

# **DESIGN FOR DANCE HERITAGE:**

## **Dance and Design cooperating towards Cultural Driven Innovation in the digital era**

### **Student**

Eleni Sofia Pentsiou  
Matricola: 913266

### **Supervisor**

Prof. Manuela Celi

### **School of Design**

**Master of Science in Integrated Product Design**

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MILANO 1863



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## 0. Abstract (English)

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### Design for Dance Heritage

The aim of this thesis dissertation is to propose an innovative approach of Design in combination with the Intangible Cultural Heritage of Dance in the context of Cultural Driven Innovation. The initial stimulus that was the reason I decided to select this topic, was my passion for dance, together with the radical changes that emerged with the pandemic of COVID-19, which highly influenced all the cultural activities and every single person's lifestyle. At the same time, my strong belief that Design has the power to shape the future and transform societies towards a sustainable future, lead me to the idea of connecting Design with Dance Heritage. According to the present research, Design plays an important role in the creation of the movement language for Dance Heritage due to the use of cutting-edge technologies which increasingly influence the artistic outcome. In addition to this, the increasing digitization of our times brings new interactions and experiences which need to be visioned and designed. Based on these two parameters, the thesis attempts to identify a new role of Design in Dance Heritage, and design a process to achieve the engagement of designers in their new role. The final goal of this attempt is to promote cultural cohesion and personal identity, in the digital era. The first part of the dissertation focuses on the development of the theoretical background that attempts to deconstruct the concept of "Design for Dance Heritage". From the deconstruction, the definition of the different manifestations of Dance Heritage was achieved. Dance Heritage is not only the legacy inherited by our ancestors, characterised by its folkloric nature. This type of heritage is highly important and it is a significant part of each territory's history and culture. However, Dance Heritage entails also a "living" quality, which, as a living part of society, evolves with it and constitutes an inherent part of humanity. Therefore we can talk about Contemporary Dance Heritage which is the result of all the cultural production of contemporary society. Since this new approach of Design refers to something non-already-existent, Future Studies play an important role in the research. They are the bridge between the initial theoretical deconstruction and the final proposal synthesis. Therefore, the four scenarios, built after the conduction of the trend reaserch, represent a crucial point of the design approach that lead my thesis. The scenarios visualize the way that Dance Heritage is manifested according to different parameters, and they highlight the role of design in this direction. The scenarios allowed a final proposal of possible innovative paths suitable for the current context, and combined with a personal and original vision of the desirable future world. The creation of a community of people who want to innovate for Dance Heritage was defined as the first step in the direction of this thesis' vision.

## 0. Abstract (italiano)

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### Design per il Patrimonio della Danza

Lo scopo di questa dissertazione di tesi è quello di proporre un approccio innovativo al Design in combinazione con il Patrimonio Culturale Immateriale della Danza. Lo stimolo iniziale che è stato il motivo per cui ho deciso di selezionare questo argomento, è stata la mia passione per la danza, insieme ai cambiamenti radicali emersi con la pandemia di COVID-19, che ha fortemente influenzato tutte le attività culturali e lo stile di vita di ogni singola persona. Allo stesso tempo, la mia forte convinzione che il Design abbia il potere di plasmare il futuro e trasformare le società verso un futuro sostenibile, mi ha portato all'idea di collegare il Design con Dance Heritage. Secondo la presente ricerca, il Design gioca un ruolo importante nella creazione del linguaggio del movimento per il Dance Heritage grazie all'uso di tecnologie all'avanguardia che influenzano sempre più il risultato. Sulla base di questa scoperta, la tesi tenta di incoraggiare i designer a conoscere l'innovazione e il design guidati dalla cultura, basati sull'idea di creare un nuovo patrimonio di danza innovativo, che promuove la coesione culturale e l'identità personale, nell'era digitale. La prima parte della tesi si concentra sullo sviluppo del background teorico che tenta di decostruire il concetto di "Design for Dance Heritage". Da questa decostruzione si è giunti alla definizione delle diverse manifestazioni di Dance Heritage. Dance Heritage non è solo l'eredità ereditata dai nostri antenati, caratterizzata dalla sua natura folcloristica. Questo tipo di patrimonio è molto importante ed è una parte significativa della storia e della cultura di ogni territorio. Tuttavia, Dance Heritage implica anche una qualità "vivente", che, come parte viva della società, si evolve con essa e costituisce una parte intrinseca dell'umanità. Possiamo quindi parlare di Contemporary Dance Heritage che è il risultato di tutta la produzione culturale della società contemporanea. Poiché questo nuovo approccio al Design si riferisce a qualcosa di inesistente e intrinsecamente immateriale, gli Future Studies giocano un ruolo importante nella ricerca. Sono il ponte tra la decostruzione teorica iniziale e la sintesi della proposta finale. Pertanto, l'approccio progettuale cruciale per il collegamento tra la teoria e la realtà, sono stati i quattro scenari costruiti dopo la conduzione della ricerca sulle tendenze. Gli scenari visualizzano il modo in cui il patrimonio della danza si manifesta secondo diversi parametri e sottolineano il ruolo del design in questa direzione. Gli scenari hanno reso possibile una proposta finale di possibili percorsi innovativi idonei al contesto attuale e combinati con una visione personale e originale dell'auspicabile mondo futuro. La creazione di una comunità di persone che vogliono innovare per Dance Heritage rappresenterebbe primo passo nella direzione di questa visione della tesi.

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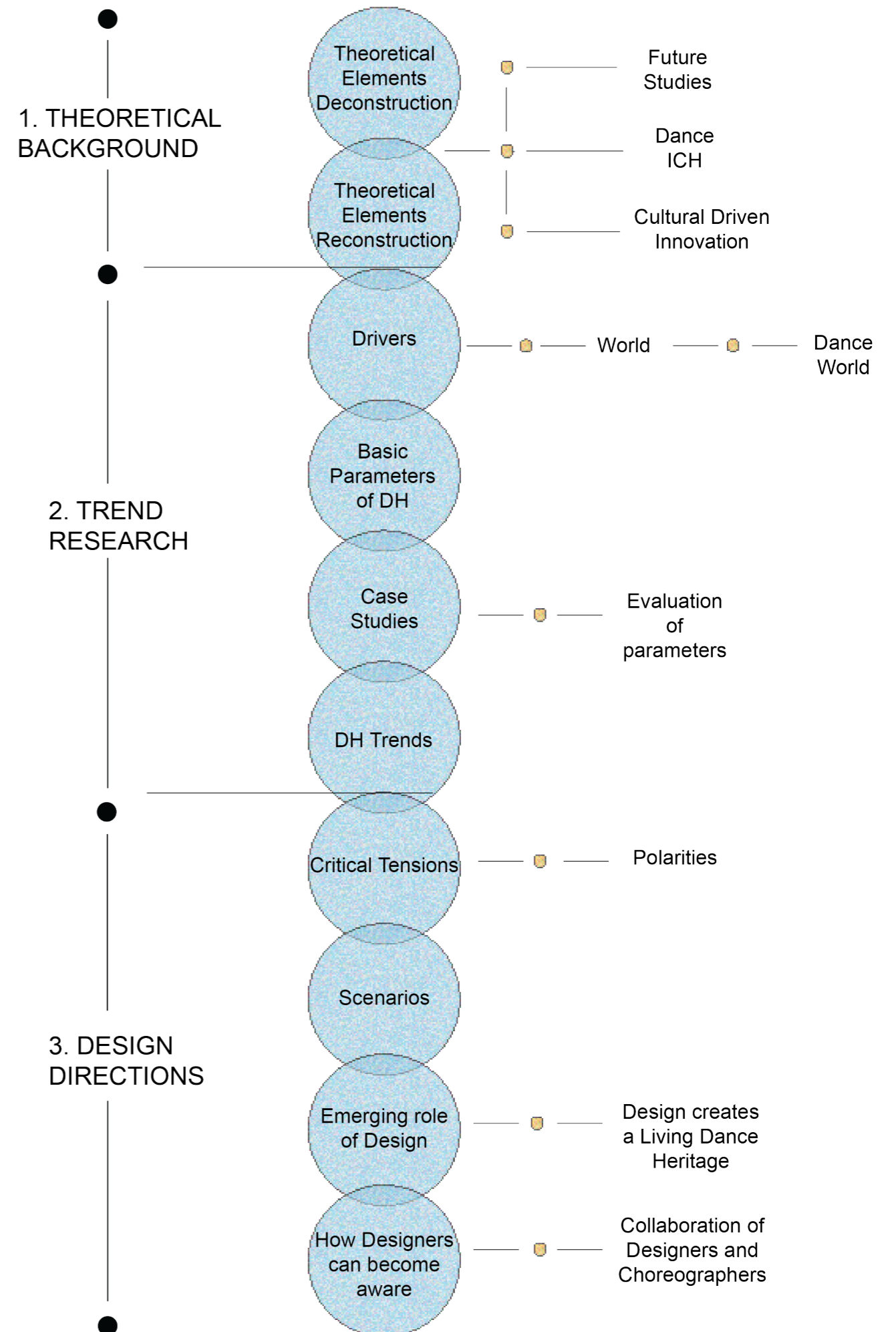
## Development Process of the Thesis

The thesis comprises three basic parts. The Theoretical Background, which at first starts with a deconstruction of the theoretical elements that this research deals with. These basic theoretical elements are the Future Studies, the Dance Intangible Cultural Heritage, and the Cultural Driven Innovation. Afterwards, in the first part, the reconstruction of these elements takes place to come up with new theoretical assumptions and set the foundations for the present research.

The second part is the Trend Research, where the basic parameters of Dance Heritage are set to be evaluated in the eleven selected case studies. Finally, after the evaluation of the case studies, Dance Heritage trends are identified.

The last part of the present thesis is the part of Design Directions. This part starts with the formation of scenarios that occurred from the identified trends. Finally, the research identifies an emerging role of Design in Contemporary Dance Heritage and designs a process to achieve the realization of this new role.

**figure 1**  
*Development process of the thesis*





# PART 1

## THEORETICAL BACKGROUND

**Image 1**  
*Tribal dances of the world collage*



# 1. The Importance of Future Studies for Cultural Driven Innovation

This chapter explains and analyses the basic elements that are used as the starting point of the thesis and explains their importance in Design.

## 1.1. The Importance of Future Studies in Design

The task of Design is based on the notion of innovation which opens the way towards the future and at the same time, it is vital for the present Design as it distinguishes the projects that ‘catch the rhythm’ of contemporary society from the ones that in some extent insist on the repetition of the same pattern that has lost its pace with the society of today. Especially in our times, which are characterized by growing complexity and uncertainty, industries and therefore designers need to think about the future to continuously be one step ahead and to create according to the future needs. (Trendhub, n.d.). Future Studies is a field of research that identifies seeds of change that can lead to possible developments and evolution paths by analyzing the contextual environment. (Ehresmann, 2012) Among the driving forces of the contextual environment that can affect the trajectories of the future are demography, societal factors like lifestyles and societal values, economic conditions, and political forces (Burt & van der Heijden, 2003).

Design deals with the formation and reformation of tangible and intangible elements at the point of output. At the same time, future studies deal with the activities that are needed in advance of the output. (Celi & Zindato, 2014) They both attempt to imagine the future dealing with uncertainty and serve “people and social institutions” (Trendhub, n.d.). We could say that Future Studies set the context where Design can intervene to formulate. Therefore we understand that Future Studies and Design are strongly connected and cannot be seen as two separate processes especially in our times that imagining the future “in response to change and uncertainty” (Celi, Rudkin, 2016).

