbezwingende"; if Savitṛ is Mercury, then the "three skies" can be interpreted as the (starry) skies at dawn and dusk (the "lap of Mercury"; when the "star" Savitṛ can be observed), and the night starry sky ("Yama's world"). I would also note that in later Pahlavi the planet Mercury was called Tīr; it is possible to see this Iranian word as derived from an Aryan *Savitṛ; the derivation from Tištriya is also possible, in which case Tištriya (Apām Napāt) would rather represent Mercury than Venus; cf. Waerden (1974:188).

It also accounts for why Yama was the first who found the "path" to the sky; this may be a reference to Sirius's location at the edge of the celestial region between the tropics.³⁰⁹

To conclude: Yama's celestial nature shows that the Vedic eschatology is harmoniously integrated within the Vedic religious system.

CONCLUSION ON "BULLS" AND "COWS"

The final chapter of the present study is extremely important because it sheds some light on the development of the Vedic religion. Thus, it seems that the main Vedic divine characters acquired some of their most important features from Taurus, the Great Bull of the sky, which is an old constellation, probably older than the Aryan religion itself. The Vedic religion is an astral religion of the celestial Bovine,³¹⁰ that is, a religion whose main characters or objects of worship are celestial bulls and cows. The divine bulls represent the main star-gods of this religion (the "heads"), whereas the cows represent the other stars; all these celestial characters have the "great bull" Indra as their supreme god. The Vedic star-gods are literally grouped in the sky around the constellation Taurus. In other words, the celestial region worshipped by the Vedic people (and by the Aryans in general) is not very extended; it represents that space around the constellation Taurus which, in Vedic times, appeared in the morning sky at and after the spring equinox.³¹¹ This shows once more that the Vedic religion was a religion of the spring season, which was essential for the survival of the primitive agricultural communities.

These general observations do not mean that the Vedic star-gods were worshipped as divine bovines from the moment of the conception of this religion.³¹² The worship of the stars was probably a

³⁰⁹ The identification of Yama's dogs with Canis Minor and Canis Maior (cf. above n.221; 306) seems to fit the hypothesis that Yama is Sirius; indeed, as I noted above, Sirius is part of Canis Maior.

³¹⁰ This reminds us of the well-known symbol of the taurine horns in the Egyptian religion; interestingly, Brennand (1896: 12) thinks that the worship of the bull in India has its origin in the worship of Taurus; cf. above n.13.

³¹¹ The Ādityas certainly represent an exception to this.

³¹² The Avesta does not seem to display such worship of the "bovines."

religious practice that preceded the birth of the Vedic (or Aryan) religion.³¹³ The Vedic religion, however, represents the spectacular culmination of these religious practices, through which disparate parts came to be integrated into what appears to be a highly coherent religious system.

³¹³ The case of the earliest Mesopotamians is well known. The Egyptians also may enter this category.

A NOTE ON THE "UNIVERSAL MYTH" OF THE HERO SLAYING THE DRAGON

The theory that the myth of Indra slaying Vṛtra is essentially an astronomical one (the "cosmic fight" between Taurus and Scorpio) raises an important issue, which concerns the relation between the Vedic myth and the more general myth of the hero slaying the dragon.

The myth of the hero slaying the dragon is quasi-universal, that is, it can be met with in a vast number of cultures all over the globe; these cultures may or may not be related with one another.³¹⁴ There are two main explanations for this fact: a. diffusion; b. derivation from structural characteristics of the human mind. Diffusion entails that common similarities between widely dispersed myths are the result of a process of gradual osmosis from one culture to another; however, given both the antiquity and the wide dispersal of such myths, it is not possible to determine the "universal" center of the dispersion. To overcome this huge obstacle, the other solution, which derives from Jung's theories on the human psychology, presupposes that the human mind is capable of creating such stories independently of time and space.³¹⁵ Given these considerations, it is obvious that a complete understanding of the Vedic myth is not possible without looking for its possible origins in the larger context of the Indo-European mythology.

The Indo-European paradigm of this myth has been recently studied by Watkins (1995). In his study, Watkins argues that the language used to describe the slaying of the dragon in the myth is formulaic, being met with in many Indo-European languages. He therefore postulates a common Indo-European basic formula of the type HERO SLAYS SERPENT, which survived in the daughter-languages.³¹⁶ This certainly raises the possibility that the Vedic myth is inherited in its essential aspect from the common Indo-European mythology.

³¹⁴ For a recent survey, see Witzel (2008); the myth can be met with in a form or another all over the globe: in Japan, the Americas, Eurasia.

³¹⁵ Cf. Witzel (2008: 264–65).

³¹⁶ Cf. Watkins (1995: 301).

Watkins's conclusions seem to contradict the present theory that the meaning of the Vedic (Aryan) myth is astronomical; the reason for this is obviously the fact that there is no indication that this myth has any astronomical significance in the other inherited forms.

The contradiction mentioned above, however, is only apparent. The Vedic myth has three essential peculiarities, which make it completely distinct from other possibly inherited myths. The first one, which was already noticed by Benveniste (1934: 182–84), is the presence of the mythical motif of the release of the pent-up waters. This part of the myth is purely Indo-Iranian.³¹⁷ The second peculiarity is the one that clearly emerges from the present study: the Vedic "hero" that slays the serpent is not any hero, but a "bull"; Indra is a celestial bull. The third one is the presence of Soma in the Aryan myth; I do not see any connection between this fact and the "universality" of the myth of the hero slaying the dragon.

There is also a fourth argument in favor of my observation that the Vedic myth is very different from the other (possibly) inherited forms/motifs. This is the extreme importance this myth has in the Vedic religion. Indra's slaying of the dragon is mentioned over and over again in the Vedic hymns dedicated to Indra; the Vedic religion itself is built around this motif/myth; this fact is unparalleled in any of the (possibly) inherited mythologies.

The observations above show that there is no contradiction between Watkins' conclusions and mine. The general formula of the hero slaying the serpent may be Indo-European, but the myth of the Bull slaying the serpent may be not.³¹⁸ The Vedic myth is fundamentally different from the others.

The conclusion is that, whatever the "original," Indo-European myth/motif of the hero slaying the dragon may have been, the Vedic (Aryan) myth of the Bull slaying the serpent is likely to have a different and peculiar meaning, which, as I tried to show in the present work, is astronomical.

The most powerful argument in favor of my theory, however, is that the use of an initial mythological motif or folk tale to describe celestial phenomena is not something unusual. It is well known that the constellations we use even today to describe the night sky reflect the transposition of

³¹⁷ Cf. Watkins (1995: 298); West (2007:255–59) draws on some parallels from the Greek (Zeus and Typhoeus) and Norse myths, in which the dragons seem to be associated with water. These associations are, in my view, doubtful; in the Greek and Norse myths, the waters are only alluded to and bear no special importance, whereas in the Vedic myth they are essential.

³¹⁸ There is no indication of the presence of this Bull in other Indo-European mythologies.

mythological motifs in the sky. A famous example is that of the constellation Gemini. This constellation, which is very old,³¹⁹ is the celestial representation of the well-known "universal" characters of the Divine Twins.³²⁰ The Greek Castor and Pollux and, as I showed in the present study, the Vedic Ásvins reflect well this process. Therefore, it is not far-fetched to assume that the myth/motif of the hero slaying the dragon, which is so pervasive throughout the globe in myths, folk tales etc., underwent the same fate and that the Vedic (Aryan) myth reflects the transposition in the sky of some Indo-European motif of the hero slaying the dragon.³²¹ It is also worth mentioning that, in other situations, it was the zoomorphic constellation that generated a mythological motif or even an artistic representation; thus, Hartner (1965) analyzed the astronomical meaning of the Lion-Bull combat (Leo vs. Taurus) represented on very old (fourth millennium BC) clay tablets from the Near East; Ulansey (1989), on the other hand, showed that in the Roman Empire the well-known "myth" of Mithra slaying the Bull was based on the celestial positions of the constellations Perseus and Taurus.

