

Impact case study (REF3)

Institution: University of Glasgow		
Unit of Assessment: 30 Philosophy		
Title of case study: Changing Design, Policy, and Practice in the Wellness Resorts Industry through Philosophy of Functions		
Period when the underpinning research was undertaken: 2017-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Mona Simion (lead)	Lecturer in Philosophy	2018-present
Christoph Kelp (lead)	Senior Lecturer in Philosophy	2017-present
Adam Carter (key contributor)	Reader in Philosophy	2017-2017
Period when the claimed impact occurred: 2018- 2021 (and ongoing)		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words)		
<p>UofG's Cogito Research Centre's pioneering collaborative research in the philosophy of functions, wellbeing, and architecture radically transformed the modus operandi of Therme Group (TG), a major international consortium (14 companies, presence: Europe, Asia, North America), whose principal projects include large-scale, high-tech wellness resorts (currently approx. 6m visitors/year). https://www.thermegroup.com/</p> <p>As a direct result of Cogito research TG developed of a new vision for urban wellbeing published in a recent policy paper entitled 'Human Cities: Increasing Urban Wellbeing' and adopted a radically new approach to design aimed at wellbeing and implemented in all of its projects (over GBP500m worth of facilities across Europe with 7m visitors/year, investment: 30% increase in TG architecture division's budget). In addition, TG created a new company, Therme XPR, dedicated to liaising with Cogito and implementing Cogito research results (investment: EUR150k/year) and funded a research fellowship at UofG (investment: GBP332k). TG launched 'The Wellbeing Culture Forum' as well as a public engagement project including a series of interdisciplinary conferences on the nature of wellbeing in collaboration with Cogito (investment: GBP50k/event).</p>		
2. Underpinning research (indicative maximum 500 words)		
<p>Since 2017, Dr. Mona Simion and Dr. Chris Kelp have built a body of research (published in top-tier general and specialist philosophy venues as well as prestigious interdisciplinary outlets) describing and assessing the relation between proper function and cognitive, emotional, physical, social, and moral wellbeing. The research, including cognate work by colleague Dr. Adam Carter, addresses the nature and value of wellbeing and how it can be generated via conceptual engineering and architectural design.</p> <p>1. Proper Function and Architecture. Dr. Simion and Dr. Kelp's research results show that the etiological function of the practice of architecture is to design spaces that reliably generate wellbeing. Simion and Kelp argue in several papers that there is an important distinction between design function and etiological function. Design functions are the functions that have been intended for a particular artefact. Etiological functions arise naturally, independently of design plans (in traits, organisms, but artefacts too) via a history of success. Dr. Kelp argues architectural products are artefacts that have the design function of generating wellbeing: that's why we invented architecture to begin with. The difference from mere design function to etiological function</p>		

is what makes the difference between good and bad architecture: when an architectural product acquires the etiological function of generating wellbeing via successfully doing so, this thereby explains its continuous existence.

2. Proper Function and Wellbeing: Dr. Simion and Dr. Kelp's research in human flourishing (eudaimonia) shows that human wellbeing is multi-dimensional: it requires that one realises one's potential along several dimensions: cognitive, emotional, physical, moral, social. If all this is the case, though, function fulfilment in the case of architectural products will be a much more complicated affair than it has been traditionally assumed in architectural theory and practice: it requires success along all said dimensions. Cognate research on the nature and normativity of emotions by Dr. Adam Carter, as well as empirical studies in environmental psychology corroborate these results: to give but a few examples, when it comes to cognitive wellbeing, easily accessible knowledge matters: people tend to feel discomfort in buildings that are beautiful but cognitively demanding – in that they do not offer easiness of orientation and navigation. When it comes to emotional wellbeing, against recent architectural trends, people feel more comfortable in environments populated with curve shapes, and prefer intricate facades over simple, block facades. Also, spaces tend to be more popular when they nudge people together, thus contributing to enhanced social wellbeing.

The research was undertaken by Simion, Kelp and Carter collaboratively at Glasgow, and published in single-authored and co-authored papers between 2017 and 2020. This research was partially funded via Simion's Mind Fellowship and two conference grants from the University of Glasgow and Therme Group.