Therefore it is a vital need to develop visions of the future to innovate towards the way that our judgment considers as the most proper one. Fred Polak being one step ahead of his times in the fifties, in his work: *The image of the future* (Polak, 1973, as cited in Trendhub, n.d.) has pointed out the importance of the role of the future in society and stated that the ability to imagine the future and projecting the image of it, connecting the patterns of the past, is the starting point of

agency. Later, as Masini refers (Masini, 2002, as cited in Trendhub, n.d.), Future Studies are not focused on just creating the image of the future, but they are based on visions. This means that they create a “project” for the future (in Italian “progetto”) which is a word that according to the great Italian master Achille Castiglioni, underlines the perspective of the future: “To go beyond the existing and towards innovation”. (Trendhub, n.d.). The process of setting the framework in which visions can be developed is called Metadesign. It is often considered as the “design of a design process”. Metadesign is crucial for Cultural Heritage because of the fact that it is able to identify the associated key drivers for a future exploitation and to present them in a coherent way. (Giunta, 2011)

This ability to envision (Masini, 2002) empowers people to hold the opportunity of building their future instead of accepting the future as it is chosen by others. In this way, designers can lead the way towards the future and determine the trajectories that evolution could take according to estimations about future society, technology, politics, and environment and also to their values and expectations.

A useful technique for Future Studies is Scenario Building. This process creates multiple possible future narratives which are called scenarios. (Burt & van der Heijden, 2003). Scenarios are holistic images of the future that picture complex and articulated visions of contexts and the underlying meanings of them. These images are built by integrating different feelings, notions and values of the present. (Rasmussen, 2005) The multiple alternative Scenario Building gives, bring the possibility of exploring multiple possible impacts of the future contextual driving forces (Burt & van der Heijden, 2003).

Design Orienting Scenarios (DOS) are complex tools that are used in different stages of the design process. There are DOS used in businesses for strategic planning and foresight and DOS which are used to provide visions for the development of products and services. However, they overall provide the framework in which Design steps to develop new concepts (Manzini & Jegan, 2004, as cited in Zindato, 2016) according to the designer’s judgment. The more insightful and constructive this judgment is, the more innovative the concept will be. Therefore, the scenario stories are concrete ways to represent the future holistically have the ability to integrate rational with creative thinking. (Moore, 2000, as cited in Zindato, 2016) In this way, they provide a user-driven approach (Bell et al, 2013, as cited in Zindato, 2016) and answer to the question “How would the world be if...?” (Manzini & Jegan, 2006, as cited in Zindato, 2016, abstract)

## 1.2. The Vital Need of Design for Cultural Heritage

To understand what the term Cultural Driven Innovation means, we have to specify the meaning of Cultural Heritage. Cultural heritage is the legacy inherited from past generations and it is divided in two main categories: the Tangible and the Intangible Cultural Heritage. The Tangible Cultural Heritage includes among others paintings, sculptures, coins, monuments, archaeological sites, underwater ruins, and manuscripts, while the intangible cultural heritage includes oral traditions, performing arts, and rituals (UNESCO, 2017).

This type of heritage is very crucial for humanity because culture shapes and drives any economic, social or environmental developments as it shapes the underlying behavioral motives in any sector. It has the power to transform societies. As UNESCO states:

“No development can be sustainable without a strong culture component.”

(UNESCO, 2017, Protecting Our Heritage and Fostering Creativity)

This happens because sustainability requires long-lasting and inclusive results which can exclusively be accomplished with a human-centered approach that only culture can attribute. Heritage and creativity contribute to the forming of innovative societies as they promote social cohesion, a sense of identity, and pluralism. (UNESCO, 2017)

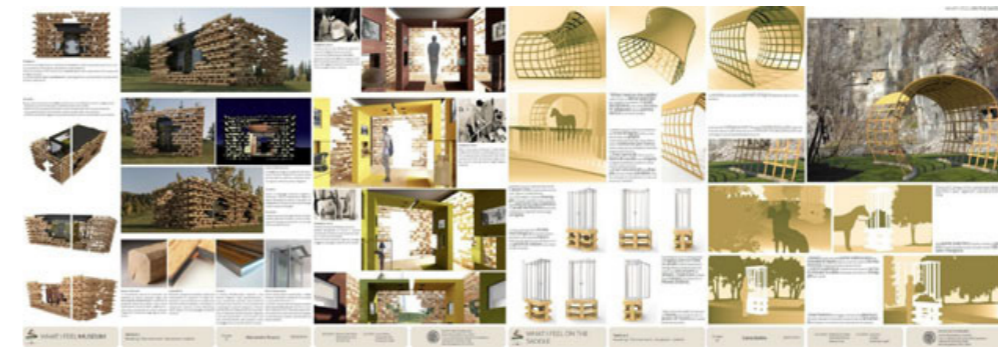
Therefore, we understand that Cultural Driven Innovation is the attempt towards a sustainable future that entails a “holistic” approach of the world including not only social, but also technological, political, entrepreneurial, economic, and methodological levels of innovation, merging them to design not only the final outputs but first of all to re-imagine the whole value chain of Cultural Heritage (Lupo, 2019)

Design is the key to Cultural Driven Innovation as it is the mean for building the future. It can work as a mean to preserve the heritage that uses Cultural Heritage as a resource (Lupo 2007; Lupo 2011, Lupo 2013a as cited in Lupo, 2019), or it can work as a mean that uses Cultural Heritage as a “raw material” to promote the contemporary creation. Therefore we can speak about “Contemporary Heritage” (Battesti, 2012 as cited in Lupo, 2019), which is all the cultural production of contemporary society.

With this holistic view of Cultural Driven Innovation, also Design has multiple social, economic, political, and cultural implications (Lupo, 2019), which can lead us to the assumption that we can consider Cultural Heritage as a tool to create visions of the future. Therefore we could state that contemporary Design does not exist without the presence of a strong cultural element.

### Image 2

*Designs for the recovery of the pathways that from Cernobbio, climb Mount Bisbino reach Carate Urio.*



Note. “Proposed enhancements for the Museum of World War I, the reuse of the stone quarries of Moltrasio”. Designs by Alessandro Grasso, Dania Barbin, Sara Flami (De Paolis, 2014, p. 1164)

As we understand, future visions and therefore Future Studies are an inherent part of Design. Therefore, as it is a vital need to design for the development of culture, it is also vital to set the framework in which we design and this is what Future Studies attempt to do. Futures related to culture can give us a holistic view of social constructions, values, economies, interpersonal relationships, behaviors, and so on.

The power of Cultural Heritage to transform societies is needed especially in times of crisis, anxiety, and insecurity, like the one we are going through now. During the pandemic of COVID-19, many people lose their lives while the rest of humanity is afraid of their own. The economies are getting worse every day because people are not free to go everywhere they want and therefore the consumption is limited, and healthcare institutions also facing an important threat of collapsing. The negative impacts are also for culture as COVID-19 has blocked art performances and cultural institutions lose a lot of ground in a time when art is needed like never before to help people. In such times people find relief, hope, and inspiration in art. Therefore, Design is responsible to find alternative ways of spreading the magic of art through new technologies, trying to understand what is needed to successfully keep the Cultural Heritage alive in times when although technology is highly advanced, it is not available to everyone and even Internet is used by 86% in developed countries, versus 47% in developing countries according to the UN’s International Telecommunications Union, with inequalities also between the high and low income that have a different speed and quality of connection as specified in the State of Broadband 2019 report of The Broadband Commission for Sustainable Development, established by ITU and UNESCO. (Ottone, 2020)

As Ernesto Ottone says, the Assistant Director-General for Culture of UNESCO:

“At a time when billions of people are physically separated from one another, culture has brought us together, keeping us connected and shortening the distance between us. It has provided comfort, inspiration, and hope at a time of enormous anxiety and uncertainty.”  
(Ottone, 2020)

### Image 3

*Whispering table installation, Jewish Museum of Berlin, The Green Eyl, 2009*



Note. The objects that are provided on the table start to speak about religious and cultural traditions of four different cultures, while they also with each other, when the visitor holds it to their ear. (Lupo, 2019)

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## 2. What is Dance Heritage

This chapter analyses the elements that the notion of Dance Heritage contains, and reaches some fundamental results for the thesis research.

### 2.1. The Intangible Cultural Heritage of Dance

Intangible Cultural Heritage (ICH) has formally been recognized just 17 years ago in the UNESCO Convention on Intangible Cultural Heritage in 2003. The shift that took place and established the new idea of ICH is that the attitude towards Cultural Heritage changed from a perception that it is linked to materials and items, to also non-tangible qualities. Therefore, ICH is a whole that consists of

“the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.”  
(*Convention for the Safeguarding of the Intangible Cultural Heritage*, 2003, p.2)

It is very significant for societies as it is an immediate way of expression that connects people giving a sense of belonging and common identity. (UNESCO, 2017)

Dance belongs to performing arts, which is an important domain of our ICH according to UNESCO. Examples of other performing arts are music, pantomime, and theatre. Besides, the instruments, objects, artifacts, and spaces associated with performing arts, like musical instruments, masks, costumes, sceneries, and props, are considered also included in UNESCO's definition of ICH.

In basic terms, there are two main categories of dance: ethnic and theatrical dance. Ethnic dance is integrated into society as it is expressed in various ways of human activity and is familiar to all people in society. It reflects human creativity through multiple cultural expressions and plays an important part in society as it follows everyday human activities like work in the fields, weddings, or funerals. In this way, ethnic dance works as a statement of peoples' way of life. (Purser, 2017)

Various Ethnic dances are connected to the history of each region of the world and its customs. The south Italian Tarantella

Pizzica dance with its ecstatic movements, begun in Puglia, a region of southern Italy, and was danced by a woman bitten by a spider, struggling to get the venom out of her blood. The Turkish whirling dervishes started as a form of meditation in the 13th century. (Tabachnick, 2019) Flamenco which was born in the 19th century as a combination of Andalusia's different cultures was mainly formulated by the Andalusian Roma of Southern Spain who brought all the spirit into the music and dance narrating the troubled life of living as an outcast of society as Romas in Andalusia did. The basic figure was the dancer narrating with body movements the story that the singer was singing. (Bennahum, n.d.) The greek Tsakonian dance was danced at the end of traditional celebrations to leave the feeling of admiration and emotionality forming spiral shapes by the dancers. (Chilari, n.d.)

**Image 4**  
*Tsakonian dance shapes*



Therefore we assume that although dance is usually perceived as a way of human expression through movement, its boundaries extend further than that. It is a “social ritual” (Radcliffe- Brown, 1994 as cited in Pusnik, 2010) establishing relations and structure within a community while it enlightens the diversity through the differentiation of individuals. At the same time movement expresses the social values and social relationships as well as the inequalities within a society, like male domination or chauvinism, or even in particular societies a matriarchal structure of society. (Bresnahan, 2020) In this way, ethnic dances contain a vocabulary of movements that are formed in a contributory way, where the members of society establish their acceptable rules over a certain period.

