

Original Contributions - Originalbeiträge

Laura Messina-Argenton & Tamara Prest

Psychologists and artists: the need for more cultures*

1. Cultures

“By training I was a scientist: by vocation I was a writer”. So Charles Percy Snow defined himself in the famous *Rede Lecture* “The Two Cultures,” dated May 7, 1959 and published in the same year¹.

In that lecture, which without doubt reflected the cultural milieu of the time and was based on his personal experiences as a physicist and a novelist, Snow presented his case about the separateness and incommunicability between the two cultures, namely that of scientists (hard sciences) and that of humanists (especially literature), denouncing the risks to society and pointing out the only way to solve this situation: “it is, of course, by rethinking our education” (Snow, 1963, p. 18).

The intense debate provoked by the 1959 conference prompted Snow to expand and specify his positions and to clarify also the terms used in the title. It is not within our purposes to take up Snow’s arguments or to go into the question of the two cultures per se, yet it seems useful to make a couple of observations about his terminology.

In defining culture, Snow quoted the words of Samuel Taylor Coleridge, according to which culture is the “harmonious development of those qualities and faculties which characterise our humanity” (Snow, 1964, p. 62). In his view, the rift between the two cultures could be bridged, first and foremost, through the education of “minds”, “so that they do not ignore the imaginative experience, both in the arts and in science” (Snow, 1964, p. 100).

In clarifying the other element of the title, Snow acknowledged the danger of using the term “Two”, as of any dichotomy, accepting that cultures could also be “a hundred and two” or “two thousand and two”, and, above all, he admitted that he had not realised at the time of the conference the emergence of a “third culture” that “seems to come from a variety of fields – social history, economics, sociologists, psychology, etc. – that is, from those “intellectuals who are interested

* The themes treated in this article were in part outlined in a previous paper published in the journal *Città in controuluce*, October 2022, no 39/40.

¹ Snow’s first contribution on the subject was in a small article, “The Two Cultures,” published in the *New Statesman* on October 6, 1956 (<https://www.newstatesman.com/culture/2013/01/c-p-snow-two-cultures>).

in how human beings are living or have lived – and concerned, not in terms of legend, but of *facts*” (Snow, 1964, p. 70, our italics).

And the scholars to whom this article is dedicated – Alberto Argenton, Paolo Bozzi, Gaetano Kanizsa and Manfredo Massironi² – have been interested precisely in “facts”: perceptual facts, as much as in science, in art, and in art making. Their work constitutes an emblematic example of the continuity between the cultures cultivated in their lives, psychology and art, as is borne out in the scientific and artistic heritages they handed down³ – which constitute, in our opinion, a forge for exercising those faculties of the “mind” that are essential to knowing and seeking to understand the world and cut across all cultures.

2. Psychology and Art

Rudolf Arnheim, a foremost authority in the Psychology of Art, stated: “Psychology and the arts have this in common: they both cover the entire scope of the human mind. The *perceptual modalities* of sight, hearing, touch and kinaesthesia, the motivational forces, the processes of memory and reasoning concern the field of study of Psychology as much as the territory of the arts” (Arnheim, 1982, p. 13, our italics).

For his part, Gaetano Kanizsa, internationally one of Italy’s best-known perceptologists, argued that “experimental *phenomenology* and painting complement each other and, since the results emerging from these two fields cannot be in contradiction, one is a testing ground for the other” (Kanizsa, 1991, p. 83, our italics).

These brief quotations summarize some of the fundamental assumptions shared, albeit with significant distinctions, by the above-mentioned psychologists and artists, which we have highlighted in the italicized terms: the adoption, in their scientific studies, of a phenomenological approach, of Gestalt matrix⁴, and the special attention to perceptual modalities *also* in their artistic work.

The length of the article allows us to devote only a few, and inevitably very reductive, lines to the work of each of the four psychologists and artists, on which we will dwell in order of seniority.

² The article should be regarded as a kind of multi-panel sketch – a sequence of stories – of a future ‘fresco’. In fact, its authors are working on a larger project, with the intention of building cognitive (formative, educational, ...) pathways that will engage those interested in discovering – productively – the relationships between psychology (psychology of perception, primarily) and art, and with the ultimate goal of helping to cultivate basic capacities of the mind.

³ We are referring not only to what is published or exhibited, but also to the scientific papers and artistic works kept by the heirs. A project for a full appreciation of their value is underway.

⁴ For a contextualization of the Italian approach to Gestalt Psychology and its main schools, primarily that of Padua and that of Trieste, developed, respectively, by Fabio Metelli and Gaetano Kanizsa, both students of Cesare Musatti in Padua, see Antonelli and Molaro (2020), Verstegen (2000).

2.1. Gaetano Kanizsa (1913-1993)

After graduating in Philosophy at the University of Padua, Italy⁵ (at that time, in his hometown of Trieste, there was the “Università degli Studi Economici e Commerciali”, with only one faculty: “Scienze Economiche e Commerciali”), and after some positions at other universities, Kanizsa held the chair of Psychology at the University of Trieste from 1953 to 1988. There he founded the Institute of Psychology and initiated the development of a Gestalt school of psychology, which, although along the lines indicated by the founding fathers – Max Wertheimer, Wolfgang Köhler, Kurt Koffka and Wolfgang Metzger – went on to acquire its own peculiarities, thanks in part to his prodigious inventiveness.

The object of study he favoured is “phenomenal reality”, and his interest focused “on *things* and the reasons why they appear to us as they do” (Kanizsa, 1988, p. 15), adopting as a method phenomenological observation, whose “preliminary objective” consists in “an accurate description of visual things and events as they appear to us, that is, as they visually *are*” (Kanizsa, 1991, p. 79).

Kanizsa investigated multiple aspects of visual perception, becoming internationally known for his research on “quasi-perceptual margins” – exemplarily found in the famous “Kanizsa triangle” (Fig. 1)⁶ – on chromatic perception, phenomenal transparency, amodal completion (Fig. 2)⁷ and so on (Kanizsa, 1979, 1980, 1991). In his studies, “the hypotheses formulated are then tested by isolating

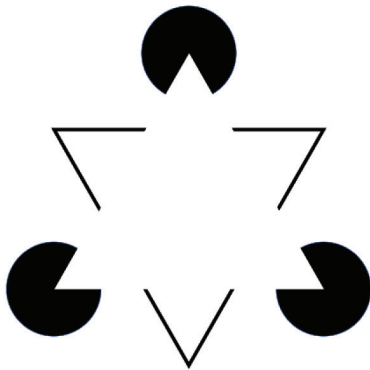


Fig. 1. Kanizsa triangle. Figure adapted from Kanizsa, 1955, p. 16.

