Exchanges between Literature and Science from the 1800s to the 2000s

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Converging Realms

Edited by

Márcia Lemos
and Miguel Ramalhete Gomes

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INTRODUCTION

MÁRCIA LEMOS
AND MIGUEL RAMALHETE GOMES

The relations between literature and the sciences in Europe and North America, during the period ranging from the mid-nineteenth century to the twenty-first century, have been a complex and fraught process. These exchanges have proved to be multiple, contradictory, and notoriously marked by enthusiasm, scepticism, gradual or forceful separations, and attempted convergences, in an understandable manifestation of discomfort at the perceived rift between competing claims for representing reality.

The extreme specialisation characteristic of scientific discourse and practice has also meant that well-intentioned though almost inevitably amateur or semi-professional attempts at bridging this gap have often been met with derision and hostility, since these unwittingly tend to break disciplinary conventions, while, in many cases, relying on popularisations and oversimplifications of the knowledge produced by other fields. Indeed, to attempt a narrative of the successive positions which have been adopted from within literature and the sciences in relation to one another risks vast simplifications, not least because it may suggest a consensus where there is none. For every call for convergence, there will be a lament for the scientific rigour lost in the process or for the perceived cluttering of scientific facts in imaginative works.

When looking at the more or less recent history of these exchanges, one should perhaps also admit that, for the most part, it has been a one-way street. Moments of recognition by scientists of the epistemological role of works of the imagination are sporadic and underdeveloped.[1] That these engagements are felt to be lacking, and that they seem to be expected from the part of the producers of scientific knowledge, is ironically attested by the abundant circulation of (often counterfeit) inspirational quotations attributed to famous scientists. Such second careers as

[1] There are exceptions, of course. In this volume alone, Joana Espain's contribution stands out as the work of a physicist who makes use of her scientific background for her analysis of Emily Dickinson's poetry.

involuntary repositories of self-help wisdom strongly suggest that statements like these, or perhaps their more elevated equivalents, would be expected from scientific authorities—so much that they are eagerly received, when emitted or redistributed, and casually invented, when they are felt to be missing.

Literary authors, on the other hand, have never stopped engaging with scientific topics and representations, be it for utopian, didactic, emulative, critical, satirical, or other purposes. The objects of engagement have also been various, from the impenetrability of scientific jargon and the psychological idiosyncrasies of scientists to the perceived dangers of scientific discoveries and the potentially liberating application of technology to social life.

This collection of essays thus aims to respond to the strong interest that the relations between the discourses of literature and the discourses of science have obtained in areas of study defined by interdisciplinary concerns.[2] The work collected here, while acknowledging the implications of the arts and the humanistic disciplines for scientific research, is firmly focused on the cultural significance of scientific discoveries and methods, and especially on the manifold representations of science and scientists in literature and the arts, either as a central device of the artistic object or as a significant contextual element.

This collection chiefly concerns the twentieth century—although it includes forays into the nineteenth century and explorations of continuities into the twenty-first century. Indeed, there is a strong rationale for beginning this collection in the mid-nineteenth century. The last century and a half has been a period rife with successive scientific revolutions,

[2] For a general introduction to an increasingly vibrant field, see Bruce Clarke, Manuela Rossini, eds., *The Routledge Companion to Literature and Science* (London and New York: Routledge, 2011); Sharon Ruston, ed., *Literature and Science* (Cambridge: D. S. Brewer, 2008); Charlotte Sleigh, *Literature and Science* (Basingstoke: Palgrave Macmillan, 2011); Martin Willis, *Literature and Science* (London: Palgrave, 2014). For more historically specific studies see, among many others: Gillian Beer, *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (London: Routledge & Kegan Paul, 1983); George Levine, *Darwin and the Novelists: Patterns of Science in Victorian Fiction* (Cambridge, Mass.: Harvard University Press, 1988); Anne Stiles, *Popular Fiction and Brain Science in the Late Nineteenth Century* (Cambridge: Cambridge University Press, 2012); Michael H. Whitworth, *Einstein's Wake: Relativity, Metaphor, and Modernist Literature* (Oxford: Oxford University Press, 2001); John Holmes, ed., *Science and Modern Poetry: New Directions* (Liverpool: Liverpool University Press, 2012); Martin Willis, ed., *Staging Science: Scientific Performance on Street, Stage and Screen* (London: Palgrave Pivot, 2016).

from the work of Darwin and, later on, Einstein, to the lasting impact of developments in the social sciences, from Marx, Freud, and Durkheim to Claude Lévi-Strauss and beyond. Bearing in mind the widespread cultural import of such developments, one can perceive a noticeable paradigm shift in how science came to be understood and artistically represented from the mid-nineteenth century onwards.

A noteworthy example of such a shift can be found in the history of literary criticism itself, as it alternated between periods of enthusiastic adoption of scientific methods in the study of literature and the arts, often with varying results, and periods of backlash and extensive scepticism as to the usefulness of scientific methods in the humanities. The impact of such moments in the history of literary criticism has been considerable and we are nowadays still the heirs of movements such as positivism, dialectic materialism, and structuralism, not forgetting the currently popular interest in the uses of neuroscience and eco-criticism for the study of literature and the arts, which some of the contributions in this collection explore.