Theatrical dance, on the other hand, refers to a performance consciously designed at a particular time with a specific audience, which is created by an individual expressing his/her perspective. The audience assesses this performance and consequently, the performances contain the elements of surprise and drama to engage the spectators. (Purser, 2017) Therefore we can understand that theatrical dance has always been a key that serves artistic, educational, therapeutic, and political purposes. (Bresnahan, 2020)

A great paradigm of theatrical dance is ballet dance, which was born in Italy in the age of the Renaissance and spread at first to France, then Russia, and afterward all over the world. Ballet in Italy started as a court entertainment but with the establishment of the Académie Royale de Danse (Paris Opéra Ballet as it is now) in France, it changed its purpose and meaning from court ballet to ballet as theatrical dance like it is known until today. (Kant et al, 2020)

#### Image 5

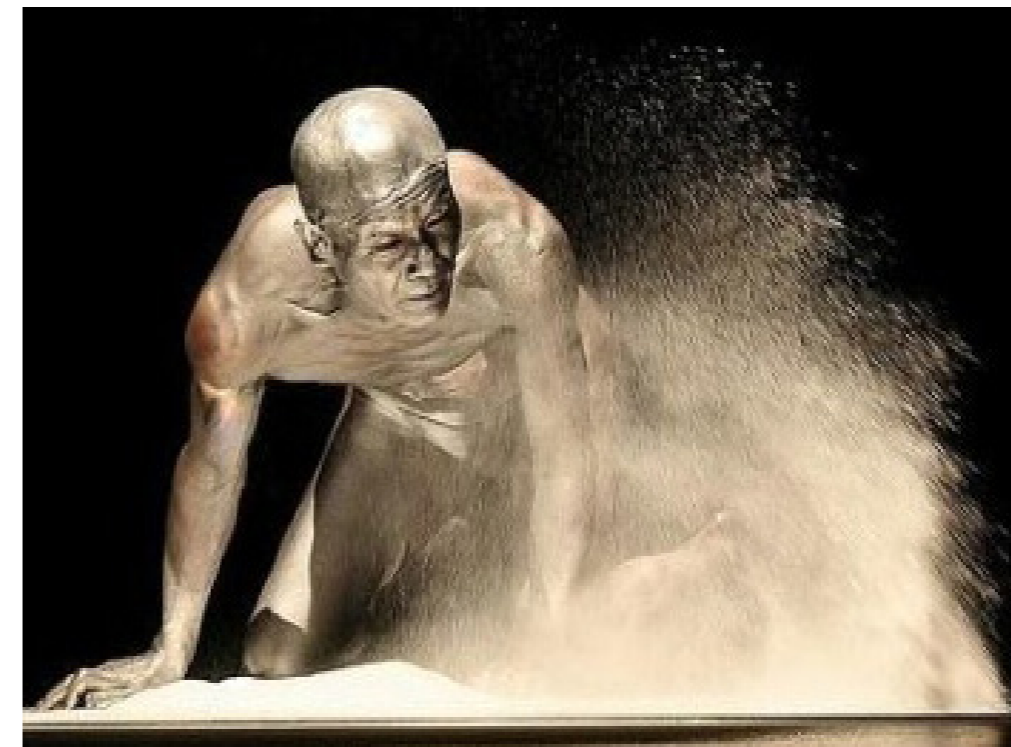
*Paris Opera - Palais Garnier*



Butoh is also a form of theatrical dance that comprises a series of performing practices that was born in Japan in the middle of the 20th century, after the Second World War, by Tatsumi Hijikata and Kazuo Ohno. The extreme shocks of Japanese society caused by the horror of the Hiroshima and Nagasaki bombing, together with the industrialization of a deeply traditional culture, caused the feeling of confusion which is a very present element of Butoh performances. Hijikata and Ohno's intention was to find a way through the body movement, to be released from cultural references and open to every transformation which according to the creators is the fundamental state of being human. Semi-naked bodies painted in white turning inwards their legs and feet and rolling upwards their eyes constitute a slow and hyper-controlled movement language. Butoh can be performed either with or without an audience and it can exist without any movement with all its elements going against the western paradigm of perfection and beauty. (Naranja Rico, n.d.)

#### Image 6

*Butoh performer*

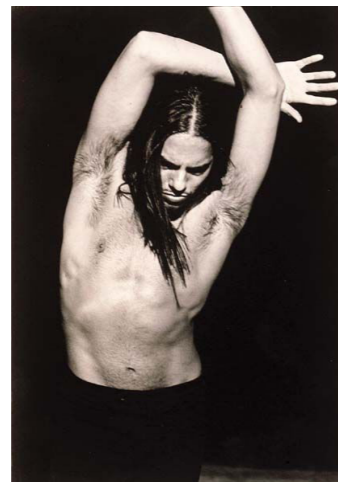


As UNESCO states, dance is a very complex notion because it incorporates human movement with culture, traditions and artifacts. Therefore, it consists of a spectrum of tangible and intangible elements. This fact makes dance difficult to be safeguarded. (UNESCO, 2017)

**Image 7**  
Lauren Lovette in her debut as Odette-Odile in "Swan Lake"



**Image 10**  
Tango dancing in Buenos Aires Argentina



**Image 8**  
Vogue IT - El Pais - Joaquin Cortes - 1997



**Image 9**  
Mevlevi Sema ceremony in Turkey - Whirling dervish

**Image 11**  
George Balanchine, Georgian ballet choreographer, directing the American School of Ballet





**Image 12**  
*Flamenco street performance*



**Image 13**  
*Guitarists. France. A photo from Otto Daettwyler's and Mateo Maximoff's book "Tsiganes". 1959.*



## 2.2. The Similar Identities of Dance and Design

Dance and Design are in constant interaction with each other and shape the world, as the world shapes them. This is because Design and Dance are two disciplines that are highly influenced by society and are shaped and transforming according to society's values and interests.

Rudolf Laban, (1879-1958) dance theorist and teacher whose work was the foundation for the development of central European modern dance (Britannica, 2020), says that communities tend to shape a common sense of aesthetic, which leads to common ways of movement, behaviors, and perspectives. He claims that our movement perception defines the way we interpret the world around us. (Keilson, 2019)

The philosopher Pierre Bourdieu uses the word "habitus" to describe the habitual way of acting with our bodies, which is created by society. For this reason, we learn from society how to act, and in this way, society transmits the "habitus" from one generation to the other. This is what Bourdieu calls "embodied history" (Lo lacono, 2020). Observing this habitus we can design products and services within a specific cultural context.

The normal behavior that is perceived within a social group also highlights at the same time the polarization between normal and abnormal behavior as individuals despite sharing communal viewpoints, interpret the world around them according to their unique way of living in the world. The prevalent aesthetic in art and design acts as a reflection of dominant society perspectives.

At the same time, this polarization between prevalent and abnormal behavior can lead to a new shift towards a new "normality". Therefore it highlights new perspectives of social change. (Bresnahan, 2020) Giddens uses the ideas of "structures" which are all the abstract elements of society, and "agency", which is the ability of individuals to act and make changes, to describe this normal and abnormal behavior that comes from the common viewpoints and personal perspectives, which are two faces of the same coin.

This duality of structures and agency is strongly connected to dance, as movement is affected by social perspectives as explained before but also because of the ephemerality of dance. Ephemerality means that

"The moment that a dance is composed does not "fix" the dance for all time in that form".

(Bresnahan, 2020, para. 1.1.)

Similarly to dance, Design is also a discipline strongly connected to the tangible and intangible world. As Eleonora Lupo,

associate professor in the Department of Design, Politecnico di Milano refers, apart from products, services, or experiences, the intervention of design is increasingly expanding due to the increasing interdisciplinarity of research. As a result, Design is becoming much more relevant to the intangible qualities, like the perceptions of policies (Lupo, 2019). In this way, Design has the potential to integrate technology with culture, to promote "socio-technical humanism" (Lupo, 2019).

Design can intervene in dance artistic creation in multiple ways. First of all, Design can give shape to the artifacts that are used in dance. However, Design's quality of giving shape to objects influences dance more fundamentally. As the philosopher Merleau-Ponty claims, the objects we manipulate become extensions of our bodies. (Lo lacono, 2020) Therefore, Design has a great impact on dance, also from the point of view that the way we move, and therefore the way we develop our dance heritage, is strongly connected to the way we design objects. Burkitt claims that artifacts design the way we move and also the way we move is defined by the artifacts, because of the way they are designed to manipulate them. (Lo lacono, 2020) Therefore we can understand the strong connection between Design and movement, and consequently dance.

## 2.3. The Different Manifestations of Dance Heritage

Dance Heritage manifests itself in various ways and as a result, the idea of Dance Heritage is comprised of different elements that consist of contemporary and traditional essences. The first thing that comes to someone's mind is that Dance Heritage refers to all the tribal dances that are an inherent part of each territory's tradition. Indeed, the tribal dances are a strong element of Dance Heritage as they connect people with their roots and give them a sense of belonging and identity. This kind of Dance Heritage is manifested in its original form in social occasions like weddings and celebrations, like the greek Tsakonian Dance we mentioned before. At the same time, the heritage of folk dances is represented in museums as part of Intangible Cultural Heritage. Museums' collections can include elements that range from props and costumes, pictures of dances in specific territories, to live dance performances performed by people, or even virtual avatars. The last methods are used as a mean for touristic engagement using the interactive element as a tool for stimulating the interest of people and visitors. At the same time, folk heritage can also be incorporated into everyday contemporary lifestyle like the example of salsa dance, which started as a traditional Latin American dance and has spread all

over the world. It is danced in bars and clubs by a lot of people that do not have a direct relation with Latin America.

#### Image 14

*Coffin dance meme*



In 2017 a video from Ghana was screened by BBC, which shows a custom in Ghana's funerals in which they dance around the coffin, honoring the demised. This video became viral and in the lockdown, it had more than 8 million views through Tik Tok with the motto "Stay home or come and dance with us!" that refers to the ethical as well as the legal obligation of people to stay home during the lockdown to prevent COVID-19 from spreading (Sullivan, 2020). The coffin dance is a representative example of folk heritage being adjusted to the contemporary lifestyle. Taking inspiration from an old African tradition, it spreads the powerful "Stay Home" message to the world during the lockdown period, using the most popular means of intervention, which is social media.

The second aspect of Dance Heritage could maybe be given with the name "Living Dance Heritage" (Lo Iacono, 2020). We should keep in mind that heritage, especially when characterized by the liquidity of Intangible Cultural Heritage, is the heritage of the past that has already happened, but it is a constant and dynamic action that can never be stopped. Therefore, Dance Heritage is being created every second in the present and it represents pictures of the past, present, and consequently future situations. Therefore we could say that Contemporary Dance Heritage which can be expressed as Living Heritage, is the cultural product that is created every second in the present as a unique form of expression and represents the spirit of the times-the zeitgeist. However, we could say that Living Heritage is strongly linked and includes many qualities of the folk and tribal

heritage which is recreated every time it is reused and therefore it becomes "Living".

"This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity."

*(Convention for the Safeguarding of the Intangible Cultural Heritage, 2003, p.2)*

A representative example of this category of Dance Heritage is the virtual dance which is created in virtual environments, performed by avatars in many applications (from films, video games, e-platforms for new ways of dance learning). Talking about Dance Heritage in the present we cannot forget the role of social media platforms in the current lifestyle. Social media is a very important element of contemporary life and they influence in a very intense and significant way Dance Heritage. For example, TikTok is a social media platform that creates meme dances with fixed music in the background, which are reproduced by the members of the platform who share their little choreographic pieces with the rest of the users. During the COVID-19 outbreak, TIK TOK dances gained great popularity as a fun and entertaining activity. There are prototypes of short and easy choreographies where everyone can copy and reproduce in their way and uploads them to the platform to be able to save their video dance.

#### Image 15

*Tiktok Dance*



**Image 16**

Katleho Lekhula in a performance of "Cion" in Johannesburg, John Hogg/Vuyani Dance Theater



Note. In *Cion: The Requiem of Ravel's Bolero*, Gregory Maqoma takes Ravel's original piece and reinterprets it with the South African style called *isicathamiya* and an a cappella song-and-dance form. This work could be considered as a dance requiem which has its references both from Western and South African culture. (Scherr, 2020) Therefore, we observe that *Cion* is an example of Living Heritage that has incorporated many folk and tribal elements. It integrates folk with Living Heritage in a dance performance.