* * *

The conclusion that emerges from the above is that the use of the comparative method in mythology, albeit essential in many cases to the reconstruction of an original form, does not always lead to clear and reliable results. In this respect, it is worth mentioning below a recent comparative treatment of the myth of Indra slaying Vṛtra.

Janda (2010: 57–9), drawing on an old hypothesis of Adalbert Kuhn, equates the epithet *āśáyāna* (Germ. *darauf-liegend* "lying upon"; cf. Greek *keĩtai* "to lie"), which characterizes Vṛtra in few Rig Vedic passages (cf. 2.11.9; 5.30.6), with the Greek *Ōkeanós*, which, for the historical Greeks, was the word designating the god of the cosmic river surrounding the earth. To support this hypothesis, Janda

³¹⁹ It was known by the Babylonians; cf. Kidd (1997: 235).

³²⁰ Cf. West (2007: 185–191).

³²¹ I would not exclude the possibility that, in some cases, the astronomical myth may be at the origin of all the different myth versions. This is, of course, conjectural and cannot be proven. This hypothesis seems to be more plausible in the case of the Divine Twins, who are "sons of the sky" (cf. the Dioskouroi, who are the sons of Zeus in the Greek myth); Puhvel (1987: 228–29) mentions the case of the Latvian divine horsemen (*Dieva dēli* "sons of the sky") who woo the sun's daughter (*Saules meita*); certainly, this may mean that this myth is of IE date; however, the Latvian data does not seem to have any astral connotations.

appeals to mythology and shows a picture of this god, in which Okeanos apparently is represented as having a snake-body (cf. *LIMC* 7/2, 22). In Janda's view, both the etymology and that artistic representation would point to the conceptual similarity between the god Okeanos and the Indic Vṛtra. The Greek god would have preserved the "demonic" nature/appearance of the original (Indo-European) dragon; at the same time, it would have used the original epithet *ō-kei-m[h₁]no - as its new name.

There are two main objections to this theory; none of them concerns the alleged linguistic equivalence between *āśáyāna* and *Ōkeanós*. First, it is well known that one of the main/essential characteristics of Okeanos is the fact that he bears bull horns (cf. *LIMC* 7/2, also present in the picture given by Janda). If we wanted to use the comparative method, this fact would make this god more similar to the bull Indra than to Vṛtra. Does this mean that Indra and Okeanos have a connection with each other? The presence of the snake/dragon tail in the iconic representation of Okeanos may simply have to do with its aquatic nature. Secondly, the relation between Vṛtra and the waters is essentially different from that between Okeanos and the waters. Thus, it is nowhere said that Okeanos is "lying" on the waters. And even if he were, there is no indication that he obstructs them as Vṛtra does. In fact, the meaning of the Vṛtra myth is not that Vṛtra is "lying" upon the waters, but that he obstructs them. This is probably the reason why Monier-Williams translated *āśáyāna* not as "lying upon" but as "lying round/surrounding (waters)."

We can see, therefore, that, in mythology, the comparative method does not always produce trustworthy results. In the particular case of the motif of the hero slaying the dragon, this is actually what one should expect, since this motif is so widely and in so many forms spread all over the globe; in other words, heroes or gods slaying dragons represent favorite topics in many cultures, and it is not necessary to assume that they come from the same original source.³²²

Another comparison Janda makes is that between the Greek god Kronos and Indra (2010: 60–1). Thus, Indra would be similar to Kronos because in the creation story he, like Kronos, separates the sky from the earth; at the same time, the well-known fact that Indra releases the sun, Dawn etc. after

³²² To give some well-known examples: the Babylonian myth of Marduk slaying Tiamat; in Greek mythology, the case of Apollo slaying Pytho or of Zeus slaying Typhoeus or Herakles killing the Hydra; the Hittite myth of the serpent Illuyankaš etc.

he kills Vṛtra would also make him similar to Kronos, who frees his brothers - the Titans - from inside Gaia (the earth) where they were forced to stay by Ouranos (the sky).

My main objection to this comparison is the following. The Vedic myth is not a succession myth and Vṛtra is never a supreme god in the Vedic myth the way Kronos is in the Greek myth. Moreover, Vṛtra is killed by Indra, whereas Ouranos cannot be killed by Kronos because he is a god, that is, immortal. Thus, the circumstances of the two myths are completely different. I do not see, therefore, how these different myths can be reconciled with each other.

The conclusion of this short and last section of the present work is that the Vedic myth of Indra slaying the dragon has some features that are unlikely to represent the Vedic (Aryan) continuation of some "universal" (Indo-European) form of the myth.³²³ Whatever its ultimate origins may be, the Aryan myth is not a mere myth, but represents the backbone of a well-established religion, which is the Aryan religion. The astronomical interpretation of this pivotal myth, on the other hand, entails that, as I tried to show, the nature of the Aryan religion is, in all likelihood, astral.

³²³ Certainly, one cannot totally exclude from the discussion the hypothesis of the IE origin of the Aryan astral myth (cf. above the Latvian case of the divine horsemen); I do not see, however, how one can prove this with cogent arguments from the data we have.

THE MAIN VEDIC GODS AND THE STARS: SYNOPSIS

Indra:	Taurus (before 2000 B C) = the Great Bull of the sky
Soma:	the Milky Way
Agni:	Venus
Aśvins:	Gemini
Ratha: ³²⁴	Auriga
Maruts:	Pleiades
Rudra:	Orion
Savitṛ:	Mercury
Bṛhaspati:	Jupiter
Pūṣan:	Prokyon (in Canis Minor); (less likely, Sirius [Yama?])
Vṛtra:	Scorpio (not a god)
Sūryā:	Capella
Ādityas	the Zodiacal constellations (solar-based, before 2000 B C):
Varuṇa:	Aquarius (winter solstice)
Mitra:	Aldebaran (main star in Taurus; spring equinox)
Aryaman:	Regulus (main star in Leo; summer solstice)
ṛta:	the ecliptic or a concept derived from it (the cosmic order/Time)
Viṣṇu:	the god of the celestial North Pole (the star Thuban)
Sūrya:	the Sun
Dyaus:	the Sky
Pṛthivī:	the Earth
Aditi:	probably the space between Earth and Sky (the Cosmos)
The Bulls:	the Vedic star-gods
The Cows:	the rest of the stars (or the stars in general) ³²⁵

³²⁴ The Aśvins' chariot; not a god.

³²⁵ Another constellation mentioned in the *Rig Veda* may be Leo "the celestial Lion"; cf. 9.89.3 ab: *siṃhāṇ nasanta*

APPENDIX

mádhuvo ayásam hárīm aruśám divó asyá pátim “Die süßen (Milchkühe) [the Milky Way — my note] *berühren* [since the Milky Way does not “touch” Leo, *nasanta* has more likely a modal value (subjunctive): “may honey approach/unite with the Lion” — my note] den Löwen, den unverzagten, rotgelben Herrn dieses Himmel”; cf. also 1.95.5.

