

# Towards a cognitively oriented database of early shadow depictions

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► **To cite this version:**

Roberto Casati. Towards a cognitively oriented database of early shadow depictions. 2003.  
<ijn\_00000461>

**HAL Id: ijn\_00000461**

**[https://jeannicod.ccsd.cnrs.fr/ijn\\_00000461](https://jeannicod.ccsd.cnrs.fr/ijn_00000461)**

Submitted on 5 Apr 2004

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# Towards a cognitively oriented database of early shadow depictions

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There are two advantages of the study of **historical examples** of the depiction of cast shadows:

1. satisfy general constraints on the study of the art-cognition interface. These include: choosing *production* or the production-perception interface (vs. purely perceptual approaches); widening the field of artistic products to include *demotic art* (vs. one-sided focus on beaux arts); selecting a *large sample* of artworks, possibly exhibiting trial and error endeavors devoted to the solution of specific problems (vs. direct analysis of anecdotal cases that are likely to be biased by poor data selection); requiring the involvement of *sufficiently articulated* cognitive capabilities (vs. relatively “simple” cognition, e.g. colour cognition) but at the same time choosing capabilities that are *sufficiently delineated* (vs. large or diffuse capabilities, such as reading words or understanding narratives); and, finally, choosing a field that is backed by *substantial empirical research* on the cognitive side (vs. general speculations, e.g. on the social role of some artefact building techniques).
2. rely on a wide corpus of existing “attempts” at depicting shadows in a perceptually adequate way.

A. Attached shadow (chiaroscuro) is not universally used in depiction, but even where it is mastered skillfully, it is not generally accompanied by the use, let alone the mastery, of cast shadows – cast shadows are rare until the European Renaissance. B. After the Renaissance, shadows in European painting were canonised and shadow painting was the subject matter of a number of painting treatises. C. During a circumscribed period in history, the depiction of cast shadows has been the object of a representational struggle. Painters of the early Renaissance appear to have been fascinated by shadows, and to have learnt over about one century how to depict them in a geometrically and perceptually adequate or satisfactory way.

## The sample

The sample includes about 800 paintings (with 1600 shadows) produced 1415-1515. Inspected at various locations, mostly in Western Art museums and collections in Europe and North America. All items registered have been inspected *de visu*, as most available photographs do not convey enough relevant detail.

## Proposed Shadow Categories

Shadowless paintings			
Mainly imitation shadows (specify shape properties of casters)		Virtuoso (the caster can be recognised from its shadow)	Vittore Crivelli (c. 1450-1500); S. Giacomo della Marca; Urbino
		Triangle, spike	Gerolamo da Treviso il Vecchio (1451-1497), <i>Cristo Morto Sostenuto da Due Angeli</i> , Milan, Brera.
		Reverse triangle	Ravenna, Mausoleo di Galla Placidia (425-450 A.D.).
Mainly instrumental shadows (specify locational properties of casters and surfaces)	Anchoring shadows	of stick touching ground	Bartolomeo Vivarini (1432-1499), <i>Polittico di Conversano</i> , Venice, Accademia (1475)
		Marks with no shadow feature but with shadow function	Anonymous, <i>Triumph of Love</i> , Museo Bandini, Fiesole (drawing not available)
	Surface enhancing shadows	of partly suspended horizontal object	R. van der Weiden (c. 1400-1464), <i>The Crucifixion</i> (c. 1460), Philadelphia.
		that climbs a step	Vittore Carpaccio (1473-1526), <i>Presentazione della Vergine al Tempio</i> , Brera, Milan.
Mistaken shadows		of protruding object	Vittore Crivelli, <i>Pietà</i> (c. 1481), Urbino, Galleria Nazionale delle Marche.
		Truncated	Piero della Francesca (1416-1492), <i>Annunciation</i> , Galleria Nazionale dell'Umbria Perugia (1460-1470).
		Truncated at edges (do not climb steps)	Girolamo di Benvenuto, (1470-1524) <i>Madonna col bambino</i> , Urbino.
		Wrong step-climbers	Girolamo Genia (1476-1551), <i>La Madonna col figlio, santi e dottori della chiesa</i> , Milan, Brera
		Film-like	Domenico di Paride Alfani, <i>Pala della Sapienza Vecchia</i> , Galleria Nazionale dell'Umbria, Perugia
		Lone	Anonymous, <i>Adoration of the Magi</i> , San Diego.
		Inconsistent	Signorelli, <i>Flagellation</i> , Milan : Brera
		that bend around corners	Conrad Witz (1400-1446c), <i>Adoration of the Magi</i> (1443-1444), Genève, Musée d'art et d'Histoire.
		Crossing	Vivarini (1442/53-1503/05), <i>Madonna col Bambino e Santi</i> , Urbino.
		Poor interactivity with surface	Masaccio, <i>S. Pietro</i> , Cappella Brancacci, Firenze.
Shadow exotica		Profile as from observer's viewpoint	Belbello da Pavia (active 1430-1473) in the Visconti Hours, <i>Spies of Jericho Escape</i> (Florence, Biblioteca Nazionale)
		From multiple sources	Piero della Francesca (1416-1492), <i>Flagellation</i> (c. 1455), Urbino.
		Silent witness	Tarsie, <i>Studiolo</i> , Urbino
		Broken	Biagio D'antonio, the story of Joseph, Getty Museum, Los Angeles,
		Occluded	
		On water	Vittore Carpaccio, <i>Hunting on the Lagoon</i> (1490), Getty Museum, Los Angeles
		Caster/light on our side of the canvas	Giovanni Bellini (1430-1516), <i>Pietà</i> (c. 1465), Milan, Brera;
		Violation of taboo on human body	Bernardo Strozzi (1581-1644), <i>Convito in Casa di Simeone</i> , Venezia, Accademia
		Unintended	Piero della Francesca, <i>Annunciation</i> , Galleria Nazionale dell'Umbria, Perugia.

Drawings are by Roberto Casati.

References:

Casati, R., 2003 *The Shadow Club*. New York: Knopf.

Casati, R., 2004, “Methodological issues in the study of the depiction of cast shadows”, *Journal of Aesthetics and Art Criticism*.

Research for this study has been made possible by a Cognitique Grant of the French Ministry of Education, ACI Cognitique 2000 2P3470, «Le rôle de la reconnaissance dans la représentation picturale». Thanks to Sarah Bendaoud and Nathan Sperber for assistance with the database.

