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Portraits of Meaning Making:
Mediation Strategies in Encounters with Artworks

ABSTRACT:

This chapter is based on the outcomes of the research project «Mediation and Meaning Making Strategies in Art Museums»[1]. The main goals of the research project were to understand how could the use of specific mediation strategies help individuals in the interpretation of artworks, and if those meaning making processes vary across people with and without a background in visual arts. In order to achieve this goal a five-month workshop was organized, involving twenty-four participants who engaged in continued encounters with three chosen artworks in the museum. During the workshop participants were introduced to and used different mediation strategies – written and visual, developed to map and record their individual dialogues with each artwork.

Meaning making strategies in art museums

Theoretical and empirical research on the topic of meaning making within the visual arts has been expanding in recent years, namely due to the work carried out by scholars in different fields – philosophy, visual culture, museum and art education (Barret, 2010; Carroll, 2003; Émond, 2010; Fróis & White, 2013; Fróis & Silva, 2014; Parsons, 1987; White, 1998). The topic of meaning making within the visual arts has direct implications for the improvement of communication activities in art museums. In that sense, the development of theoretical frameworks aimed at understanding human behaviour in its interaction with the arts within museums is an important issue for the training of art museum educators and teachers (Csikszentmihalyi & Robinson, 1990; Goodman, 1984). Within our research's theoretical context, artworks are considered as potential means and tools to structure our inner worlds – emotions,

thoughts, and motivations. Therefore, encounters with artworks allow us not only to understand what artists seek to communicate through their art, but also enable new understandings of the self, mediated by subjective interpretations, judgments and feelings. Meaning making is a dynamic and multidimensional learning process intimately linked to the motivation of individuals and to their awareness of their experiences with the arts.

Our empirical research aims at further developing the theory of meaning making and understanding the phenomenology of the reception of artworks. In particular, we are interested in tracking and analyzing the discrete experiential moments involved in what John Dewey (1934) described as 'an' experience, that is, an experience that participants deem to have significance, a sense of completion and fulfillment, in other words, an aesthetic experience. For Lev Vygotsky (1927-1928, Fróis, 2011), one of the structuring axes of an aesthetic experience was the similarity between the artist's creation and the viewer's perception. The 'readers' should show solidarity towards the poet because when we perceive an artwork we recreate it anew every time we come in contact with it. This idea moves away from the structural, impersonal analysis of artworks, drawing closer to the psychological analysis of the relationship between art as a «technique of social exchange» and the real person (Fróis, 2010). In other words, an encounter with an artwork usually places individuals face to face with themselves. Due to its multiple and underlying psychological functions, this is an extremely complex process that demands a cognitive and emotional involvement on the part of the viewer, an urge of wanting to stay. The deeper the involvement in these cognitive and emotional processes, the more intense will be the learning and the meaning assigned by viewers to their own experiences (Funch, 2012). This awareness opens new challenges for art museum education – regardless of their greatness, the 'value' of an artwork fades if not met by an attentive gaze, a thinking mind and a 'sensitive self' (Hooper-Greenhill, 2000).

Main steps of the meaning making imaginative process

Within the context of this research project we further developed the four-step meaning making approach advanced by Boyd White (1998-2009). His proposal includes a set of interpretation-oriented strategies that actively involve individuals in mapping the paths integrated in their experiences with artworks. The four-step approach produces visual and written 'texts' that contribute simultaneously to individuals self-awareness

of their meaning making processes, while also making them visible and shareable with others. Envisioned as *a continuum* it includes four mediation strategies: note writing, aesthetigrams, quadrant, and text writing (Fig. 1).
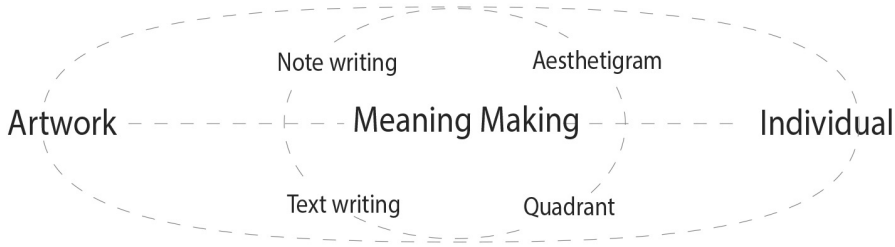

Fig. 1 – *Main Steps of the Meaning Making Imaginative Process*

1. Note writing: notes are a stream of consciousness, a written record of the first contact with the artwork, which can include the initial impressions, thoughts, free associations and descriptions about the artwork. They might also describe the context in which the artwork is seen, as well as the viewer's feelings. These written records emerge from the natural flow of individuals' meaning making process, and are taken during their encounters with an artwork.

2. Aesthetigram design: the term aesthetigram results from the combination of two words: aesthetics and diagram, and was coined by Boyd White (1998). An aesthetigram is a concept map constructed by the viewer and intends to help him/her to diagrammatically visualize the main moments of the meaning making process. Its construction is based on the note writing and the use of *a priori* defined categories (Tab. 1).

Tab. 1 – Definition of the Categories Used in the Construction of Aesthetigrams

	Category	Definition	Keywords
Cognitive Dimension	Perception	Can be a gaze without a specific aim or focus; a visual path with or without connection to the work of art in presence. Can also be a generalization of form, a tendency to summarize.	Gaze, identify, discriminate, recognition, description
	Memory	Not specifically comparative associations to the previous circumstances of the observer's life connected or not to the world of art. Specifically comparative associations with other works of art.	Free associations, specific associations, comparison
	Knowledge	Specific knowledge, connected or not to the world of art, which clearly guides the response to the work of art. The awareness that lack of contextual knowledge prevents attempts to interact with the work.	Information, influence, knowledge
	Reflection	Spontaneous critical activity about the affective character of the work. Meaning of the work in relation to the social context of both the artist and the observer	Criticism, thought, analysis, relationships between elements
Affective Dimension	Feelings	It is not necessary to have an exact word to define what is felt, just the idea that attention is focused therein: sensory elements; merit of the artistic technique; overall expressive meaning; subjective expressive meaning.	Projection, subjective influence, affects
	Emotion	Can be considered a subcategory of feeling(s) to which a precise term can be attributed – happy, sad, shame, fury, etc.; or a combination of terms – attraction/repulsion, fury, admiration, etc.	Primary emotions, secondary emotions
Imaginative Dimension	Daydreams	They are not quite memories but rather an emphatic state of imaginative reverie induced by the encounter with the work of art, a 'symbiosis with the work'.	Empathy, imaginative reverie, hypothesis
	Seeing as	In its essence it is a comparative act between what is presented to the observer and what could be. It can also be an interpretation that transcends the external aspect of the work.	Imagine, interpret, recreate, invention
	Expectations	Can be an expectation directed at the work: a comparative act between what is anticipated and what was found before; or a self-directed expectation: the observer's anticipation of his/her response to the work or event.	Comparison, anticipation, assumptions

Tab. 1 – Definition of the Categories Used in the Construction of Aesthetigrams

Behavioral Dimension	Attitude	Positive, negative, or indifferent interaction with the work of art. In general, attitudes are positive or negative points of view on people, places, things, or events, all considered as the object of the attitude.	Assessment, criticism, opinion, interpretation
	Taste	General preference for certain types of images, themes, styles, etc. Can also be a random preference, an arbitrary or specific choice of the work.	Individual projection, choice, preference
	Judgment	Can be a provisional assessment: a questioning or confirmation of the initial response, a change of opinion; a provisional final assessment; or a definitive final assessment. To deliberately abstain from manifesting any type of assessment.	Assessment, criticism, opinion, interpretation
Associative Dimension	Bracketing	Need to momentarily set aside an idea or feeling regarding any one or all of the axes of the experience of meaning-making – of the observer, of the context, or of the work.	Pause, wait
	Additional Moments	Associations that take the subject beyond the work though the work is their starting point. Tendency to involve other senses. They can also be reflections that occur after the encounter with the work of art.	Pause, ideational complement, parallel thoughts
	Explanation	The work is understood as a puzzle, a set of symbols to decode or a problem to be solved.	Decode, message, research

White, 2009; Fróis, White, Silva, 2013

This set of categories was proposed by Boyd White and was based on his own research and other empirical and theoretical sources (Housen, 1983; Feldman, 1987; Feinstein, 1989; Parsons, 1987; White, 2009). As individuals learn to identify and structure the 'experiential moments' that come together in their encounters with an artwork, they gradually become aware of what would otherwise be fleeting and often-wordless moments. An experiential moment is simply any single moment (in time) of which one is consciously aware[2]. Aesthetigrams act as a strategy

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[2] We experience our world as a series of moments, like frames in a movie. They are, of course, cumulative, so the meaning of any series of moments is the result of that accumulation, a gestalt, in other words. The gestalt is pre-reflective and immediate and spontaneous. It is

for the clarification of language. The purpose of such visual records is to provide a permanent source of data for the study of otherwise evanescent phenomena – art-generated, meaning making processes[3]. On the basis of such records, the «teacher» (facilitator) is then in a position to suggest alternative perspectives and approaches to the artwork; or individuals may use the aesthetigram as a self-teaching device (Fig. 2).