**Image 17**

Slow dance



Finally, there is a hidden aspect of movement which is the object movement. We can create objects that perform a kind of dance, for example, the *Slow Dance* from *Wonder Machines*. *Slow dance* is an optical illusion which makes objects to look like they move in slow motion. It combines science with technology and art. The users can bring objects like feathers or flowers and by placing them in the *Slow Dance* frame, they can experience the optical illusion of these items dancing being able to switch between dance patterns. (Wonder Machines, n.d.)

Consequently, we can assume that there are two main ways of dealing with Dance Heritage. The first is the safeguarding and documentation of dance heritage through digitization or recreation or exposition in museums and repositories, and the second is the creation of Dance Heritage through the contemporary dance artistic creation or new technological advancements, new lifestyles, customs, and social relations. Both ways are highly important for the promotion of Dance Heritage and each one of them shows a different perception and attitude towards Cultural Heritage.

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# PART 2

## TREND RESEARCH

**Image 18**  
*Contemporary society collage*



## 3. Movement in a Changing World

In our times, it is profoundly obvious that the world is going through a massive change. Therefore, there is any aspect of the world that could remain unaffected. Dance Heritage, for the reasons we developed before, is strongly influenced by societal changes, as it expresses the “world’s tempo”. Technology intervenes in the creation, safeguarding, and any kind of research related to dance. As a result, we observe that Dance Heritage is starting to change its meaning and it is useful to understand the directions which this meaning follows, to understand how dancing in our times reflects the contemporary world and what is necessary to be done to make one step further towards cultural driven innovation, according to these new directions.

### 3.1. Contemporary Society

The world undergoes a significant shift which has been multiple times accelerated by the latest COVID-19 pandemic. Started in December 2019 in Wuhan, it has spread all over the world and it is considered the greatest challenge that humanity has faced since the 2nd World War. In order to prevent the spread of the disease, most countries have undergone complete lockdowns with catastrophic economical consequences, especially in the transportation and tourism sector, decreasing the annual GDP growth by around 2% every month. (Chakraborty, Maity, 2020)

The pandemic has sharpened the conflicts in combination with migration flows and already existing geopolitical and economic interests, bringing the need for welfare redistribution to the forefront. At the same time, the increased urbanization has contributed to the decreased fertility rate, while the advancements in medicine have contributed to an aging planet. (European Commission, 2016) However, during the COVID-19 pandemic which affects especially the elderly people with 95% of deaths being people over 60 years old (World Health Organization, 2020) this scenery is starting to change with consequential impacts in economies. With the serious health issues of the patients of COVID-19, healthcare systems have faced the threat of collapse because of the lack of equipment and capital. However, the environment has benefited from the restrictions in transportations and tourism during the pandemic.

Another important issue of contemporary society is the environmental concern which occurs as an urgent need from the fact

that the environment is gradually being damaged, causing multiple issues in peoples’ lives.

According to the European Commission’s survey “Protecting the Environment” environmental protection is an important and personal duty for the majority of Europeans (94%). At the same time, 78% of European Citizens support that environmental issues affect immediately their daily life and health. (European Commission, 2020) Meanwhile, in Australia, the infrastructure investments to deal with the damages caused by climate change, are set into high priority initiatives. (Karp, 2020)

The massive changes that humanity is facing that lead to the change of lifestyles, sharpened inequalities, economic damages, climate crises, and more, cannot leave peoples’ mental health unaffected. Burnout syndrome is a real issue in people’s daily lives and organizations and actions that help people deal with these problems will be at the center of attraction. (Trendwatching, 2020) With COVID-19, the levels of stress and anxiety have increased while loneliness, depression, the use of drugs and alcohol, and even suicidal behavior are expected to increase. (World Health Organization, 2021)

The pandemic has benefited from many technological and organizational advancements. As a result, global connectivity, the internet, and mobile devices have been the basis where all the economical, cultural, social, occupational, and entertaining activities have stepped. Smart working has gained ground like never before, forming a new reality during the pandemic and leading to the rapid growth of virtual and collaborative networks characterized by ethnic diversity. At the same time, e-business and global sharing of ideas are constantly gaining ground opening the way towards shop streaming.

China’s live-streaming market has seen rapid growth, as e-commerce is mixing entertainment, community, and commerce, spreading on a global scale. In parallel, automated commerce is also substituting the traditional ways of merchandising using the power of Artificial Intelligence. (Trendwatching, 2020)

A high significance element of contemporary society’s shift, which is a result of Postmodernism is the way people change their consumption habits. Research conducted by Eventbrite depicts that it is more probable to pay for an experience rather than a product, for the 25% of millennials. Therefore companies turn to create personal and customizable experiences for their products and services. (Trendwatching, 2020) As the Harvard Business review states.

“a company intentionally uses services as the stage, and goods as props, to engage individual customers in a way that creates a memorable event.”  
(Newman, 2015)

With virtual reality gaining ground and people getting used to substitute physical with digital services, the seek for virtual company, education, entertainment, and even friendship and personal healing will be rapidly increasing. At the same time, as more and more people spend their time online, they are probably going to turn to creative



activities like learning a new skill online. (Trendwatching, 2020)

### 3.2. Moving Dance World

All the changes that take place in the general context of the world, define the dance micro-world, in a very significant way. Therefore we observe new trends that influence Dance Heritage, taking it one step further and assisting in its evolution. The following identified trends are a result of desk research that is highlighted in the following case studies, as well as in the previous chapters' research, taking into account the general framework of the world's directions that have been mentioned before.

With the social and technological change, the economics also deals with a significant shift regarding new attitudes towards data-sharing, the increasing speed of technological innovation that companies have to constantly deal with, and long-term effects in the workplace like the recently expanded smart working. At the same time, our times characterized by entropy and chaos makes us truly nostalgic about the past.

This fact gives to the art of dance a "back to the roots" attitude, which is expressed through many kinds of contemporary art. This fact also gives to the safeguarding of Dance Heritage an executive value. Therefore, `safeguarding is equally important with the new artistic creation in Dance Heritage. The digitization of dance data is one of the most important shifts that has started, in the area of dance. One estimation states that with the COVID-19 pandemic, as far as digitization is concerned, 5 years of progress have been condensed into 3 months (UNESCO, 2020) Digitization is used for the archival of Dance Heritage, creating large databases, aiming the further exploitation and new data generation. The creation of big databases gives the ability to create meta-data for reuse. This fact can lead to new inputs for artistic creation, giving not only intangible knowledge available like never before but also giving a different stimulus to individuals and societies that influence their movement expression. The movement, as well as the cultural context, can now be digitized and archived in a way that dance education, artistic creation, and theory gain a new meaning.

The new technological advancements empower the art of dance to extend further from its traditional strict forms. The new diverse means that we have in our hands give to every person the possibility to express in their own way through the movement, using diverse means. Technology affects the way people share their artistic experiences of every kind, giving a new meaning to the collective memory of dancing. This means that collective memory is something that is controlled by technological tools and we could say that it is in the middle of intimate and collective as it contains the elements of both. The person can be

isolated but at the same time communicate and dance with another partner. Interactive technology systems allow us to interact with the cultural content and construct and deconstruct it to formulate new patterns and new collective expressions.

Besides, the new possibilities that technology gives with Virtual Reality technologies and motion capture systems, extend the boundaries between the tangible and intangible world. Thus, the artistic creation finds new paths and possibilities which can be reached like never before. The control of movement is questionable and is varying depending on different parameters. With the development of AI, and robots taking a step forward, there is a lot of interest concentrated in the robotic movement. Also, the recent pandemic lockdown made dancers communicate, rehearse and perform in distance through new means that have never reached this level before. The education of dance is not the same anymore. It is not even necessary to be present at the dance lesson or have a real teacher to learn how to dance. This phenomenon is extremely enhanced by the latest lockdown that happened due to the global pandemic of the COVID-19 virus. People were forced to stay home to avoid further contamination and therefore they had to find alternative ways to be able to explore the world of dance. Therefore, the art of dance is not only a matter of dancers and choreographers now as it was until today.

Therefore, as we understand from the above, we could say that Dance Heritage is highly influenced and defined by technology. The boundaries between dance in its traditional notion and technology tend to blur. It is questionable who is responsible to make the decisions in choreography, as dance is not a unique result of human movement anymore. As a result, Dance Heritage is gaining a whole new meaning which is useful to identify to design for Cultural Driven Innovation.

### 3.3. Dance and Design for the Contemporary Heritage

As we have mentioned before, numerous attempts try to incorporate Dance Heritage and dance artistic creation with technology. Technology serves as a tool not only for safeguarding and assistance behind dance performance but also for the performance itself. One executive example of this is the RICHES project with its case study on virtual performances. (RICHES RESOURCES, 2015) Through a multidisciplinary collaboration between engineers and artists, it investigates the creation of new artifacts, dancers' skills and performances, as a result of the application of future technologies applied to dance performance. Besides, it studies the reinterpretations of past cultural expressions with cutting-edge technology and how all these can be transmitted to society. At the same time, the project investigates the preservation and transmission of this Contemporary Heritage.

In cases like this, Design works as an intermediate level between artistic creation and technology application. Its usefulness lies

in the ability of design to integrate technology with people and culture. This happens because of the multiple identities design has, because it is not an art and neither a science. It does not identify with any specific area and this is why it can open paths for change (Trendhub, n.d.). As a consequence, we understand that it is increasingly important and meaningful to use Design for Dance Heritage and Cultural Driven Innovation to explore new ways for dance artistic creation and safeguarding of heritage.

As dance evolves and technology intervenes directly in the final artistic outcome, Design can intervene in dance artistic creation by adding specific parameters and therefore taking decisions from its perspective, as far as a final performance piece is concerned. In this way, a second element should be taken into account, which contributes to the creation of the final movement language except for choreography. At this point, we should give a short definition of choreography, which is the act of creating organized movement into order and pattern (Dance-Choreography, n.d.). Therefore, we could say that choreography is a similar action to design with the difference that the immediate subject of creation is different. However, with the digitization of dance, we observe that Design is increasingly able to intervene in the creation of a new movement language as well as in the context, scenography, and much more. As a result, in order to set specific borders and directions in which innovation for Dance Heritage is applied, we need future studies to visualize the context in which Dance Heritage and artistic creation exist.

To conclude, we could state that in the contemporary Living Heritage of dance, two basic elements define the parameter of what we could call movement language. The first one is the choreography, which has always been the basic component of dance artistic creation, and the second one is Design, which appears to become more relevant due to the digitization of dance heritage in our times.

### 3.4. Dance as an Experience

As we have already mentioned, consumers have shifted from seeking tangible goods to the desire of “experiences”. This growing trend finds a very interesting application in Dance. Dance is by nature, an intense experience that has the ability to be experienced in different ways. As the American philosopher John Dewey states in *Art as Experience* (Dewey, 1934, as cited in Delinder, 2000), dance like art in general, is a collective experience between the artist and their art and at the same time also between the art object and the viewer. And in addition, he also claims that dance can be considered as a consumatory experience.

In terms of marketing, Customer Participation are the experiences, where people participate in the experience either actively or passively. Participatory experiences are divided into passive and

active. Active are the ones in which the customer influences the generation of the experience, and the passive are those in which the consumer simply observes the experience. (Newman, 2015) Dance can be experienced through actual dancing, which is an Active Participation Experience. This is a unique characteristic that dance has and through this, it can generate and regenerate the Cultural Heritage as it carries all the information that has formulated it and at the same time every time it is performed, it adds new information to it.

On the other hand, dance can also be experienced solely by observing it. It happens when someone is watching a dance performance, but it can also happen when someone is researching dance in order to understand it, educate himself or herself, or innovate dance. However, even though observing dance is not the actual experience of dancing, it engages people, bringing emotions and stimulating their imagination. Therefore, observing dance is also a powerful experience which could be named as Passive Participation Experience.

