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HIP 4510

68 Piscium (h Psc)

A light for our story



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A story among the stars

Celestial Library edition



*Every light holds a story. These pages
follow its journey, from the heart of the
star to the sky we share.*

The sky, page by page

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CONTENTS

A story beneath the stars

One light among many	4
The colour of its fire	5
The journey ending here	6
A landscape for imagination	7
A Pisces star across two catalogues	8
A life opening out	9
Measuring with two glances	10
Nothing stands still	11
The night of finding it	12
Somewhere to return	13

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HIP 4510

One light among many

Some nights begin when we stop hurrying. The day withdraws, our eyes learn the darkness and, little by little, the stars appear. Among them is HIP 4510. Until now it may have been another distant light; pausing to look is the beginning of giving it a place in our own story.

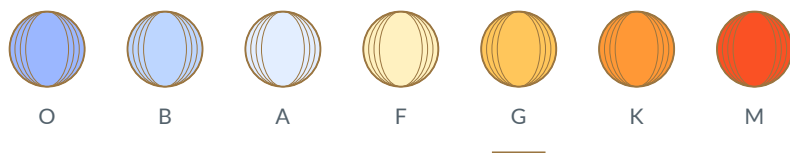
A dedication begins with that simple gesture: choosing something beautiful and wanting to share it. The star will continue on its way, beyond our calendars, while here below its light can accompany a date, a name or words we wish to keep. Immensity takes on an intimate measure: the measure of what matters to us.

The colour of its fire

The light of HIP 4510 has a character of its own. The G family feels familiar because the Sun belongs to it too. We can imagine a brightness related to the light entering a window and accompanying our days. Elsewhere in the sky, matter has found a way to shine that reminds us of home.

To the unaided eye, a stellar colour can be little more than a whisper. The atmosphere makes it tremble and our eyes receive it in their own way. Beyond that point we can imagine a living surface of hot matter: the visible beauty of processes working on a scale far greater than ours.

SEVEN FAMILIES OF LIGHT



Light keeps the colours of its origin.

The journey ending here

The light of HIP 4510 crosses approximately 704.4 light-years to reach us. The brightness we receive has therefore spent about 704.4 years on its way. Distance becomes time: looking at this star means meeting light that began travelling before this moment. When it set out, the Sun and its planets already shared a history billions of years old. On their scale, this journey is barely a breath.

Its light has crossed the time of several generations. We can imagine hands writing letters, lit windows and voices that now live only in other voices. Through all that passing on, the brightness kept travelling; tonight it reaches us.



A landscape for imagination

HIP 4510 lies in the region of the Fishes. The Fishes suggest two movements within the same water. We can follow them without demanding identical paths: sharing a sky also allows different ways of moving forward.

Figures in the sky are a human way of approaching immensity. In our gaze they join lights that may lie at very different distances. Imagination stretches the thread; the stars provide the brightness. A single landscape can therefore keep old images while receiving a story that begins tonight.



Its light, among other lights of the constellation.

A Pisces star across two catalogues

In the machine-readable reconstruction of Ptolemy's catalogue, the star now called 68 Piscium appears as Pisces 26, entry P 699: a magnitude-six point, securely matched to HIP 4510. Verbunt and van Gent follow its trail into Ulugh Beg's catalogue, where the corresponding Pisces entry is U 696, cross-referenced to P 699 and again matched to the same star. Ulugh Beg's catalogue, with positions referred to the epoch 1437, brought new measurements; in the authors' epoch-adjusted comparison, this entry lies 29.5 arcminutes from the Hipparcos position, against 60.7 for Ptolemy's. Yet the older coordinate has an open question: scholars debate whether Ptolemy copied Hipparchus rather than observing it anew.

A single light can travel through more than one kind of time: first as a point in a sky, then as a place in a catalogue copied, revised and measured again. It does show how patient comparison lets a modern star and two far-separated books find one another.

A life opening out

The word giant speaks of a star that has moved beyond the appearance of its first long stage. Its envelope has expanded and the interior has changed the way it supports itself. We can imagine a life opening its rooms, a light taking up more space while writing a different chapter of its story.

To approach HIP 4510, we can let that scale widen our imagination. A stellar age is unlike a birthday: it speaks of changing matter, of energy finding a way out, of a balance sustained and transformed. Tonight's light is one page of that time, and we happen to be here to receive it.

Measuring with two glances

To begin measuring a stellar distance, Earth offers us a movement. We observe from one side of its orbit and look again about six months later from the other. A nearby star seems to shift slightly against more distant ones. That small change of perspective is called parallax.

We can feel the principle by looking at a finger with one eye and then the other. What fits between two glances at home requires our planet's journey in the sky. There is something beautiful in that patience: to learn how far a light is from us, we first learned to look from somewhere else.



Nothing stands still

Although it seems still, HIP 4510 belongs to a moving sky. Stars travel through the galaxy and our own home moves with the Sun. The distances are so great that many of these changes need years of observation to become visible. The serenity we see is really keeping a journey.

We can imagine every night as a meeting between travellers. We arrive with one more day of memories; the star arrives with its light and its path. The meeting seems to repeat, yet it is never quite the same. Perhaps that is why looking again can be such a simple way to celebrate shared time.

The night of finding it

We can begin with something simple: looking into a starry sky and letting our eyes grow used to darkness. The dedication page lets us choose a place and time to find where to look. Recognising the constellation first turns a distant map into a familiar landscape.

If a telescope joins the evening, a wide field is a gentle beginning. As a reference, a 114 mm Newtonian with a 500 mm focal length gives 20× with a 25 mm eyepiece. The star remains a point of light; the instrument gathers more of its brightness. The best memory may be the moment we leave the eyepiece and say: there it is.

Somewhere to return

We can close this booklet and let HIP 4510 become a small light in an enormous night again. Something, though, will have changed. We now know part of its journey, a shade of its colour and a way to find it. What seemed far away has a place in our memory.

There will be clear nights and others when clouds keep the sky. Not every night will allow observing, but each can bring back the memory of this gesture. Sometimes a name is enough to return to a date, a voice, a few shared words. And when the light appears again, we will have one more reason to pause and look.

The traces of this story

ESA Hipparcos / VizieR

https://vizier.cds.unistra.fr/viz-bin/VizieR-5?-source=I/239/hip_main&HIP=4510

NASA · Our Sun

<https://science.nasa.gov/sun/facts/>

IAU · Constellations and their names

<https://iauarchive.eso.org/public/themes/constellations/>

Celestron · Choosing eyepieces

<https://www.celestron.com/blogs/knowledgebase/how-to-determine-which-eyepieces-to-use-with-your-telescope>

Original ISDORA prose and illustrations. Images are artistic evocations or diagrams, not to scale. Distances are approximate. Constellation figures include contemporary literary readings.

To keep discovering

NASA · The lives of stars

<https://science.nasa.gov/universe/stars/>

NASA · What is a light-year?

<https://science.nasa.gov/exoplanets/what-is-a-light-year/>

ESA · Measuring stellar distances by parallax

https://www.esa.int/ESA_Multimedia/Images/2013/06/Measuring_stellar_distances_by_parallax

The star catalogues of Ptolemaios and Ulugh Beg: Machine-readable versions and comparison with the modern Hipparcos Catalogue, A&A 544, A31 (2012)

<https://arxiv.org/html/1206.0628>



May there always be a night
to look again.



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A STORY OF LIGHT