3. R.L. Jones Quadrant: the R.L. Jones Quadrant, or model of phenomenological balance, was developed by R.L. Jones (1979) who, in order to portray the complexity of an aesthetic experience, developed a diagram, a circular structure defined by four main dimensions: *cognitive*, *intrinsic*, *affective*, and *extrinsic* (Fig. 3)[4]. Each of these cardinal points suggests opposite theoretical orientations. For example, *intrinsic* refers to a formalist attitude towards the artwork, whereas the *extrinsic* orientation focuses on its instrumental or utilitarian value. The *cognitive* pole represents a purely intellectual attitude towards the artwork and its opposite, the *affective*, represents an emotional response. Between these vertical and horizontal axes are their diagonal filiations – *sterile*, *primeval*, *sentimental*, and *iconic*. For Jones, in order to become aesthetic, the experience would have to move from the circle's periphery to its center, therefore becoming less extreme and move towards a phenomenological balance.

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based on the accumulated previous experiences in our lives. E.g., we know we are looking at a painting of a car because we have seen many cars before in our lives and we have certain attitudes about cars that colour our immediate response to the painting.

[3] While building the aesthetigrams, individuals also take notes on whether, in each moment, their attention focused on the Viewer (V), Context (C), or Object/Artwork (OA). This VCOA scheme is a helpful indicator for understanding the meaning making process. It aims at helping individuals reflect about the origin of the focus of their attention in each «experiential moment» of their encounter with an artwork. The size of the circles identifying each of the moments is important since it indicates the intensity of that signaled moment for the individual: the smaller circles means less importance, while the larger circles mean greater importance. The links between the circles indicate the unilateral or bilateral influence of the moments recorded by the participants, while their numbering indicates their sequence.

[4] The model *I-Thou*, *I-It* developed by the Austrian philosopher Martin Buber (1878-1965), presented in his book *I and Thou* (1958), was an important reference for the development of R.L. Jones's model of phenomenological balance.

20
Bracketing
V
(pause: I remembered the Gulbenkian's bookshop)

19
Perception
OA
The book standing in an irregular surface

17
Explanation
OA
The figure is leaning on what? A book?

18
Seeing as
OA
The book starts in a new chapter (we can see it by the colour)

15
Judgement
O/OA
Line and color block are in harmony

14
Judgement
O/OA
Attention in certain details but in others no so much

9
Perception
OA
Backboard, the figure adjusts herself to the backboard

8
Bracketing
C
(the sound of footsteps)

21
Perception
OA
Texture; just the hair and lips are homogeneous

22
Perception
OA
The right side of the figure (plus the arm) are not defined

16
Perception
OA
A small sensation of muscular atrophy used to frame the composition/canvas the figure seems deformed to fit in the space of the canvas. Forced composition

7
Judgement
OA
Small signature (scribble with a strong and delicate trace)

23
Seeing as
OA
The book is on the edge of an abyss

25
Explanation
OA
We can't see one of the ears - mistake? Mistake in my reading?

24
Seeing as
OA
Distinterested look? - Hum??

13
Perception
OA
Reduced green palette

12
Explanation
OA
Book - elitism? Culture?

11
Seeing as
OA
Serious posture, like the pose of high class woman

10
Perception
OA
Very accentuated red lips

27
Bracketing
C
(the sound of footsteps)

26
Perception
OA
The figure is laying softly, not obviously

1
Emotion
V/OA
Calm

2
Perception
OA
Pastel tones

5
Perception
OA
Small book/ manageable/ hand scale

6
Perception
OA
Margins not painted

28
Judgement
C
In certain areas the brushstroke is rough

30
Attitude
V
I don't want to write anything else

3
Judgement
OA
Sweet posture of the hands

4
Seeing as
V/OA
The figure reads and sleeps (see time)

29
Perception
OA
There are shadows but not many contrasts

5
Perception
OA
Small book/ manageable/ hand scale

6
Perception
OA
Margins not painted

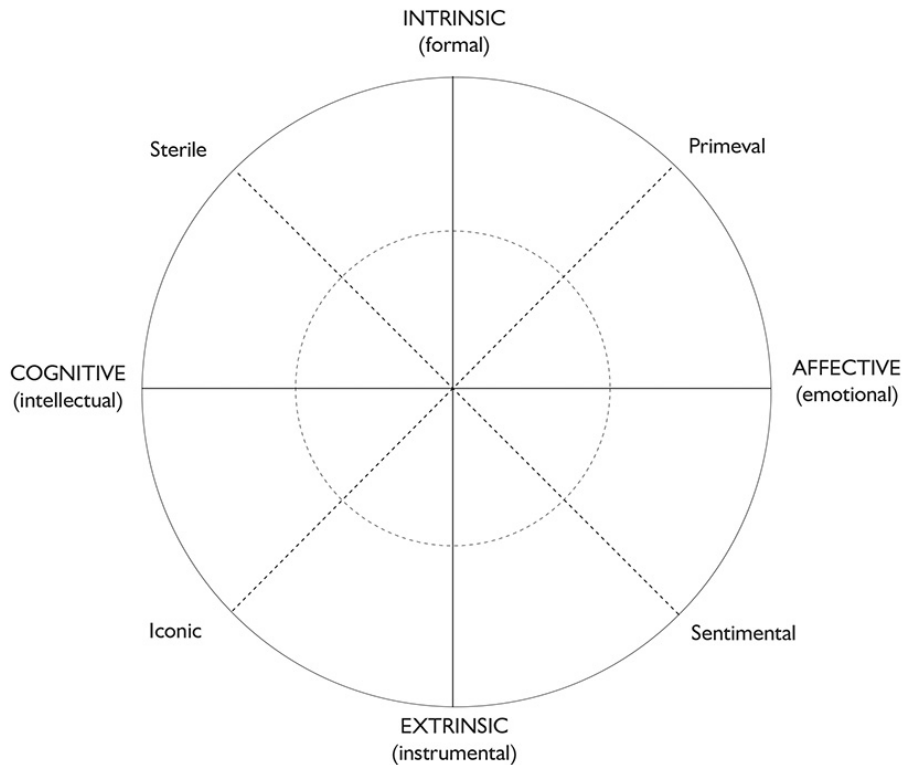Fig. 2 – Example of an Aesthetigram. *Portrait of Matilde*

Fig. 3 – Model of Phenomenological Balance: R.L. Jones Quadrant

Boyd White included the quadrant in his meaning making strategies to encourage participants to explore the patterns in their meaning making processes. After building the aesthetigrams, participants organized their different experiential moments according to the R.L. Jones quadrant[5].

4. Text writing: text writing is the fourth and last 'tool'. It is a final written record combining the previous steps: notes, aesthetigram, quadrant and post-encounter reflections. Individuals write a text in retrospective, summing up their 'dialog' with the artwork.

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[5] The comments associated to each moment were decisive to choose where to place each circle. Moments associating two or more categories could be placed in different points in the circle.