These convergences and the academic as well as popular interest in them are offset against a nonetheless rather marked divide between the sciences and the humanities. The divide between "two cultures," to use the influential expression put forward by C. P. Snow in 1959,[3] is not only disciplinary and methodological, but it also affects the material aspects of the production of research. Nevertheless, in a discussion of rifts and gaps, it is useful to draw a distinction in terms of what exactly is being said to diverge from or converge with the sciences in these essays. Indeed, although the sharp partition between the humanities and the sciences is a disciplinary fact, and an occasionally lamented one, it is not the primary focus of this collection. The majority of texts discussed in this volume are literary texts, from prose fiction to drama and poetry, which are normally placed alongside contextual documents that stem from the humanities while including attempts to popularise science or conceptualise its relations with both literature and the humanities. The chief object of these essays is therefore the relation between literature (and other cultural practices) and the sciences, yet the relation between the academic humanities and science is often mostly a backdrop to these analyses. This constitutes an unequal pairing, in that, within the bounds of this volume, literary scholars discuss the exchanges between their object of study, not a discipline but the object of a discipline, and the disciplinary field of the

[3] See C. P. Snow, *The Two Cultures* (Cambridge: Cambridge University Press, 1993).

sciences. It is a pairing, however, that has obviously merited and continues to merit attention.

The essays in this collection wish, therefore, not only to contribute towards bridging this gap, but also to add to the burgeoning field of the study of exchanges between literature and science, starting with the mid-nineteenth century and then traversing twentieth-century and twenty-first-century fiction, poetry and drama in an endeavour to track the different and shifting ways in which literature has approached the topic of scientific discoveries, practices, and methods. The collection is thus divided into four parts which trace different aspects of an on-going process.

The first three chapters focus on practices and tendencies taking place throughout the second half of the nineteenth century which either preserve more traditional arrangements of scientific knowledge—the cabinet of curiosities, the genre of nature writing—or produce intimations of the later and more wide-ranging conceptual revolutions characteristic of some twentieth-century science, as one of the chapters argues is the case with Emily Dickinson's poetry. This part is hence marked by a sense of liminality, of standing historically halfway between tendencies which take residual, dominant and emergent forms, to use Raymond Williams' terminology.[4] All three essays therefore track a moment of dwindling indefiniteness of borders between the sciences and literature (as well as other cultural practices), a set of borders which would rapidly become more distinct and rigid as one enters the twentieth century.

In the first chapter, Alda Rodrigues focuses on the role of collecting in the context of human lives. She argues against the traditional distinctions either between objects in a collection and objects used every day, or between collectors and people who do not own formal collections. With the help of the concepts of house museum and cabinet of curiosities, Rodrigues interestingly contends that a life can be described as a collection and concludes by setting the connection between collection and life against the connection between collection and the awareness of mortality.

Isabel Alves turns to Susan Fenimore Cooper's *Rural Hours* (1850, abridged 1887), the first book of nature writing published by an American woman. A student of natural history, influenced by the work of Alexander von Humboldt, and a persistent walker in the environs of Otsego Lake in New York, Cooper's book is structured in journal-like entries and according to a seasonal basis, including detailed descriptions and

[4] See Raymond Williams, *Marxism and Literature* (Oxford: Oxford University Press, 1977), 121-127.

perceptive notes on local plant geography, on meteorological phenomena and on ornithology, pioneering a road that writers such as Celia Thaxter, Mary Austin, and Sarah Orne Jewett would follow. Alves' stimulating proposal is that, in a time of global conversation about environmental issues and the disappearance of species, it is inspiring to return to *Rural Hours* and see a territory in which Susan Cooper understands the genre of natural history as a means of conveying passion for a specific place, and a way of affecting readers' environmental sensibilities.

Joana Espain, on the other hand, shows how, in the second half of the nineteenth century—a century marked by a strategy founded in logic and reason, with a strong appetite for the possession of more certainty, but also by the frequent coexistence of articles on science and poems in popular magazines and periodicals—, Emily Dickinson's poetry frequently expresses a yearning for the unobtainable, asking not only "what do we know" but "how do we know." Yet, as Espain shrewdly argues, while having this continuous inquiry in common with the science of *her* time, Dickinson seemed also to share the logic and imagination of the abstract in modern science. Indeed, Espain's claim is that the raw material of some of Dickinson's poems, and the logical rigor with which they are moulded, may be linked to some of the scientific knowledge of the twentieth century, which in a broad conceptual revolution forced a rethinking of the abstract concept that spread to all areas of knowledge. The rethinking of theoretical physics, for example, accompanied by a humble observation of the collapse of the previous solid formal structures, with its full awareness of the failure of the scientific language formerly used, can be brought into proximity with Dickinson's awareness of the failure of language. It seems therefore important to ask whether it is possible to observe in Dickinson's poetry a methodology and imagery that is close to the conceptual problems posed by modern science. Espain's underlying proposition is that, on the border of conceptual structures, closer to human imagination, and fully aware of the failure of their own languages, the poetry of Emily Dickinson and modern science may have dialogued through a gap of one century.

The second part of the volume turns to literary representations of science and scientists in different contexts. These range from a subversive satire produced in a totalitarian Eastern-European regime (the irony of which goes on to produce further meanings after that regime's demise) to the profound conceptual revisions characteristic of North-American postmodernism epitomised by authors such as Cormac McCarthy or Thomas Pynchon. The representations of science discussed in this part are marked by a problematisation both of science and of its representation,

often taking the form of suspicion directed at the dangers of a dehumanising knowledge at the service of power.

In the first chapter of this section, Andrzej Kowalczyk perceptively examines the use of irony with regard to the theme of science and scientific experiment in *Laboratory No. 8* (1977/1980), a satirical dystopia by Polish writer and journalist Marcin Wolski. Although irony functions as a major structural device in the novel, its role exceeds purely satirical or entertaining aims. In fact, as Kowalczyk argues, the historical context of communism is not the only background against which Wolski's message can be read. On the contrary, when analysed several decades after the demise of the totalitarian system in Eastern Europe, *Laboratory No. 8* draws attention to more universal ontological and epistemological questions, so that scientific research becomes a prism through which to see the status of *homo sapiens* in the world. Kowalczyk concludes by suggesting that the novel's final part, where the narrator deconstructs the fictional reality, encourages the reader to ponder upon his/her own world in a manner evocative of Romantic irony, understood as a *mode* of existence rather than a literary device.