Therefore we understand that dance could be a very important part of contemporary society’s market because it offers pure experiences that can be encountered both in a participatory as well as in a connective way.

### 3.5. The Basic Parameters of Dance Contemporary Heritage

All these facts lead to the creation of a new Living Dance Heritage which is significantly transformed as the world dramatically changes. From all the above, the present thesis attempts to identify the most significant parameters in Dance Heritage that are going to influence and even define its evolution. This could be proved useful because, as already stated, the world needs Cultural Driven Innovation in order to promote a sustainable way of living. Therefore here are explored the paths that we could follow to innovate with the assistance of Dance Heritage.

The first parameter is the way that Dance Heritage manifests itself either as a preserved memorabilia or as a living organism that changes and evolves with time. The different approach towards the manifestation of Dance Heritage expresses a different relationship between the present and the past and how these are perceived.

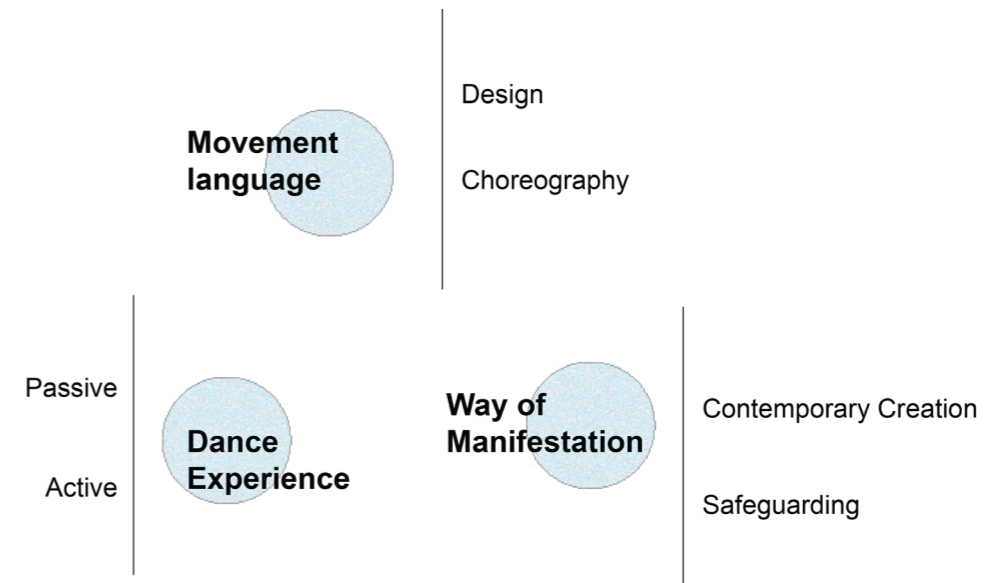
As already mentioned, both tensions are very present in the contemporary world. On the one hand, the awareness of the treasure that heritage hides in combination with the nostalgic essence of our society, give the stimulus to find innovative ways for Dance Heritage preservation. On the other hand, the massive interference of technology in dance artistic creation results in the incorporation of technology in Dance Heritage. This fact leads to new ways of Cultural Driven Innovation.

At this point, as Cultural Driven Innovation is considered,

we should not forget the role of Design that comes up from the incorporation of technology in dance creation. Design works as an intermediate element between technology and the human factor, which in this case is dance. Technology nowadays, as it is going to be presented also in the case studies, defines not only the movement environment, but it also plays an important role in the decision-making of the choreography as it extends the boundaries of movement but also gives the restrictions of it. Therefore, Design in this case is responsible for the integration of the demands from the aspect of choreographer and also the aspect of technology. Consequently, we could say that the second basic parameter of Dance Contemporary Heritage is the level of responsibility that dance and Design have, in the definition of the movement language of Dance Contemporary Heritage.

Finally, the third pillar which is considered the most relevant for the Dance Heritage evolution is the identification of the type of experience that prevails in Dance Contemporary Heritage. That means that it is useful to understand whether Dance Heritage is experienced in an active or a passive way. This factor is very important because in our times those experiences are the top consuming subject, dance offers a total experience that could be used as a tool that offers such experiences to consumers and therefore highlights dances' market value in the contemporary world.

**figure 2**  
The basic parameters of Dance Contemporary Heritage



### 3.6. Case Studies

The following case studies were selected as the most representative cases that deal with dance heritage. Eleven projects are presented that show the most trending various ways that dance heritage is represented in contemporary society.

### 3.6.1. Wholodance

**Image 19**

*First Experimental Motion Capture Session. 21-23 March 2016 at Casa Paganini - Genoa (IT)*

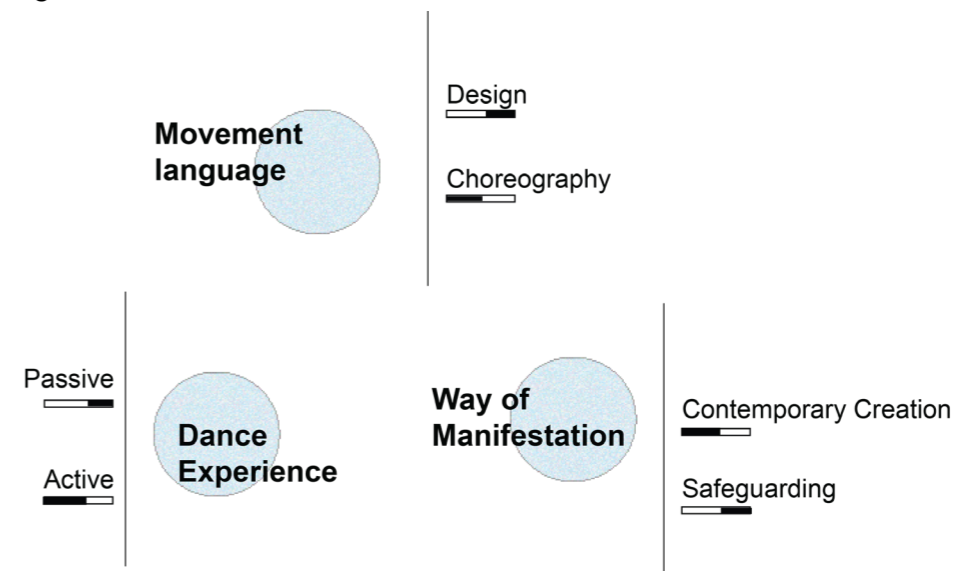


Wholodance is an action aimed at research and innovation for dance learning funded under the European Union's Horizon 2020 Programme. The program uses dance motion databases that utilize motion capture systems. The project's purpose is multifaceted as apart from the preservation of Cultural Heritage, it aims to explore the

knowledge of the body and movement and therefore extend the limits of choreography and dance teaching. Finally, all this new material is aimed to be publicly accessed through commercially available databases. These objectives are accomplished with the assistance of cutting-edge technologies like computational models, emotional content analysis, automated analysis of non-verbal expressive movement to dance data, dance data blending engines, and many more. The main deliverables of the project are ten dance tools that are used to accomplish the objectives. (WhoLoDance, n.d.)

From the above, we understand that in the Wholodance project, the digital world is incorporated into Dance Heritage to create new ways of cultural preservation and design the new trajectories of artistic dance creation, teaching, and learning. It is a project where technology plays a very important role and therefore design is needed to match technology with user's needs and choreography. As a result, Design is a vital element of the project and we could say that it is almost as important as the choreographies that are exploited to build Wholodance. In this way, a new movement language is created both by Design and Dance. Another aspect is how the project deals with Dance as Heritage. We observe that it aims to create new ways of expression through dance and therefore it aims to the evolution of the art of dance. We could say that it creates new Dance Heritage through the new technologies and tools that it aims to apply. At the same time, the project attempts to monitor and store already existing dances to create databases that are accessible for education and new creation. Therefore it also attempts to safeguard Dance Heritage. Finally, the user experiences dance both by observing it and also by actually dancing with an emphasis on the actual dancing part, as we can see from the multiple different applications that the project offers.

**Figure 3.**  
*WhoLoDance evaluation according to the basic parameters of Dance Heritage*



### 3.6.2. Europeana Space

**Image 20**

*Europeana Dance Pilot presentation at the University of Leeds. DanceHE event "Sustaining the Discipline". October 2016*



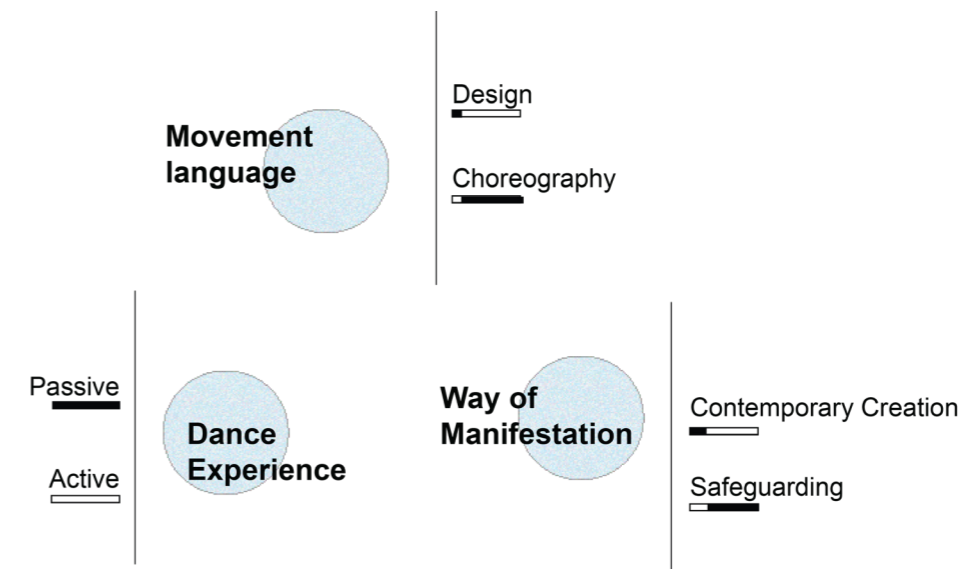
A representative example of dance data digitization is Europeana Dance Pilot. EUROPEANA is the EU's digital platform that aims to peoples' engagement and exploration of Cultural Heritage. Working with people and institutions like libraries and museums, Europeana has managed to include over 50 million items like books,

music, artworks, etc, dedicated to art, fashion, and politically charged topics like World War 1. Europeana Space is a project funded by the European Union's ICT Policy Support Programme that explores the possibilities for the creative reuse of digital cultural content. The project develops two innovative models that re-use dance content and metadata. (Europeana Space, n.d.)

We observe that choreography is the basic feature that contributes to this project while Design is limited to the design of the application. At the same time, Europeana Dance Pilot aims to work with dance data to preserve the dance works and techniques and also engage the general public. Therefore, the result is that the project mainly preserves the Dance Heritage and at the same time it also creates new dance metadata for further use. Finally, the user experience is not actual dancing, but an opportunity to explore and research dance. Therefore, we could say that the project is based entirely on passive experiences.