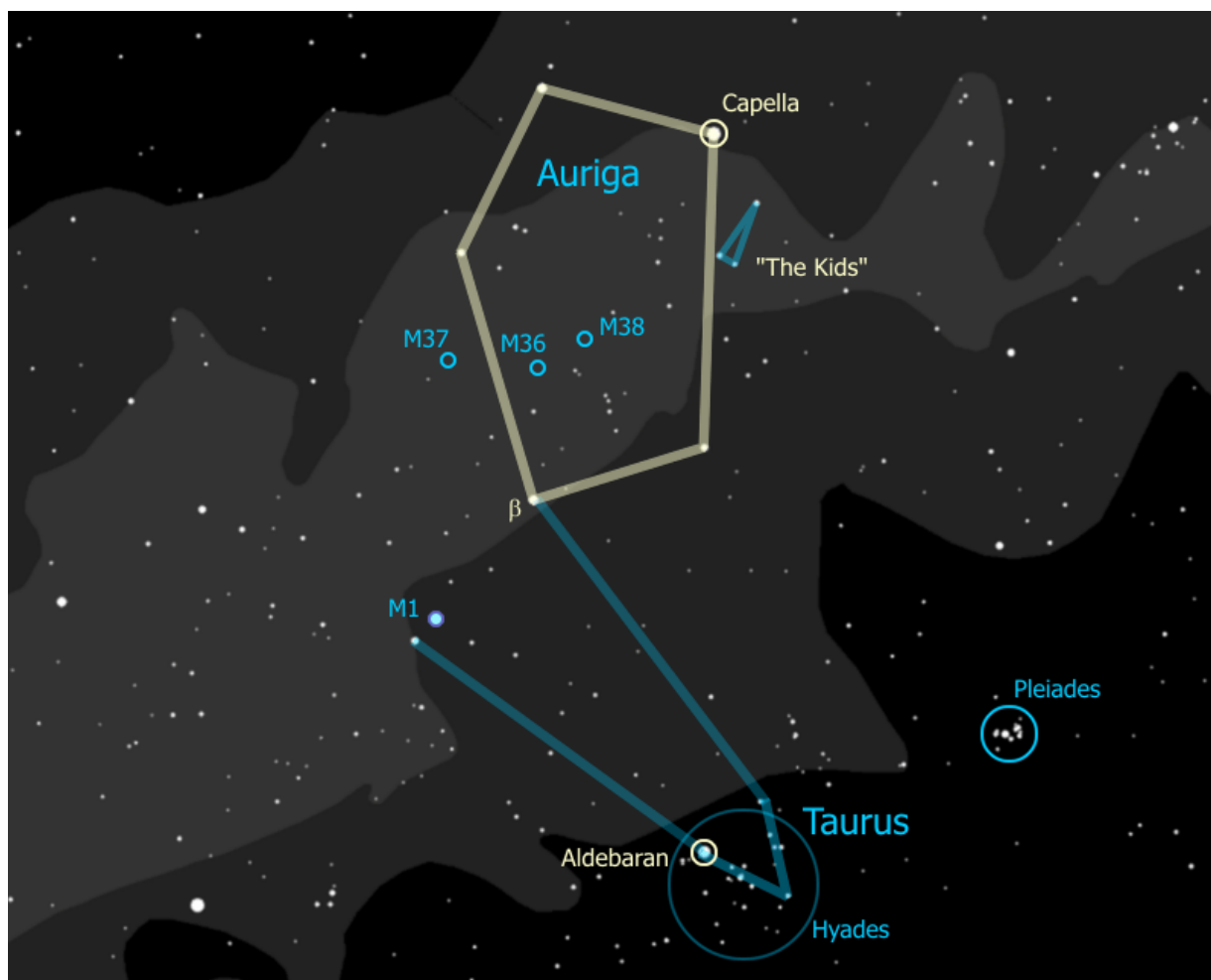


Fig. 1. The Chariot "stops" on the Bull's head.

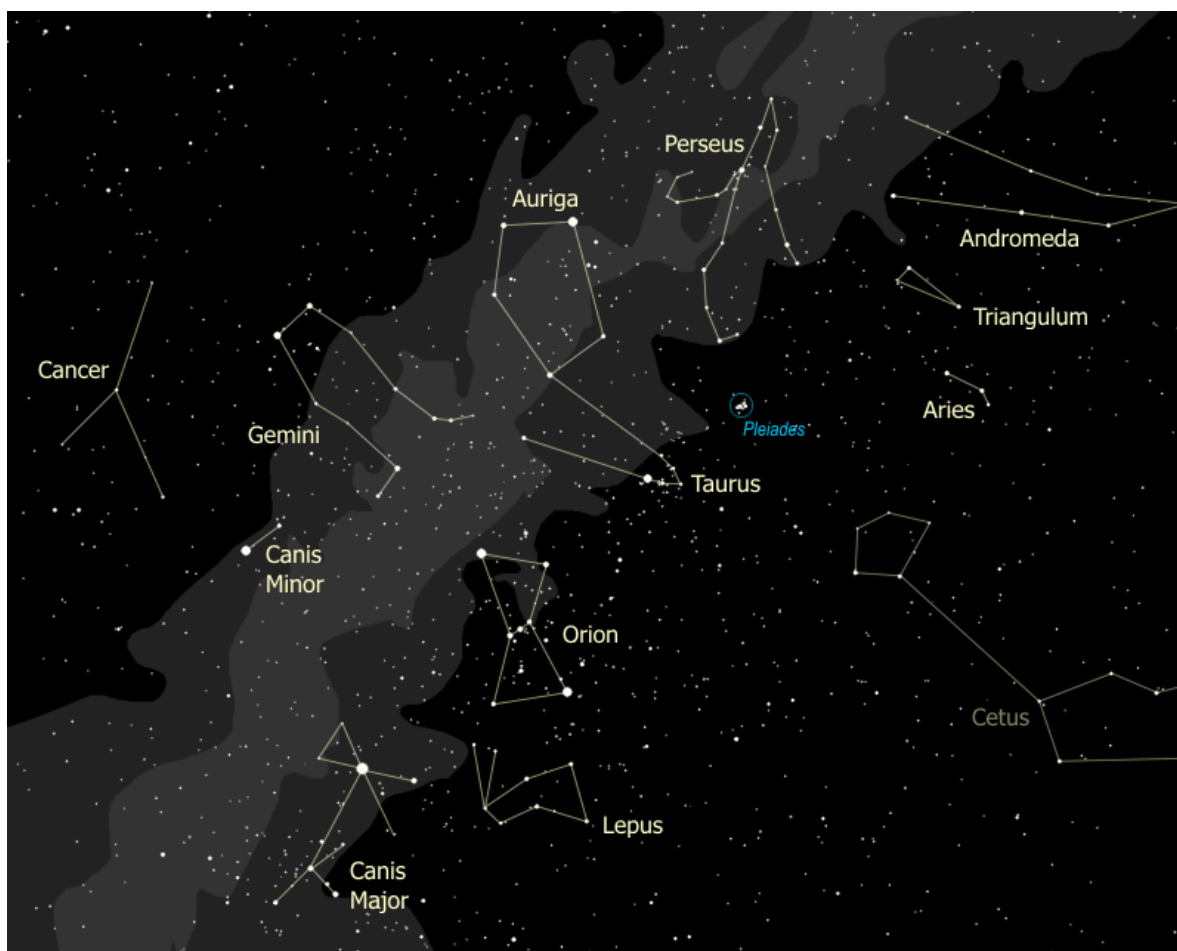


Fig. 2. The main spring constellations; the Milky Way; Cetus; the two “dogs” in the sky: Canis Maior and Canis Minor; Sirius