Pedro Almeida and Inês Evangelista Marques fascinatingly chart and discuss some of the major trends regarding the role of representation and of discursive models in science through an approach that emphasizes the use of key-concepts derived from literary theory. They ground their reflection on Cormac McCarthy's 1985 novel *Blood Meridian*. In the novel, Judge Holden, the grand character of this Western narrative, is the prototype of the positivist man who, according to Auguste Comte, endeavours to discover the laws of nature by the "combined use of reasoning and observation." If it is true that the Judge's enterprise is motivated by a creative energy and the need to use "knowledge as a tool of power" (Nietzsche), Marques and Almeida maintain that we cannot overlook the fact that the act of representing—and, therefore, creating—implies a necessary destruction of the original, so that one is forced to ask what then the true relation between representation and reality itself is.

Ana Rull Suárez concludes this section by showing how Thomas Pynchon also explores the scientific world of the nineteenth century from an ironic postmodern point of view in his novel *Against the Day* (2006), reflecting the hope of those people who lived through great scientific discoveries (those associated with electromagnetism or the search for the means to produce energy). As Rull thoroughly explains, Pynchon explores the threats these discoveries pose for the nineteenth and twentieth centuries in the form of weapons and machines for mass destruction, revealing the marvellous effects of science that precede modern means of

communication but also a sense of disappointment towards science in a world that is falling apart. Rull's chapter offers a comprehensive example of how Pynchon uses various scientific, technical and mathematical elements to create a plot with profound implications, though not resolved in a tragic way, thanks to the postmodern irony he employs throughout the novel.

Concentrating on the means used to heal or, at least, lessen the rift between some scientific practices and literary culture, as presented and addressed in the previous section, the chapters of the third part of the book direct their attention to attempts to bring about some form of convergence or, as Edward N. Wilson has put it, *consilience* between the two cultures famously separated by C. P. Snow. These attempts include the production of an ephemeral cosmological order in Gwendolyn MacEwen's poetry, but they are also brought into the terms of a more formal discussion of how both cultures may be, if not united, at least more closely integrated, namely in analyses of A. S. Byatt's fiction and of the recent interest in "science plays," as introduced by Michael Frayn's *Copenhagen* and Tom Stoppard's *Arcadia*, in which the scientific idea in question is made to shape the dramatic experience.

Introducing the third part of the volume, Mª Luz González Rodríguez discusses the Canadian poet Gwendolyn MacEwen (1941-1987) and explains that a recurrent motif in her poetry is the confrontation between the rational and the imaginative. In MacEwen's work, the world is depicted as a universe in continuous rearrangement; myth and reality are linked to history and human ambivalence, the microcosm to the macrocosm, and the local to the universal. As González opportunely points out, while mostly studied within the mythical and mystical traditions, MacEwen's use of scientific themes has been overlooked. Cosmology and theoretical physics often fuse in her poems together with her insistence that uncontrolled consumerism and technology should be bounded by ethics. González thus elucidates the links between MacEwen's humanist and scientific interests, and explains how, through the image of dance, as a symbol of synthesis, the author attempts to make concrete a personal cosmic view.

Alexandra Cheira, in turn, focuses on A. S. Byatt's lifelong interest in science, which is embedded in Byatt's work and spans both her critical work and fiction. In her critical capacity, Byatt wrote the article "Fiction informed by Science" for *Nature* in 2005. On the one hand, Byatt has explained that the reason why some of her fiction is informed by science is that, as a reader, her favourite writers were the ones who were actually interested in the scientific work of their time. On the other hand, Byatt has

methodically explained the way by which such diverse scientific interests like mathematics, the nature of perception, theories of language and learning, evolutionary biology, genetics and neuroscience have shaped her Frederica quartet in the sense they are embodied in these novels' scientists. Focusing mainly on the last volume of the quartet, *A Whistling Woman*, Cheira's thought-provoking chapter attempts a synthesis by discussing not only Byatt's views but also the views of Byatt's literary and scientific critics.

Teresa Botelho concludes this part of the discussion by recognising that the last two decades have witnessed a renewed dialogue on the possibilities of consilience, or unity of knowledge, between the sciences and the humanities. Her chapter brilliantly discusses the difficulties and promises of these interactions and identifies in contemporary drama a fertile field where interdependence and mutual stimulation have been particularly visible. Botelho concentrates on a relatively recent trend in "science plays," introduced by Michael Frayn's ground-breaking *Copenhagen* and Tom Stoppard's *Arcadia* in the last decade of the twentieth century, where the dramatic experience is shaped so as to enact the scientific idea itself. She therefore discusses two post-*Copenhagen*/*Arcadia* texts—Crispin Whittell's 2003 *Darwin in Malibu* and Caryl Churchill's 2002 *A Number*—, analysing how, by using metatheatrical structures, they involve audiences in experiences that simulate the scientific enterprise, and considers the role of the "play of the scientific idea" in contemporary artistic dialogues between science and the humanities.