Research project

In this research project we used and further developed the meaning making framework proposed by Boyd White. Our main goal was to understand how groups of adults, with and without a background in the visual arts, organize their experiences with artworks in museums, through the use of the aforementioned mediation strategies. The two main research questions framing our study were:

1. How can the use of mediation strategies guide meaning making in encounters with artworks?
2. To what extent does the academic background of the participants determine their appreciation of an artwork?

In this chapter we will focus mainly on the first research question.

Participants

A group of 24 individuals were involved in our research, twenty of which were women[6]. The average age was approximately 33. The 24 participants were categorized as *artists* (N = 12) and *non-artists* (N = 12). The artists were categorized as such due to their background in the visual arts, meaning that they had a Bachelor of Arts in painting, sculpture, design, or architecture. Most of the artists (58%) and non-artists (68%) were teachers, and some of the artists (N = 3) had also experience in art museum education. The group integrated mainly former students from the Faculty of Fine Arts and the Institute of Education of the University of Lisbon. The group consisted of individuals naturally open to experience and curious about the inner and outer world[7]. Regarding their cultural

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[6] The call for the participation in the workshop was directed to master degree students in education (didactics of history, languages, geography, etc.) and arts (painting, design, sculpture) formally announced in the Institute of Education and in the Faculty of Fine Arts of Lisbon University. Participants freely participated in the workshop and a commitment document was signed between the parts.

[7] The Reviewed NEO-PI Personality Inventory was chosen to characterize the sample in relation to the dimension *Openness to Experience* assessed by that inventory. This dimension includes six facets (Fantasy, Aesthetics, Feelings, Actions, Ideas, and Values). The results in this dimension indicate values above average for the Portuguese population (Lima & Simões, 2000). No statistically significant differences were verified between the group of artists and the group of non-artists (U = 44, *ns*). As stated by the NEO authors, the dimension *Openness to Experience* is strongly related to some aspects of intelligence, such as divergent thinking, one of the accepted components part of the creativity construct. This dimension thus reflects a proactive search, the appreciation of experience itself, tolerance

habits, we concluded they were culturally active people, interested in the problems related with museums' communication with their different types of visitors[8]. They considered museums to be relevant institutions for the cultural development of individuals.

Workshop

As part of our study a five-month workshop was organized. The first two months were dedicated to introducing the topic of meaning making and 'experiencing' the mediation strategies with participants. During the following months, each participant worked individually, only consulting the project team but not other participants. The aims of the workshop were: a.) to introduce participants to research in the field of educational mediations in art museums; b.) to present the theoretical model being developed within our research project; c.) to accompany participants' interpretation of artworks in museums; d.) to analyze the data produced by the participants in collaboration with the project team. Overall, participants spent an average of 40 hours on this study: 24 hours on the training workshop; around 3 hours in encounters with artworks in the museum; and 12 to 15 hours on autonomous work.

Artworks

Three artworks were used in our study, two paintings and one video. The choice of these artworks was guided by the following parameters: 1.) to potentially elicit empathy in the viewers; 2.) to differ in terms of their media; 3.) to be exhibited in the permanent collection of the museum collaborating with the project (Gulbenkian Modern Art Centre, Lisbon).

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and exploration of what is not familiar. (Costa, P.T., MacCrae, R.R., *Manual*, *NEO-PI-R*, Lisbon: CEGOC, 2000 - NEO Portuguese version by M.P. de Lima e A. Simões)

[8] Data collection for the socio-graphic characterization of participants was based on a questionnaire with thirty questions that they filled in at the end of the workshop. During the workshop, most participants had an occupation related to teaching and training: eleven were teachers (45.8%), four were trainers (16.7%), three were museum education monitors (12.5%) and three were cultural managers (12.5%). Twenty-three participants were graduates (95.8%) and one was completing graduation; seven were postgraduates in arts and social sciences (29.2%); nine had a master's degree (37.5%) – four in arts, four in education sciences and one in sociology. During the project, eleven subjects (45.8%) said they were doing a master's degree – four in the teaching of visual arts, three in museum studies, and five in philosophy (aesthetics). During secondary education, about 50% of the participants attended art classes.

The artwork *Le Cadeau* (1982), a painting by Martha Telles (1930-2001), was used as a warm-up during the workshop[9]. Participants first experienced the four mediation strategies: note writing, aesthetigrams, quadrant, and text writing, using this artwork. The other two artworks used were the video by Rui Calçada Bastos (1972), *The Mirror Suitcase Man* (2004)[10] and the painting by Sarah Affonso (1899-1982), *Portrait of Matilde* (1932)[11].

Fig. 4 – *The Mirror Suitcase Man* (2004) by Calçada Bastos (1972) DVD, 4'30" (CAM/Calouste Gulbenkian Foundation, Photo: Paulo Costa)

[9] Martha Telles, *Le Cadeau* (1980), retrieved from <https://gulbenkian.pt/cam/collection/?title=Le+cadeau> (last access 19.10.2016).

[10] Rui Calçada Bastos lives and works in Lisbon and Berlin. He attended the School of Fine Arts of Porto and Lisbon. In the *The Mirror Suitcase Man* «We can assume that memories are what the man in *The Mirror Suitcase Man* keeps in his mirror suitcase […] We focus all our attention on this object, which mirrors the city, people, transport, trees and streets. Arrivals and departures of the train or underground, doors that close, stairs that go up, station platforms, passing cars – the character's wanderings are slow, sometimes pausing, but varied, working like a record of the anonymous movements in the city». (Excerpt from: NAZARÉ, L. (2013). Os outros lados do espelho. In J.P. Fróis, B. White, C. Silva (Eds.), *Diálogos com a Arte*, Lisboa: Universidade de Lisboa, 36-37. Rui Calçada Bastos *The Mirror Suitcase Man* (2004), retrieved from <https://vimeo.com/57058192> (last access 15.09.2015).

[11] Sarah Affonso (1899-1983) is a Portuguese painter who became famous within the context of the second generation of Portuguese Modernism. Portrait of Matilde (1932) is an oil painting that portrays her friend Matilde Caroço. This picture is a good example of her command of mild color shades and her dynamic control of the plastic surface. It succeeds in balancing the pictorial area with the prime importance of the drawing, by means of a soft modelling of volumes and the representation of shadows in order to avoid the radical evidence of the plane. Matilde is portrayed in a scene of her daily life, facing us, shoulders slightly bent forward, leaning against the back of the chair and reading a fully open book, written in compact characters, which is lying on the table. (Excerpt from: TAVARES, C., O quotidiano na pintura de Sarah Affonso. In J.P. Fróis, B. White, C. Silva (Eds.) (2013), *Diálogos com a arte*. Lisboa: Universidade de Lisboa, 37-38.

Fig. 5 – *Portrait of Matilde* (1932) by Sarah Affonso (1899-1982), Oil on canvas, 80x55.5 (CAM/Calouste Gulbenkian Foundation, Photo: J.M. Costa Alves)

Results and discussion

Multidimensional analysis of meaning making

Once initial data was collected, we submitted it to qualitative and quantitative analyses. Both spheres will be addressed in this chapter. When analyzing the content of the written data: notes and final texts, indicators, subcategories, and categories, which were later grouped into dimensions, emerged. We began by comparing the results of the two groups, artists and non-artists, and further developed multiple-correspondence analyses to map the proximity between categories and their association to participants. This procedure was adopted for the notes and final texts and allowed to identify certain meaning-making profiles formed by artists and non-artists. For the aesthetigrams, we quantitatively analyzed the use, intensity, and focus of the predefined categories for artists, non-artists, and the group as a whole. The results were complemented by content analysis of the commentaries associated with the aesthetigrams of each of the participants. The analysis of the R.L. Jones quadrant was carried out in two stages: the first was centered on mapping the categories onto the quadrant, while the second aimed at mapping the dimensions, allowing us to identify their distribution in the quadrant.