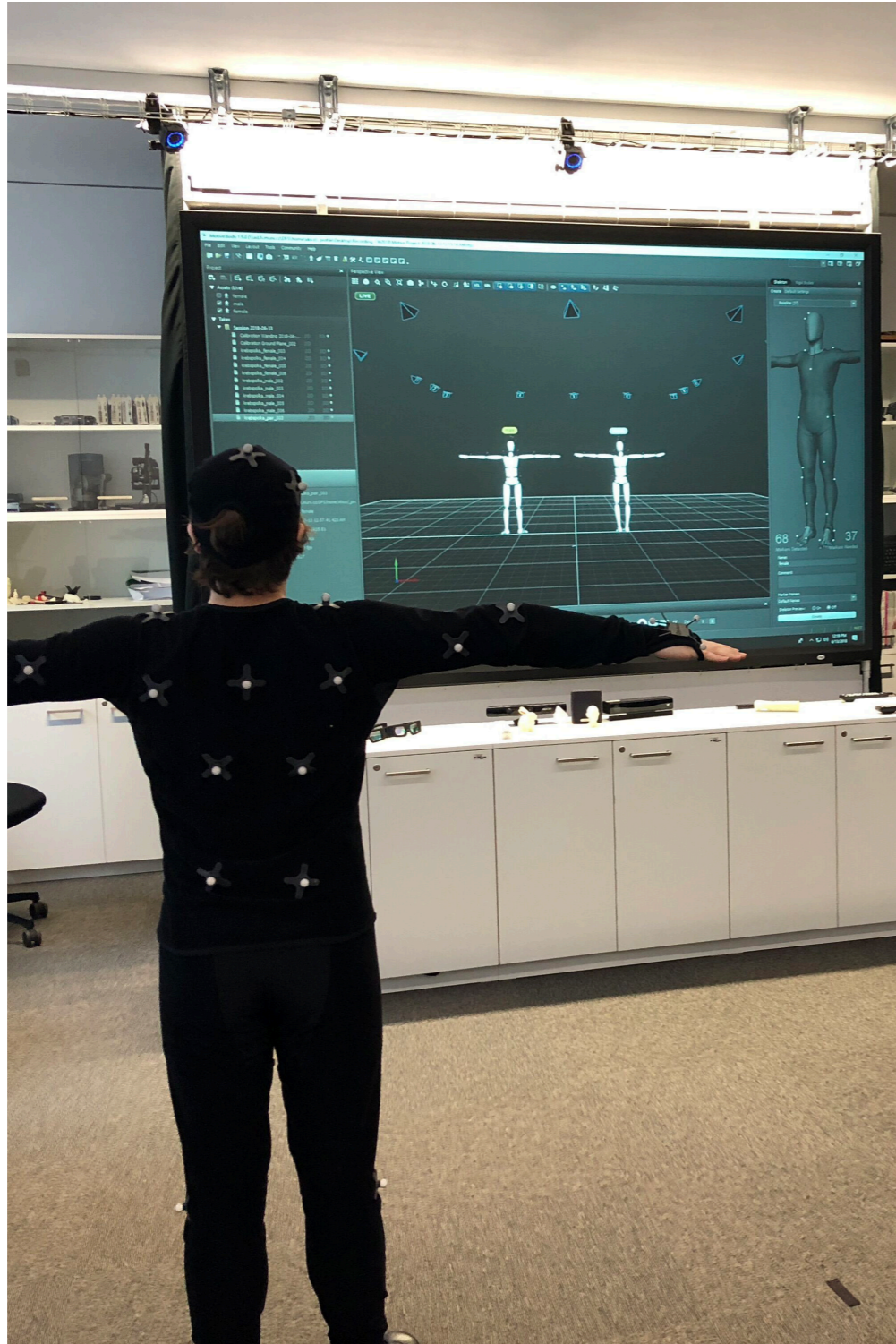
**Figure 4**

*Europeana Space evaluation according to the basic parameters of Dance Heritage*



### 3.6.3. Terpsichore

**Image 21**  
HCILAB - Dataset Capturing in Brno

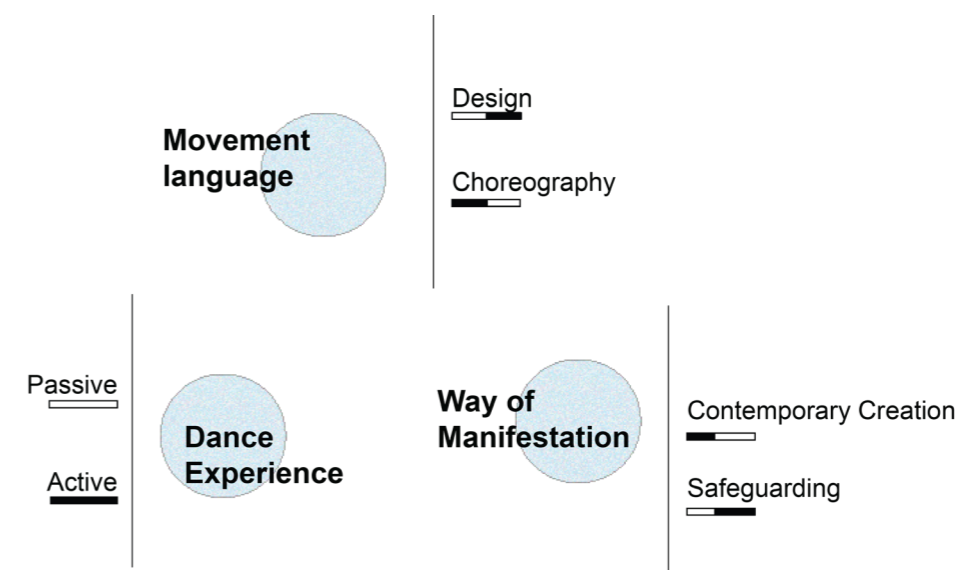


Terpsichore is a project dedicated to the Intangible Cultural Heritage of folk dances. It designs and develops a model for affordable digitization, modeling, archiving, e-preservation and presentation. To achieve this, the project uses technologies such as photometry, computer vision, semantic technologies, and time evolved modeling.

The users of Terpsichore's content are dance professionals, dance teachers, creative industries as well as the general public. Finally, the project creates a 'web-based cultural server/ viewer', where the user can interact with already existing cultural libraries like EUROPEANA. The product is planned to be integrated with virtual reality and interactive maps in the future. (Terpsichore, 2016)

Terpsichore project integrates the latest technology innovations as already mentioned (photometry, computer vision, semantic technologies, time evolved modeling) with storytelling and folk choreography. (Doulamis et al, 2017) Both elements are highly important for the development of the project's final outcome. Choreographies are used to archive the dance data for the e-preservation and re-use of ICH traditional music and fashion, folklore, handicraft, etc. At the same time, Design is used to digitize this content (3D modeling enriched with multimedia metadata and ontologies) and the cultural server while at the same time it emphasizes the interaction of the digital content with the user. All these elements constitute a new movement language defined by design and choreography. Since Terpsichore aims to create an e-archive of Dance Heritage, safeguarding is emphasized in this project. At the same time, the creation of living Contemporary Dance Heritage is something that is succeeded through the integration of the content with interactive maps and virtual reality. Finally, the user explores traditional dances through an interaction with the cultural server. Therefore, the experience can be considered as active because the user takes part actively in the exploration of the project experience.

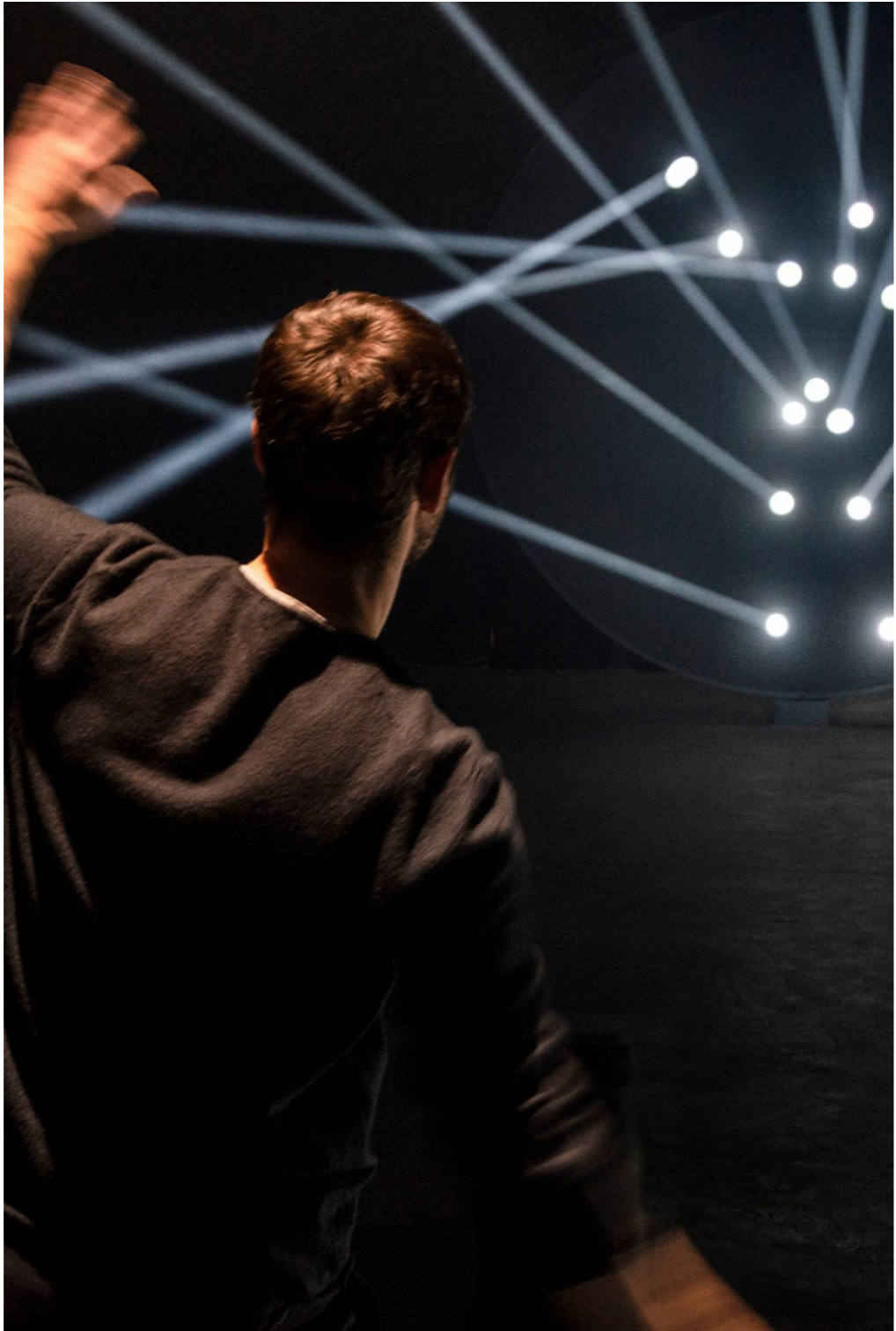
**Figure 5**  
Terpsichore evaluation according to the basic parameters of Dance Heritage



### 3.6.4. Bodies in Motion

**Image 22**

“The sculpture, which mimics the movements of visitors, is intended to represent human movement in its purest form” (Jordahn, 2019)



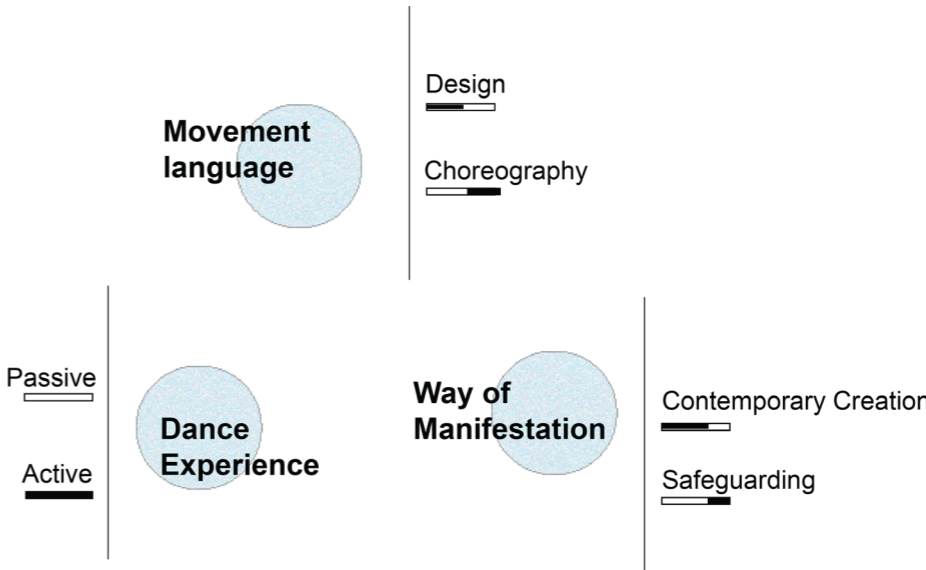
Bodies in Motion is a light installation created for Humanscale Milan Design Week 2019 by Todd Bracher and Studio TheGreenEyl. It attempts to approach furniture design with a scientific view placing 15 lights that monitor the visitor’s movement. The work is influenced by

the research psychophysicist Gunnar Johansson in 1973 who used lights to highlight the key points of human movement. The visitors who use the installation, trigger a specific visual and sound experience according to their movement. (*Bodies in Motion* | Studio TheGreenEyl, n.d.)