Finally, the fourth part of the volume targets a specific scientific discipline which has traditionally shown itself to be highly porous in relation to literature and the humanities, namely the medical sciences. Operating as they do with the human body and the human mind, the medical sciences have been a long-established object of disturbing transgressions, ethical reflections and fantastic speculations, as the first chapter of this final part, dedicated to fantasies of extra-uterine gestation, amply proves. These preoccupations are then redirected, for the remainder of the section, to representations of neural disorders, as well as of several methods, many of them misguided, used to treat or minimise their symptoms, as they appear in the fictional work of Patricia Barker, António Lobo Antunes, and, finally, in novels with autistic protagonists. The inevitable reliance of both symptoms and treatments on various forms of language use (including its opposite, mutism) brings to light a special link with the creative strategies and cognitive procedures employed in poetic and fictional language, in what can be seen as an actual instance of

consilience at work. The span covered by these final chapters—from neurasthenia and autism to psychiatric and psychoanalytic practices—should serve to convincingly argue that consilience is not something to be measured in absolutes but in degrees; it is a view of the sciences and the humanities that can already be found partially in place in specific areas. This part aims, therefore, to contribute towards critically extending that integration through the discussion of key literary representations of science, its promises, and its problems.

Opening this final section, Aline Ferreira thoroughly investigates the concept of ectogenesis or extracorporeal gestation and the debate that accrued around it in Britain in the 1920s and 1930s, especially as it was discussed in the "Today and Tomorrow" series of books and the circle of intellectuals associated with it. She begins by paying particular attention to British geneticist J. B. S. Haldane's *Daedalus, or Science and the Future* (1924), which launched the series. She then turns to some contemporary fictional depictions of ectogenesis, clearly influenced by the collection mentioned above, and which directly intervened in the debate around the development of foetuses in artificial wombs. Although Aldous Huxley's *Brave New World* (1932) was the most famous fictional rendition of the notion of extra-uterine gestation, there were many other, lesser known texts. Victorian Journalist Fred T. Jane's "The Incubated Girl" (1896) is an earlier example as is Charlotte Haldane's *Man's World* (1926), a novel that also discusses the concept of ectogenesis. Rebecca West's "Man and Religion" (1932), in turn, ends with a version of a sex-role reversal society, brought about by a number of scientific discoveries that have provided women with great physical vigour, a longer life span and allowed gestation to take place outside the womb. All of these texts can be seen as centrally engaged in a critical dialogue with some of the books of the "Today and Tomorrow" series. Ferreira thus examines some of the vexed issues surrounding the fantasy of extra-uterine gestation.

David Griffiths, on the other hand, explores the portrayal of the two main historically-inspired medico-scientific figures in Patricia Barker's *Regeneration* trilogy, Dr W. H. R. Rivers (1864-1922) and Dr Lewis R. Yealland (1884-1954). Pat Barker, anchoring her depiction on an artful mixture of carefully documented research and poetic intuition, presents these two neurologists as vehicles through which normalising power is deployed by the reigning authorities against the backdrop of a particularly delicate moment of the Great War (1914-18). Griffiths convincingly demonstrates how the contrasting approaches adopted by Dr Rivers and Dr Yealland towards the clinical treatment of neurasthenic soldiers in their charge embody, in Foucauldian terms, differing but not incompatible

manifestations of the way in which disciplinary power is deployed within society. Medico-scientific discourse, albeit at the time largely experimental in the field of mental illness and war-related neuroses, was fully endorsed by the State at this juncture of WWI, and its application became an efficient means of normalising individuals who manifested resistance to or non-alignment with the prevailing patriarchal value system.

Adopting a health humanities perspective, Ricardo Rúben Rato Rodrigues also focuses on the fraught issue of psychiatry, by describing how António Lobo Antunes' novel *Conhecimento do Inferno* brings insights of a discontented psychiatrist, criticising psychiatric institutions and highlighting inherent problems and limitations to this medical profession. Through an exploration of memory and surreal images with the roles of doctors and patients intertwined, Lobo Antunes is shown to investigate concepts of self, identity and madness. This is achieved by recurring themes in his oeuvre, which appear again here—uncertainty of memory, construction of a complex referential diegetic system and formation of a traumatic/traumatised self. Rodrigues' enlightening chapter aims to analyse the novel in terms of its significance as "counter-narrative," emphasising the importance of literature for the study of mental illness. Lobo Antunes presents a dispersed "self," a conscious construction of the "diseased-subject," bringing into question the role of psychiatry as the "master-narrative" and justifying current research on the necessity of humanising medical professionals and services, by highlighting the vital role literature can have in mapping out difficulties and forcing an evolution in medical ethos.

Concluding the volume, Makai Péter Kristóf begins by arguing that the fellow-feeling generated by literary characters is without a doubt one of literature's most engaging features. Reading fiction exercises our innate capacity for empathy and mentalisation. In cognitive aesthetics, the "paradox of fiction" was constructed to denaturalise and investigate our empathetic responses to fiction in the context of the "problem of other minds," discussing so-called theory-theory and simulation theory to explain how we navigate the social world. In this chapter, Makai explores narrative empathy by focusing on novels with autistic protagonists. Neuroscientific evidence suggests that the mirror neuron systems and neural networks for simulation are excited when responding emotionally to fiction, and they are also affected in autism. As Makai interestingly argues, if we simulate the feelings of other characters via the enactive imagination, then reading fictional accounts of autism highlights the complexity of neurological difference and social cognition by representing

people who have difficulty processing sociobiological cues for empathy. His chapter therefore sketches out the implications of this in the reading of autism fiction.

In short, this collection of essays aims to expand our understanding of two different but converging realms across diverse historical periods, critical frameworks and disciplinary boundaries. While scholars from the literary field will find much to appreciate in the thirteen chapters that make up the volume, we believe that the variety of topics and approaches put forward by the contributors to the volume will certainly make it useful and engaging to a wider, transdisciplinary readership.