3. References to the research (indicative maximum of six references)

3.1 Kelp, C. (2018) Utopie und Funktion. In: Zamp Kelp, G. and Engel, L. (eds.) *Luftschlosser*. Spector: Leipzig. <http://eprints.gla.ac.uk/174348/> (translation: Kelp, C. Forthcoming. 'Utopia and Function' In Zamp Kelp, G. and Engel, L. (eds.) *Prospector*. Spector: Leipzig.)

REF 3*: This paper develops a novel view on the function of architecture, the first systematic study on the topic in both philosophy and theory of architecture. It is published in a volume on theory of architecture edited by world-renown architects and academics in theory of architecture. It thus has excellent potential to have impact on two distinct disciplines.

3.2 Simion, M. and Kelp, C. (2020) Conceptual Innovation, Function-First. *Nous*, 54/4: 985-1002. Online First <https://doi.org/10.1111/nous.12302>

REF 4*: This paper develops a novel, functionalist view on conceptual engineering. It deals with how novel concepts can acquire a stable function, together with a fully fledged theory of etiological functions and their application to artefact design. It is published in a top 3 general philosophy journal, with very low acceptance rates (under 3%) and very high impact profile.

3.3 Simion, M. (2018) The 'should' in conceptual engineering, *Inquiry*, 61:8, 914-928, DOI: [10.1080/0020174X.2017.1392894](https://doi.org/10.1080/0020174X.2017.1392894)

REF 4*: This paper has become one of the most influential and well cited in the field of conceptual engineering. It addresses a novel issue in the field – the normative limitations of engineering – and it proposes a functionalist account thereof, grounded in an etiological theory of functions. It is

published in a highly ranked general philosophy journal and it has, since publication, made an impressive impact on the field (three published discussion papers to date dealing uniquely with this paper, and cited and discussed in most research papers on the topic since its publication date).

3.4 Carter, A. (2019). Epistemic Perceptualism, Skill and the Regress Problem. *Philosophical Studies*.

REF 4*: This paper develops a novel, skill-based perceptualist view in the epistemology of emotions. Key to this view is the recognition of two distinct kinds of emotional skill (generative emotional skill and doxastic emotional skill) and how these must be working in tandem when emotional experience plays an epistemic justificatory role. It is published in a top 10 general philosophy journal with very low acceptance rate (below 5%).

3.5 Simion, M., Kelp, C. and Carter, A. (Invited) Wellbeing as the Function of Architecture. *British Journal of Aesthetics*, Special issue: Aesthetic Reasons. Manuscript available in the public domain since March 2019 here: http://www.cogito-glasgow.com/uploads/3/4/9/2/34929515/pptwell-being_pp2_3_.pptx

REF 3*: This paper is an interdisciplinary (philosophy, psychology, cognitive science, neuroscience, theory of architecture) study, the first of its kind, proposing concrete ways to implement Kelp and Simion's extant research results in the philosophy of functions in architectural design such as to promote multi-dimensional wellbeing. It is invited for a special issue of the *British Journal of Aesthetics*, the best journal in the field of aesthetics, it has already been accessible in the public domain, and it is already cited by practitioners in architecture conferences (e.g. at the Higher Education Design Quality Forum annual conference in Edinburgh).

4. Details of the impact (indicative maximum 750 words)

Therme Group is a multinational consortium (headquarters in Vienna, presence in Europe, UK, Asia, and North America), whose principal projects include large-scale, high-tech and environmentally informed holiday parks. Therme Group's declared overarching philosophical mission is to utilize modern technology in a way that enhances and promotes experiences of *overall* physical and mental wellbeing.

In 2018, COGITO Research Group at UofG Philosophy launched a large-scale collaboration with Therme Group on the function of architecture in generating wellbeing. Research results by COGITO's Dr. Simion, Dr. Kelp and Dr. Carter show that function fulfilment in the case of architectural products requires generating wellbeing along all several dimensions – cognitive, emotional, physical, social, moral. Together with COGITO, Therme Group has implemented these results in the design of several Therme facilities. This has produced four types of impact: impact on policy, economic impact, impact on architectural design, and impact on urban planning.