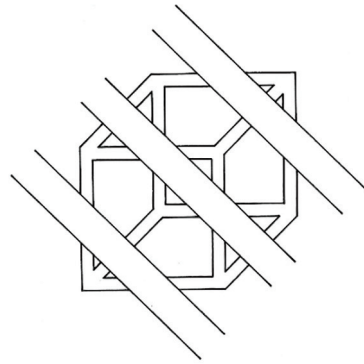


Fig. 2. Example of amodal completion. Figure adapted from Kanizsa, 1979, p. 8.

⁵ Kanizsa graduated with a thesis on eidetic imagery under Cesare Musatti in 1938 [<https://www.aspi.unimib.it/collections/entity/detail/91>].

⁶ Fig. 1 represents “a white triangle having margins without gradients on three black disks and on a white triangle with a black border” (Kanizsa, 1979, p. 193).

⁷ As Fig. 2 shows, “the cube is amodally completed behind the three opaque stripes and becomes perceptually present” (Kanizsa, 1979, p. 8).

and experimentally modifying the variables involved, trying to discover their functional connections and to identify the conditions that favour or hinder the occurrence of that perceptual event” (Kanizsa, 1988, pp. 16-17).

The research took place in the laboratory, which over time acquired a rich assortment of tools and instruments, including graph paper, cardboard, electric wires, string, reflectors, electric motors, etc. (Bozzi, 1990, p. 245). Here, master and disciples personally constructed experimental devices and “things” and acted phenomenally on a “thing”⁸, to achieve unusual, unthinkable and often paradoxical phenomenal effects. And perceptual discoveries or problems were discussed not only in the laboratory, but also in wine bars and, of course, during the “Congressino”: this is an informal event established by Kanizsa in the 1960s, held twice a year, in the spring and fall, offering perceptologists, not only from Italy, an opportunity to present and discuss their research, which, by agreement, had to be still uncompleted, so that they could take suggestions from colleagues. Interrupted after Kanizsa’s passing, the “Spring Congress” (“Congressino di primavera”) was meritoriously revived by Tiziano Agostini, beginning from 2001, in the same spirit in which it was originally conceived and intended.

In the 1960s, Kanizsa felt the need to devote himself to painting, creating his works with a particular technique, consisting of “the juxtaposition of a multitude of prints left by the brush pressed with the tip on the canvas” (Kanizsa, 2024, p. 316).

Refining this technique, he produced several pictorial series: *Uova*, *Bomboloide* (Fig. 3), *Animale*, *Omenone*, *Zootestura*, *Omenone*, *Tronco*, *Testura*, *Paesaggio*, *Orologi*, *Cesto*, *Corrugazione*, *Composizione* (Fig. 4), *Vascello*, and *Fusi*. From 1974



Fig. 3. Gaetano Kanizsa, *Bomboloide*, 1971, oil on canvas, 50 x 70 cm. Courtesy of the heirs of Gaetano Kanizsa.

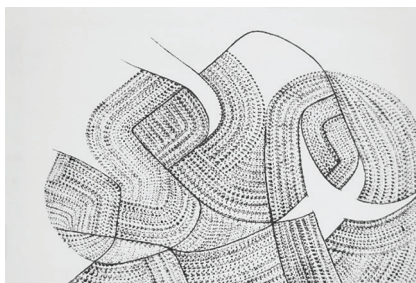


Fig. 4. Gaetano Kanizsa, *Composizione*, 1992, oil on canvas, 50 x 70 cm. Courtesy of the heirs of Gaetano Kanizsa.

⁸ Kanizsa used to say: “I’m not a psychologist, I’m a ‘thingologist’”. By this expression, he meant: “I do not study psychological constructs (ideas, acts, cognitions) - neither perception, in a certain sense. The object of my research are ‘things’ (le cose), as they stand directly in front of the perceiver” (Luccio & Gerbino, 1995, p. 71).

he began to exhibit his works (6 solo and 11 group exhibitions) and, in 1986, he was also invited to exhibit in the Colour section, of the XLII Venice Biennale “Art and Science.”

His artistic research was driven not so much by an expressive need as by a curiosity to experiment with “the communicative medium,” the way the work “comes to be formed”: “In a sense, one can say that the work forms itself, since the most satisfying results in my work are accompanied by the sensation of being guided by the dynamics of the vectors within the evolving work, and of making my choices following these indications and obeying these drives. The procedure described gives rise to configurations consisting of a complex pattern of surfaces differing in type of size or fabric. [...] the texture becomes the protagonist: its modulation, its thickening and thinning, its arrangement along various directions, the curvilinear progression of its elements are sufficient factors to create the main aspects of the visual world: segmentation and form, chromatic scale, three-dimensional space, movement, tertiary and expressive qualities. And it is precisely the inexhaustible and fascinating play of textures that constitutes the primary object of my curiosity, the leitmotif of my research” (Kanizsa, 2024, p. 316).

In short, for Kanizsa, a “perceptual” artist (Fig. 5), “the interest in ‘seeing’ and its grammar becomes the focal point” and, consequently, also for “the exploration of the perceptive rules that are at the basis of the subtle and problematic relationship between operator and observer” (Kanizsa, 2024, p. 316) – similarly, and complementarily, to the interest that moves Kanizsa, a psychologist of perception (Fig. 6), to study the perceptual event and the relationship between the “thing” and the observer.



Fig. 5. Gaetano Kanizsa at one of his exhibitions (possibly, in San Martino di Lupari, in 1990). Photo by Alberto Argenton. Courtesy of Laura Messina-Argenton.



Fig. 6. Gaetano Kanizsa with Cesare Musatti during a “Congressino” in Trieste (perhaps, in 1982 or 1983). Courtesy of Tiziano Agostini.

2.2. Paolo Bozzi (1930-2003)

When he was about 10 years old, a couple of years before he was allowed (by his father) to learn to play the violin under the guidance of Maestro Rodolfo Lipizer, in his hometown of Gorizia, Paolo Bozzi had bought himself a music notebook in which, not knowing the notes, he amused himself by “drawing black dots with little legs” and whistling at the same time (Bozzi, 1997, p. 8), had even made himself a violin, and had then also managed to buy a three-quarter and a “method”: “I used to hold the Herrmann, i.e., the method, open on top of a red-painted cabinet, just right for my stature, and I was able to make long notes, listening in surprise to all that was happening in the instrument’s innards. It was a genuine work of discovery” (Bozzi, 1997, p. 12). The violin lessons were fruitful and undertaken with precise hints and advice tips: “it is not enough to play the violin”, Lipizer told him, “you have to know it; the violin is a *culture*” (Bozzi, 1977, p. 43, our italics). The family’s move to Gradisca and the war, however, distanced him from systematic study (among other things, he won a scholarship to the Trieste Conservatory in 1944, which he decided not to accept), but they did not extinguish his “passion” (Fig. 7) – “a horrible word that is stereotypically used to refer to the inclination to music” (Bozzi, 1997, p. 76). He studied Philosophy in Trieste and, after graduation⁹, began to be invited to scientific meetings that Kanizsa conducted “for a few people,” on “Saturday afternoons” (Bozzi, 1990, p. 244). This was the starting point of his research in the Psychology of Perception and of his university career (Fig. 8), which saw him teaching at the University of Padua from the early 1960s, then at the University of Trento, and later for a longer time, until his retirement in 1999, at the University of Trieste.