In this section we will focus on the comparative multidimensional analysis of two of the artworks used in our study: the painting *Portrait of Matilde*, and the video *The Mirror Suitcase Man*. Participants followed the 'meaning making steps': note writing, aesthetigram, quadrant, and text writing, twice with each of the artworks, visiting them at the museum for at least two times. The repetition of the process intended for them to gain a deeper awareness of their meaning making processes, and to follow and explore the changes, and or confirmations, from their initial interpretations. Although the multidimensional analysis of each artwork revealed that there were significant differences in the presence of some of the categories between the first and second encounters[12],

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[12] The two encounters were compared considering the entire group ('artists' and 'non-artists'). In the note writing of the *Mirror Suitcase Man*, there were differences between the categories *form-content* (U = 170.00, p = 0.015), and *taste* (U = 239.50, p = 0.081), both more present in the first than the second encounter. In the text writing there was a significant difference in the presence of the *interpretative* dimension (U = 128.50, p = 0.001), more present in the first encounter than the second, in particular the categories *knowledge*, *explanation* and *judgment*. The *procedural* dimension was more present on the text writing of the second encounter (U = 173.50, p = 0.011). In the note writing of the *Portrait of Matilde* the categories *form-content* (U = 133.00, p = 0.001) and *association* (U = 191.50, p = 0.031) were both more present in the first than the second encounter. The category

as well as both groups[13], in order to compare the two artworks we decided to merge the encounters and consider the results of the entire group: 'artists' and 'non-artists'. The comparison between the two artworks for the note writing, aesthetigrams and text writing focused on the frequency of the categories and dimensions, as well as their intrinsic semantic content. The results between the two artworks for the R.L. Jones quadrant were compared based on the positioning of the categories and dimensions in the quadrant. We compared for each artwork and mediation 'tool' the differences between all categories and dimensions, and when comparing the two artworks we compared the differences between the same categories and dimensions.

Note writing

Focusing on the note writing, content analysis revealed the presence of the same meaning making dimensions and categories for the two artworks[14]. Overall, eleven categories emerged: *form*, *form-content*, *explanation*, *hypotheses*, *association*, *knowledge*, *judgment*, *attitude, taste, well-being*, and *tension* which were grouped in four dimensions – *formal*, *cognitive*, *behavioral*, and *affective* ([Tab. 2](#)). While taking notes, participants adopted different approaches organizing their initial writings by topics, isolated words, or sentences. Some participants complemented the written records with schematic drawings of the artworks, highlighting the main focus of their analysis. In the notes, emphasis on the *formal* dimension was common in the two artworks, revealing that the initial encounters with the

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attitude (U = 201.50, p = 0.022) was the only one significantly more present in the second encounter. In the text writing there were differences in the *interpretative* dimension (U = 102.50, p < 0.001), more present in the first than the second encounter.

[13] For the comparison of the two groups ('artists' and 'non-artists'), the two encounters were merged. In the note writing of the *Mirror Suitcase Man*, there were significant differences between the groups in the category *form* (U = 130.50, p = 0.001), *association* (U = 174.50, p = 0.016) and *explanation* (U = 197.00, p = 0.057), all more present in the notes taken by the artists. In the text writing there was a significant difference in the presence of the *procedural* dimension (U = 166.00; p = 0.006), more present in the texts of the non-artists, whereas the category *hypothesis* (U = 239.50, p = 0.081) was more present in the texts written by the artists. The category *taste* (U = 240.00, p = 0.039) was only identified in the texts of the non-artists. In the note writing of *Portrait of Matilde*, the *formal* dimension (U = 29.000, p = 0.013) was more present in the notes of the artists than the non-artists. In the text writing there are significant differences only in the category *context* (U = 213.00, p = 0.040) integrated in the *contextual* dimension, and which is more present in the texts of the non-artists.

[14] Differences in the quality of the content were identified only in the 'thinner layers' of the content analysis – subcategories and indicators.

artworks focused on identifying formal aspects and describing narrative content. This approach was complemented with cognitive, judgmental and affective inferences that, although less frequent, expressed participants' unique ways of seeing. Although content analysis highlighted a similar conceptual 'structure' for the video and the painting, expressed by the presence of similar categories and dimensions, the frequency and quality of content of each category showed the conceptual, technical and affective specificity of each work.

Tab. 2 – Content Analysis of the Note Writing. Dimensions and Categories

	Definition	Examples
Formal	References to the use and combination of the artwork's formal elements. The viewer's attention is focus on the description and analysis of the form, content, and articulation of the two.	
Form	It includes references to the formal content of the artwork. Viewers highlight the way the composition, space, shadow, colour, perspective, scale and geometry are organized.	- Dark, black and white and not contrasting shades - The brush stroke is accentuated and visible, round trace
Form-content	References to the formal contents of the artwork as well as what it is represented.	- A man appears in the plan, takes the suitcase, and in slow steps exits the scene - Her hair is meticulously brushed. There is a slight waving in the bangs that shows her forehead. Her face is pink and the look points down towards the book
Cognitive	Reflections are made leading to a personal meaning making.	
Explanation	Viewers produce direct observations about the links between the formal elements and the content represented. The meaning assigned can be temporary or conclusive. Questions.	- A mirrored suitcase, carried out by a man that gradually tells fragments of a narrative - The end of the housewife stereotype towards a literate and active woman in society
Hypotheses	Viewers question what they are observing: make conjectures, show doubt, and ask questions.	- The character steps away with the suitcase, is this the end of the narrative? - The book has illustrations, it seems voluminous, is it a technical book or a storytelling one?

Tab. 2 – Content Analysis of the Note Writing. Dimensions and Categories

Association	Individuals make associations between what is represented in the artwork and their personal experiences.	- There is a background sound as if I was watching an old movie. - The figure hairstyle places her somewhere in the 30s, the vanguards epoch.
Knowledge	Direct references to the art world: artists, artworks and or artistic movements.	- I know the work of the artists and like it a lot. - Now I know who is this figure, I remember researching this artwork and found out she was a friend of Sarah Affonso, her name was Matilde.
Behavioural	Is related to a critical assessment of the artwork and a subjective positioning towards the meaning making process.	
Judgement	Assumption of a critical, analytical and or judicative assessment of the formal and narrative content of the artwork.	- Annoying sound (I don't like it, it irritates me) - It is without a doubt a great - ARTWORK!
Attitude	Participant's behaviour or attitudes towards the artworks: viewing, detour, and post-encounter research.	- I did not feel the need to see it again. - I intentionally sat on a bench at a distance and observed the painting.
Taste	A choice that assigns a positive or negative aesthetic quality to the artwork.	- I really liked the idea, considering that cinema is one of my greatest passions. - I like her position. I like her face and the posture of her hands.
Affective	References to emotions or feelings evoked by the formal and narrative elements of the artwork.	
Well-being	Assign a positive quality to the artwork. Although the affective focus is on the artwork it generates in the individual a deep feeling of well-being.	- The threes move in an unconventional way and that image makes me curious. - Serenity. This portrait from Sarah Affonso transmits me serenity.
Tension	Assign a negative quality to the artwork. Although the affective focus is on the artwork it generates in the individual a deep feeling of disquietude and tension.	- Mystery is the main feeling that this video transmits. - Is the woman's look sad or attentive?

When comparing the frequency of the categories between the two artworks, statistical differences were found in the presence of the categories *form* and *well-being*, which were both more present in the notes written about the painting *Portrait of Matilde* (Tab. 3). In the video *The Mirror Man Suitcase* there was a higher incidence in the categories *form-content*, *attitude* and *tension*. We concluded that the video, due to the particular features of this medium, led participants to a longer period of observation focusing on the work's formal and narrative features. The temporal dimension of the work called for a prolonged analysis in an attempt to capture and map the totality of the presented narrative. The category *form-content* was linked in the video to direct descriptions of the action portrayed – within a plan, of the suitcase or the suitcase man, sequence of plans, between different characters. These descriptions were complemented with references to specific elements represented in the video, visual – suitcase, garden, city, trees, and or audio – origin, language.

