The visual system as a constraint on the survival and success of specific artworks

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Abstract—Why should vision science turn its gaze towards artworks? One possibility is that understanding visual processing might yield some fundamental insight into the nature of art. However, there are many examples of phenomena that can be seen — such as automobiles, clouds or leaves — but which are not explained in any deep sense by the properties of human visual perception. We examine one art historical question that might benefit from knowledge about the visual system: why do some artworks ‘survive’ historically while others fade into the dustbin of time? One possible reason, suggested by studies of rapid visual categorization, is that some objects are recognized more quickly and easily than others and thus are less culturally specific in terms of pictorial representation. A second, related, explanation is that many artistic techniques use the eyes as a channel to evoke other senses, cognition, emotions and the motor system. ‘Art’ is a social and historical construct — after all, the concept of ‘fine art’ was invented in the 18th century — and thus many aspects of artistic appreciation are specific to particular cultural and historical contexts. Some great works, however, may be adopted by successive generations because of an ability to appeal to a shared perceptual system.

Keywords: Art; biological motion; face perception; pareidolia; memory; eye movements; patronage; masterpiece; cognition.

INTRODUCTION

Some artworks have captured the imagination of generations of viewers, while others — despite being created with comparable skill and care — have vanished into the dustbin of time. The successful survival of an artwork may depend on chance: a drawing could be lost or destroyed or, alternatively, catch the eye of a powerful patron with a specific taste. Economic and cultural factors have often decided what kinds of subject matter and artistic technique were desirable in a work of art. Many

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famous artists and their works are no longer considered interesting, while many lesser-known artists in the past are now hailed as geniuses. In some cases, artworks may be part of art history because they were in the right place at the right time.

One of the intriguing differences between what is conventionally called Western art and non-Western art, such as that of the pre-colonial African continent, is the fate reserved to the artworks after their completion. In African art it is common that a work is produced for a specific function, often ritual or religious, and from the moment it comes into existence this function determines its preservation and use by the delegated person — be it the head of the village or the healer/priest/shaman. It is in the ongoing relationship with this specific person and his/her audience, that the artwork finds its full expression and the reason for its preservation in time. In Western art, however, works often have the same destiny as orphans. Since the advent of the figure of the rich patron, artworks that have been produced for an individually chosen and highly specific function are at risk of being left behind once their patron ceases to own them. It is not a coincidence that the highest number of Western paintings that have survived from the pre-modern era (see Note 1) is of a religious subject: having been commissioned by the Church, they were produced to fulfil a function that was shared by an entire community, as opposed to one single individual. With the notable exception of the vast category of Western paintings that serve such a public function within the community, we are left with a number of works with an uncertain future. In order to survive the death and/or dispossession of their original patron, these works will need to appeal to an owner or institution that will have the capacity to ‘adopt’ them, thus ensuring their preservation and existence. Beyond their original intended meaning or function, many artworks may encapsulate some characteristics that are susceptible to be re-interpreted and re-contextualized throughout history.

Our working hypothesis is that one important factor to promote the survival of a specific artwork in history may be found in its perceptual properties. If the brain’s perceptual systems have remained relatively constant during the short span of human history, then this similarity in perception itself (between the intended patron and the new adoptive patron) is a critical factor in allowing a person from a different culture and mindset to appreciate an artwork. This is particularly important given that many works have, over time, lost much of their original shared ‘meaning’ that was culturally specific. Thus, it is intriguing that art that originated in one culture is often appreciated in others and, in certain cases, can influence artistic production in the new culture (such is the case, for example, of the widespread mid-nineteenth century phenomenon of ‘Japonisme’, which was a seminal factor on the development of post-Impressionism in France). Such cross-cultural appeal for artists and, in many cases, for the public would be difficult to explain unless the artwork has a compelling effect upon a perceptual system designed for seeing real objects and scenes (see Note 2).

In his seminal essay, *Meditations on a Hobby Horse*, the influential art historian Ernst Gombrich suggested that some objects, due to their importance for survival,