

Qualitative research on the appearance of the *Plastique* collection

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- [1] *Jean-Baptiste Thomas, Aurore Deniel and Jon Yngve Hardeberg,*
The Plastique collection: A set of resin objects for material appearance research,
Proceedings of the XIV Conferenza del colore. Firenze, Italy, September, 2018
- [2] *Davit Gigilashvili, Jean-Baptiste Thomas, Jon Yngve Hardeberg and Marius Pedersen,*
Behavioral Investigation of Visual Appearance Assessment,
Color and Imaging Conference, Vancouver, Canada, November 2018
- [3] *Davit Gigilashvili, Jean-Baptiste Thomas, Marius Pedersen, and Jon Yngve Hardeberg,*
Material appearance: Ordering and clustering,
Material appearance, Electornic Imaging, Burlingame CA, USA, January 2019
- [4] *Davit Gigilashvili, Jean-Baptiste Thomas, Marius Pedersen, and Jon Yngve Hardeberg,*
Perceived Glossiness: Beyond Surface Properties, *Submitted to Color and Imaging Conference*
...



*Cattura di Cristo, Caravaggio
1602, oil on canvas*





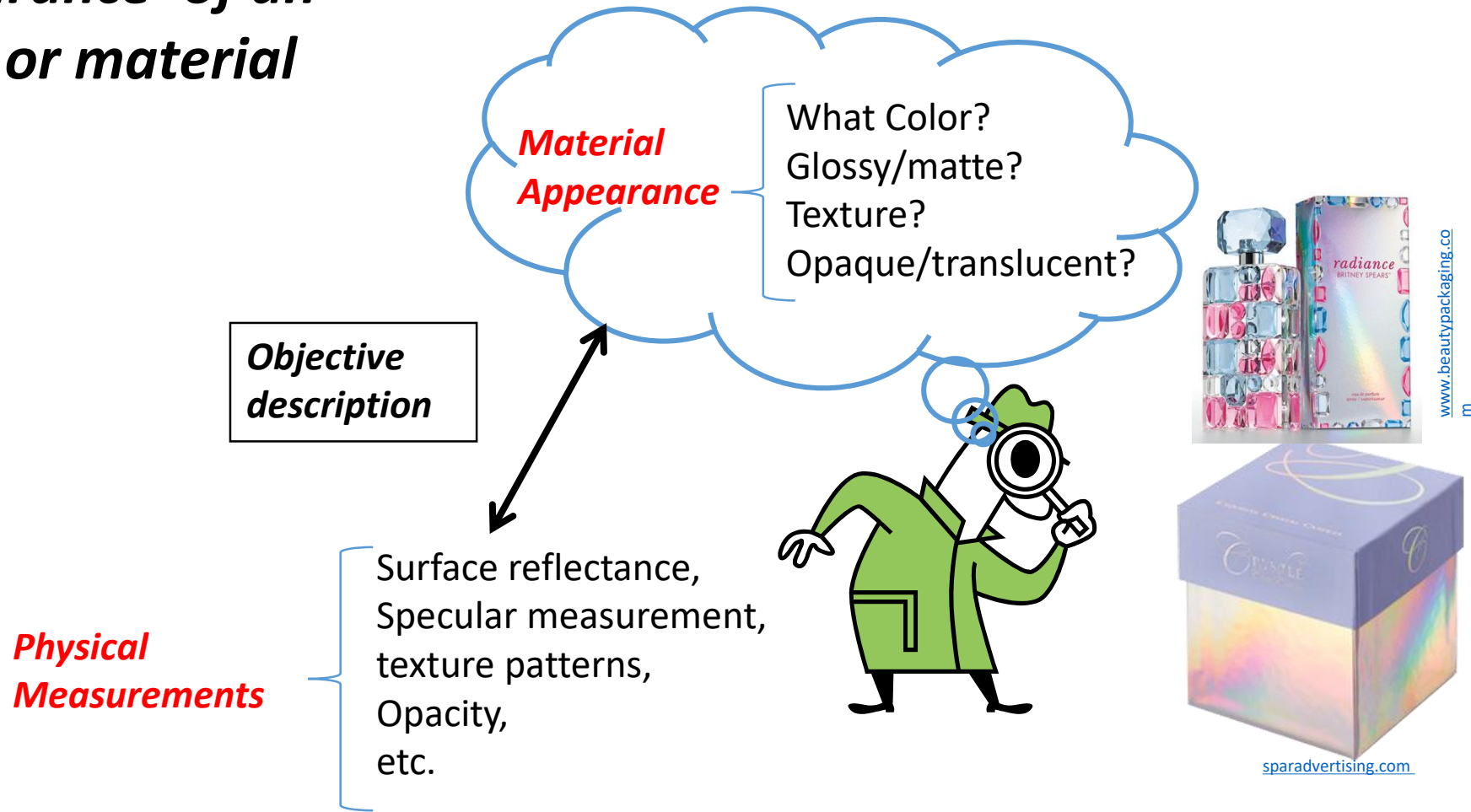


*3D prints.
But also Painting, Packaging,
Definition of new, active material,
Extended reality gears, etc.*