In the literary-scientific masterpiece that is *Fisica ingenua* (Bozzi, 1990), he narrates his research in visual perception – from pendular motion to after-images, tertiary or expressive qualities, phenomenal transparency (Fig. 9)¹⁰ – and in acoustic perception (together with Giovanni Vicario, he discovered the phenomenon underlying the perception of melodies, known today as *auditory streaming*). His studies are also collected in several volumes (Bozzi, 1989, 1993, 2019a).

⁹ Bozzi graduated in 1955 with a thesis on Giovanni Vailati, having Giorgio Radetti as his supervisor, and Kanizsa was also part of the Degree Commission (Bozzi, 2003; Cattaruzza, 2013). Some biographical notes up to the 1960s can be found in the Dario Romano Archive kept at the Aspi Center of the University of Milano-Bicocca [<https://www.aspi.unimib.it/collections/object/detail/3315>]; many others come from Bozzi himself (1990).

¹⁰ “Phenomenal transparency” concerns “layered pairs of perceptual objects in which one of the objects, the one that appears on top, is seen as a medium through which the other can be seen” (Bozzi, 2019b, p. 305).



Fig. 7. Paolo Bozzi with one of his violins. Photo by Luisa Zecchinelli. Courtesy of Margarete Braitenberg Bozzi.

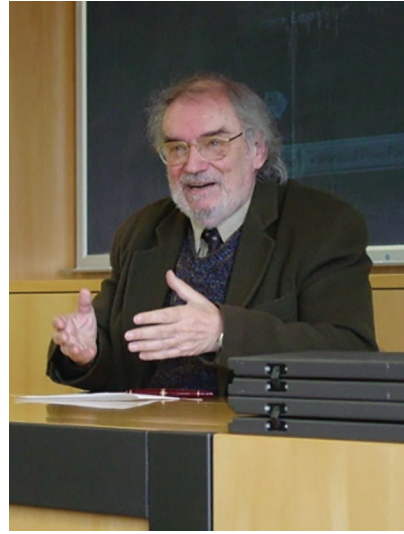


Fig. 8. Paolo Bozzi during a keynote lecture at the University of Padua on February 21, 2002. Photo by Alberto Argenton. Courtesy of Laura Messina-Argenton.

It was not easy for Bozzi to reconcile the stringent demands to stick to facts, ‘imposed’ by Kanizsa on his students, with the need he deeply felt to reason about them theoretically as well. Remaining within the Gestalt theoretical framework, but holding firm to his “interest for theoretical, philosophical, epistemological and methodological psychology issues” (Toccafondi, 2003, p. 221), he redefined the experimental phenomenology of perception as the science of observables “iuxta propria principia” (Bozzi, 1989) and introduced one of the most important innovations in psychological methodology: interobservation (Bozzi, 2019c)¹¹.

Nor did Bozzi let himself be persuaded by Kanizsa, despite holding him in high esteem, to “have no nostalgia for the violin” (Bozzi, 1990, p. 257), to which “he always devoted three hours a day – when he was not on the train” (Bertolini & Braitenberg, 2012). Indeed, he began participating in concerts (from 1974) and writing prize-winning musical compositions for violin, viola, cello, beginning with *Metakitsch*, *Der Psychophysische Bogen* (Fig. 10) and *Romantika*, published in 1987. His compositional research “hooks structures and elements together,”

¹¹ Putting it very simply, it can be said that the interobservational method involves the co-presence of several observers, interaction among them directed toward a common ‘object’ of observation, careful exploration and accurate description of the object in question, and negotiation of individual viewpoints until a shared definition is reached. It goes without saying that this method has enormous significance not only for research but also for education (Messina, 2005).

paying special attention to the “sonic gesture” – “there are few people who waste time searching inside the musical instrument, almost tormenting it, for a balance between a few elementary sound events so that they can express what they have to” (Bozzi, 1990, p. 159) – and paying just as much attention to “expressive qualities”: “timbres are the fundamental palette of tertiary qualities in the acoustic field” (Bozzi, 1982, p. 104; Zecchinelli, 2008, makes a precise reconstruction of this).

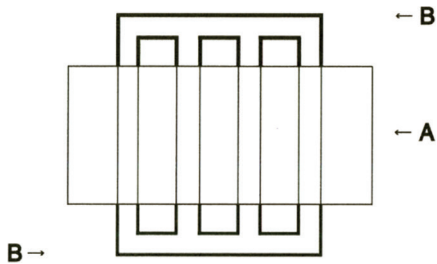


Fig. 9. Example of phenomenal transparency. Figure adapted from Bozzi, 2019, p. 306.



Fig. 10. Paolo Bozzi, *Der Psychophysische Bogen*. Courtesy of Margarete Braitenberg Bozzi.

Bozzi personally drew the figures used in his scientific experiments. In fact, alongside psychology, music, and literature (he also wrote short stories and poems, also in Latin), graphic-pictorial art was another “culture” in which he dabbled, when for example he enriched the story of his life with drawings (Bertolini & Braitenberg, 2012) or his scientific explanations in informal contexts (Agostini, 2003), and even when he used to dream up ‘free’ representations. Bozzi imagined and made some very appreciable representations, as can be seen in *Speculazioni* (Fig. 11), a kind of reflection on the process of vision and the transformation of the distal stimulus, and in *Untitled* (Fig. 12), in which Death is represented (in dual form), alongside the instruments that mark the passage of time: an hourglass and a timepiece.

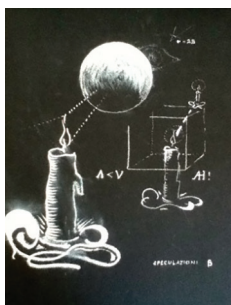


Fig. 11. Paolo Bozzi, *Speculazioni*. Courtesy of Tiziano Agostini.