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PART I

COLLECTING, HISTORICISING, AND IMAGINING: APPROACHING SCIENCE IN THE NINETEENTH CENTURY

THE COLLECTOR AT HOME

ALDA RODRIGUES
UNIVERSIDADE DE LISBOA

In the study of collecting, there is a long tradition of defining what a collection is by trying to displace it from everyday life. From this perspective, a collection should be described as a group of things which, because their normal use is suspended, stand apart from other objects.[1] In this context, collectors acquire a status which clearly separates them from non-collectors. They are seen as engaged in activities that are uncommon to the vast majority of people. In this essay, my aim is to try to reunite the several dimensions of human life that this kind of discourse artificially separates. I will argue not only that collections are part of everyday life, but also that we need to dissolve the above-mentioned distinctions in order to reach a proper understanding not only of people, but also of collecting activities. The concepts of house museum and cabinet of curiosities will be used in order to demonstrate that a life can be compared to a collection in the sense that both a life and a collection need a unified description with reference to a person in order to be correctly described.

The concept of house museum has a key role in my argumentation for two main reasons. First, because it is a museum which started out as a house, and, consequently, as a space in which its owner actually lived every day. Second, because every house museum preserves a collection, even in the cases in which the owner did not own a group of objects formally described as such. These two reasons will show that the concept of collection we should be taking into account is simply a group of things which are part of somebody's life, and also that nobody can live without making collections, whether these are formal or merely conceptual.

Around the end of the nineteenth century and the beginning of the twentieth century, several American tycoons invested a part of the fortunes they had acquired from professional activities in building houses in order to display their wealth. In some cases, they also became famous collectors

[1] See Krzysztof Pomian, *Collectors and Curiosities: Paris and Venice 1500-1800*, trans. Elizabeth Wiles-Porter (Cambridge: Polity Press, 1990).

and those buildings were organized in order to display their collections, which then became a symbol of their wealth and power. Henry Clay Frick (1849-1919), who built and lived in the house in which we can now visit the Frick collection, is a good example.

The model for these collectors seems to have been the houses of the European aristocracy, in which every object (paintings, family heirlooms, jewellery, crockery, cutlery, decorative pieces, furniture, etc.) was preserved as a feature of family identity passed on to the descendants. The objects these Americans collected had the same diversity, as if they were paradoxically trying to impress an aristocratic aura on the wealth they had acquired professionally (i.e., in a non-aristocratic way). The Wallace Collection, which can be visited in London, was regarded by many of these American collectors as an example to emulate. Some of them, including Frick, even managed to buy objects from this collection.[2]

Isabella Stewart Gardner (1840-1924) can be included in this group of rich American collectors, even though her financial capacity cannot be compared to that of Henry Frick, J.P. Morgan or William Randolph Hearst, other famous collectors. The money she had was inherited both from her father and her husband.

The formal beginning of Isabella Stewart Gardner's collection was in 1896—when she bought a self-portrait by Rembrandt. In 1898, when she had freer access to the money of her inheritance, she started working on the project of the building that was to become her house museum. The collector worked closely with the architect, and together they came to a unique result. The house has often been described as a building turned inside out because, when seen from the inside courtyard, the building looks like the Venetian *palazzo* Stewart Gardner used to stay in when she travelled to Venice. Furthermore, whereas other museum buildings of the time remind us of temples or courthouses, from the outside Isabella Stewart Gardner's Museum looks like a box of yellow bricks.

The collector moved into the house which we now know as her museum in 1903 and she lived there during her last 21 years, while still buying objects for her collection—she died when she was 84. During these 21 years, the building could be visited by the general public—it was open around 20 days a year, even though a few rooms were closed off. The house, therefore, was a museum when Isabella Stewart Gardner was still living there and she used the museum's rooms for everyday activities

[2] Carol Duncan, *Civilizing Rituals: Inside Public Art Museums* (London and New York: Routledge, 1995), 75.

(writing, praying, listening to music, meeting friends, etc.). Her life took place in the museum, among the objects of her collection.

The objects on display in the museum have very different natures, and some of them, strictly speaking, are not works of art. The collector travelled considerably all her life before the formal beginning of her collection; she kept journals in which she wrote comments and saved travel souvenirs (such as photographs, tickets, dry leaves, etc.). In the house, these personal objects are exhibited alongside the most valuable art, like works by Rembrandt, Titian, Vermeer (one of her most valuable paintings was *The Concert*, by Vermeer, which was stolen in 1990 with other important works in a famous heist). Other objects on display are tiles, mosaics, sculptures, fragments of historical buildings, a sarcophagus, letters, rare books, autographs, newspaper clippings, fabrics, lace, jewellery, writing materials: more than 2,500 objects, from Ancient Egypt to Matisse. Simply put, in Isabella Stewart Gardner's Museum collection we find the things she used and gathered during her life. Art, personal objects or souvenirs are exhibited on the same level; there are no clear distinctions between them because there were no such distinctions for Stewart Gardner.

The building is divided in different rooms which are identified by colours (Blue Room, Yellow Room), artists' names (Veronese Room, Titian Room), artistic movements (Gothic Room), countries (Dutch Room), or types of object (Tapestry Room). The collector arranged her objects based on personal associations, or on thematic, formal, or anecdotal connections: colour patterns, connections between artists or subjects, interesting and sometimes obscure stories about the production of the artwork.