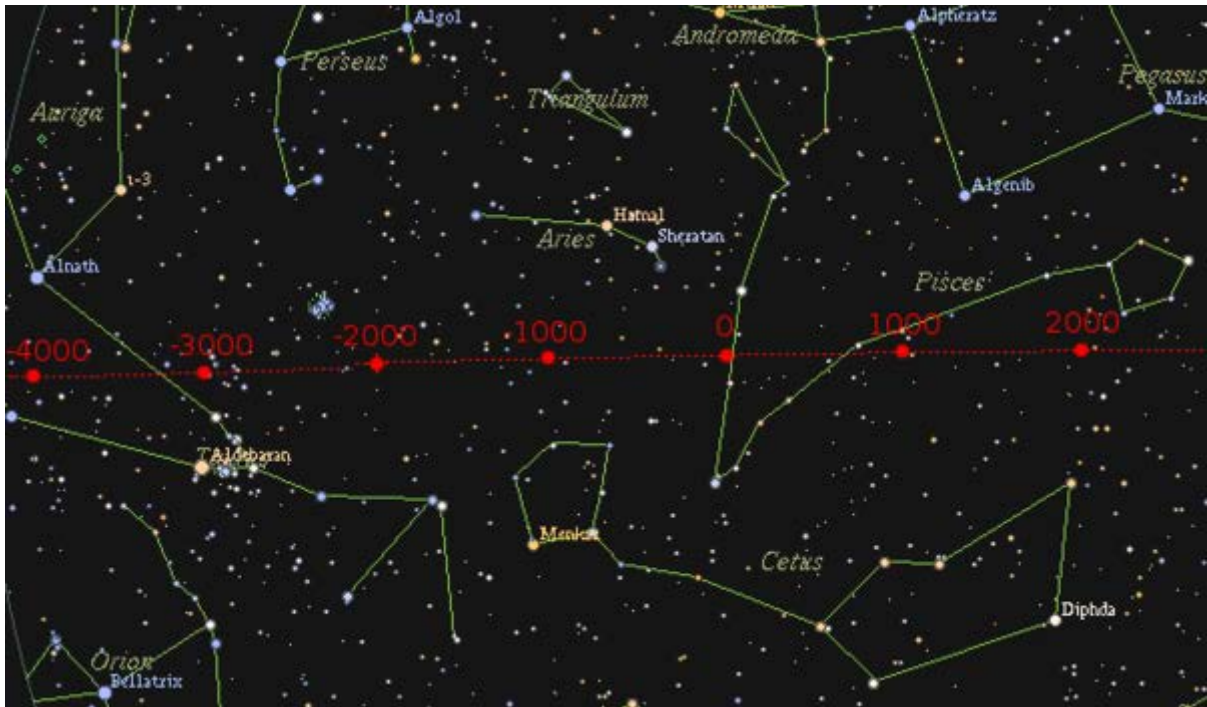


Fig. 3. The shift of the vernal equinox among the stars over time.

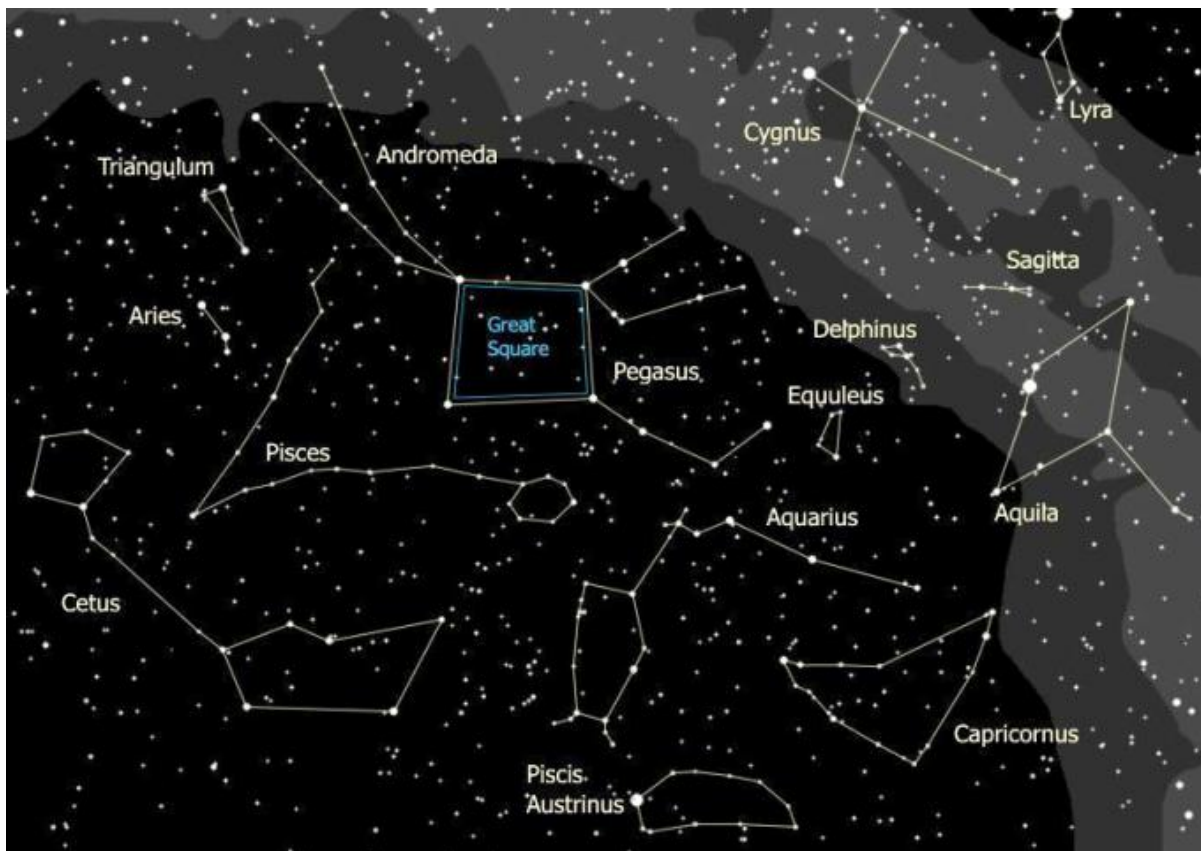


Fig. 4. Aquarius and the celestial "Sea".