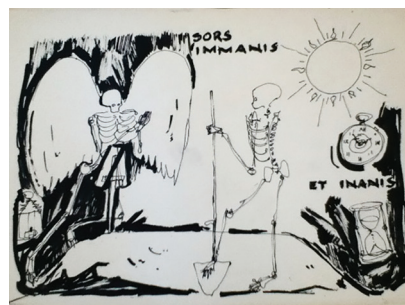


Fig. 12. Paolo Bozzi, *S.T.* Courtesy of Tiziano Agostini.

2.3. Manfredo Massironi (1937-2011)

The activity of scientific research on visual perception began for Massironi after his artistic experimentation in programmed art, to which can be traced back his interest in Gestalt psychology, first encountered reading “Art and visual perception by Arnheim when it was first published in Italy [1962]” (Bianchi, 2007, p. 8). Those were the years when he was studying Architecture in Venice, the discipline in which he later graduated¹².

Massironi’s most intense artistic activity was in the 1960s, which saw him as the promoter, in Padua (where he always lived), of “Gruppo N,” together with Alberto Biasi, Ennio Chiggio, Toni Costa and Edoardo Landi. In that period, Massironi produced, also collectively, many of his works – graphic compositions, compositions with various materials, installations, sculptures ... (Figs. 13, 14) – participating in numerous exhibitions, especially collective ones: for example, *Arte Programmata* in Milan (1962), *32nd Venice Biennale* (1964), *The Responsive Eye* at MoMA in New York (1965), *V Paris Biennale* (1967), and *Kinetics* in London (1970) (Bianchi & Savardi, 2007, give ample documentation).



Fig. 13. Manfredo Massironi, *Struttura a quadrati rotati*, 1964, cardboard, 70 x 70 x 10 cm. Courtesy of the heirs of Manfredo Massironi.



Fig. 14. Manfredo Massironi, *Cilindri più sfere 2*, 1966, enamelled brass, 55 x 46 x 46 cm. Courtesy of the heirs of Manfredo Massironi.

At the same time, he was also engaged on the theoretical, social and political levels, with articles, declarations, manifestos, as often happened given the climate of the time, but also as his artistic genre required. In the artistic intentions of Massironi and of programmed, or kinetic or optical art, the focus shifted from the plane of emotional involvement of the observer to the cognitive plane: the

¹² Massironi graduated in 1971 at the Higher Institute of Architecture in Venice “with Scarpa’s group” (Bianchi, 2007, p. 12), defending a thesis on the perception of space and the relationship between the Psychology of Perception and Architecture [<https://www.aspi.unimib.it/collections/entity/detail/358>].

work must involve the observer “consciously, in a cognitive process that usually takes place unconsciously. The ‘process’ then lies not in the fact that one sees a stimulus and achieves a perception, but rather that one sees oneself ‘seeing’”. The observers are involved in a situation in which “they realize that their perceptual outcome is different and more complex than the simplicity of the stimuli examined”. And, in reality, “in optical or programmed art [...] many phenomena studied experimentally by psychologists and especially Gestaltists have been taken up and proposed in appropriate reworkings” (Massironi, 1988, pp. 244-245).

After the late 1960s Massironi’s artistic activity slowed down, partly due to his decision to stop exhibiting within the art market, at least until 2002, since when he “has been producing and exhibiting his art more regularly” (Bianchi & Savardi, 2007, p. 93). This was in parallel with his growing interests in scientific research on visual perception – supported in part by his collaboration with Paolo Bonaiuto, a professor at the universities of Bologna and then Rome – which led him to take up, in 1986, the professorship of Experimental Psychology (and then of General Psychology) in Verona, holding it until 2007, the year of his retirement. He had begun frequenting Trieste’s Gestalt Psychology meetings, developing research relationships with Kanizsa and his disciples, primarily Bozzi (Fig. 15), but also with Paduan psychologists, contributing among other things to the establishment of *CISCA-Centro Interdipartimentale Studi Colore e Psicologia dell’Arte*, promoted by Alberto Argenton and Osvaldo Da Pos around the mid-1980s (Bianchi, 2007, p. 15).

“Investigating the facts of perception and visual phenomena is the common theme through his career [...], although he moved away from the methodological sphere, and the methodological apparatus, of artistic research (as he understood it



Fig. 15. Manfredo Massironi during one of Paolo Bozzi’s “Verona Readings”. Photo by Ugo Savardi. Courtesy of Ivana Bianchi.



Fig. 16. Manfredo Massironi explaining one of his works: *Capolavoro*. Galleria Daniele, Padua, 2006. Photo by Ugo Savardi. Courtesy of Ivana Bianchi.

from Programmed Art) to the sphere and methodological apparatus of academic research into the laws and mechanisms of vision (as he understood them by experimental phenomenology and psychophysics). The osmosis of themes addressed on these two levels can be seen throughout Massironi's academic and artistic production" (Bianchi, 2022, p. 319; Fig. 16).

Such "osmosis" becomes even more evident in the prosecution of Massironi's artistic activity, when he produces new series related to themes of perceptological research, further displaying that "astonishing geometric imagination," which "informs both his science and his art" (Kubovy, 2007, p. 22): the series of the *Rottura di costanza*, *Prospettive rovesciate*, *Completamenti amodali*, *Sottrazioni*, *Piegature*, and *Nodi* (Bianchi & Savardi, 2007, p. 92).

These series are significant in Massironi's production and are here exemplified with the work *Piegature* (Fig. 17), which has a counterpart in scientific research on the same theme, "phenomenal folding" ("piegatura fenomenica") (Fig. 18), investigated with the aim of identifying the determinants for the establishment of the phenomenon¹³.

Similarly, the intertwining of the two fields is consolidated in his theoretical systematizations (Massironi, 1989, 1998, 2000, 2002), from which emerges "his devotion to studying and revealing the role of drawing and graphic images in the understanding of visual perception" (Savardi, 2012, p. 13).



Fig. 17. Manfred Massironi, *Piegature*, 1991, wood and cardboard, 60 x 55 cm. Courtesy of the heirs of Manfred Massironi.

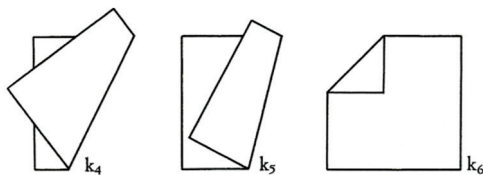


Fig. 18. Series of stimuli used by Massironi in research on phenomenal folds. Figure adapted from Massironi, 1985, p. 474.

¹³ "Phenomenal folding" (Fig. 18) concerns line drawings perceived "as images of two-dimensional surfaces folded back on themselves" (Massironi, 1985, p. 461). The factors necessary for the phenomenon to occur are: "the co-presence of two phenomenally interposed surfaces"; sharing the "folding edge"; being "on the same side with respect to the folding edge"; and "the convergence of three segments at the two extremes of the folding border" (Massironi, 1985, pp. 490-491).