For example, in the Titian Room, where the most important work is *Europa* by Titian, in which Jupiter appears as a white bull on the seashore and soars away with Europa over the sea, the pearly tone of Europa's flesh and the rosy twilight in the painting are echoed by the red walls and the tones of the Persian rug. The small angel riding a scaly fish and the splash of water on the bottom left of the painting are replicated respectively, on the one hand, by a *putto* in a position which echoes that of the angel, on the other, by the design on an enamel platter. These two objects are placed on two eighteenth-century Venetian end tables underneath the painting. There's also an adjacent small watercolour possibly by Van Dyck, who may have used a copy made by Rubens of Titian's painting in order to complete it. On the wall above the end tables, Stewart Gardner placed a

piece of silk taken from a gown designed for her, its colour and pattern complementing that of the tables.[3]

As opposed to what happens in more traditional museums (such as the Louvre, the National Gallery in London, the British Museum, or even the Boston Museum of Fine Arts, close to this house museum), in which the organization of the objects is determined by historical periods or artistic movements, and in which there is an explicit interest in showing the results of fields of knowledge, like the History of Art, in Isabella Stewart Gardner's Museum the works are not organized historically. The collector's main concern was not to educate the public. "C'est mon plaisir," the motto inscribed above one of the doors of the museum, shows that what she wanted above all was that the public felt the same pleasure as she did when visiting her house. She wanted to share a subjective and sensory experience. About the Louvre, she commented: "[I]f I could only take hold! Some things are so wonderful—and yet badly presented […] strength of mind they do need—and taste."[4] This comment clarifies her intentions regarding the display of objects in her collection. She saw the collector's or curator's personal understanding of the collection as decisive in the value and meaning of its display. A part of this value would also depend on the capacity of the display to elicit the interpretative personal investment of the visitor, thereby transforming the museum visit into an important experience in the visitor's life.

Contrary to what happens in museums more closely associated with nineteenth-century taxonomies, in Stewart Gardner's there are no clearly defined borders either between the arts or between art and life. In her museum, art and everyday life, collections and life, are inseparable. In this context, the Kantian distinction between aesthetic judgment, practical reasoning, and scientific understanding seems to lose its validity. All human capacities are summoned at the same time.

The model of the Renaissance cabinet of curiosities seems more appropriate to describe this type of museum not only on account of the diversity of the objects represented, but also because the organization of cabinets of curiosities was defined by their collectors' perspective of the universe and their own place in it. Spanning approximately a century and a half, from the mid-sixteenth to the early eighteenth centuries, the cabinet of curiosities was an interdisciplinary mixture of the natural and the

[3] For more detailed information about this collection, see Hilliard T. Goldfarb, *The Isabella Stewart Gardner Museum: A Companion Guide and History* (New Haven & London: Yale University Press, 1995).

[4] Douglass Shand-Tucci, *The Art of Scandal: Life and Times of Isabella Stewart Gardner* (New York: HarperCollins, 1998), 236.

artifactual. It could hold objects like teeth, horns, seashells, feathers, precious gems or metals, but also like musical instruments, automata, optical or navigational instruments, tools, maps, paintings, ancient manuscripts, and religious relics: the wonder caused by the collection of curiosities could be scientific, aesthetic and emotional—thus without boundaries between Nature, science, art or practical knowledge.

By means of cabinets of curiosities, the collector started out by trying to represent the juxtapositions found in nature, which were seen as mirroring the conjunctions decreed by God's will. Since human production was understood as one among Nature's features and, therefore, as part of God, one of the pieces of cabinets of curiosities was actually their own collector. The confusion of the subject and object of the gaze is a feature of cabinets of curiosities: their visitors would direct their wonder at the displayed marvels towards their proprietor—the proprietor's labour and investment, the proprietor's mind on the basis of the organization of the cabinet. The wonder caused by the collection became the wonder caused by the collector. Collector and collection became undistinguishable.[5]

When the collector was not an aristocrat, owning a cabinet of curiosities was also seen as a token of the collector's active participation in the shaping of his own life, as opposed to a passive acceptance of a predestined place in the social structure. Therefore, the collectors defined themselves as agents and creators (of themselves, of their lives, and of their destinies) through their cabinets of curiosities. In Isabella Stewart Gardner's Museum, as in other house museums, there seems to be the same place for the definition of a subject, of a subjective experience and of a life among the objects of a collection. The fact that these American collections at the turn of the nineteenth century were used by their collectors as a means to acquire and consolidate social status and importance, especially when the collectors donated their collections or built public museums in order to display them, can also be related to the social dimension of cabinets of curiosities.

Carol Duncan described house museums like Isabella Stewart Gardner's or Frick's as the collectors' "surrogate selves […]—which they ardently wished to keep intact and identifiable as having once belonged to them."[6] The fact that Stewart Gardner explicitly forbade any alteration in

[5] See Amy Johnson, Janelle A. Schwartz and Nhora Lucía Serrano, "On the Virtues of Cabinets and Curiosities," in *Curious Collectors, Collected Curiosities: An Intersdisciplinary Study*, ed. Janelle A. Schwartz and Nhora Lucía Serrano (Newcastle upon Tyne: Cambridge Scholars Publishing, 2011), 1-11.

[6] Duncan, 83.

her museum and collection shows us that she saw them as an extension of herself.[7] She wanted to preserve both her vision and her presence among the objects of her collection.

Stewart Gardner's portraits—two by John Singer Sargent (1888, 1922), one by Anders Zorn (1894), and a pastel by Whistler (1886)—seem to objectively place her right among the other museum objects, as a physical thing, among the others which were part of her life. In her last portrait—a John Singer Sargent watercolour, completed two years before her death—not only does the background seem almost immaterial, but her body also appears to be dissolving into what is around her—into her house, into her collections—, as if there were really no boundaries between the subject and her objects.

This reminds us that in Ancient Egypt people were buried with their personal objects and sometimes even animals and other people (servants, wives or relatives) because it was believed that these would identify them in the world of the dead. In common between ancient Egyptians and collectors there is the notion that the objects we use and the spaces we inhabit are part of us because we act and live with them; we would not be who we are without them.

In sum, a collection seems to be a ramification of the collector's embodied physical presence in the world. In this sense, since every physical being is subject to decay, it must also be related to the collector's awareness of his/her own mortality. These collections and the museums built to house them may be described as an attempt to connect the collectors to something of lasting value, as a way of sidestepping death. (And by this I mean something as simple as leaving something behind that allows them to be remembered as having lived.) From this perspective, a collection can be described as a personal memorial.