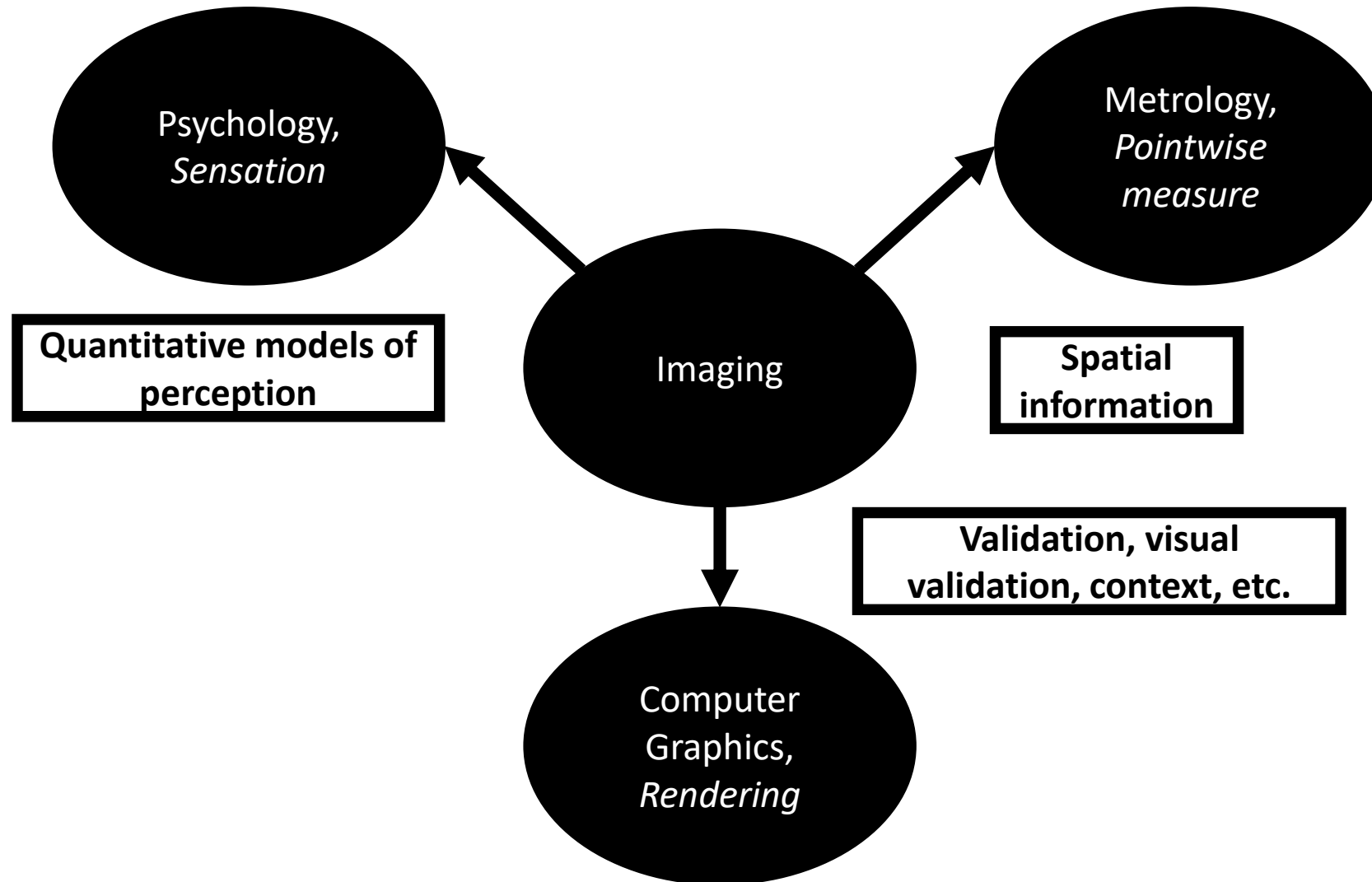


Measuring the 'appearance' of an object or material

• Slide provided by Aditya Sole, MUVApp project



Several, different terminologies and point of views



A collection of (real) objects?