2.4. Alberto Argenton (1944-2015)

In Argenton's case, too, artistic activity preceded scientific activity; inevitably, we would say, since his initial "motivations for painting" emerged in his very early adolescence and, as often happens at that age, were supported by "a desire to express himself through elevated forms" (Argenton, 1983)¹⁴. His creations were soon to receive positive feedback, and at the age of 14 he took part in his first group exhibition and at 20 he held his first solo exhibition.

For Argenton the period of maximum artistic productivity and regular exhibition activity was in the 1970s and 1980s (20 solo and 53 group exhibitions)¹⁵. In the 1990s, he chose to continue his artistic research in an exclusively private form, but with no less continuity and depth. Many are the thematic series into which his artworks can be grouped, made with multiple techniques (oil, water-colour, pastel, collage, etching ...), which can be chronologically distinguished into two periods: the youthful series, in which the beginning of his expressive mode is manifested – *Eve*, *Boscaglia* (Fig. 19), *Nassa*, *Personaggio*, *Grotte* – and the series of maturity, in which his language takes on a precise stylistic signature: *Serie della follia*, *La corda pazzo*, *Racconti*, *Canzoni amorose*, *Quadri di vita*, *Struttura*, *La ragione imperfetta*, *Omaggio a Paolo Uccello*, *I quattro elementi*, *Omaggio a Bruegel* (Fig. 20), *Effetto altalena*, *Collage casuali*, *Formae fluentes*, *Albero*, *Le quattro stagioni*¹⁶.



Fig. 19. Alberto Argenton, *Boscaglia somala*, 1973, oil on canvas, 50 x 100 cm. Courtesy of the heirs of Alberto Argenton.



Fig. 20. Alberto Argenton, *Omaggio a Bruegel*, 2000, oil on canvas, 55 x 75 cm. Courtesy of the heirs of Alberto Argenton.

¹⁴ We quote from an interview with Alberto Argenton conducted and audio-recorded by Laura Messina, in Venice, on March 13, 1983, and kept by her. In this interview Argenton reconstructs his first twenty-five years of painting, from around 1958.

¹⁵ No more than one solo exhibition a year, as he was "at the same time undertaking the university career" and attempting to pursue – albeit "laboriously" – the "two paths", imagining that he could somehow continue the "profession of a painter" (Argenton, 1983).

¹⁶ Brief notes on Alberto Argenton's painting activity and examples of his artworks, as well as critical essays on his artistic activity, can be found on his website – www.albertoargenton.it – where there are also biographical notes and a section devoted to his scholarly activity.

His artistic research, from the beginning, was spontaneously oriented toward abstraction (Fig. 21) and hinged on the basic elements of painting, traditionally understood – “in my things, I think, there is a discourse of forms, lines, colour, light” – in searching for his own language: “I had to be able to do something that belonged to me as a language – and this has always been my *idée fixe*” (Argenton, 1983).

Kanizsa (1991, pp. 82-83) maintained that in the works of any painter there are a number of perceptual devices that are part of the “tools of the trade,” used without knowing the results “of the investigations of perceptologists”. This is certainly true of Argenton’s early painting, when he was not yet familiar with perceptological research; but even his later production – when he was now mastering and practicing Gestalt Psychology and even more so the Psychology of art and was thus aware of the scientific layering of perceptual devices used in his artworks – was not oriented by the perceptologists’ research, since his artistic intentions were not to investigate the rules or facts of visual perception, but to succeed in “making painting truly” (Argenton, 1983).

Argenton’s decisive encounter with Gestalt Psychology occurred during his university studies in Philosophy in Trieste, where he found Kanizsa and his disciples, including Bozzi, as professors and had the opportunity to frequent the Institute of Psychology. His interest in that field of research was strong; however, he preferred to graduate in another field¹⁷ where he initially pursued his academic career, moving to Padua. After an initial period devoted to teaching and research in the psycho-pedagogical area, with a particular interest in creativity, aesthetic experience and expressive activities, from an educational as well as an ergotherapeutic point of

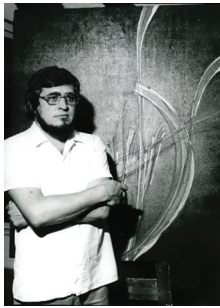


Fig. 21. Alberto Argenton in front of one of his works from the “Eve” series (Cividale del Friuli, early 1970s). Courtesy of Laura Messina-Argenton.

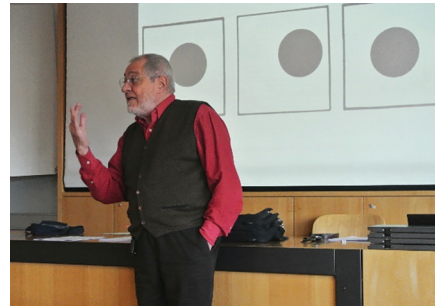


Fig. 22. Alberto Argenton during one of his last lectures in the Psychology of art in 2014. Courtesy of Tamara Prest.

¹⁷ Argenton graduated in Philosophy in Trieste, Italy, in 1972, with a thesis on William Godwin, having as his supervisor Carmela Metelli Di Lallo, a professor also at the University of Padua, fascinated by libertarian thought and utopia as a “mental experiment” that the professor was studying [<https://www.aspi.unimib.it/collections/entity/detail/285>].

view (Argenton & Rota, 1977), he chose to move to the field of General Psychology, a discipline he taught for a number of years, thus succeeding in combining two “passions,” perception and art, developing his research in the field of the Psychology of Art and holding the teaching course of that name from 1990 to 2014, the year of his retirement (Fig. 22) (Verstegen, 2015, reconstructs his academic path).

Argenton’s thesis, in line with Arnheim (1969), is that art is one of the highest products of human cognition, that, as such, it cannot but constitute an essential object of study of psychology and that it can be studied rigorously, even in spite of “the complexity of the phenomenon that hinders its experimental investigation” (Argenton, 2019, p. 6).

Argenton assumed as a primary object of his research the artistic phenomenon – given by the *artist*→*work*←*user* relationship – analysing it in its genesis and multiple dimensions in a 1996 volume, *Arte e cognizione*, which was considered “the first real handbook of the Psychology of art in Italy” (Fossaluzza & Verstegen, 2014, p. 7), as well as “an example of how art and science can be combined, making balanced use of both” (Arnheim, 1997, p. 88).

