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HIP 102978

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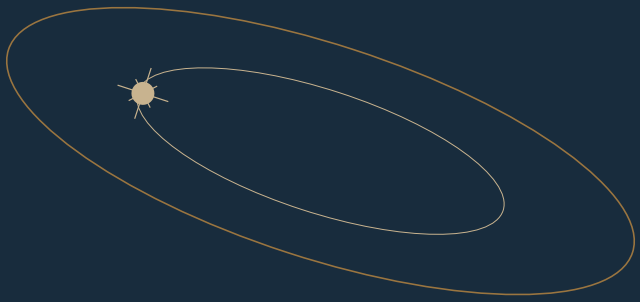
A light for our story



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A story among the stars

Celestial Library edition

HIP 102978

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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HIP 102978

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 102978. Until now it may have been another distant light; pausing to look is the beginning of giving it a place in our own story.

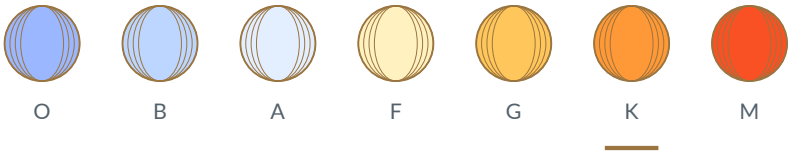
A dedication begins with that simple gesture: choosing something beautiful and wanting to share it. The star will continue on its way, beyond our calendars, while here below its light can accompany a date, a name or words we wish to keep. Immensity takes on an intimate measure: the measure of what matters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

The colour of its fire

The light of HIP 102978 has a character of its own. The K family keeps the colour of an ember seen at the end of an evening. Its surfaces are cooler than the Sun's, though still extraordinarily hot. That amber tint suggests a gathered light, a warmth that seems to ask us to stay a little longer.

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 102978 crosses approximately 628.4 light-years to reach us. The brightness we receive has therefore spent about 628.4 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.

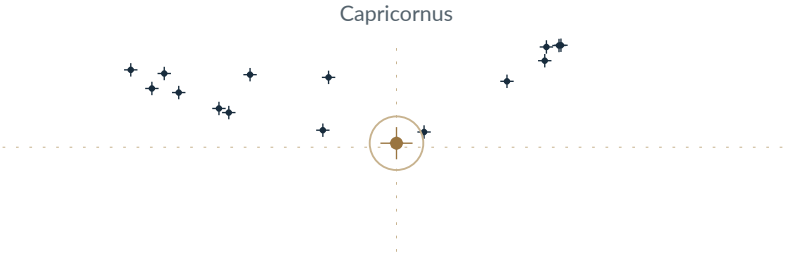


From its sky to our night.

A landscape for imagination

HIP 102978 lies in the region of Capricornus. Capricornus lets us imagine a meeting between mountain and water. Two different landscapes find, in a single name, a way to remain together.

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.

An address written in light

In 1997, ESA's Hipparcos Catalogue gave HIP 102978 a precise place in a map built from light. Behind that line of figures lay years of looking from space: the patience of returning to a star and recognising its tiny change of position. Its entry keeps a parallax of 5.19 ± 0.95 milliarcseconds, V magnitude 4.12 and spectral type K4III. These are the traces by which a distant presence becomes recognisable, an address to which our gaze can return.

Behind the record, we may picture the simplest astronomical gesture: someone looked, stayed a little longer, and chose to remember. The instruments and pages have changed, but that gesture remains close to us. Tonight we can give it a personal meaning, finding in one distant light a place for the words, dates and shared moments we wish to keep.

A life opening out

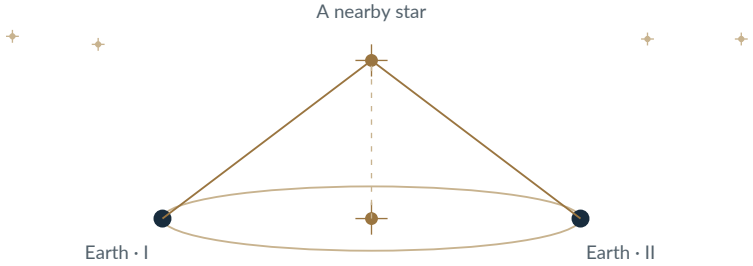
The word giant speaks of a star that has moved beyond the appearance of its first long stage. Its envelope has expanded and the interior has changed the way it supports itself. We can imagine a life opening its rooms, a light taking up more space while writing a different chapter of its story.

To approach HIP 102978, 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.



Two positions of Earth, six months apart.

Nothing stands still

Although it seems still, HIP 102978 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 102978 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

NASA · The lives of stars
https://science.nasa.gov/universe/stars/

NASA · Our Sun
https://science.nasa.gov/sun/facts/

ESA · Measuring stellar distances by parallax
https://www.esa.int/ESA_Multimedia/Images/2013/06/Measuring_stellar_distances_by_parallax

ESA 1997 Hipparcos Main Catalogue · HIP 102978
https://vizier.cds.unistra.fr/viz-bin/VizieR-5?-source=I/239/hip_main&HIP=102978

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 · What is a light-year?
https://science.nasa.gov/exoplanets/what-is-a-light-year/

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

ESA · The Hipparcos and Tycho Catalogues (1997)
https://cdsarc.cds.unistra.fr/viz-bin/ReadMe/I/239?format=html&tex=true



May there always be a night to look again.

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A STORY OF LIGHT