Tab. 3 – 'The Mirror Suitcase Man' and 'Portrait of Matilde'

Note Writing. Categories. Descriptive Statistics for the Whole Group						
	The Mirror Suitcase Man		Portrait of Matilde			
Categories	M	DP	M	DP	U	P
Form-content	24,75	16,46	8,88	7,45	101,00	0,000
Form	3,54	3,04	7,54	6,02	164,50	0,010
Explanation	4,88	3,21	3,38	2,16	209,50	0,102
Association	3,67	3,91	1,96	1,92	213,50	0,117
Hypotheses	2,67	2,26	2,71	2,49	287,00	0,983
Judgement	2,50	1,53	2,50	2,64	264,00	0,615
Attitude	1,83	1,97	1,08	1,64	199,00	0,056
Knowledge	1,04	1,63	1,13	1,92	274,50	0,763
Tension	1,54	2,23	0,54	1,28	209,00	0,064
Well-being	0,50	0,78	1,33	1,37	186,00	0,022
Taste	0,29	0,55	0,63	1,01	246,00	0,288

Although both *form* and *form-content* were the two categories more present in the note writing for the two artworks, there was no significant difference between the use of these categories in Sarah Affonso's painting. This shows that the formal features of the painting – technique, composition, light, and color, where 'scrutinized' more in articulation with the narrative features in the painting than in the video. In the notes written about the painting the references to *form-content* focused on the women's figure – her face, posture, clothing, hands and hairstyle, as exemplified in the following excerpt: «Her hair is meticulously brushed. There is a slight waving in the bangs that shows her forehead. Her face is pink and the look points down towards the book». Participants also made allusions to the space and objects represented, in particular the book.

The *affective* dimension, although less present in the notes of the two artworks, when compared to the other three dimensions – *formal*, *cognitive* and *behavioral*, was the one that best outlined the differences in terms of empathy with them. While comparing the categories that integrated the *affective* dimension it is possible to say that the video provoked in the participants more negative feelings than the painting, which was mainly associated with positive feelings. In the notes written about the video the category *tension* was more present than the category *well-being*, whereas in the *Portrait of Matilde* the opposite happened. The video evoked in the participants feelings of inquietude, disharmony, suspense, mystery, and expectation, whereas the main feelings evoked by Sarah Affonso's painting were calm, serenity, and empathy. In general, during the first 'reading' of the artworks, the *behavioral* dimension, including the categories *judgment*, *taste* and *attitude*, was sparsely present in the notes, meaning that participants avoided taking final standpoints about the artworks in their initial processes of interpretation. Nevertheless, the category *attitude* was more present in the notes taken during the encounters with the video.

Aesthetigrams

Following the note writing, participants 'transpose' their initial written impressions into visual diagrams[15]. While building the aesthetigrams they used a set of predefined categories (Tab. 1). By assigning one or more categories to the individual experiential moments[16] of their encounters

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[15] The note writing took place in the context of the museum, whereas the aesthetigrams were created *a posteriori* using the visual mapping software Inspiration, which had been introduced during the workshop.

[16] 'Experiential moment': any single moment (in time) of which one is consciously aware.

with the artworks, they were able to organize patterns in their meaning making process. The aesthetigrams allowed them to 'fixate' and visualize their impressions on a moment-by-moment basis. The uniqueness of each participant emerged in the multiple ways they organized their aesthetigrams. Three types of aesthetigrams were identified for both artworks: *linear* (Fig. 6), *rhizomatic* (Fig. 2) and *radial*[17]. In the video there was a general tendency to build linear aesthetigrams, which can be linked to the temporal dimension of the medium and the narrative portrayed. The analysis of the aesthetigrams was mainly quantitative, based on the frequency of use of each category. A complementary qualitative content analysis was done focusing on the written comments associated with each experiential moment, aiming at 'confirming' participants' understanding of each category.

The category *perception* was the most used in the aesthetigrams of both artworks, with a significant difference from all the other categories, which reveals that there was also a tendency in the aesthetigrams for an analytical approach, as was previously identified in the initial note writing. When we compared the categories used in the aesthetigrams for *Portrait of Matilde* and *The Mirror Suitcase Man* there were significant differences in some of them (Tab. 4). The categories *explanation*, *memory* and *seeing as* were used more often in the aesthetigrams of the video, whereas the category *knowledge* was used more often in the aesthetigrams mapping the encounters with Sarah Affonso's painting. Focusing on the *cognitive* dimension the differences between the two artworks were in the frequency of the categories *memory* and *explanation*, both more used in the video, and the category *knowledge*, more used in the painting. The difference in the frequency of use of these three categories was echoed in the written comments associated with them. In both works the interpretations were plural, focusing on the theme-concept, the characters and narrative represented, as well as the technique. Both painting and video evoked in participants knowledge linked to the art world, as well as memories from personal experiences.

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[17] On a linear aesthetigram the individual experiential moments, despite some intertwinements, are overall organized sequentially in one direction; on a linear asthetigram they are organized around a central moment or image, for example of the artwork being 'analysed'; and on a rhizomatic aesthetigram the organization of the experimental moments is more intertwined.
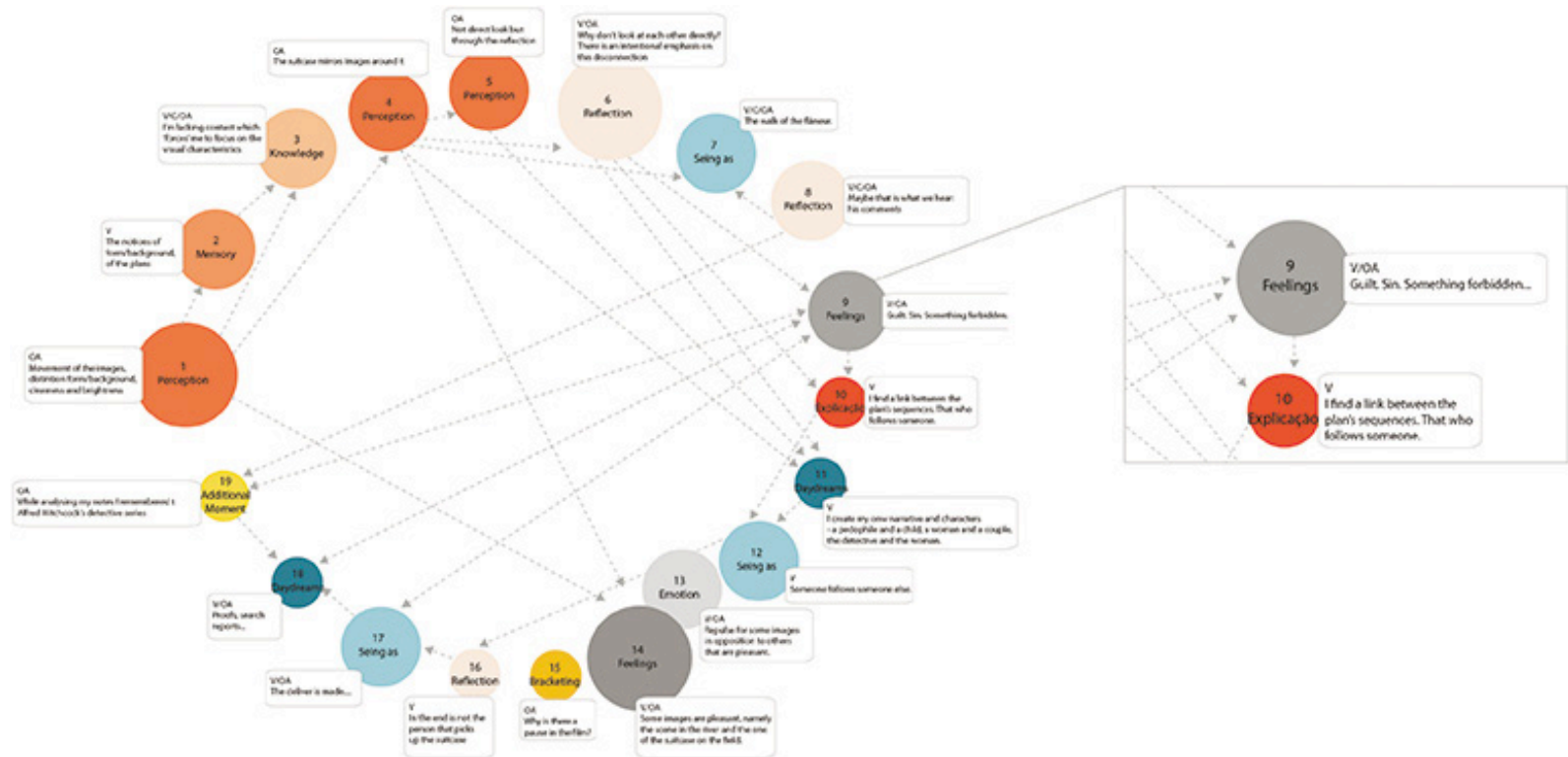
Fig. 6 – *The Mirror Suitcase Man. Example of an Aesthetigram*