Considering artistic work as “a sort of ‘protocol’ that documents a performance, an activity, a certain behaviour or a ‘fact’, as Bozzi would say” (Argenton, 2019, p. 51), he finalized the analysis, observation and interobservation of artwork to the identification of the representational strategies used in its composition, to trace back from there to the perceptual reasoning adopted and pursued by the artist in order to “solve the always problematic task of pictorially representing a given subject or theme or meaning” (Argenton & Prest, 2008, p. 286; see also Messina-Argenton et al. 2022).

His studies on the “perception of expression”, considered in close relation to the “dynamics of perception”, also fall within this perspective (Argenton, 2008, 2019). The themes of two of these studies constitute the only cases in his whole artistic work of intentional intersection between science and art¹⁸.

The first case concerns a study on “contour rivalry” and a perceptual effect defined by Argenton as the “swing effect”¹⁹, exemplified in Figure 23, which was also investigated in order to observe the contribution that the representational strategy by which it is realized provides, with its dynamism, to the expressiveness of the artistic forms (Argenton, 2019, pp. 71-98). After the conclusion of the research on such a perceptual effect Argenton produced numerous versions of patterns that give rise to the effect itself, “also conceived and realized with pictorial intent,

¹⁸ References to the relationship between science and art in Argenton’s work can be found in Messina-Argenton & Prest (2016, 2019a) and Messina-Argenton, Prest & Verstegen (2022).

¹⁹ The swing effect occurs in the presence of stimuli or artworks composed of only two shapes, juxtaposed, sharing a single portion of the outline, alternately emerging in the foreground while maintaining their configurational identity (Argenton, 2019, pp. 77-82).

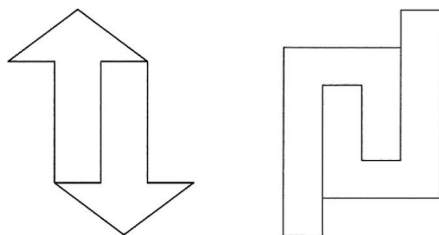


Fig. 23. Patterns created by Alberto Argenton and Tamara Prest for the research on “The Swing Effect”. Figure adapted from Argenton, 2019, p. 78.



Fig. 24. Alberto Argenton, *Swing Effect 40 B*, 2012, collage, 14.4 x 14.5 cm. Courtesy of the heirs of Alberto Argenton.

that is, as pictorial images”, one of which is reproduced in Figure 24 [<https://www.albertoargenton.it/swing-effect-2010-2012>].

The second case concerns the study on the “dynamics of obliquity”²⁰, investigated through the analysis of paintings in which windmills or timepieces were depicted (515 and 186 works produced between the 15th and 20th centuries, respectively) (Argenton, 2019, pp. 134-203). In the same years in which he carried out this research, Argenton produced five artistic studies on the timepiece and one artwork on the windmill, which, in a sense, iconically represent the main ‘results’ of the research itself.

In the artistic studies on timepieces, one of which is reproduced in Figure 25, the hands mark, in fact, ten past ten, similarly to the vast majority of the painted timepieces he examined in the aforementioned research, depicted by artists adopting, precisely, the iconographic scheme defined by Argenton “about 10 past 10” (2019, p. 185). A scheme that respects the perceptual principle of obliquity and whose adoption by painters seems to be traceable back to the intent to make the visual representation of the timepiece dynamic and, possibly, to suggest its apparent movement. If we note well, a similar pattern is also present in Bozzi’s image mentioned earlier (Fig. 12) – and there is no difference, with respect to the perception of dynamics, if the hands, instead, mark ‘about ten to two’²¹.

²⁰ By “dynamics of obliquity,” Argenton (2019, pp. xx) refers, in the context of pictorial production, to the “widespread use of oblique direction to maximise the dynamism and expressiveness of either a whole composition or of individual forms depicted in it”.

²¹ Argenton also examined numerous images of advertising for timepieces, in the vast majority of which the “about 10 past 10” scheme dominated (Argenton, 2019, pp. 181-184).



Fig. 25. Alberto Argenton, *Orologio 2*, 5 June 2003, mordant for wood and watercolour on straw paper, 29.5 x 29.5 cm. Courtesy of the heirs of Alberto Argenton.



Fig. 26. Alberto Argenton, *Per L.*, 5 August 2003, oil on canvas, 18 x 18 cm. Courtesy of the heirs of Alberto Argenton.

In the only artwork produced on the windmill (Fig. 26), preceded as always in his artistic research by numerous studies²², the windmill presents a configuration similar to the graphic representation of the windmill illusion²³, a phenomenon that has fascinated various perceptologists. As the data obtained from the analysis of the 712 windmills depicted in the 515 pictorial works considered in Argenton's aforementioned research on the subject show, this is the preferred configuration of the painters, when they set out to depict the mill "in its conditions of maximum apparent movement and maximum dynamism": "foreshortened body and asymmetric oblique orientation of the vanes" (Argenton, 2019, p. 154).

3. Considerations

In the wine bar "Al Collio", a few steps away from Via del Lazzaretto Vecchio (the street of the Institute of Psychology), the Trieste perceptologists used to protract "the discussions begun in the academy": "at the long desk and at the tables put near to the walls panelled with dark wood, on the left as one entered, every nook and cranny of knowledge and every drapery of life was discussed" (Bozzi, 1990, p. 340). One day, Kanizsa, observing the large rectangular panels of the wooden walls on which the clothespegs were placed, noticed that "the surface of the panels

²² This artwork, along with some preparatory studies, was shown in an exhibition curated by Messina-Argenton and Prest (2019b).

²³ The perceptual phenomenon of the windmill illusion consists of "a phenomenal reversal of the rotating movement of the vanes, which can be attributed to perspective reversal", whereby, "given certain perspective, light and distance conditions, in real and natural situations", "the observer sees the vanes to the right of the axis sometimes moving up and sometimes moving down" (Argenton, 2019, pp. 151-153).

with the coats hanging seemed to be markedly contracted when compared to those whose surface was clear. As usually Kanizsa's research was stimulated by careful observation of the objects and people around him. Kanizsa and his students have carried out a number of research on this topic in the '70s and '80s" (Luccio & Gerbino, 1995, pp. 75-76).

Bozzi (1990, pp. 258-264) narrates the time when, accidentally seeing the "flyswatter" of a fruit stall, which, "hanging from the canopy, swung fast", a "certain flow of ideas was suddenly set in motion in his head" – hence his research on pendular motion (presented, in 1958, at the XII Congress of Italian Psychologists), and then the complementary one on inclined planes; in short, the beginning of his naive physics.

Massironi's "osmoses" are in themselves eloquent of the intertwining of perception and art and perhaps even of his need for art to try to "attack that part of the world that remains impervious to rigorous experimental method" (Massironi, 1988, p. 244).