- Generate research hypothesis through qualitative research methods
- Verify quantitative models – Fast prototyping of models / measurement devices
- Experience visual perception (for researchers)
- Communicate about visual perception (to others)

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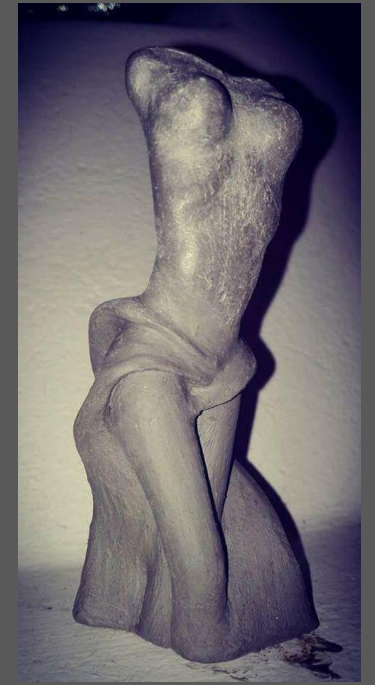
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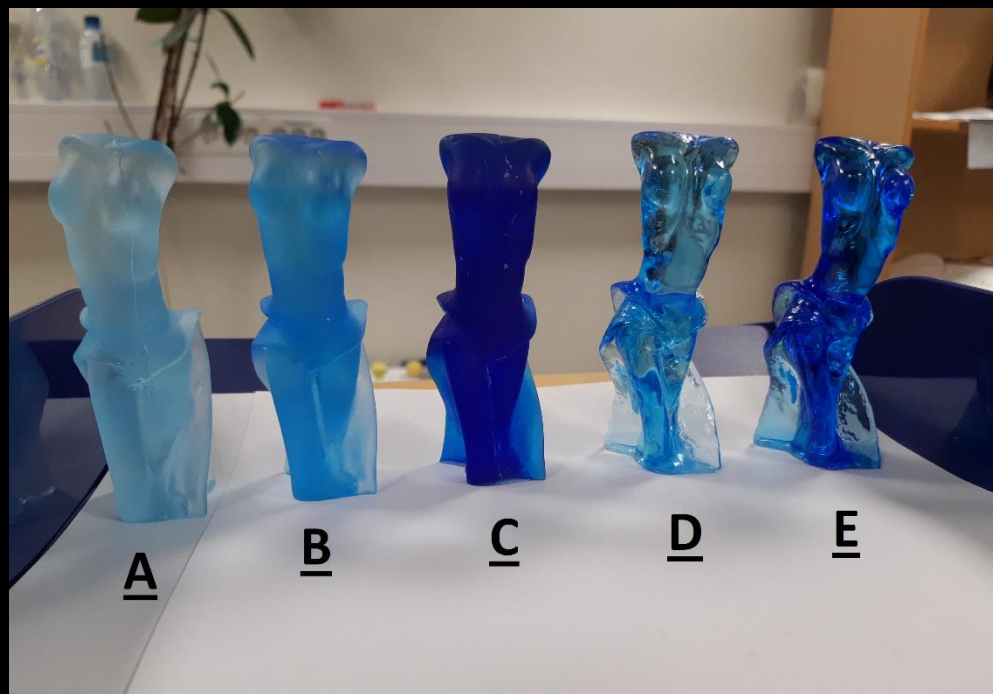
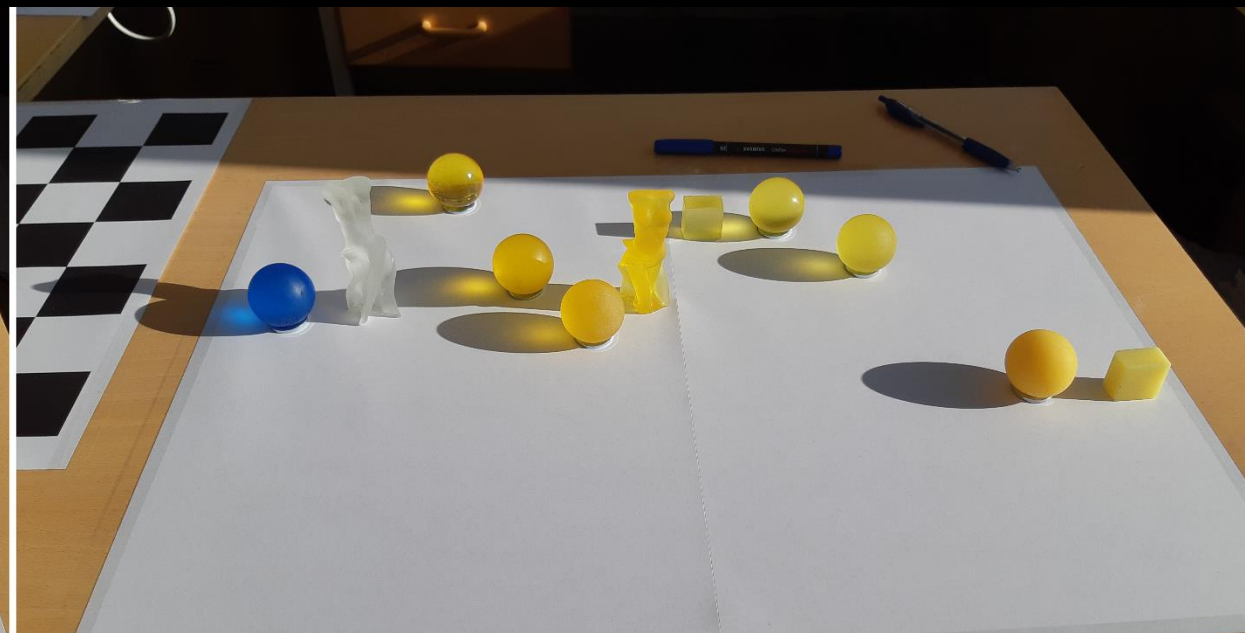
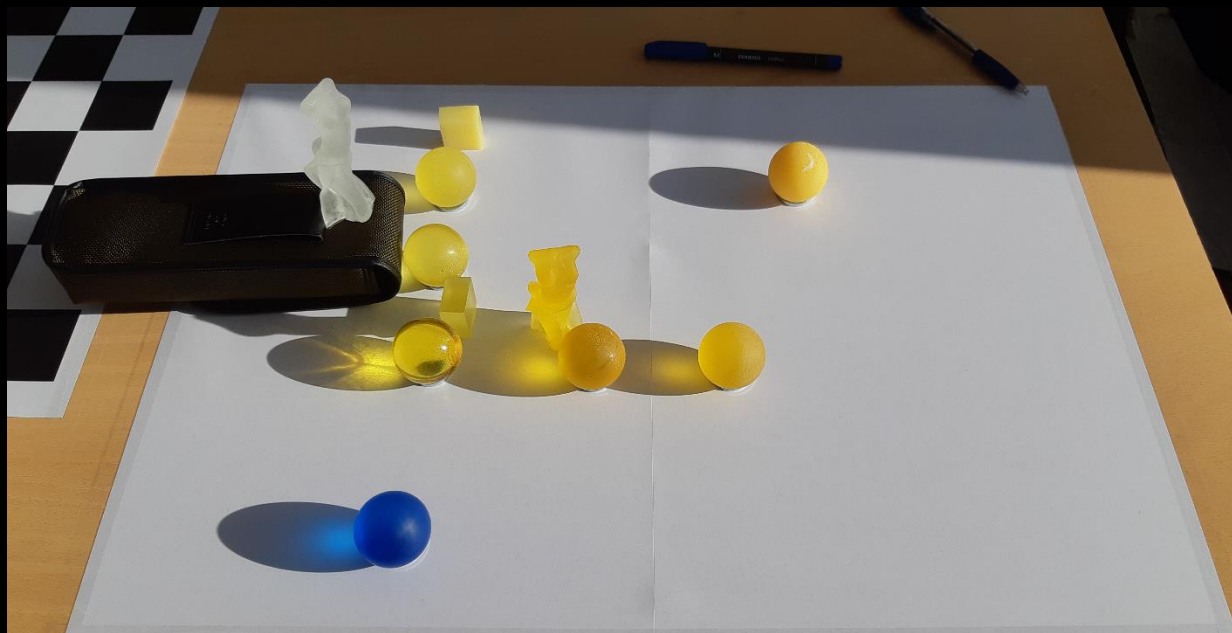
The polymeric material