Tab. 4 – 'The Mirror Suitcase Man' and 'Portrait of Matilde'

Aesthetigrams. Categories. Descriptive Statistics for the Whole Group					
	The Mirror Suitcase Man		Portrait of Matilde			
Categories	M	DP	M	DP	U	P
Perception	16,25	11,01	13,33	6,86	-1,49	0,14
Reflection	5,96	4,86	4,96	3,68	-1,11	0,27
Explanation	4,79	3,24	2,33	2,35	-2,93	0,00
Seeing as	3,33	2,58	2,17	2,28	-1,80	0,07
Judgment	2,33	2,08	3,13	3,05	-1,08	0,28
Knowledge	1,75	1,80	3,29	2,53	-2,52	0,01
Memory	3,46	2,93	1,54	1,32	-3,02	0,00
Feelings	2,00	1,53	2,54	2,50	-0,62	0,54
Additional Moments	2,21	2,11	2,04	2,05	-0,64	0,52
Daydreams	1,13	1,15	1,50	2,04	-0,79	0,43
Bracketing	0,92	1,14	1,29	1,81	-0,90	0,37
Expectation	1,25	1,65	0,88	0,99	-1,15	0,25
Taste	0,50	0,66	1,00	1,41	-1,63	0,10
Attitude	0,67	1,01	0,63	0,88	-0,05	0,96
Emotion	0,67	1,05	0,58	1,02	-0,28	0,78

The category *seeing as* is part of the *imaginative* dimension, and was pre-defined as corresponding to the comparative act between what is shown

to the viewer and what he considers it might be. It can also be an interpretation that goes beyond the 'interior' of the artwork. In *The Mirror Suitcase Man*, this category included hypothesis, recreations and comparisons focusing on the mirrored suitcase, the overall meaning of the work, the suitcase man and the sound. Although less frequently, some associations were established with *Portrait of Matilde*, prompted by the female figure represented, the book, the setting and or the concept-theme of the painting.

R.L. Jones Quadrant

When building the quadrant, participants placed the experiential moments of their aesthetigrams on the plan. The written comments associated in the aesthetigram with each moment were determinant to the decision on where to place them in the quadrant. To further understand participants' meaning making processes we grouped the aesthetigram categories in five main dimensions: *cognitive*, *affective*, *imaginative*, *behavioral*, and *wait*. When placed on the quadrant, the *cognitive* dimension highlighted an intellectualized approach to the artworks, as it was mainly distributed between the *cognitive-intrinsic* quadrants (Figg. 7-8). The *affective* dimension, when compared to the *cognitive* dimension, was less diffused in its position in the quadrant. The *behavioral*, *imaginative*, and *wait* dimensions were more scattered throughout the quadrant, presenting a similar distribution in its inner and outer areas.

While comparing the positioning of the categories in the quadrant for both artworks, there was a variation between the placement of the categories *judgment* and *attitude*, although their frequency of use in the aesthetigrams was similar (Figg. 9-10). The category *judgment* was defined as a provisional assessment, a questioning or confirmation of the initial response, a change of opinion. It could also include the decision to deliberately abstain from making any type of assessment. It is possible to visualize that the category *judgment* in Sarah Affonso's painting was positioned in the interior zone of the quadrant, which reveals that it was used in a more integrated way. Both positive and negative evaluations were elaborated around *Portrait of Matilde*, classifying the represented elements – women, setting, and book; technique – stroke and color; and the concept-theme. For the video this category shows a more fragmented positioning in the quadrant, meaning that it was more peripheral for the meaning making process. Positive and negative evaluations were made about the video, classifying the elements observed – suitcase, suitcase man, and setting; technique – sound, image; and the concept.
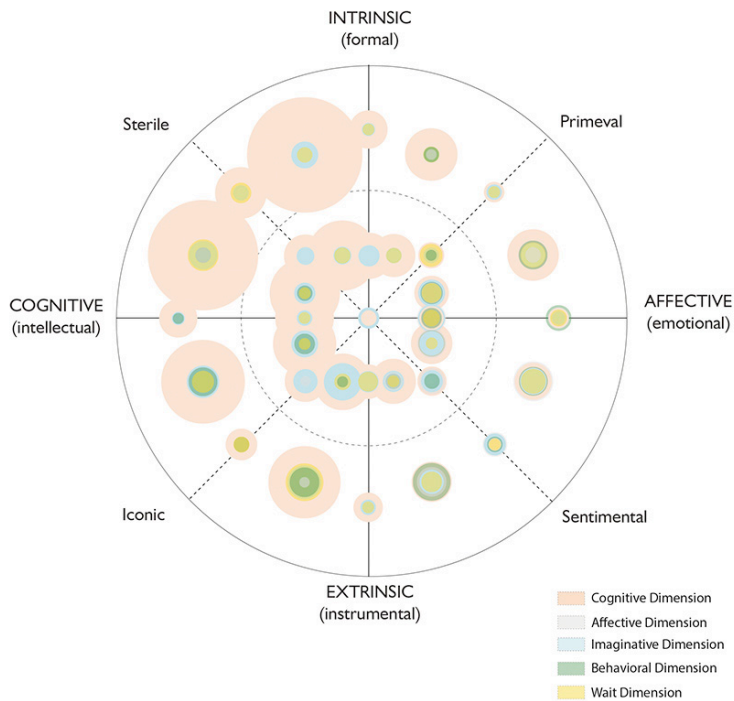
Fig. 7 – *The Mirror Suitcase Man*. R.L. Jones Quadrant. Cognitive, Affective, Imaginative, Behavioural and Wait Dimensions
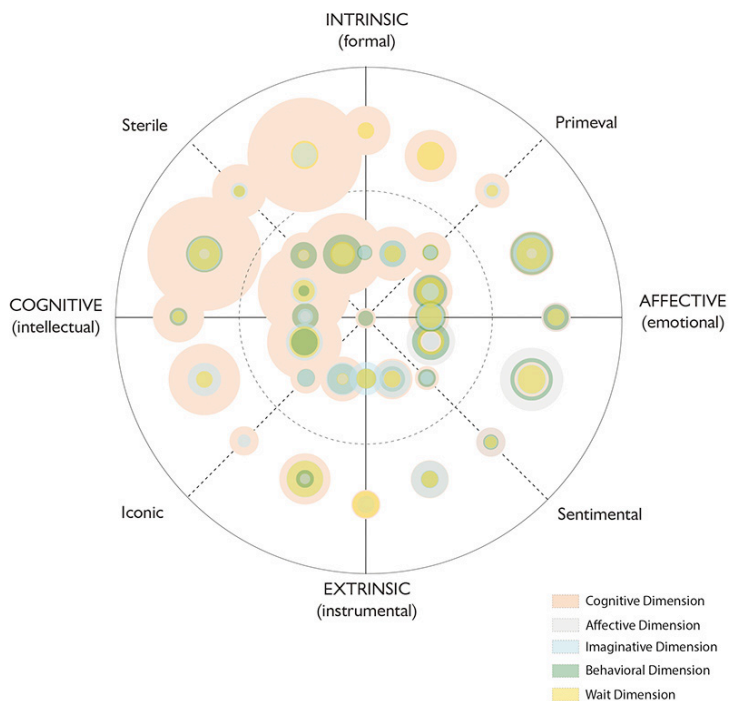