The collaboration started informally in the winter of 2018, and was officially kicked off in February 2019 by a series of meetings (funded by UofG Knowledge Exchange grants and Therme grants of approx. GBP 6.000) with Therme Group CEO, Robert Hanea, Head of Architecture (Patricia Popescu) and VP and Head of Therme UK (Stelian Iacob) and COGITO's Dr. Simion, Dr. Kelp and Dr. Carter. The meeting explored the nature and scope

of the Therme-Cogito collaboration, and the parties settled on a set of flexible parameters aimed at preparing COGITO's research results on wellbeing, functions and architecture for implementation by Therme, thereby meeting Therme's express interest in making research-led investments in facilities that generate wellbeing. This meeting planted the seed for a close and fruitful collaboration between the two parties ever since. Cogito's Dr. Simion and Dr. Kelp have been in (on average) monthly contact with Therme representatives, sending research results and discussing best implementation strategies; this close collaboration has had a major impact on Therme Group's policies and investments, as follows:

General Impact on Therme Group:

- As a direct result of the impact of Cogito research in the Philosophy of Wellbeing on Therme Group policy, in August 2020 Therme Group launched its policy paper entitled 'Human Cities: Increasing Urban Wellbeing,' outlining its vision of urban wellbeing for all. In this policy statement Therme Group acknowledges the impact of the Cogito research in the nature on wellbeing on Therme's policy: Therme facilities will be designed and built following a multidimensional wellbeing-first approach. A copy can be found here: <https://www.thermegroup.com/humancities/>
- Therme Group, via Therme UK: invested GBP 332,075 in funding 50% of a research fellowship at UofG (the Therme Fellowship in Wellbeing) to investigate the nature of wellbeing and share research results.
- The consortium created a new company, Therme XPR (currently 8 employees), dedicated to liaising with Cogito and implementing Cogito research results (annual dedicated budget EUR 150,000) as well as doing market research to analyze the impact thereof on Therme customers.
- Traditionally the Therme facilities (projected before the start of the collaboration with Cogito) were placed in rural areas. In light of Cogito's results on moral wellbeing and proper functioning, Therme Group decided that (with the exception of the Bucharest project which represents an extension of an existing facility in a rural area), all Therme projects will be placed in urban areas. The rationale behind this decision is to bring the nature inside the city and make it affordably accessible to all, thus increasing the level of well-being and reducing the effects of inequality for the inhabitants of cities. This is expected to have substantive economic impact on Therme Group, given the significant difference in land costs between rural and urban areas.
- The Therme Group investment in Therme Arc increased in 2019 and 2020 by 30% as a direct result of the Cogito-generated changes in design policy: the new approach to design involved more intricate details, such that more personnel was required for the implementation of the new policy in Therme Arc designs.
- Inspired by Cogito research on the social aspects of wellbeing, Therme Group is currently working on and will launch (2021, delayed by the Covid-19 pandemic) an international 'Social Wellbeing' programme. Its primary purpose is to create partnerships with local and central governments to offer reduced or free access to Therme facilities for underprivileged categories, opening the way to wellbeing for all.

Impact on Therme Arc (Therme Group's architecture company):Impact on policy:

- As a direct result of COGITO research in the philosophy of functions and architecture, Therme Arc adopted a functionalist approach to architecture that takes increasing of wellbeing as key function. This new approach to design has guided architectural designs of Therme Arc projects, present and future.
- As a direct result of COGITO research on the functionalist potential of utopian architecture, Therme Arc has shifted its architectural strategy to incorporate deliberately utopian design features in present and future Therme Arc projects.