One of the authors of this paper vividly recalls Argenton's amazement when, looking at a small tempera on panel, *Madonna and Child* by Sano di Pietro, in the Museo della Porziuncola in Assisi, the "swing effect" of the "cheek to cheek" of mother and child was irrefutably revealed to him, spurring him to undertake a systematic study of this (Argenton, 2019, pp. 71-98; Argenton & Prest, 2008, pp. 257-271). The same author mentioned above remembers well the many times when, going with Argenton to villages, museums, exhibitions, he would point out to her aspects that she did not catch, and the question repeatedly addressed to him: "but do you see differently?" A question present also in the interview mentioned earlier (Argenton, 1983), during which he tried to explain to her the "effort" of "focusing on language", the consequent visual "tension", the "seeing through one's own medium, one's own language", the "perceptual interpretation of reality", and so on.

Bozzi (1990, p. 255) again recounts: "I envied Kanizsa's ability to suddenly see, just by looking around, the productive perceptological problem, the paradox of vision, what is constantly in front of everyone's eyes and yet they do not see".

Claudio Magris (2003, p. 20) writes about Bozzi: "from him I learned first of all to perceive the world and things, to pay attention not only to big ideas, but also to the tertiary qualities of the real".

And so we could go on and on, but we think we can close this excursus by borrowing Magris's statement to summarize the 'values', transversal to all cultures, that the scientific and artistic heritages left by Argenton, Bozzi, Kanizsa and Massironi offer us and that today more than ever, in the frenetic society of digital

consumption, it is vital to cultivate: *learning to perceive reality*, nurturing the mind, a unitary organ, on scientific precision and artistic – but always rigorous – freedom, to recompose them into one single culture: human culture.

Summary

The article is dedicated to the figures of Alberto Argenton, Paolo Bozzi, Gaetano Kanizsa and Manfredo Massironi, psychology professors and artists, whose work constitutes a significant example of continuity between the cultures cultivated in their lives, with primary interest in perception. Outlining their scientific and artistic research, the article seeks to highlight a key value that permeates it and which appears vital to promote: *learning to perceive reality*.

Keywords: Arts, Psychology of art, Psychology of perception.

References

- Agostini, T. (2003). Momenti d'ozio: due allegorie e una salvietta di carta. *Rivista di Estetica*, 23(3), 5-7.
- Antonelli, M., & Molaro, A. (2020). Alle origini del gestaltismo italiano tra fenomenologia e teoria della forma. In M. Antonelli & A. Molaro (Eds.), *Psicologia sperimentale e teoria della forma* (pp. 11-59). Milano-Udine: Mimesis.
- Argenton, A. (1983). *Intervista*. A cura di Laura Messina, inedito.
- Argenton, A. (1990). Il tema e le sue variazioni. *Anfione Zeta*, 4-5, 246-251 (Available at: <https://www.albertoargenton.it/theme-and-variations-by-alberto-argenton>).
- Argenton, A. (Ed.), (1993). *L'emozione estetica*. Padova: Il Poligrafo.
- Argenton, A. (1996). *Arte e cognizione. Introduzione alla psicologia dell'arte*. Milano: Raffaello Cortina.
- Argenton, A. (2004). Aesthetic cognition. A tribute to Rudolf Arnheim. *Gestalt Theory*, 26(2), 128-133.
- Argenton, A. (2008). *Arte e espressione. Studi e ricerche di psicologia dell'arte*. Padova: Il Poligrafo.
- Argenton, A. (2019). *Art and Expression. Studies in the Psychology of Art*. Ed. by I. Versteegen. London and New York: Routledge.
- Argenton, A., & Prest, T. (2008). Il guancia a guancia altalenante di Sano di Pietro. In A. Argenton, *Arte e espressione. Studi e ricerche di psicologia dell'arte* (pp. 257-271). Padova: Il Poligrafo.
- Argenton, A., & Rota, E. (1977). *Attività espressive e istituzione psichiatrica*. Padova: Liviana.
- Arnheim, R. (1966). *Toward a Psychology of Art*. Berkeley and Los Angeles: University of California Press.
- Arnheim, R. (1969). *Visual Thinking*. Berkeley and Los Angeles: University of California Press.
- Arnheim, R. (1974). *Art and Visual Perception*. Berkeley and Los Angeles: University of California Press.
- Arnheim, R. (1982). Le arti e la psicologia. In L. Pizzo Russo (Ed.), *Estetica e psicologia* (pp. 13-15). Bologna: Il Mulino.
- Arnheim, R. (1997). Arte e cognizione: Introduzione alla psicologia dell'arte. By Alberto Argenton. *The British Journal of Aesthetics*, 37(1), 87-88.
- Bertolini, L., & Braitenberg, M. (2012). L'ameno scrivere di Paolo Bozzi. *Fillide*, 5 [Available at : <https://fillide.it/luisa-bertolini-lameno-scrivere-di-paolo-bozzi-intervista-a-margherita-braitenberg>].
- Bianchi, I. (2007). Interview with Manfredo Massironi. In I. Bianchi & U. Savardi (Eds.), *Manfredo Massironi: visual research and art, art and visual research* (pp. 8-15). Milano: Fabio D'Ambrosio.
- Bianchi, I. (2022). An appraisal of Massironi. In G. Bartorelli, A. Bobbio, G. Galfano & M. Grassi (Eds.), *L'occhio in gioco* (pp. 319-319). Cinisello Balsamo (MI): Silvana Editoriale.
- Bianchi, I., & Savardi, U. (Eds.). (2007). *Manfredo Massironi: Ricerca visiva e arte, arte e ricerca visiva / Manfredo Massironi: visual research and art, art and visual research*. Milano: Fabio D'Ambrosio.
- Bozzi, P. (1982). I fattori di unificazione, il mascheramento, il gioco dell'interprete. In L. Pizzo Russo (Ed.), *Estetica e psicologia* (pp. 101-111). Bologna: Il Mulino.
- Bozzi, P. (1989). *Fenomenologia sperimentale*. Bologna: Il Mulino.
- Bozzi, P. (1990). *Fisica ingenua*. Milano: Garzanti.
- Bozzi, P. (1993). *Esperimenta in visu. Ricerche sulla percezione*. Milano: Guerini.
- Bozzi, P. (1997). *Rodolfo Lipizer nei miei ricordi*. Pordenone-Padova: Edizioni Studio Tesi.
- Bozzi, P. (2003). Note sulla mia formazione, le mie esperienze scientifiche, le mie attuali posizioni [Available at: <https://en.gestalttheory.net/index.php?page=paolo-bozzi>]