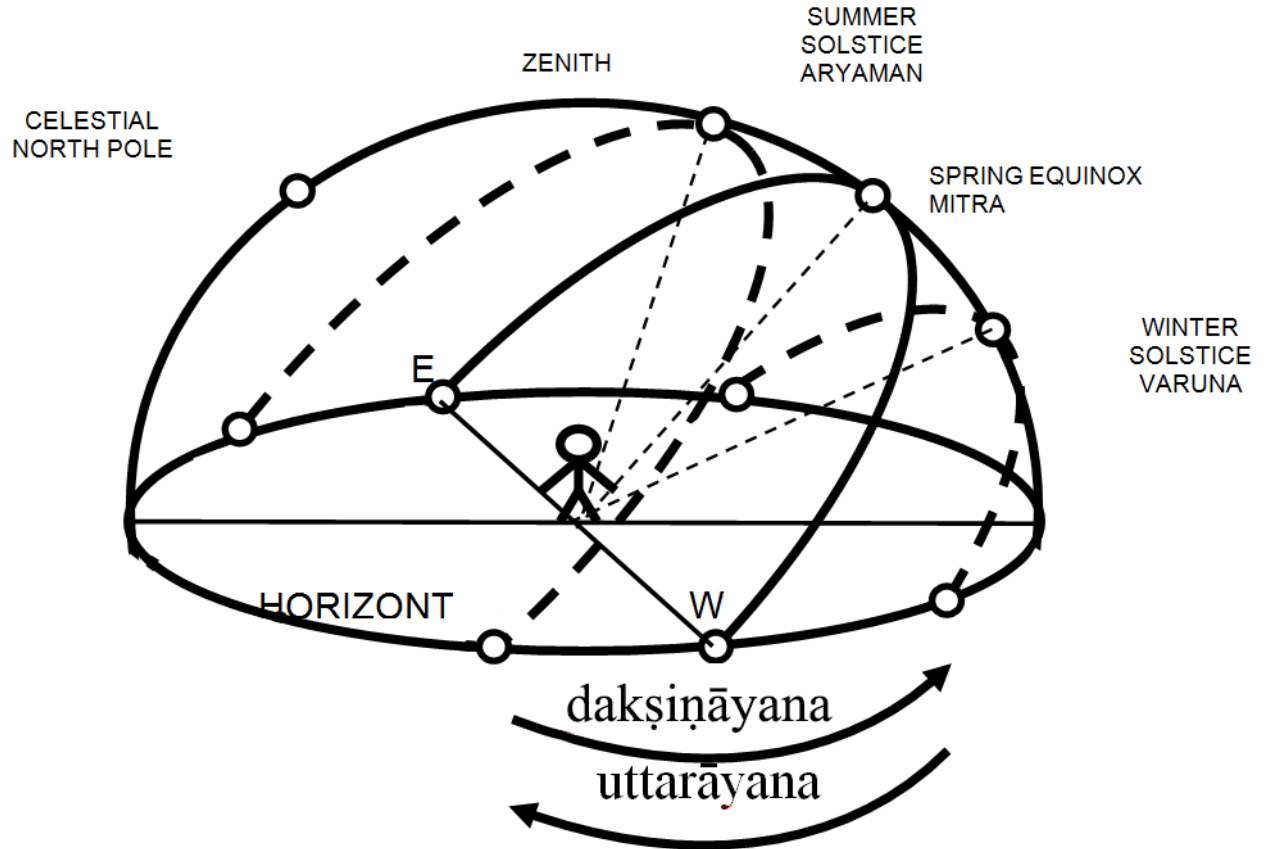


Fig. 5. The sun's yearly path; the main Ādityas: Mitra (α Tauri = Aldebaran), Varuṇa (Aquarius), Aryaman (α Leonis).

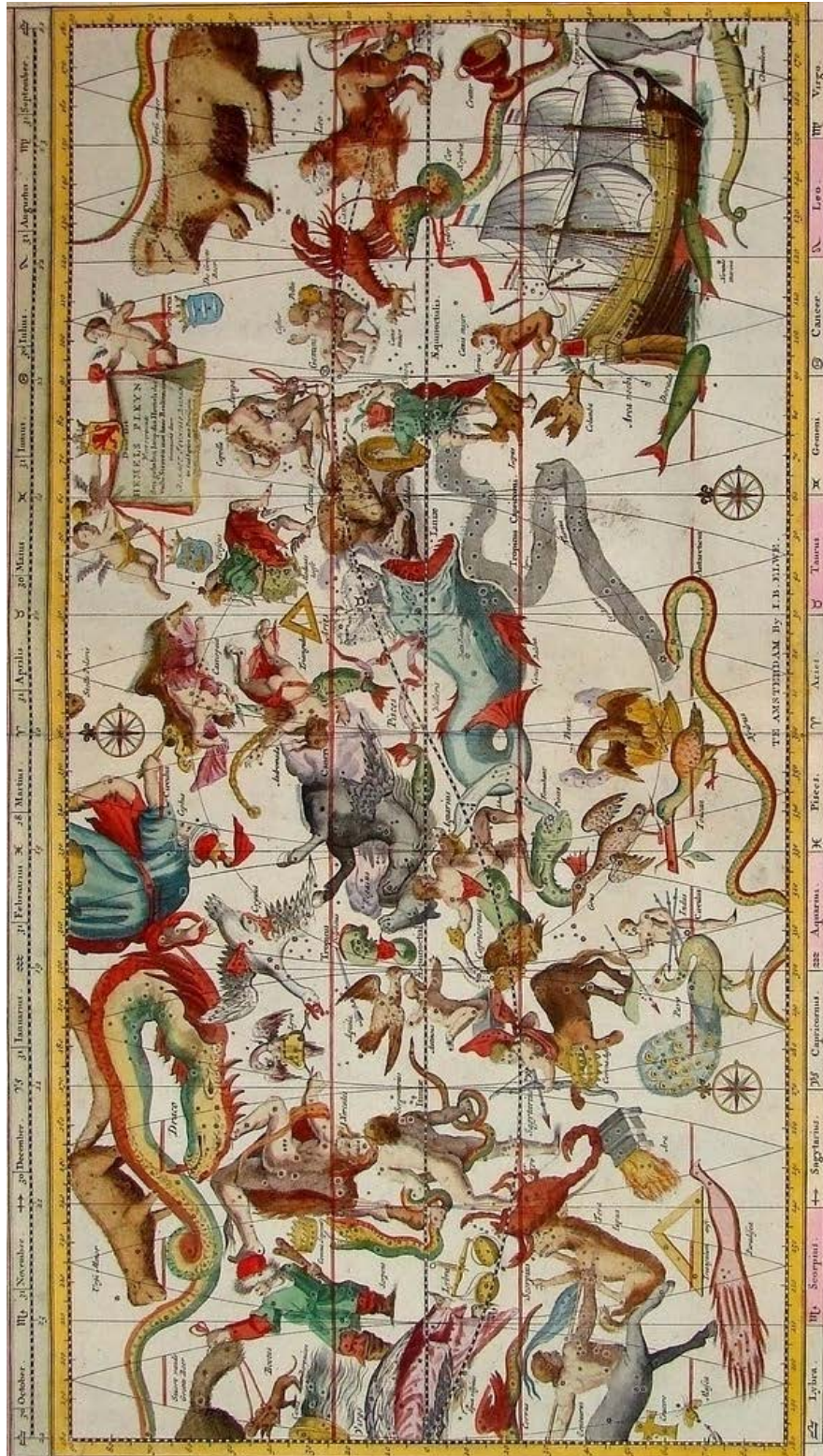


Fig. 6. The zodiacal chart of the constellations; Cetus "watching" for the "Chariot" (represented as Auriga in the picture).