Impact on specific projects:

- Impact on “Therme North”, Manchester UK project (28-acre site, ~155,000 sqm total built area, GBP 250 million, projected: 2 million visitors/year) and Therme “Genesis” – extension in Bucharest (1.2 mil. visitors/year): As a result of the close collaboration with Cogito, the following innovations were made: (1) The entry into the main building is done at an elevated height (+2.00 m in Bucharest, +3.00m in Manchester) while the rest of the building remains at +0.00m. This represents a change in concept from Therme's pre-existing projects where the entry is always at the same level as the client area. This change was adopted for the advantages in cognitive wellbeing that come from the overall understanding of the space by the visitor, in one glance: the sense of open space, the sense of direction, the effortless orientation. (2) The configuration of the space is done with the specific purpose to give the visitor a high degree of freedom of navigation. This concept was never a goal in itself in the past Therme projects: the new projects feature landmarks inside the main buildings in strategic positions. In the case of the Bucharest project this landmark is an “suspended” aquarium of 12x12x5 m. The purpose of these is to make it easy for the visitors to orient themselves, to know at any time where they are relative to the position of the landmark object (cognitive wellbeing) (3) The entertainment and activities areas are spread across the space and at different levels in order to nudge people together and to generate traffic between these points, the purpose being to encourage and determine social interaction and generate social wellbeing.; (4) The designs of these two projects, as will the future ones, are more organic than usual, with more round, flowing shapes of the buildings themselves and of the interior and exterior areas, with more intricate designs, with patterns and rhythms to make the experience of the user a more dynamic and interesting one. This is a major change in the way Therme facilities are designed, generated by Cogito results showing that naturally flowing and curved spaces generate emotional wellbeing in people, via the calm and clarity that rhythms and patterns inspire. (‘Therme North’ was submitted to Manchester authorities and received building warrant in 2020. The start of the building works was slightly delayed due to Covid 19. Therme North is still on track for opening in 2023. The construction of the “Genesis” project in Bucharest was scheduled to start in September 2019 and was delayed due to Covid 19 last until the end of 2020)
- Impact on Therme Frankfurt (38-acre site, ~160,000 sqm total built area, EUR 300 million, projected: 2,5 million visitors/year). The following architectural features were heavily influenced by the Cogito results in the philosophy of architecture and wellbeing: (1) In order to give the visitor the opportunity to understand the overall space layout early on, the entry into the main building is done at an elevated height (+4,00 m) while the rest

of the building remains at +0.00m; (2) the space is configured such that the visitor can navigate the space with moderate cognitive resources: it provides the visitor with a balance between personal freedom to navigate, while at the same time not facing them with too many choice points, to avoid cognitive overload and the associated discomfort. (3) The Frankfurt project features a central landmark; the purpose of this is cognitive wellbeing: to make it easy for the visitors to orient themselves, to know at any time where they related to the position of the landmark object. (4) The configuration of the relaxation spaces is designed in a manner that implements Cogito results on social wellbeing: to nudge people together and encourage and determine social interaction (i.e. semi-circular orientation of chaise longs), while, at the same time, not forcing social interaction (a wide variety of circulation options are preserved to generate traffic between these points). (4) (5) The façade of the Frankfurt facility is rounded, with intricate design including steps, arches, and naturally flowing green walls. This is a direct result of Cogito research suggesting that people's emotional wellbeing is furthered by complicated facades and natural shapes. This is a major change in the way Therme facilities are designed – in the past, Therme architectural choices tended to favour sharp edges and simplicity. The Cogito research results show that people's emotional wellbeing is furthered by naturally flowing and curved spaces and the calm and clarity of rhythms and patterns were the catalyst for this change in view. (Therme Frankfurt was submitted for building warrant to the authorities in Frankfurt, Germany in 2020).

- Design changes to the extant facility Thermen & Badenwelt Sinsheim, Germany: a new boat-shaped social sauna facility was added to the Therme Sinsheim resort, with the aim of furthering social wellbeing as per Cogito results. The design of the sauna is also influenced by Cogito results in that it departs from the simple, rectangular general design of the facility, instead boasting organic, rounded design features. See here for details: <https://www.ardmediathek.de/ard/video/made-in-suedwest/therme-sinsheim-mit-saunaschiff-auf-erfolgskurs/swr-fernsehen/Y3JpZDovL3N3ci5kZS9hZXgvdzEzODUwMjg/>

Impact on Therme Art (Therme Group's art curating company):