The silhouette of a person

The class of arts in which the aesthetic

*is developed around the modification
of shape or volume*





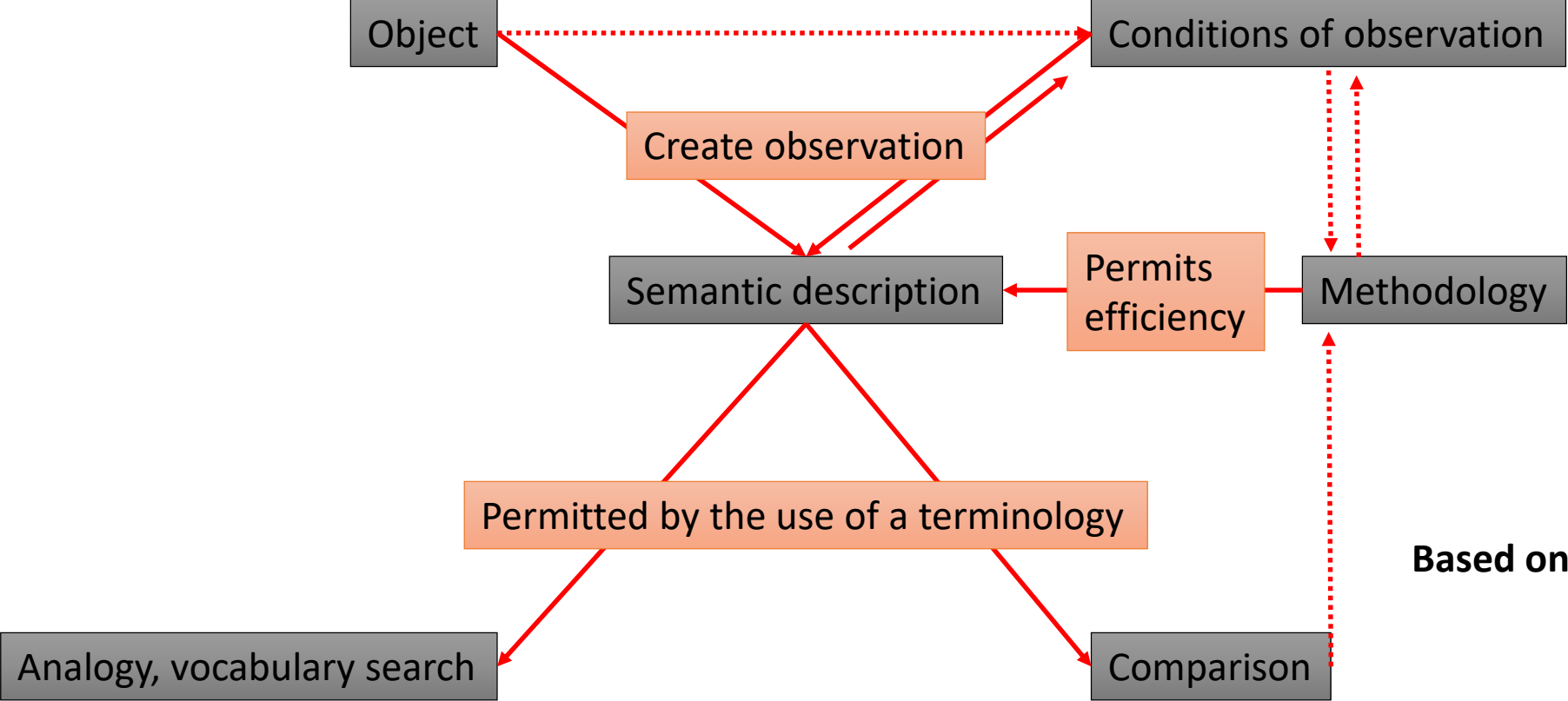








***Observation on 'how difficult it is to describe appearance',
(Semantic) appearance description process***



Based on an interview of the artist

Behavioral investigations



Conducted with 17 people

Ordering, clustering, ranking, describing, etc.