Bodies in Motion is a project which aims to the creation of new directions in furniture design by incorporating the research of human movement. In this way it breaks the boundaries of traditional design and uses an interdisciplinary approach in order to create a new form of heritage, which is the movement as it is expressed through everyday human objects. Therefore, the manifestations of Dance Heritage in the project, are both the preservation in the extent of human movement preservation in order to use it as useful data for the furniture design, and on the other hand the creation of Living Heritage, which is the creation of new objects that follow harmonically the human body movement.

In this project, the intervention of Design is as important as the intervention of Dance as far as the final outcome is concerned. Either if we consider that the final outcome of the project is the furniture or the installation, Furniture Design, as well as the Design for the interactive installation are vital elements. In addition, the information that Design uses in order to start comes from the Dance that takes place in the installation. As far as the user experience of the installation is concerned, people participate in an interactive experience through dancing. There is no observation of dance but only the creation of movement which forms the products.

**Figure 6**  
*Bodies in Motion evaluation according to the basic parameters of Dance Heritage*



### 3.6.5. Tanzfonds

**Image 23**

*Fine Art photography by Yan Revazov, Advertising photographer Winner of IPA international photography award 2016, Photo Shoot Award 2017, ND Awards Photo Contest 2016, Finalists for the Broadcast TV talent Competition SKY*

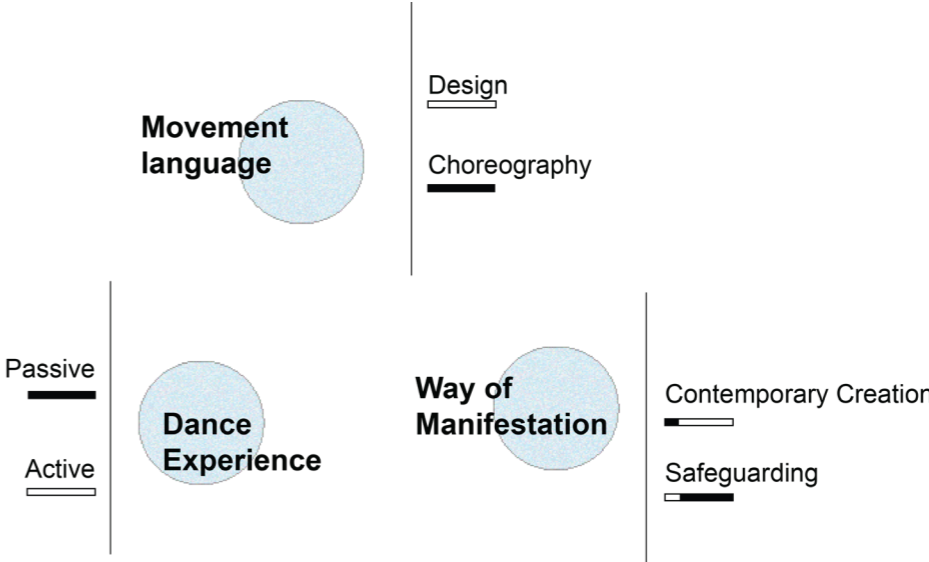


The project attempts to narrate the history of modern dance artistically and make it easily accessible to the public. Madeline Ritter,

the former director of Tanzplan Deutschland, and Ingo Diehl, the former director of the education department of Tanzplan Deutschland, have selected 60 projects which include performances, theatre programs, and many more. The dance history which was until then available to a few experts is now available to public access with the artistic projects having used research based on a wide range of archives, the contribution of experts, and copyright clarification. Besides, the productions that have resulted from this work, were included in the season programs of the theatres and companies involved. (Tanzfonds Erbe, n.d.)

Tanzfonds focuses on the safeguarding of Dance Intangible Cultural Heritage by incorporating elements of contemporary dance history into new artworks. Therefore, the project aims to both preserve but also create a new heritage. However, Cultural Driven Innovation could not be considered as the major component of the project because dance composition does not evolve its traditional manner and remains to the classical choreography techniques. As a result, the major element of the project's innovation is choreography. Design's contribution is very limited as it doesn't make any decisions about the movement language. Finally, the experience of the people getting in touch with the artistic outcomes of the project, is passive, as the public does not have any participation and cannot intervene in the outcome in any way.

**Figure 7**  
*Tanzfonds evaluation according to the basic parameters of Dance Heritage*

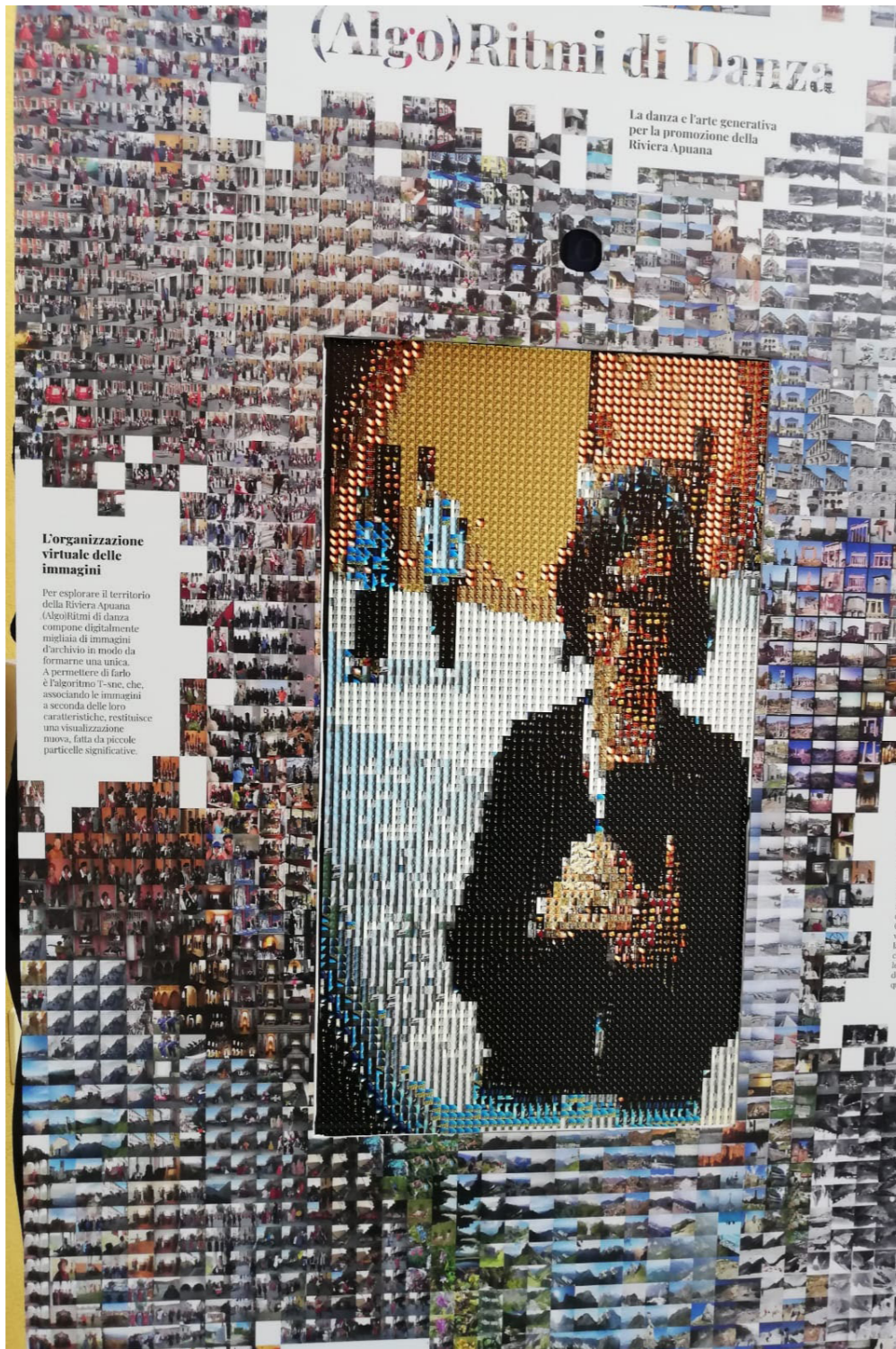




### 3.6.6. Dance (Algo)Rhythms

**Image 24**

Part of Dance (Algo)Rhythms exhibition.



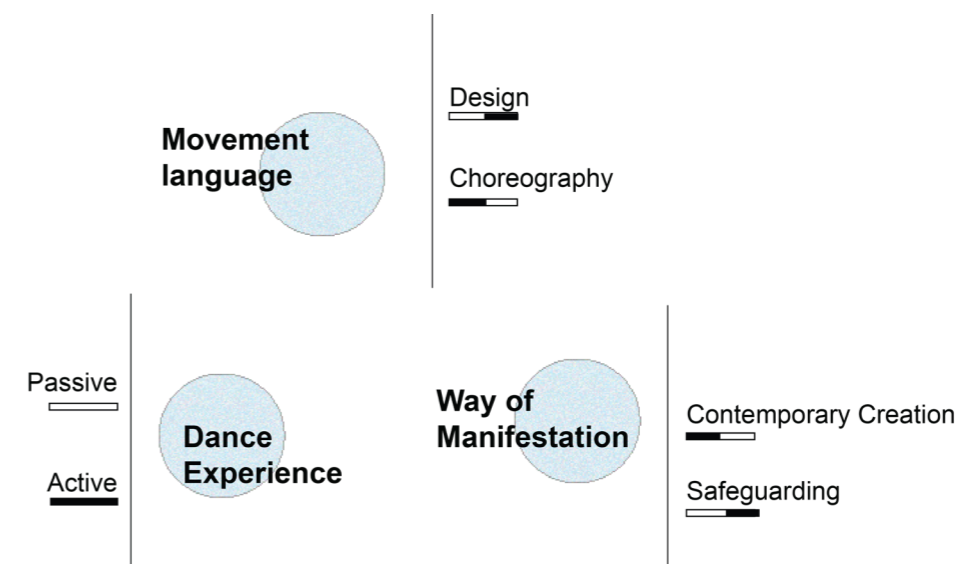
CultureMoves is an 18-month long project that aims to the development of digital tools for touristic engagement, research, and education through dance and cultural heritage. These goals are achieved with the re-use of Europeana content. Using a participatory approach engaging different stakeholders (dance artists, choreographers, dance researchers, dance educators, dance

students, and outdoor art practitioners), CMoves, together with the Centre for Dance Research (C-DaRE) and Fondazione Sistema Toscana (FST), organized a series of workshops called LabDays where one of the main objectives was the exploration of the role of Cultural Heritage in the definition of a territory's identity and how dance together with audio-video technologies, can assist in the touristic promotion of the territory. DANCE (ALGO)RHYTHMS is a CultureMoves project in collaboration with StudioRF-an interactive Media Design Studio with a specialization in human-machine interaction and computer vision. It is an interactive video installation where the user interacts with visual content through their movement, to experience generative storytelling of the territory of Apuan Riviera in Tuscany. The content used for the project was provided by the Europeana platform and local archives of EX APT photographic archive/Provincial Archive of Massa-Carrara and the historical archive of the Marble Railway/Municipality of Carrara. (Culturemoves Consortium, n.d.)