- As a direct result of the impact of Cogito research in the Philosophy of Wellbeing, Therme Art launched 'The Wellbeing Culture Forum', a programme of monthly public online discussions with academics and public figures from a variety of fields relevant to the nature of wellbeing. The Wellbeing Culture Forum aims to generate the collaboration and insight needed to put culture at the core of understanding human life and wellbeing. More details here: <https://www.thermegroup.com/therme-art-wellbeing-culture-forum/>

Impact on Therme Forum (Therme Group's PR & Events company):

- Therme Forum: started a series of high-level public engagement interdisciplinary conferences on the nature of wellbeing in collaboration with Cogito. The budget for each such event is approx. GBP 50,000.
- Therme contribution to the first event (2019) was of GBP 56,000 in travel, accommodation, marketing and hospitality.

5. Sources to corroborate the impact (indicative maximum of 10 references)

5.1 Copy of donation contract between UofG and Therme Group for financing the Therme Group

Fellowship in Wellbeing. See here:

<https://www.dropbox.com/s/xsu6459q5wlfw8e/ThermeDonationAgreement.pdf?dl=0>

5.2 Impact Report #1 (2019) Ar. Patricia Popescu, Head of Architecture Therme Group and CEO of Therme Arc, detailing the impact generated by Cogito research results on Therme policy and investments between 2018 and 2019. See here:

https://www.dropbox.com/s/t9ce3ign4tnrxce/ImpactReport_1_Cogito-Therme.docx?dl=0

5.3 Impact Report #2 (2021), Ar. Patricia Popescu, Head of Architecture Therme Group and CEO of Therme Arc, detailing the impact generated by Cogito research results on Therme policy and investments between 2019 and 2021. See here:

<https://www.dropbox.com/s/tmsv3uf6egv8n3r/ImpactReport%20%20Cogito%20-%20Therme.docx?dl=0>

5.4 Annexes to the Impact Reports: Architectural projects for resorts in Manchester, Bucharest, Frankfurt, + footage with the new sauna building in Sinsheim showing the design feats in question + ThermeXPR Company description + Therme XPR report (a pdf collection with mentions of the Therme – Cogito collaboration in Therme’s promotion materials, press releases, booklets, web pages, newsletters). See here:

<https://www.dropbox.com/sh/mgolvhc6zfr3p11/AABZgkB2M10Lm0ZN7nthICB9a?dl=0>

5.5 Therme’s Policy Paper ‘Human Cities: Increasing Urban Wellbeing’ acknowledging Cogito’s input to the understanding of the nature of wellbeing by the consortium. See here:

<https://www.thermegroup.com/humancities/>

5.6 A video presenting the Cogito-Therme collaboration by Therme Media. See here:

https://www.thermegroup.com/news-media/?_sft_types=thermegroup-videos and here:

5.7 Promotional materials and funding applications ‘Dimensions of Wellbeing’ Cogito-Therme joint interdisciplinary public conference. See here:

https://www.dropbox.com/sh/yi7pw0ryfrd82do/AABZIUAF5NpmkVg_AuO8A2qa?dl=0

5.8 Therme-Cogito meetings briefs and Knowledge Exchange funding applications. See here:

<https://www.dropbox.com/sh/qzqzcnudye9omdt/AAA1r7QXBUytHszkxV8uksfia?dl=0>

5.9 2 x Presentations: Therme Group internal presentation outlining the collaboration with Cogito; Slides joint presentation on the nature of wellbeing and architecture by Carter, Kelp, Simion and Therme’s Popescu, where the research results up to 2019 are outlined and their implementation in Therme Manchester. See here:

<https://www.dropbox.com/sh/04r0fd25cgktavp/AABXTyWNTvmrXuuJd9-D0pBma?dl=0>

5.10 Full correspondence between Cogito and Therme leadership (Robert Hanea, CEO; Stelian Iacob, VP and Head of Therme UK; Patricia Popescu, Head of Architecture; John Constantinescu, Head of Therme Media; Mariana Suci, Head of ThermeXPR; Duncan Newbury, Therme VP and Head of Brand Strategy; Anne Marie Garner, VP of Legal/Corporate Governance (available upon request)).