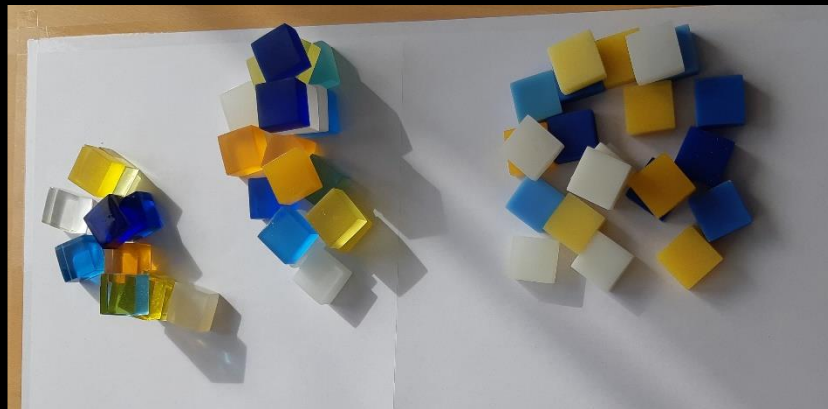


Visual clustering as a decision making process

color



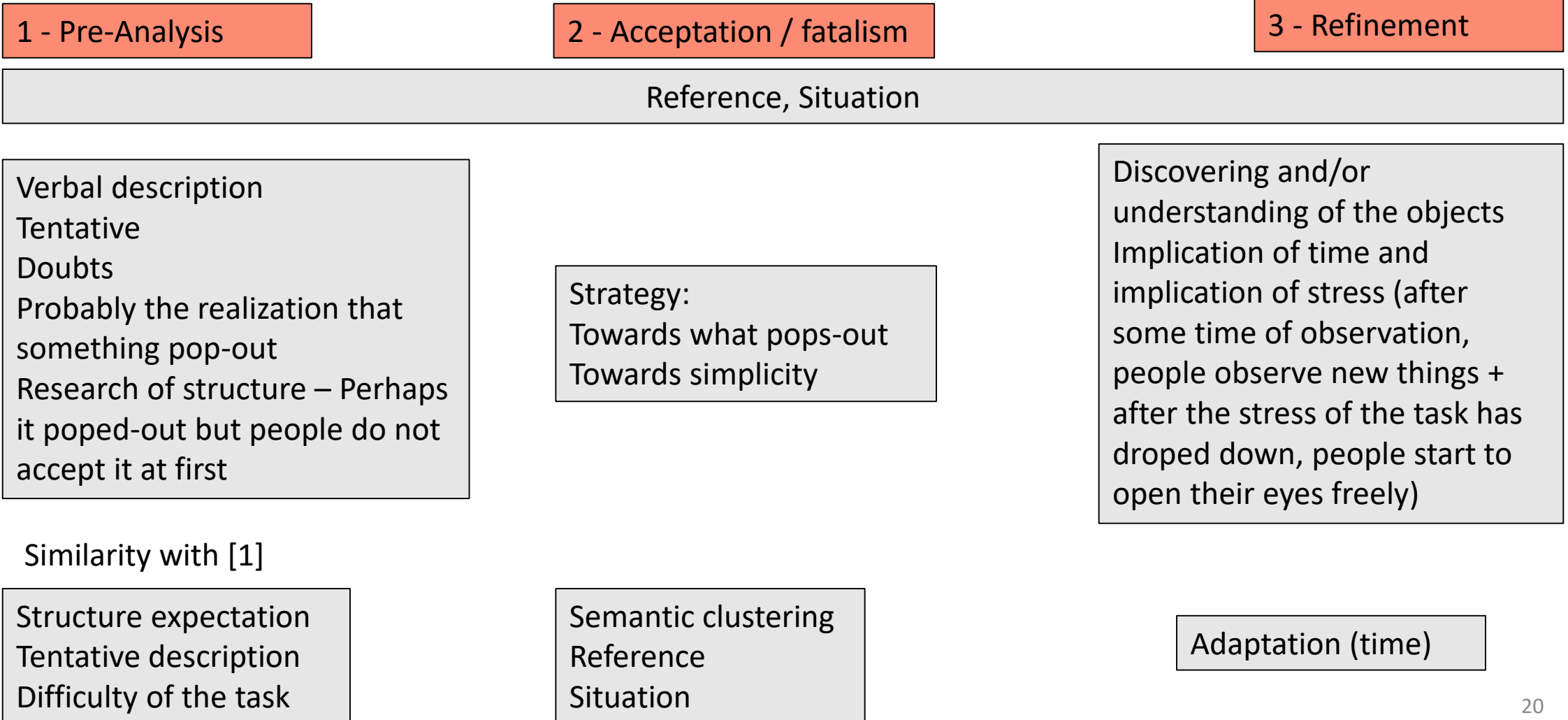
translucency

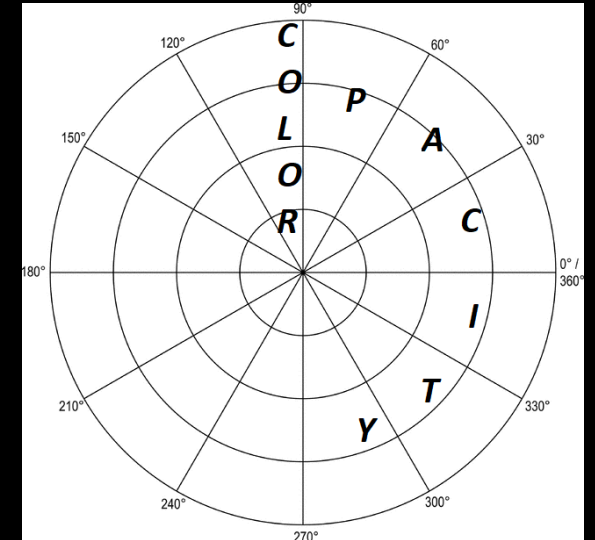
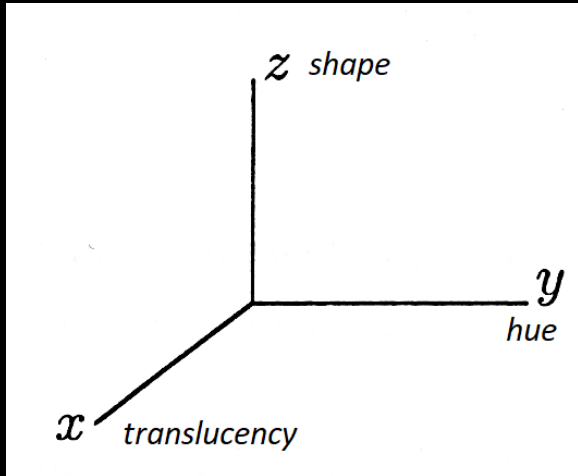
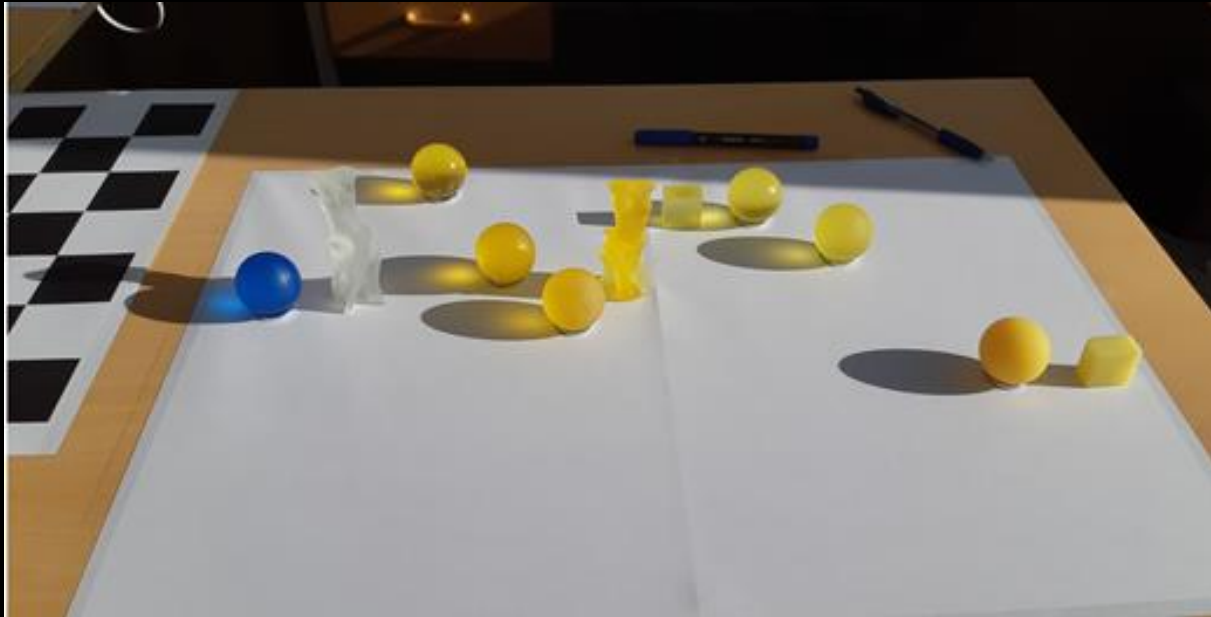
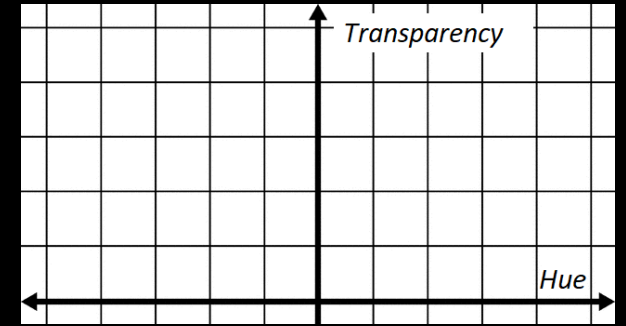