John Soane's Museum in London is a case of a house museum in which this connection between collection and awareness of mortality is extraordinarily clear. Among other objects connected to death and tomb architecture, the house includes a sepulchral chamber with an empty

[7] The connection between objects, biography and identity in cases of hoarding may help us to describe this type of perception. Many hoarders claim that getting rid of the stuff that clutters their house would be like throwing out or destroying a part of their lives or of themselves. For instance, book hoarders argue that throwing out some of the books they will never be able to read would be like destroying their cultivated facet or that throwing out the cookbooks they never use would prevent them from becoming great chefs. See Randy Frost and Gail Steketee, *Stuff: Compulsive Hoarding and the Meaning of Things* (New York: Houghton Mifflin Harcourt, 2010).

Egyptian sarcophagus as a centrepiece. It also has a section known as the Monk's Parlour, with a ruined cloister and a tomb, which was added with satirical intent against the fashion for Gothic antiquarianism, but also works as a *memento mori*. The architect John Soane (1753-1837) showed an interest in funerary monuments all his life.[8] The Dulwich Picture Gallery, both one of the most important of Soane's projects and a fundamental piece for understanding the architecture and the display of Soane's collections in his own house, is a museum in London which was built around the tombs of its founders (Francis Bourgeois and Noël Desenfans). In this sense, it objectively materializes a contiguous relation between collectors and collection which cannot be forgotten by any visitor to the gallery. Even though Soane was not buried in the grounds of his house museum, the empty sarcophagus in the centre of the house evokes his absence while establishing an internal rhyme with the Dulwich Picture Gallery.

Moreover, the overwhelming presence in Soane's museum of representations of ruins (sometimes of Soane's own work as an architect, before the building was actually in ruins),[9] as well as of fragments from several buildings and artworks, suggests that the architect was interested not only in the effects of the passage of time, but also in trying to come up with a strategy to subvert these effects.

The representations of ruins and the presence of fragments in Soane's museum allow for a panoramic mode of seeing that replaces a more linear understanding of time while simultaneously showing past, present and future. Depicting a building in ruins may also be a device to expose the ingenuity of both its plan and construction, by displaying its interior and exterior, its substructure and superstructure,[10] thus dissolving the limitations of human vision. As parts of destroyed wholes, fragments not only evoke the past but, when used as a starting point for ideas for new buildings, also announce the future. In his house, Soane displayed the fragments he collected from his own or other architects' buildings like a catalogue of forms or a theatre of memory that he and the architects he worked with could draw on when in search of inspiration. Through the panoramic mode of vision established both by ruins and by fragments, Soane confronted and, in a way, sabotaged the effects of time and

[8] See John Summerson, "Sir John Soane and The Furniture of Death," *Architectural Review* (March 1978): 147-158.

[9] As in the case of Joseph Gandy's watercolour depicting the Bank of England in ruins, which was displayed in 1830 at the Royal Academy, while the building itself survived until the 1920s, when most of it was demolished.

[10] See Christopher Woodward, *In Ruins* (London: Vintage, 2002), 164.

mortality. His house museum seems to have been built with the same intention. Even though John Soane died in 1837, he is still present today in this museum and in the unique collection displayed there. Soane's bust on the Dome's balustrade stages the taking up of a point of view from which the fragments of the collection fall into their proper perspective. Standing next to the bust, it is possible to visualize a progression from the sarcophagus in the basement to the skylight above—a vertical progression which corresponds to a passage from death to rebirth and enlightenment and which can be associated to the Masonic idea of museums.[11]

A similar awareness of mortality but with opposite consequences seems to be at stake in the interesting case of the artist Edgar Degas (1834-1917), who worked on the project of a house museum that never came to be. Degas is known mainly for his paintings but he was a collector too, and the distinctive trait of his collection was that, even though Degas also collected other artists' works (Ingres, Delacroix, and Daumier stand out among his favourites),[12] he was "the most complete collector of his own work."[13]

Mainly between 1895 and 1900, Degas worked on the project of building a museum in which he could display his own work alongside his collection of other artists' work. This project, however, never materialized. Among the several possible explanations for this failure is Degas's reaction to Gustave Moreau's house museum. After a visit to this museum and its collection, Degas commented: "How truly sinister. You would think you were in a mausoleum […]. All those paintings jammed together made me think of a Thesaurus […]."[14] The association of this house museum with death in Degas's mind, in connection with Gustave Moreau's absence, seems to have contributed to the rejection of the project for his own museum. One can only speculate that Degas started out with a project that was supposed to preserve his identity as an artist and collector after his death, but, unfortunately, he had second thoughts after the visit to Moreau's museum, when he understood that there was no guaranty that

[11] See Donald Preziosi, "Art History and Museology: Rendering the Visible Legible," in *A Companion to Museum Studies*, ed. Sharon Macdonald (Oxford: Blackwell Publishing, 2006), 50-63.

[12] For more specific information about this collection, see *The Private Collection of Edgar Degas*, ed. Ann Dumas (New York: The Metropolitan Museum of Art, 1997).

[13] Gary Tinterow, "Degas's Degases," in *The Private Collection of Edgar Degas*, ed. Ann Dumas (New York: The Metropolitan Museum of Art, 1997), 79.

[14] Ann Dumas, "Degas and His Collection," in *The Private Collection of Edgar Degas*, ed. Ann Dumas (New York: The Metropolitan Museum of Art, 1997), 25.

this would happen. The fact that Degas changed his mind consolidates the articulation between collection, house museum, and the wish for a connection to something of everlasting value and meaningfulness.