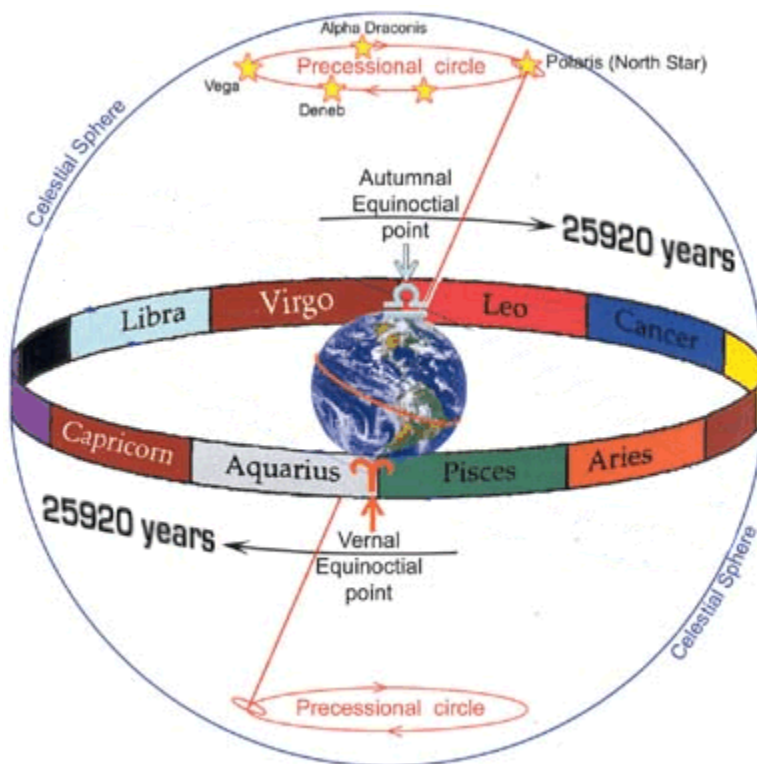
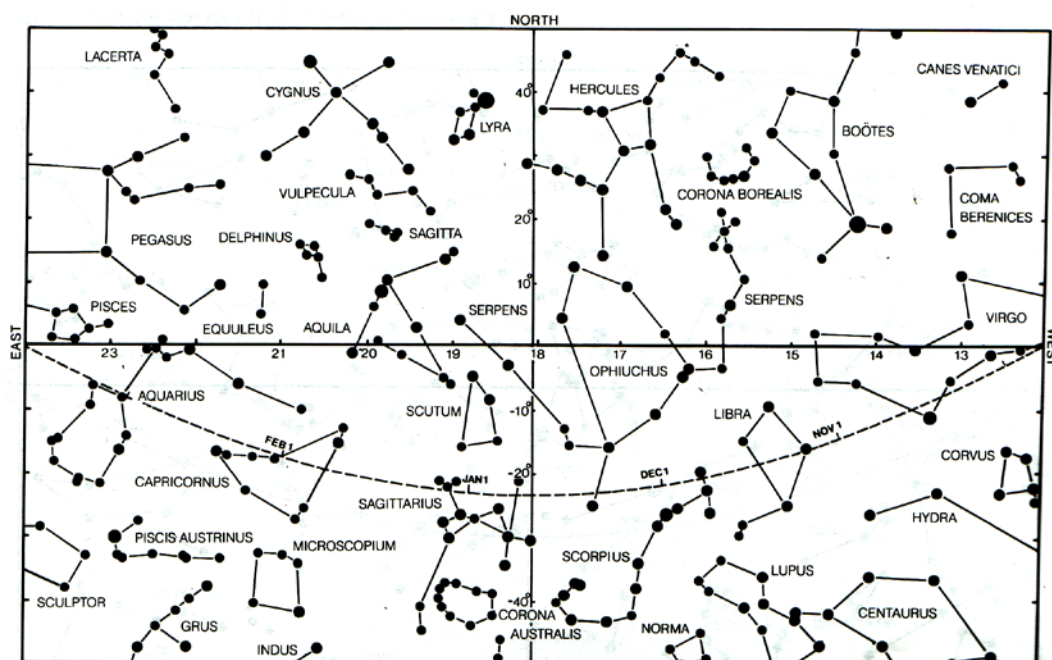
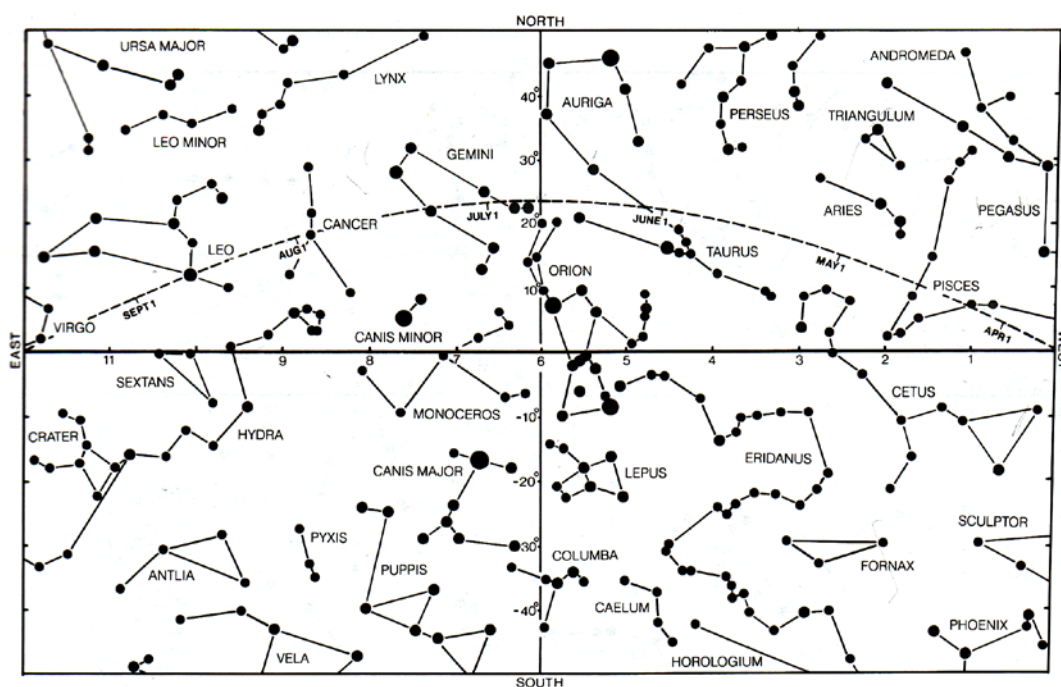


Fig. 7. The Earth's precession cycle ("the precession of the equinoxes"); today the spring equinox occurs between Pisces and Aquarius.



Figs. 8–9. Today's constellations near the ecliptic (the dotted line) and celestial equator (the horizontal solid line).