Fig. 8 – *Portrait of Matilde*. R.L. Jones Quadrant. Cognitive, Affective, Imaginative, Behavioural and Wait Dimensions
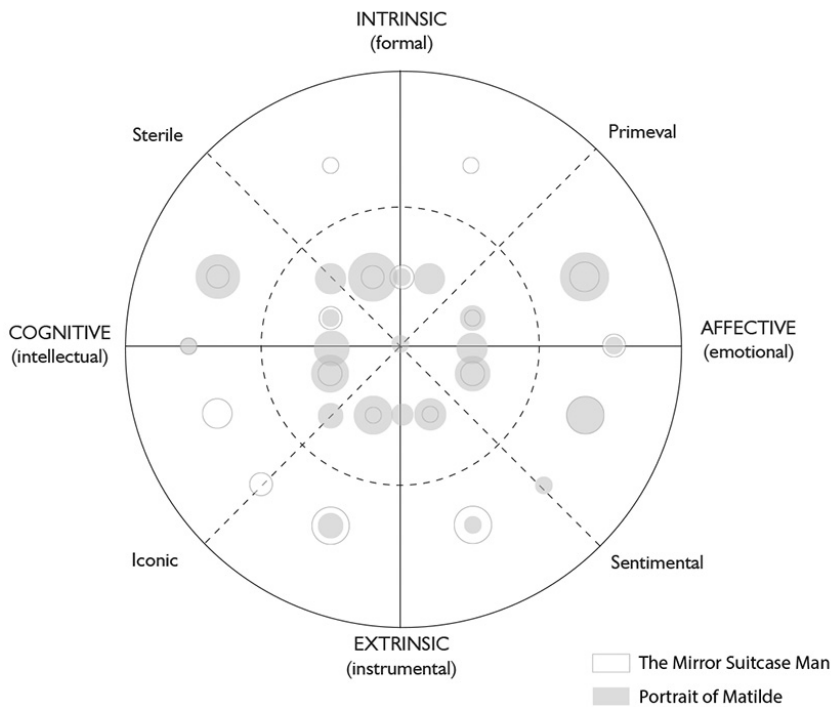
Fig. 9 – *The Mirror Suitcase Man* and *Portrait of Matilde*. R.L. Jones Quadrant. Category *Judgment*
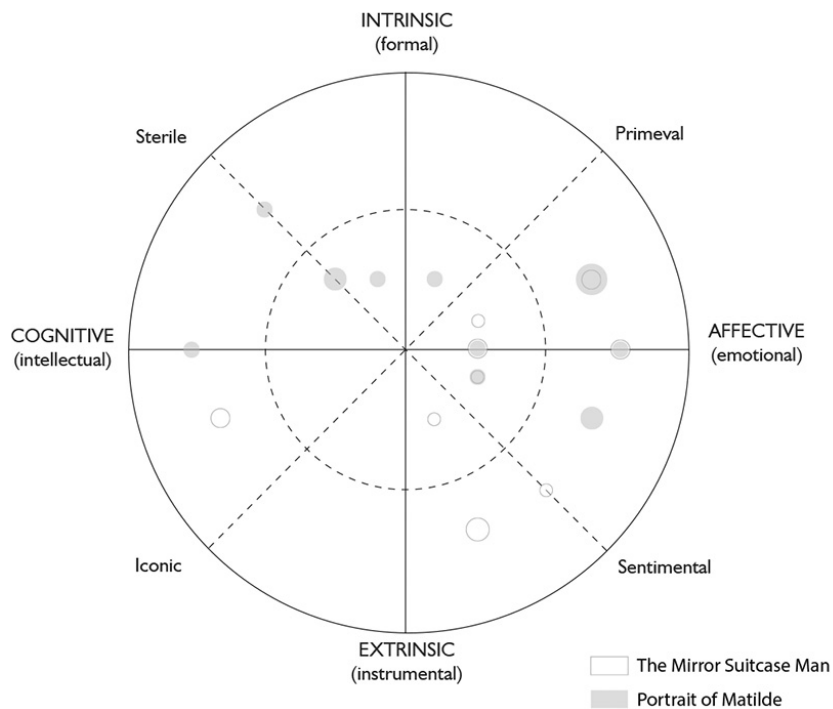

Fig. 10 – *The Mirror Suitcase Man* and *Portrait of Matilde*. R.L. Jones Quadrant. Category *Attitude*

The category *attitude* was defined as a positive, negative, or indifferent interaction with the artwork. Overall, attitudes could be positive or negative points of view on people, places, things, or events, all seen as the object of the attitude. For Sarah Affonso's painting the category *attitude* was positioned mainly between the quadrants *sterile* and *sentimental*. For the video this category was distributed between the quadrants *primeval* and *cognitive*. In both artworks the use of the category *attitude* was linked to participants' decision to stop their encounters. In the case of *The Mirror Suitcase Man* that decision was influenced by the conditions of the exhibition space and the poor quality of the sound and projected images, which led them to leave the room. This influence may help understand their choice to position this category in the more extrinsic zones of the quadrant.

Text writing

The final texts integrated the 'three-step continuum' that led to them, revealing a cohesive approach to the artworks. One main *interpretative* dimension emerged from the content analysis of the final written texts of the two artworks (Tab. 5). This dimension incorporated the four dimensions present in the note writing – *formal*, *cognitive*, *affective*, and *behavioral*. This confluence can be interpreted as a result of participants' gradual self-awareness of their meaning making processes. There were no significant differences between the two works in regard to the interpretative dimension (Tab. 6). In both cases this was the most present dimension, however there was a tendency for a higher presence in the video. Although content analysis revealed a similar conceptual 'structure' for the two artworks, represented by the presence of similar categories and dimensions, the frequency and quality of content of each category showed once more the conceptual, technical and affective specificity of each work[18].

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[18] Differences in the quality of the content was only present in the 'thinner levels' of content analysis – subcategories and indicators.

Tab. 5 – Content Analysis of the Text Writing. Dimensions and Categories

	Definition	Examples
Interpretative	Open-ended possibilities presented in individuals' narratives created in response to the artworks.	
Form-content	References to the formal elements of the artwork and what is represented in it	*- My focus was on the still plans, as if the image could live on its own. I see a suitcase resting in a field, it seems to merge into the landscape as it reflects it. A man that walks from the left to the right picks up the suitcase. A man walks (without the suitcase) besides a woman. In a urban environment the suitcase reflects the tram that passes by*
Hypothesis	Includes fragments of text that reveal individuals' imaginative reveries	*- Suddenly, at a certain point I realized I had been driven into the projection. The suitcase was projecting the floor and a bench that were not in the image. I immediately envisioned them behind me*
Association	Includes references to memories, which can directly or indirectly link to individuals' experiences, and associations between formal elements and specific knowledge	*- The way her arms and hands were drawn reminded me neo-realistic paintings, although the theme does not resonate with that: it is a daily scene, a bourgeois context*
Explanation	Individuals produce interpretations about the formal and narrative elements of the represented content. The meaning-making assertions tend to be conclusive	*- The book, painted with curvilinear lines and its open pages, seems to represent an open atmosphere, reinforced also by the aerial point of view that give more volume while showing it from different perspectives. As if in its quality of a mere inorganic object it was also enjoying a moment of relaxation*
Projection-affects	Reference to emotions and feelings evoked by the formal and narrative contents of the artwork	*- Among swings and empty garden benches, the strange character seems to search something, reinforcing the viewer voyeuristic position*
Knowledge	Includes references to the art world, the artwork and artist being analysed	*- I did not know the work or the artist but it was a good surprise and in the future I will try to know more about this work and this young artist*
Judgment	Assumption of a critical, analytical and judicative thought about the formal and narrative content of the artwork	*- In my opinion this is a poetical exercise, an ode to life or a representation of life that allies nature and progress. The different components that form life and at the same time. An exercise that captures gestures, behaviours, and daily actions giving them with a poetic and emotional dimension*
Attitude	Description of the behavioural and or actions of individuals towards the artworks	*- I sat on one of the benches available in the museum. My contemplative and adoration attitude towards the work was intertwined with my annotations*