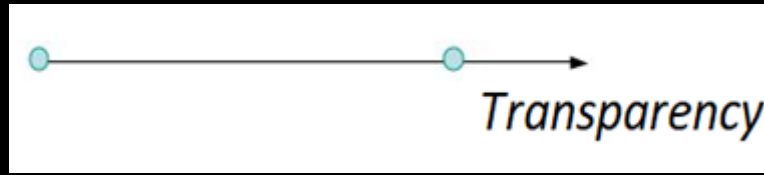
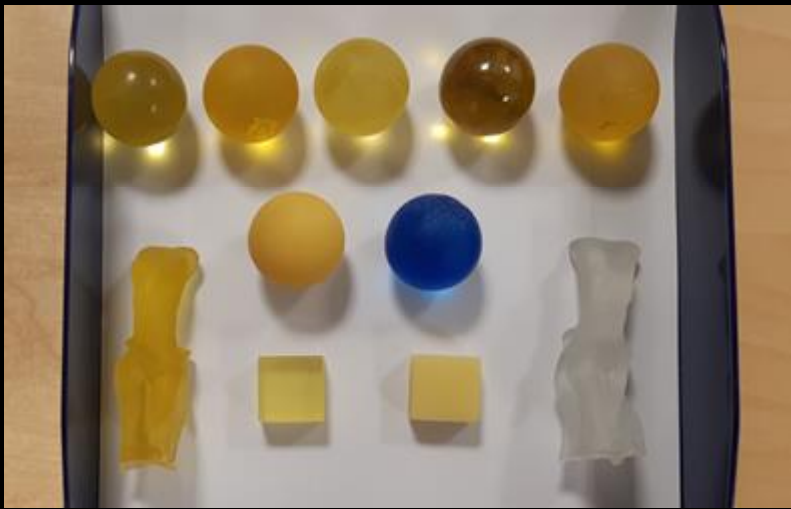


color and translucency



**An individual decision making where we find instances of the existing models observed in the literature:
Expected-value optimization, Satisficing, Acquiesce to a person in authority, anti-authoritarianism, flipism.**