After Degas's death, his collection was auctioned and dispersed. If the artist had been able to understand and participate in the dynamics of house museums, perhaps today we could visit a museum which, by placing the artist's work in connection with the works of the artists he most admired and collected, would greatly contribute to the understanding of his own art.

Stories about destroyed or dispersed collections are not uncommon in the history of collections. Especially when the collected pieces have no immediate monetary value, the collectors' descendants are frequently unable to understand the meaning of the collection and simply get rid of it. These cases show us that being a collection is not a feature of a group of objects *per se*, because it depends on a meaningful description which connects these objects among themselves and to a collector. In order to correctly understand and describe a collection we need to take into account the collector's intentions in the context of his/her life, a connection Degas himself failed to establish when he visited Gustave Moreau's house museum.

Furthermore, reactions of disgust after visiting house museums are quite frequent. The topic of disappointment is a *leitmotif* in books dedicated to this subject.[15] We can say with some confidence that this usually happens on account of a misguided insistence on detaching art from life. It may be related to the Kantian distinction between the human capacity for aesthetic judgment and the other faculties of the mind (such as practical reasoning and scientific understanding), which is traditionally used to establish a separation between art and everyday life. When visiting house museums, people often start out by imagining that they will have contact with the most transcendent dimension of life, that they will be able to see the mechanisms of artistic creation of the artist or writer who lived in that house, or the reasons why somebody became an important person in history, and they end up simply finding the objects the owner of the house used every day, and, if he or she was a collector, his/her formal collection. Artistic creation, however, is grounded in objects of everyday life. It would not be possible without them. Only through an integrated understanding of these two complementary dimensions can house museum

[15] One good example is Anne Trubek, *A Skeptic's Guide to Writers' Houses* (Philadelphia: University of Pennsylvania Press, 2011).

visitors make sense of both their visit and the homeowner's experiences in the space where she/he lived.

The Isabella Stewart Gardner Museum itself has often been compared to a junkshop or an attic by visitors who were unable to reconstruct the connections intended by Stewart Gardner. The fact that these visitors are unable to understand the objects as a collection goes to show that the notion of collection is not intelligible without recourse to the notion of life.

The same importance of a unified description is true as far as both collections and life are concerned. In *After Virtue*,[16] the philosopher Alasdair MacIntyre reminds us that life can be seen as more than a sequence of individual actions and episodes if we notice that particular actions derive their character as parts of larger wholes. Only when we understand particular actions in the context of other actions and events in somebody's life can we correctly describe them. In this sense, the concept of collection can be compared to that of life: in both cases we have a group of seemingly autonomous objects, in the case of a collection, or actions/events, in the case of a life, which acquire connections and a broader and more coherent meaning when they are related to each other—when they are placed into a mutual relationship in a unified description.

MacIntyre argues for a concept of selfhood based on the unity of a narrative which links birth to life and to death. He points out that it is because we are able to make connections between the several episodes and options in our lives that we are able to make them intelligible to ourselves and, therefore, decide what we are going to do next:

> When someone complains—as do some of those who attempt or commit suicide—that his or her life is meaningless, he or she is often and perhaps characteristically complaining that the narrative of their life has become unintelligible to them, that it lacks any point, any movement towards a climax or a *telos*. Hence the point of doing any one thing rather than another at crucial junctures in their lives seems to such person to have been lost.[17]

In this sense, both a life and a collection need a subject or agent with the ability to make connections and to provide for a unified intelligible description of their elements. A life without connections can be compared with a collection which is discarded because its meaning was not understood.

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[16] Alasdair MacIntyre, *After Virtue. A Study in Moral Theory* (London: Bristol Classical Press, 1981), 204-225.
[17] MacIntyre, 217.

In the concept of house museum, the notions of collection and life seem to find their natural unity. The study of collections in house museums helps us to understand that who people are is defined when they make connections between the several elements in their lives: episodes, options, an objective space, several contexts or settings, other people, some objects, and other living beings. Without this, people would be abstractions. Self-conceptualization and the conceptualization of spaces and objects are interdependent elements. In order to have a sense of oneself, one needs the notion of embodied activity within particular spaces and with respect to particular objects and persons.[18] In the same line of thought, Susan M. Pearce describes collections as "material autobiographies"[19] of their collectors, in the sense that they are both a product of the collectors' personal lives, and a means of structuring life, giving tangible form to the flow of time, and creating a sense of life history through the collected objects that become souvenirs of the experience of acquiring them.

In this essay, I have tried to integrate collections and collectors in everyday life. I compared the diversity of objects that are part of a collection to the diversity of objects used in everyday life and I argued that, in life, distinctions between them are usually blurrier than in theory. Isabella Stewart Gardner's Museum was described as an example in which objects of everyday use are displayed and were used on the same level as objects intentionally acquired as part of a formal collection. I claimed that house museums help us to understand a collection as a group of objects which are integrated in a life and not merely as a group of objects with suspended practical use. In this sense, house museums also help us to describe people's lives in a unified way, without unnecessary boundaries between complementary dimensions, such as art and life, objects and people, collections and everyday life.

Making meaningful connections either between objects in a collection, or between episodes or elements in life, thus emerges as a decisive ability not only for collectors but also for people in general. Without this ability, as MacIntyre suggests, people would not be able to make options in order to go on living.

Since a group of objects can only be considered a collection in articulation with a description establishing meaningful connections, every collection expresses a subjective perspective. Cabinets of curiosities help

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[18] See Jeff Malpas, *A Philosophical Topography* (Cambridge: Cambridge University Press, 1999).

[19] Susan Pearce, *On Collecting: An Investigation into Collecting in the European Tradition* (London and New York: Routledge, 1995), 279.