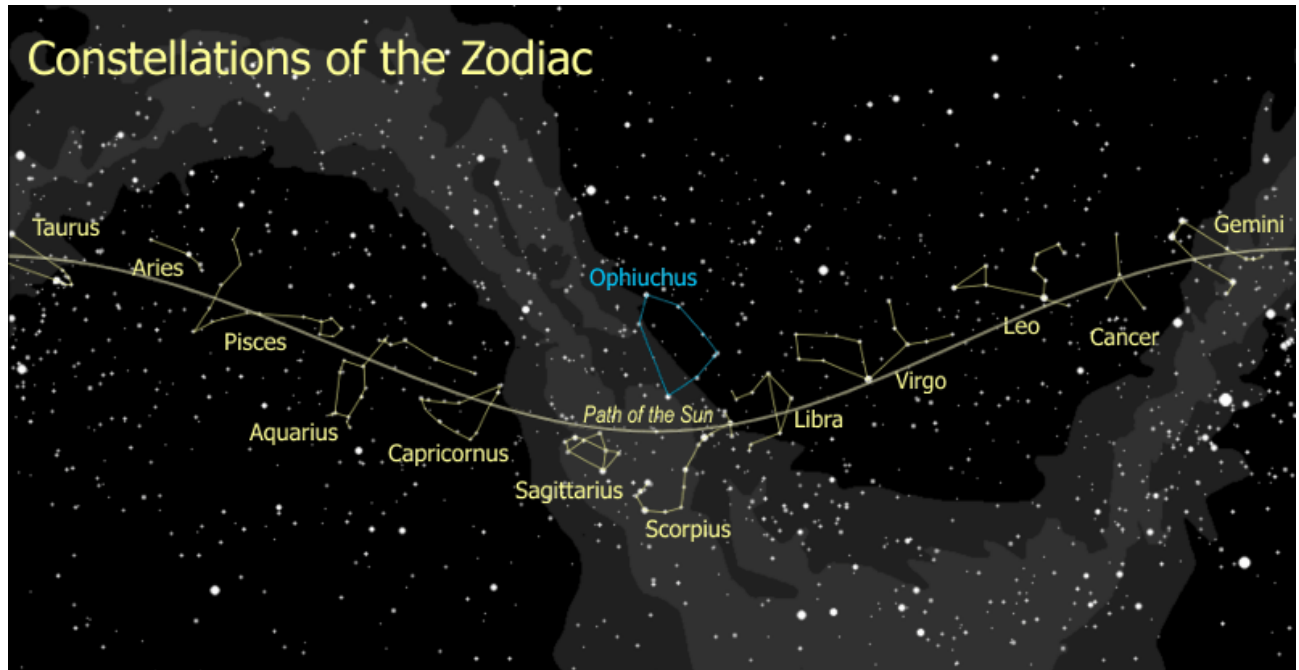


Fig. 10. The Zodiacal constellations, the sun's path (*ṛtá*), and the Milky Way.

LIST OF ABBREVIATIONS

<i>AKM</i>	Abhandlungen für die Kunde des Morgenlandes
<i>BEI</i>	Bulletin d'études indiennes
<i>CQ</i>	Classical Quarterly
<i>EJVS</i>	Journal of Vedic Studies
<i>GGA</i>	Göttingische gelehrte Anzeigen
<i>IJ</i>	Indo-Iranian Journal
<i>JAOS</i>	Journal of the American Oriental Society
<i>JHS</i>	Journal of Hellenic Studies
<i>JIES</i>	Journal of Indo-European Studies
<i>JNES</i>	Journal of Near Eastern Studies
<i>RHR</i>	Revue de l'histoire des religions
<i>SBE</i>	Sacred Books of the East
<i>ŚB</i>	Śatapatha Brāhmaṇa
<i>WZKS</i>	Wiener Zeitschrift für die Kunde Südasiens
<i>ZDMG</i>	Zeitschrift der deutschen morgenländischen Gesellschaft

B I B L I O G R A P H Y

- Anghelina, C. 2009. Viṣṇu's Three Strides. *JIES* 37 (vol. 3–4)
- Anghelina, C. 2010. Watching for Orion: A Note on Od.5.274 = Il.18.488. *CQ* 60.1: 250–53.
- Atkins, S. D. 1941. *Pūṣan in the Rig-Veda*. Princeton.
- Bartholomae, C. 1904. *Altiranisches Wörterbuch*. Strassburg.
- Beck, R. 2002. Mithraism. *Encyclopaedia Iranica*. New York.
- Benveniste, E., and L. Renou. 1934. Vṛtra et Vṛṥragna. *Étude de mythologie Indo-Iranienne*. Paris.
- Bergaigne, A. 1878–1883. *La religion védique d'après les hymnes du Rig-Veda*. Paris (= 1969–1972. Vedic Mythology According to the Hymns of the Ṛgveda. Poona).
- Bhattacharji, S. 1970. *The Indian Theogony*. Cambridge.
- (de) Blois, F. 1996. Iran. *British Institute of Persian Studies* 34: 39–54.
- Bodewitz, H. W. 1994. Life after Death in the Ṛgvedasamhitā. *WZKS* 38:23–41.
- Boyce, M. 1982. *A History of Zoroastrianism* I-II. Leiden.
- Boyce, M. 1984. Ahura Mazdā. *Encyclopaedia Iranica*. New York.
- Boyce, M. 1987. Ātaš. *Encyclopaedia Iranica*. New York.
- Brennand, W. 1896. *Hindu Astronomy*. London.
- Brereton, J. 1981. The Ṛgvedic Ādityas. *American Oriental Series* 63. New Haven.
- Bryant, Edwin. 2001. *The Quest for the Origins of the Vedic Culture*. Oxford Univ. Press.
- Chantraine, P. 1968–1980. *Dictionnaire étymologique de la langue grecque*. Paris.
- Condos, T. 1997. *Star Myths of the Greeks and Romans*. Michigan: Phanes Press.
- Dandekar, R. N. 1939. New Light on the Vedic God Savitr. *Annals of the Bhandarkar Oriental Research Institute* 20. Poona.
- Darmesteter, J. 1882. The Zend-Avesta. *SBE* 23. Oxford.
- Dicks, D. R. 1966. Solstices, Equinoxes, and the Presocratics. *JHS* 86:26–40.
- Dumézil, G. 1968. *Mythe et épopée*. Paris: Gallimard.
- Eisler, R. 1910. *Weltenmantel und Himmelszelt*. Munich.
- Eliade, M. 1972. *Shamanism*. Princeton: Princeton University Press.
- Evans, J. 1998. *The History and Practice of Ancient Astronomy*. Oxford.
- Faulkner, R. O. 1966. The King and the Star-Religion in the Pyramid Texts. *JNES* 25: 153–61.

- Faulkner, R. O. 1969. *The Pyramid Texts*. Oxford.
- Geldner, K. F. 1951–1957. *Der Rig-Veda* (vol. 1–4). *Harvard Oriental Series* 33–36.
- Gershevitch, I. 1959. *The Avestan Hymn to Mithra*. Cambridge Univ. Press.
- Gingerich, O. 2000. Plotting the Pyramids. *Nature* 408: 297–8.
- Gnoli, J., and P. Jamzadeh. 1988 (updated 2011). Bahrām (1). *Encyclopaedia Iranica*. New York.
- Gonda, J. 1972. The Vedic God Mitra. *Orientalia Rheno-Traiectina* 13. Leiden.
- Gössmann, F. 1950. *Planetarium Babylonicum* (= Sumerisches Lexikon vol. 4.2, ed. Deimler, Anton). Rome (3rd ed.).
- Grassmann, H. 1964 = 1872. *Wörterbuch zum Rig-Veda*. Wiesbaden.
- Gundel, W. 1936. *Dekane und Dekansternbilder*. Glückstadt und Hamburg.
- Güntert, H. 1923. *Der arische Weltkönig und Heiland*. Halle.
- Gurshtein, A. A. 2005. Did the Pre-Indo-Europeans Influence the Formation of the Western Zodiac? *JIES* 33: 103–50.
- Hartner, W. 1965. The Earliest History of the Constellations in the Near East and the Motif of the Lion-Bull Combat. *JNES* 24: 1–16.
- Helck, W., and O. Eberhard, eds. 1972–1992. *Lexicon der Ägyptologie*. Wiesbaden.
- Herzfeld, E. 1947. *Zoroaster and His World*. Princeton.
- Heubeck, A., and A. Hoekstra. 1990. *A Commentary on the Odyssey* II. Oxford.
- Hillebrandt, A. 1990 = 1927 (2nd ed. Breslau). *Vedic Mythology* I-II (The original title is *Vedische Mythologie*). Delhi.
- Hillebrandt, A. 1927. Die Anschauungen über das Alter des R̥gveda. *ZDMG* 81.
- Horowitz, W. 1998. *Mesopotamian Cosmic Geography*. Indiana.
- Jamison, S. W., and M. Witzel. 2003 (long online version 1992). Vedic Hinduism. In: *The Study of Hinduism*, ed. A. Sharma, 65–113. Univ. of South Carolina Press.
- Janda, M. 2010. *Die Musik nach dem Chaos*. Innsbruck.
- Keith, A. B. 1925. The Religion and Philosophy of the Veda and Upanishads. *Harvard Oriental Series* 31–32.
- Kidd, D. 1997. *Aratus. Phaenomena*. Cambridge: Cambridge Univ. Press.
- Kirfel, W. 1967. *Die Kosmographie der Inder*. Hildesheim.