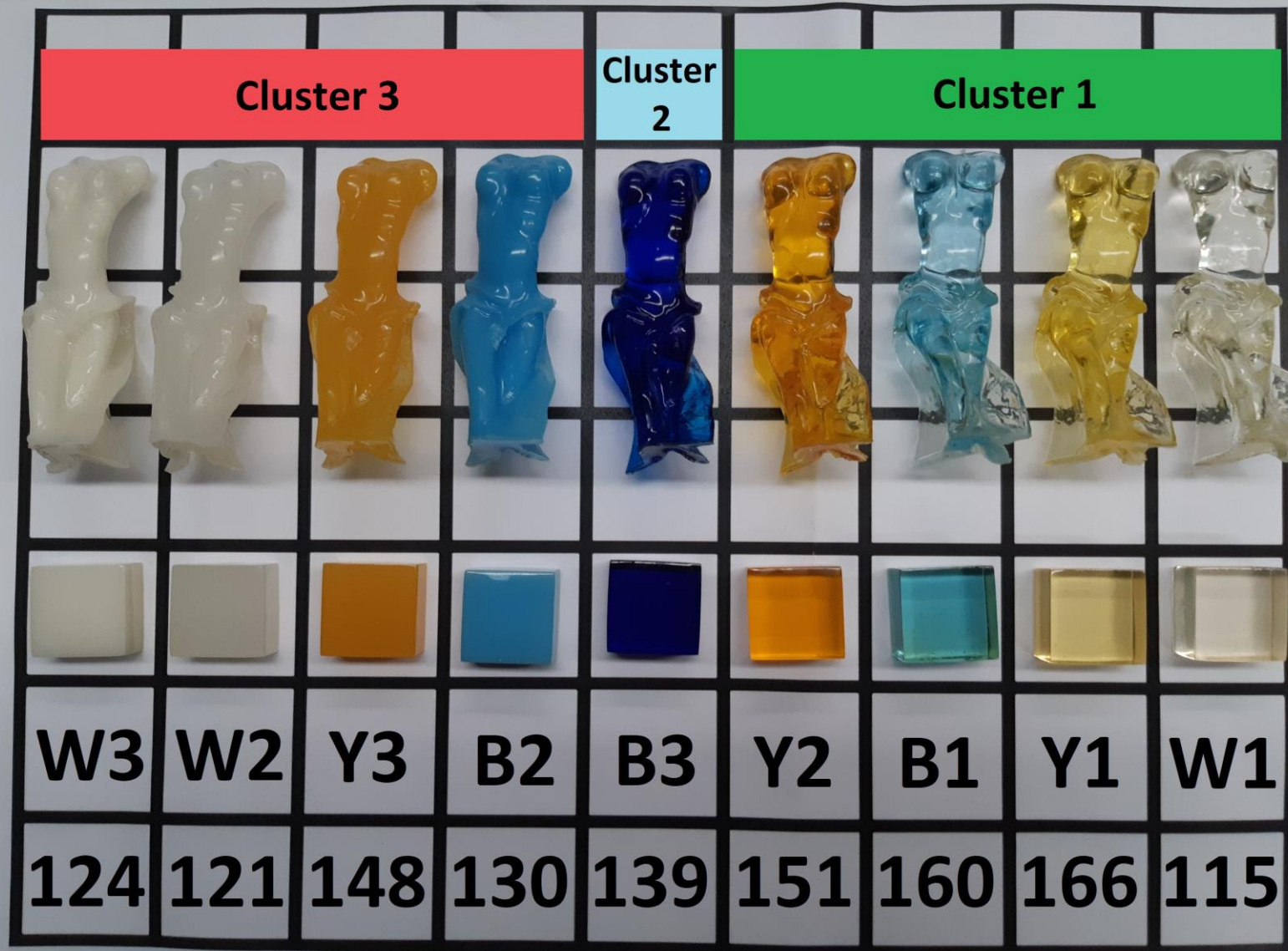




Towards an appearance ordering system...

...Not yet

Gloss perception depends on transparency



Perspectives and limits

Corpus of objects

- Simple material
- Homogeneous material
- No specific use of the objects

We do not claim any generalization!

This is only a set of observations on a collection of data

We are working on the best formulation of hypothesis from those observations

Link to quantitative analysis is on-going

- Measurements
 - Ellipsometer
 - Spectral measures (Trans/Refl)
 - Polarization
 - Gonio measures
 - Surface (Université de Bourgogne)
- Visual rates, ranks, games, tasks
- Models
 - Optical models of the objects
 - Physical rendering
- Analysis
 - Measurement geometry and modality
 - Dimensions
 - Definitions

SOUS LE HAUT PATRONAGE DE MME LA MAIRE D'AVIGNON ET DE M. LE DÉPUTÉ
DE LA 1^{ÈRE} CIRCONSCRIPTION DU VAUCLUSE, LE CENTRE FRANÇAIS DE LA COULEUR ORGANISE
LE COLLOQUE DE L'ASSOCIATION INTERNATIONALE DE LA COULEUR

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CONFÉRENCES - EXPOSITIONS / CONFERENCES - EXHIBITIONS

AVIGNON - PALAIS DES PAPES / POPES' PALACE

6-9 OCTOBRE 2020 / 6th-9th OCTOBER 2020

ORGANISÉ PAR LE

