The woman who stared at the sun

Let's Begin…

In 1944, amateur astronomer Hisako Koyama's latest endeavour was sketching the sun's shifting surface. She spent weeks angling her telescope towards the sun and tracking every change she saw with drawings. Little did she know, these drawings were the start of one of the most important records of solar activity in human history. Alex Gendler details the incredible legacy of Koyama's work.
Watch the video and answer the questions below.
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1. What was the reason for the rolling blackouts during which Koyama would stargaze?

A Reducing visibility for air raids

B Damage sustained to the power grid

C Energy and fuel shortages

2. How did Koyama get her position at the Tokyo Museum of Science?

A She got a PhD in astronomy.

B She took an intensive training course.

C She sent unsolicited sketches of sunspots to the astronomical association

3. What causes sunspots?

A Volcanic eruptions on the sun

B Fluctuations in the sun's magnetic activity

C UFOs passing in front of the sun

4. How long does the 'butterfly' solar cycle last?

A 3.5 years

B 75 years

C 11 years

5. Which of these is NOT affected by sunspots?

A Tidal patterns

B Solar flares and geomagnetic storms

C Climate

6. Why are sunspots difficult to count and record?

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7. What was Koyama's biggest regret about her career?

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8. How have Koyama's observations been useful for studying periods outside her lifespan?

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Additional Resources for you to Explore

Long overlooked, Hisako Koyama's life and career are covered in several articles, as well as a more detailed scientific paper. You can also see a more detailed report on her solar observations, and how they have helped reconstruct the historical record. And though we have known about sunspots for a long time, we are only recently beginning to learn about their impact on the Earth and its climate.

Your own answers:

What was the advantage of having the same person continuously doing observation sketches for so long? What are some advances that might make this less important in the future?

Might robots and machines take off the job of making records repeatedly?