Renaissance vision from spectacles to telescopes

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Abstract: I'm writing a book called "Renaissance vision from spectacles to telescopes". The book treats the early development, diffusion, commerce, and artistic representation of eyeglasses from their invention ca. 1286 to the discovery of the telescope ca. 1600.

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My book [1] is based primarily on a great number of recently discovered documents in European depositories and on artifacts unearthed in archeological sites. Although it is focused on Italy, the home of the first spectacles and of most of the available evidence, it also examines new documentary and archeological discoveries in the rest of Europe [2-5].

Three major contributions will be fully documented for the first time:

- 1. Florence, not Venice, was famous for the best spectacles in the 15th century, a leadership unknown to economic historians despite the city's pre-eminence in arts and crafts;
- Eyeglasses were cheap, plentiful, and exported by the thousand all over Europe and to the Levant -- they were
 not the expensive vision aids of the clergy, the wealthy, and intellectuals, but they were extensively used by
 artisans as well. Almost everyone over forty had to have had recourse to them without eliminating entirely the
 need for magnifying lenses and concave mirrors for close work;
- 3. Concave lenses to correct myopia were in use at least from the middle of the 15th century and they could be ordered in two strengths while convex lenses were graded in five-year strengths from ages 30-70.

Up to the end of the 15th cent., only Florence has massive documentation for the history of spectacles owing to its vast holdings of account books and commercial letters. These records have revealed the names of at least fifty-one spectacle makers in the city between 1413 and 1562 and the location of their shops. Other centers of production such as Venice, Germany, France, the Netherlands, and England began to appear more frequently in the sources only in the sixteenth century, but they did not produce anything near the quantity of Florentine documentation until well into the seventeenth century.

References

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