Tab. 5 – Content Analysis of the Text Writing. Dimensions and Categories

Procedural	Includes references to the instrumental dimension of the meaning making process, namely the evaluation of the mediation tools, comments on the overall experience – engagement and learning, and post-encounter moments like research for information about the work in analysis.	*- The note writing about the artwork became a discovery exercise. An urgent movement to find, relate, dissect, identify, and write down everything that would come to my mind. This process allowed to a kind of materialization of the encounter with the artwork to happen.*
Contextual	Includes references to the artworks visualization context, and comments on how that might have influenced the meaning making process and individuals attitude towards the artwork	*- The painting is placed near other works that represent activities linked to the lives of possible intellectual figures*

Tab. 6 – 'The Mirror Suitcase Man' and 'Portrait of Matilde'

Text writing. Dimensions and Categories. Descriptive Statistics for the Whole Group						
	The Mirror Suitcase Man		*Portrait of Matilde*			
Dimensions/ Categories	M	DP	M	DP	U	P
Interpretative Dimension	20,33	9,32	16,58	7,34	220,50	0,164
Explanation	7,58	4,36	3,96	2,91	135,00	0,002
Form-content	3,21	4,81	3,25	3,21	228,00	0,209
Judgement	2,83	2,28	2,13	1,92	238,00	0,296
Attitude	2,42	2,87	1,63	1,97	234,00	0,253
Association	1,75	1,73	1,21	1,38	238,50	0,291
Projection-affects	1,33	1,61	1,13	1,57	274,50	0,768
Hypothesis	0,29	0,55	1,71	1,92	140,00	0,001
Knowledge	0,75	0,90	1,17	1,63	264,50	0,602
Procedural Dimension	2,13	2,61	2,58	3,50	269,50	0,697
Process-tools	0,83	1,90	1,08	1,93	254,50	0,417

Tab. 6 – 'The Mirror Suitcase Man' and 'Portrait of Matilde'

Meaning Making	0,67	0,92	0,92	1,89	287,00	0,982
Encounters	0,63	0,71	0,25	0,53	202,50	0,036
Artworks	0,00	0,00	0,33	0,70	228,00	0,020
Contextual Dimension	0,92	1,28	1,42	1,47	228,00	0,190
Context	0,63	0,82	0,67	1,09	278,50	0,823
Secondary events	0,29	1,08	0,75	1,03	187,50	0,008

Within the *interpretative* dimension, the category *explanation* was the most used in the final texts for the two artworks when compared to all other categories, except *form-content* in Sarah Affonso's painting. Overall, the category *explanation* included individuals' interpretations about the formal and narrative content presented. The emphasis on this category indicates a transition from a more analytical and fragmented approach, recorded in the note writing, towards a more intellectualized and concise approach in the final texts. In *The Mirror Suitcase Man*, explanation focused on the presented narrative. Participants interpreted it as a journey, a cycle where city and countryside, mass movements and individualities dialogued, converging to an open-ended final.

Another important element was the suitcase, seen by many as the main 'character' of the video. Camouflaged, it merged itself with the different surroundings, which amplified the ambiguity of its role. The identity of the suitcase man was also questioned, in particular the impact of his anonymity. Participants' approach to the conceptual dimension of the video highlighted its dichotomist dimension: reality/fiction, mobility/immobility, viewing/being viewed, which unfolded through an open, enigmatic and mysterious narrative. The following excerpts exemplify the intertwinement of their interpretations:

«The suitcase is the center of the narrative and the true protagonist of the action. This daily object acts as a box whose function is to contain and dislocate objects without revealing them. It becomes mobile through human interaction. While reflecting its surrounding the suitcase acts as a screen, and even when it is still it can portrait movement. […] In a way the mirror symbolizes the eye and assumes the presence of something alive». (Sarah, 'artist')

«The understanding that the suitcase and the man represent the key to a mystery makes me think that the suitcase, which is always closed, contains everything and everyone that it reflects. That was for me the explanation and the reason for this succession of images. An accessory object from a random business man has in this video a crucial role due to its mirrored surface». (Emma, 'artist')

«There is a very strong aesthetic in the artwork being analyzed – the use of black and white and the sound reminded me of the 8mm projectors. I think it invokes a time of the pass and memory. The video reveals a succession of images that are linked by quick light halos, which in association with the theme of the images and the way they were filmed, contributes to the unfolding of the video as a succession of oneiric and calm images, as if representing a dream». (Anna, 'non-artist')

Also framed by the *interpretative* dimension, the category *hypothesis* was more present in Sarah Affonso's painting. It includes fragments of text that reveal individuals' imaginative reveries. In the *Portrait of Matilde*, participants projected in the figure possible actions and placed themselves in the role of the artist. Other hypothesis questioned the identity of the women, the book and the context and theme represented, as exemplified in the following excerpt: «The position of the figure, leaning with no tension, seems to make her closer to the viewer, to me. It reveals a certain intimacy, as if we were part of a reserved and sheltered space»; «We seem to wait for her to finish her reading so that she could look at us and give us the opportunity to know her better»; «How would a women be represented today? Sitting in front of a computer?» Two smaller dimensions were identified in the content analysis of the final texts – *procedural* and *contextual*. The *procedural* dimension was, for both artworks, the second most present, although it was significantly less frequent than the *interpretative* dimension. In the final texts participants presented a meta-analysis of their meaning making processes, revealing a self-awareness of their own learning. The *contextual* dimension was the least present in the two artworks, when compared to the other two dimensions – *interpretative* and *procedural*. Although some attention was given to the impact of the context – museum setting, surrounding artworks, its influence on the works' interpretation was marginal.

Summary and conclusions

> «I have forgotten the word I intended to say,
> and my thought, unembodied, returns to the
> realm of shadows»
>
> Ossip Mandelstam, *The Swallow*

Meaning making is a dynamic and multidimensional learning process intimately linked to the motivation of individuals and to their awareness of their experiences with the arts. With this research project we aimed at further developing the theory of meaning making and understanding the phenomenology of the reception of artworks. The individuals who participated in this study belong to a specific culture, and are informed by similar educational and cultural backgrounds. This cultural, social and personal knowledge was reflected in their interpretative and learning processes. Although the encounters with the artworks and subsequent engagement with the meaning making strategies we proposed was done individually, participants shared with the research team their learning processes and discussed their interpretation and use of each meaning making strategy.

The meaning making approach introduced to the participants in our study implied the 'step-by-step' use of four strategies: note writing, aesthetigrams, quadrant, and text writing. The notes were a direct and free written record of the encounters with the artworks. The content analysis of the notes revealed an emphasis on a formal approach, focused on identifying the formal aspects and describing the narrative content of the artworks. This approach was complemented with cognitive, judgmental and affective inferences that, although less frequent, expressed participants' unique ways of seeing. The *affective* dimension, although less present, was the one that best outlined the differences in terms of empathy with each artworks e.g. the video evoked in the participants feelings of inquietude, disharmony, and suspense, whereas the "Portrait of Matilde" evoked calm, serenity, and empathy.

The aesthetigrams allowed participants to organize 'visual concept maps', intertwining the initial written notes and predefined categories. In an educational context, the purpose of the aesthetigrams is to potentiate a platform for dialogue between the teacher/mediator and the student/viewer, allowing for alternative perspectives and approaches to the artwork to emerge. The quadrant reorganized the individual experiential moments included in the aesthetigrams onto a plan limited by four cardinal poles: cognitive, affective, extrinsic and intrinsic. After the first encounter with

each artwork there was a broader tendency to scatter the experiential moments in the quadrant, whereas after the second encounter those were grouped more in the center of the quadrant. This tendency is in tune with R.L. Jones's theory, that an individual's experience is more 'aesthetic', or at least more integrated, when it is more concentrated in the center of the quadrant. The final text writing was a summary of the interpretative process resulting from the encounters with the artworks and worked as a more poetic and conclusive narrative, which incorporated the global engagement with each artwork. One main interpretative dimension emerged from the content analysis of the final written texts of the two artworks. This convergence can be interpreted as a result of participants' gradual self-awareness of the different dimensions involved in their meaning making processes: sensory, cognitive and communicative.

The results obtained in this project open up possibilities for the conception and organization of strategies for the training of art museum mediators and teachers in different fields.

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