Enheduanna

A Poem - Collage Pair:
Poem by Sarah Glaz *with* collage by Mark Sanders

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Enheduanna

. . . in the beginning
there is no beginning . . .
Eternity's dark fingers hold a lantern
casting a glow
over the city-state of Ur,

where the Sumerian princess,
Enheduanna,
high priestess of the Moon God, Nanna,
daughter of King Sargon,
stretches the cord
measuring land and irrigation canals,
tall ziggurats
and massive ramparts.

Her other task is time reckoning.
Nanna dictates the calendar
expecting priests
to iron out the details.
She measures the high heavens
to keep his lunar months
in sync with the four seasons

and to exalt the pantheon of gods
and let her heart be appeased,
conceives the words.

Poet and mathematician— the first
to sign her own work:

The compiler of this tablet, Enheduanna.
My lord, that which has been created [here]
no one has created [before].

28 lines tribute to Enheduanna,
true woman, sprout of the holy reed

History, Mathematics, Poem, Collage

A 1927 archaeological excavation at the Sumerian city of Ur uncovered a temple complex dedicated to the moon god Nanna. Among the fascinating artifacts found at the site was a calcite disk, dated to circa 2300 BCE, shown in the center of the collage. The inscription on the back of the disk identifies the central figure as Enheduanna, daughter of King Sargon and high priestess of Nanna. This discovery introduced the modern world to one of the most remarkable women of deep antiquity: Enheduanna—princess, high priestess of the moon god Nanna, poet, and perhaps also mathematician.

The city of Ur was founded circa 4000 BCE in Mesopotamia, a region corresponding largely to present-day Iraq. The area has been the center of successive civilizations since the Neolithic period. The main civilizations after the 5th millennium BCE were in turn the Sumerian, the Akkadian, and the Babylonian. Mesopotamia is often referred to as the ''cradle of civilization,'' the place where human beings took their first steps toward a civilized society and left a written record of their achievements. Writing, in the form of cuneiform script, was invented by the Sumerians around 3500 BCE. In 2334 BCE, the Akkadian king Sargon, conquered the region and ruled it until 2279 BCE. The bronze head shown at the top left of the collage (circa 2300 BCE) is that of King Sargon, while the carved bull's head at the bottom right is a decorative element from a lyre discovered in the king's grave.

Enheduanna was appointed by her father as high priestess of the moon god, Nanna, the patron deity of the city of Ur. She held this prestigious position for over forty years, spanning the reigns of several Akkadian kings. After her death, she attained semi-divine status. Today, Enheduanna is best known for her literary achievements. She distinguished herself as a poet, not only by creating verses of beauty and power, but also by departing from the customary anonymous writing tradition of her time and explicitly identifying herself as the author of her works. Enheduanna is the earliest known named author in history.

The Old Akkadian period (circa 2350–2200), during which Enheduanna lived and composed her poetry, was a time of transition in the development of Mesopotamian mathematics. Its beginnings lay in the almost proto-mathematical stage of metrological numeration systems, and its ending heralded the adoption of the sexagesimal place value number system and the flourishing mathematics of the Babylonian period. As a result, Enheduanna's temple hymns that touch on mathematics allow us to hear the story of mathematics' complex beginnings in the voice of a culture that experienced it—as much as this is possible to do in a different language and several thousand years removed from that time.

Among Enheduanna's poems, *Temple Hymn 42,* dedicated to Nisaba—the goddess of writing and mathematics—stands out as one of the oldest surviving sources that reflects what mathematics meant in that era and illuminates the role of the mathematicians at the time. Lines twelve and thirteen of the hymn describe Nisaba's, and possibly also Enheduanna's, role as a mathematician.

She measures the heavens above
and stretches the measuring cord on the earth.

Mesopotamian mathematicians were engaged both in astronomical calculations—"measuring the heavens"—and in practical mathematical activities such as land measurement and construction—"stretching the measuring cord on the earth." Enheduanna's poetry offers rare insight into the nature of these activities and their cultural significance. Further discussion of Mesopotamian mathematics and its relationship to Enheduanna's temple hymns can be found in the paper: Sarah Glaz, *Enheduanna: Princess, Priestess, Poet and Mathematician*, The Mathematical Intelligencer 42 (2), 31-46, 2020.

More details can be found at: https://www2.math.uconn.edu/~glaz/Enheduanna/index.html