- Kramrisch, S. 1961. Pūṣan. *JAOS* 81: 104–122.
- Kuiper, F. B. J. 1976. Ahura Mazdā 'Lord Wisdom'? *IJ* 18: 25–42.
- Lattimore, R. 1951. *The Iliad of Homer*. Chicago.
- Lommel, H. 1927. Die Yäšt's des Awesta. *Quellen der Religionsgeschichte* 15. Göttingen: Vandenhoeck & Ruprecht.
- Lommel, H. 1970. Die Sonne das Schlechteste? In: *Zarathustra*, ed. B. Schlerath, 397–412. Darmstadt.
- Lüders, H. 1951. *Varuṇa* I. Göttingen: Vandenhoeck & Ruprecht.
- Lüders, H. 1959. *Varuṇa* II. Göttingen. Vandenhoeck & Ruprecht.
- Ludwig, A. 1876–1888. Der Rigveda oder die heiligen Hymnen der Brāhmaṇa. 6 vols. Leipzig.
- Macdonell, A. A. 1974=1897. *Vedic Mythology*. New York.
- Mallory, J. P. 1989. In *Search of the Indo-Europeans: Language, Archaeology and Myth*. London: Thames & Hudson.
- Mallory, J. P., and D. Q. Adams. 2006. *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*. Oxford Univ. Press.
- (de) Menasce, J. P. 1947. La Promotion de Vahrām. *RHR* 133: 5–18.
- Muir, J. 1868–1873. *Original Sanskrit Texts on the Origin and History of the People of India, Their Religion and Institutions* (I-V). London.
- Oberlies, T. 1998. *Die Religion des Ṛgveda* I. Vienna.
- Oberlies, T. 1999. *Die Religion des Ṛgveda* II. Vienna.
- O'Flaherty, W. D. 1981. *The Rig Veda*. London.
- Oldenberg, H. 1913 = 1894. *Die Religion des Veda*. Berlin.
- Oldenberg, H. 1897. Savitar. *ZDMG* 51: 473–84.
- Oldenberg, H. 1905. Noch einmal der vedische Savitar. *ZDMG* 59: 253–64.
- Oxford Classical Dictionary* (OCD). 1996. 3rd ed. Ed. S. Hornblower and A. Spawforth. Oxford Univ. Press.
- Panaino, A. 1990 (I) and 1995 (II). Tištrya. *Serie Orientale Roma* 68 (2 vols.). Rome.
- Panaino, A. 2005. Tištrya. *Encyclopaedia Iranica*. New York.
- Pischel, R. 1895. Review of H. Oldenberg's *Die Religion des Veda*. *GGA*: 446–52.
- Plunket, E. M. 1903. *Ancient Calendars and Constellations*. London: John Murray.

- Puhvel, J. 1987. *Comparative Mythology*. Baltimore and London: The John Hopkins Univ. Press.
- Rochberg-Halton, F. 1984. New Evidence for the History of Astrology. *JNES* 43: 115–40.
- Rogers, J. H. 1998. Origins of the Ancient Constellations: The Mesopotamian Traditions. *Journal of the British Astronomical Association* 108: 9–28.
- Roscher, W. H. 1965. *Ausführliches Lexikon der griechischen und römischen Mythologie* IV. Hildesheim (= Teubner/Leipzig 1909–1915).
- Roth, R. 1852. Die höchsten Götter der Arischen Völker. *ZDMG* 6: 67–77.
- Schafer, E. H. 1974. The Sky River. *JAOS* 94: 401–7.
- Scherer, A. 1953. *Gestirnnamen bei den Indogermanischen Völkern*. Heidelberg.
- Schmidt, H.-P. 1978. Indo-Iranian Mitra Studies: The State of the Central Problem. In: *Études mithraïques. Acts du 2^e Congress International*. Téhéran, du 1^{er} au 8 sept. 1975. (Acta Iranica). Téhéran-Liège. 345–93.
- Schmidt, H.-P. 2006. Mithra. *Encyclopaedia Iranica*. New York.
- Shaw, I., and P. Nicholson. 1995. *The Dictionary of Ancient Egypt*. New York.
- Simson, G. 1997. Zum Ursprung der Götter Mitra und Varuṇa. *IJJ* 40:1–35.
- Staal, J. D. W. 1988. *The New Patterns in the Sky: Myths and Legends of the Stars*. Virginia.
- Thieme, P. 1938. Der Fremdling im RigVeda. *AKM* 23/2. Leipzig.
- Thieme, P. 1957. Mitra and Aryaman. *Transactions of the Connecticut Academy of Arts and Sciences* 41. New Haven.
- Thieme, P. 1970. Die vedischen Āditya und die Zarathustrischen Aməša Spənta. In: B. *Zarathustra*, ed. B. Schlerath, 397–412. Darmstadt.
- Thompson, R. L. 1989. *Vedic Cosmography and Astronomy*. Los Angeles.
- Tilak, B. G. L. 1893. *The Orion or Researches into the Antiquity of the Vedas*. Bombay.
- Ulansey, D. 1989. *The Origins of the Mithraic Mysteries*. Oxford.
- Wackernagel, J. 1916. Sprachliche Untersuchungen zu Homer I. *Glotta* 7: 161–319.
- Waerden (van der), B.L. 1974. *Science Awakening* II. Oxford.
- Ward, D. 1968. The Divine Twins: An Indo-European Myth in Germanic Tradition. In: *Folklore Studies* 19. Univ. of California Press.
- Watkins, C. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. New York–Oxford.

- Weber, A. 1893. Miscellen aus dem indogermanischen Familienleben. In: *Festgruß an Rudolf von Roth* 135–138. Stuttgart.
- West, M.L. 2007. *Indo-European Poetry and Myth*. Oxford Univ. Press.
- Whitney, D. 1905. *Atharva-Veda*. Cambridge. Harvard Oriental Series 7–8.
- Williams, M.M. 1899. *Sanskrit–English Dictionary*. Oxford Univ. Press.
- Witzel, M. 1984. Sur le chemin du ciel. *BEI* 2: 213–279.
- Witzel, M. 1995. Looking for the Heavenly Casket. *EJVS* 1,1.
- Witzel, M. 1999. The Pleiades and the Bears Viewed from Inside the Vedic Texts. *EJVS* 5,2.
- Witzel, M. 2008. Slaying the Dragon Across Eurasia. In: *In Hot Pursuit of Language in Prehistory*, ed. J. D. Bengtson, 263–286. Amsterdam–Philadelphia: John Benjamins Publishing Co.

Since June 2006, all new issues of *Sino-Platonic Papers* have been published electronically on the Web and are accessible to readers at no charge. Back issues are also being released periodically in e-editions, also free.

For a complete catalog of *Sino-Platonic Papers*, with links to free issues, visit the *SPP* Web site.

www.sino-platonic.org