- Bozzi, P. (2019a). *Paolo Bozzi's Experimental Phenomenology*. Ed. by I. Bianchi and R. Davies. London and New York: Routledge.
- Bozzi, P. (2019b). Observations on some cases of phenomenal transparency obtained with line drawings. In *Paolo Bozzi's Experimental Phenomenology* (pp. 305-321). Ed. by I. Bianchi & R. Davies. London and New York: Routledge. (Original work published 1989).
- Bozzi, P. (2019c). Interobservation as a method for experimental phenomenology. In *Paolo Bozzi's Experimental Phenomenology* (pp. 198-206). Ed. by I. Bianchi & R. Davies. London and New York: Routledge. (Original work published 1978).
- Cattaruzza, S. (2013). Paolo Bozzi tra psicologia e filosofia. *Teorie & Modelli*, XVIII(1), 29-35.
- Fossaluzza, C. M., & Versteegen, I. (2014). Introduzione. In C. M. Fossaluzza & I. Versteegen (Eds.), *Ragionamenti percettivi. Saggi in onore di Alberto Argenton* (pp. 7-13). Milano-Udine: Mimesis Edizioni.
- Kanizsa, G. (1955). Margini quasi-percettivi in campi con stimolazione omogenea. *Rivista di Psicologia*, 49(1), 7-30.
- Kanizsa, G. (1979). *Organization in Vision: Essays on Gestalt Perception*. New York: Praeger.
- Kanizsa, G. (1980). *Grammatica del vedere*. Bologna: Il Mulino.
- Kanizsa, G. (1988). Idee-guida della gestalt nello studio della percezione. In G. Kanizsa & N. Caramelli (Eds.), *L'eredità della psicologia della gestalt* (pp. 11-31). Bologna: Il Mulino.
- Kanizsa, G. (1991). *Vedere e pensare*. Bologna: Il Mulino.
- Kanizsa, G. (2024). From self-presentation, XI Biennial of San Martino di Lupari, Padova, 1990. In S. Kanizsa (Ed.), *Kanizsa impreveduto* (p. 316). Sordevolo: Zero Gravità.
- Kubovy, M. (2007). Un-fording Manfredo. In I. Bianchi & U. Savardi (Eds.), *Manfredo Massironi: visual research and art, art and visual research* (pp. 22-25). Milano: Fabio D'Ambrosio.
- Luccio, R., & Gerbino, W. (1995). Gaetano Kanizsa (1913-1993) - Things and Perceptions. *Review of Psychology*, 2(1-2), 71-80.
- Magris, C. (2003). Il viaggio, il disagio, la scrittura. Paolo Bozzi narratore. In U. Savardi & A. Mazzocco (Eds.), *Figura e sfondo. Temi e variazioni per Paolo Bozzi* (pp. 17-22). Padova, Cleup.
- Massironi, M. (1985). La piegatura fenomenica, un inesplorato evento percettivo. *Giornale Italiano di Psicologia*, 12(3), 461-493.
- Massironi, M. (1988). Dall'oggetto al processo. Aspetti psicologici di una esperienza artistica degli anni '60. In L. Cassanelli (Ed.), *Linguaggi visivi. Storia dell'Arte. Psicologia della percezione* (pp. 243-252). Roma: Multigrafica Editrice.
- Massironi, M. (1989). *Comunicare per immagini. Introduzione alla geometria delle apparenze*. Bologna: Il Mulino.
- Massironi, M. (1998). *Fenomenologia della percezione visiva*. Bologna: Il Mulino.
- Massironi, M. (2000). *L'osteria dei dadi truccati. Arte, psicologia e dintorni*. Bologna: Il Mulino.
- Massironi, M. (2002). *The Psychology of Graphic Images*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Messina, L. (2005). Fondamenti di educazione mediale. In L. Messina (Ed.), *Andar per segni. Percorsi di educazione ai media* (pp. 27-126). Padova: Cleup.
- Messina-Argenton, L., Agostini, T., Prest, T., & Versteegen, I. F. (2022). *Showing Time: Continuous Pictorial Narrative and the Adam and Eve Story. In Memory of Alberto Argenton*. Cham: Springer Nature.
- Messina-Argenton, L., & Prest, T. (2016). Alberto Argenton tra arte e scienza. *Galileo*, 30(225), 27-30.
- Messina-Argenton, L., & Prest, T. (2019a). "Il pittore deve studiare con regola". *Arte e psicologia della visione in Leonardo da Vinci con lo sguardo di Alberto Argenton e della Scuola di Psicologia della Gestalt dell'Università di Trieste*. Itinerant exhibition "1° Festival della Psicologia in Friuli Venezia Giulia", 10 October-10 November 2019 (Available at: <https://www.albertoargenton.it/il-pittore-deve-studiare-con-regola-mostra-itinerante>).
- Messina-Argenton, L., & Prest, T. (2019b). *Alberto Argenton: Psicologia dell'arte e ricerca artistica*. Exhibition for the "Cento anni di Psicologia a Padova e in Italia", Sala delle Colonne dell'Orto Botanico di Padova, 7 December 2019 (Available at: www.albertoargenton.it/alberto-argenton-psicologia-dellarte-e-ricerca-artistica).
- Messina-Argenton, L., Prest, T., & Versteegen, I. (2022). Alberto Argenton and his research paths: Psychology of art and painting. In G. Bartorelli, A. Bobbio, G. Galfano & M. Grassi (Eds.), *Lochia in Gioco* (pp. 312-315). Cinisello Balsamo (MI): Silvana Editoriale.
- Savardi, U. (2012). Remembering Manfredo Massironi (1937-2011). *Gestalt Theory*, 34(1), 11-14.
- Snow, C. P. (1964). *The Two Cultures: And a Second Look*. London: Cambridge University Press.
- Toccafondi, F. (2003). Paolo Bozzi (1930-2003). *Gestalt Theory*, 25(4), 221-223.
- Versteegen, I. (2000). Gestalt Psychology in Italy. *Journal of the History of the Behavioral Sciences*, 36(1), 31-42.
- Versteegen, I. (2015). Alberto Argenton [26.2.1944-23.5.2015]. *Gestalt Theory*, 37(1), 337-340.
- Zecchinelli, L. (2008). L'arco musicale di Paolo Bozzi. *A Tutto Arco*, 1(2), 17-23.

Laura Messina-Argenton is a Senior Scholar of the University of Padua. Previously, she was Professor of Educational Research at the same University.

E-mail: laura.messina@unipd.it

ORCID: 0000-0002-8904-221X

Tamara Prest is an independent researcher and for years she collaborated with Prof. Alberto Argenton on his studies in the Psychology of Art at the University of Padua.

E-mail: tamara.prest@gmail.com