Dance (Algo)Rhythms takes the user into a "time travel" aiming to preserve the traditional territory's history. At the same time, it also generates a new movement language by creating an interaction between people and machines through movement. Therefore we assume that Cultural Driven Innovation and Design are high significance elements of the installation's experience. New techniques are needed, which are enhanced by the assistance of Design, in order to generate the experience of this "time travel" and integrate it with the machine interaction. Finally, the end user's dance experience is characterized by active participation.

**Figure 8**

Dance (Algo)Rhythms evaluation according to the basic parameters of Dance Heritage



### 3.6.7. Das Totale

**Image 25**

*Das Totale Tanz Theatre 360*

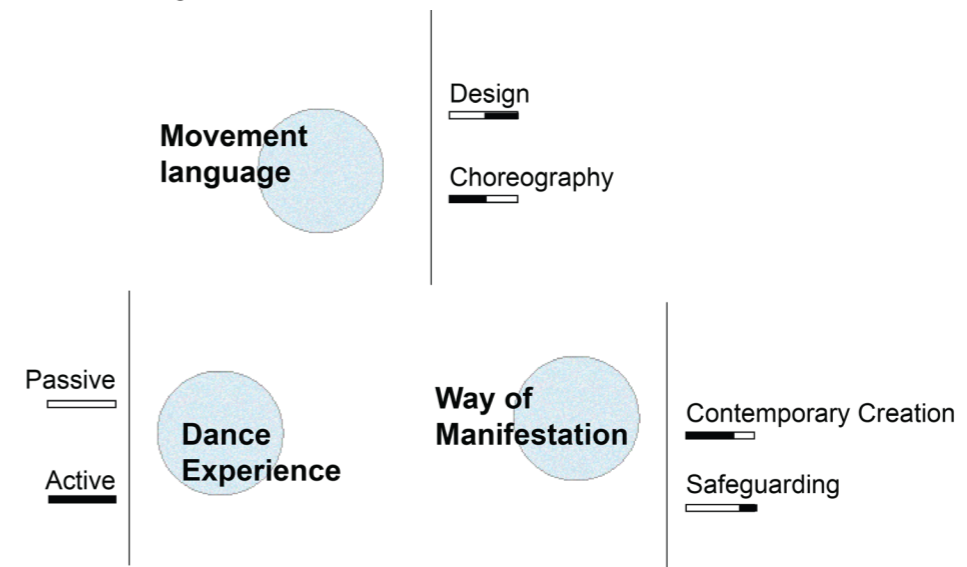


Das Totale Tanz Theatre is a virtual reality installation, staged by Interactive Media Foundation and Filmtank, celebrating the 100 years since the foundation of Bauhaus. The installation was held at the Academy of Arts Berlin, Hanseatenweg. As Bauhaus has artistically explored peoples' role in the mechanical age, 100 years later Das Totale Tanz Theater explores peoples' role in the digital age. It mixes up dance, music, sound design, costume design, and scenography with algorithms and digital technology. Using a "Tanzmaschine", the

user follows a choreography, which explores the extent of the user's influence on the surrounding space and the machine. Up to four people are enclosed inside a 6-meter diameter ring covered with semi-transparent gauze and simultaneously appear on a stage, immersing themselves into the VR world using their dance machines. Oskar Schlemmer's four dancer types interact virtually with the users, creating new forms of dance and movement, enabling the questioning of the relationship between man and machine. (Interactive Media Foundation, 2020)

Das Totale Tanz Theatre is a project that is created to tribute the Bauhaus and therefore it carries many of its elements, showing the big influence of Bauhaus until today. Therefore safeguarding is an element of the project, but the main achievement is the creation of a new form of movement language and dance, which is created through the interplay between traditional choreography, user intervention, and machine algorithms. Motion capture systems were used in order to scan the dancers' movements and then these movements were applied to 3D models. The results were more than 2.500 motion sequences that were stored in a database. The interactive choreography occurs by the reassembling of these motion sequences through artificial intelligence. (Dot, 2021) Therefore, to support the interaction between humans and technology, the intervention of Design is highly important for the creation of this new movement language, as important as choreography is. One more reason why Design is highly important in this project's movement language is that the costumes made determined the dancers' movement. As a result, Design is one of the basic factors of Das Totale's experience. Finally, it is profound that the user goes through an active participatory experience where they determine their movements and also the surrounding space.

**Figure 9.**  
*Das Totale Tanz Theatre evaluation according to the basic parameters of Dance Heritage*



### 3.6.8. Celestial Motion

**Image 26**

*Dancers wearing motion-capture suits are filmed in the studio*



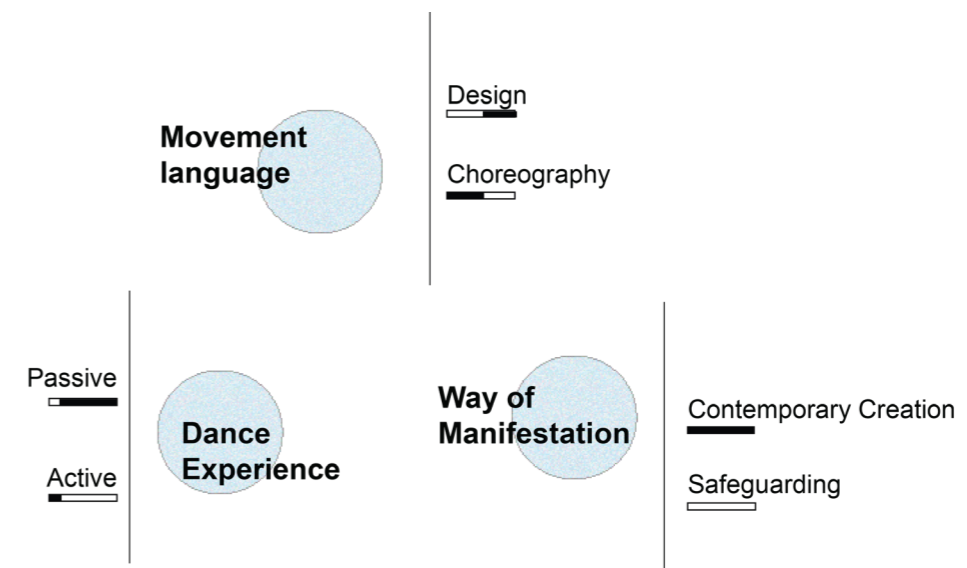
Celestial Motion is a virtual reality film that combines contemporary dance with motion-capture technology to explore movement at astronomical and human levels. The choreographer Alexander Whitley collaborated with physicists from STFC RAL Space, taking inspiration from solar science research images and data. Users travel to a cosmic scenery where they see the dancers,

both in their human form and as digital hologram figures performing the same choreography. The user can switch between the two cosmic worlds and experience the choreography in different ways. (Whitley, n.d.)

The film does not aim to safeguard but it creates a living heritage by attempting to imagine and represent the motion in the Sun. At the same time, Design intervenes in the creation of the final movement language, as well as choreography does, through the implementation of technology to Dance movements. Finally, the experience is mainly passive because the user observes the choreography created, but with a level of active participation as they can choose between the two different worlds.

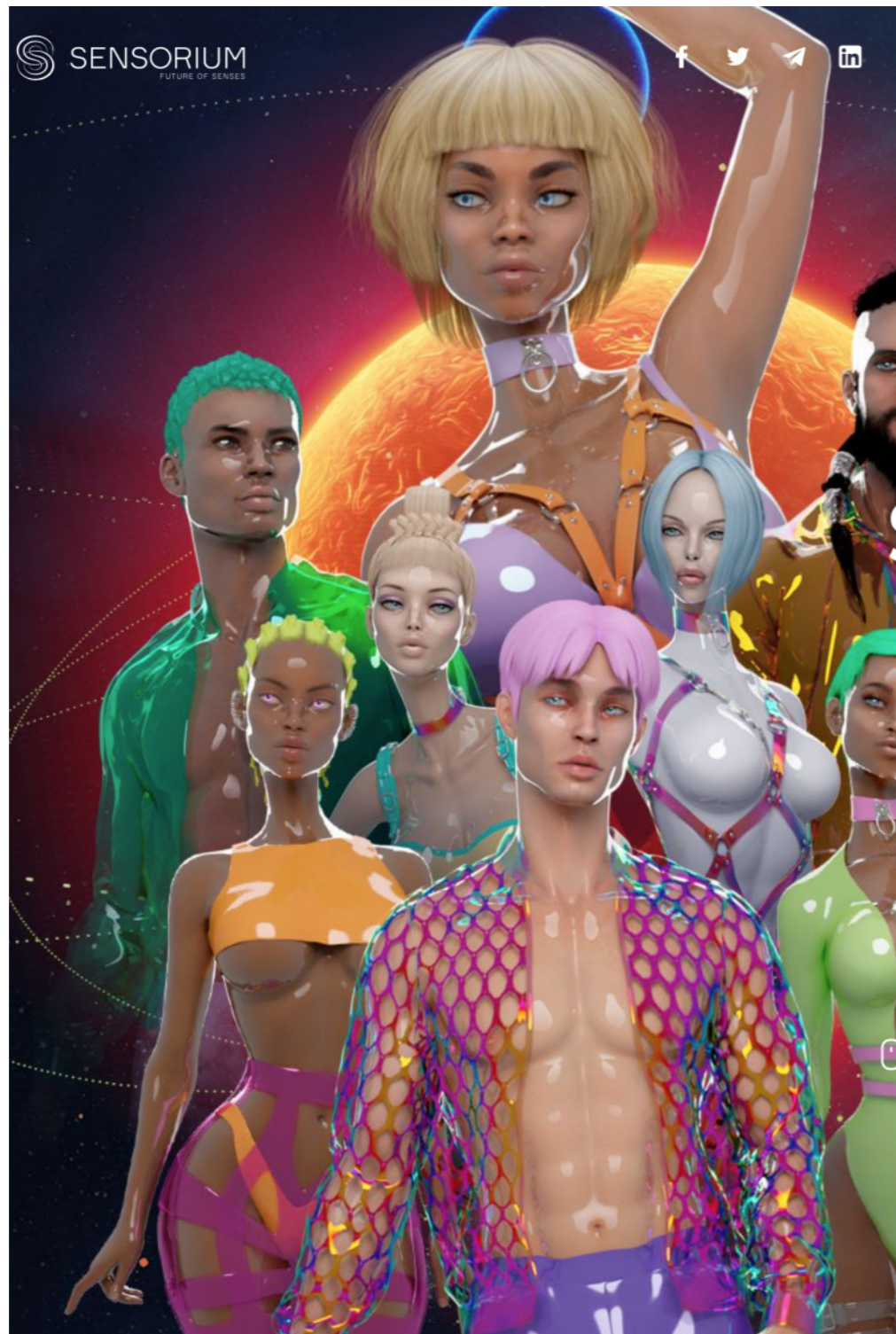
**Figure 10**

*Celestial Motion evaluation according to the basic parameters of Dance Heritage*



### 3.6.9. Sensorium Galaxy

**Image 27**  
Sensorium Galaxy Avatars

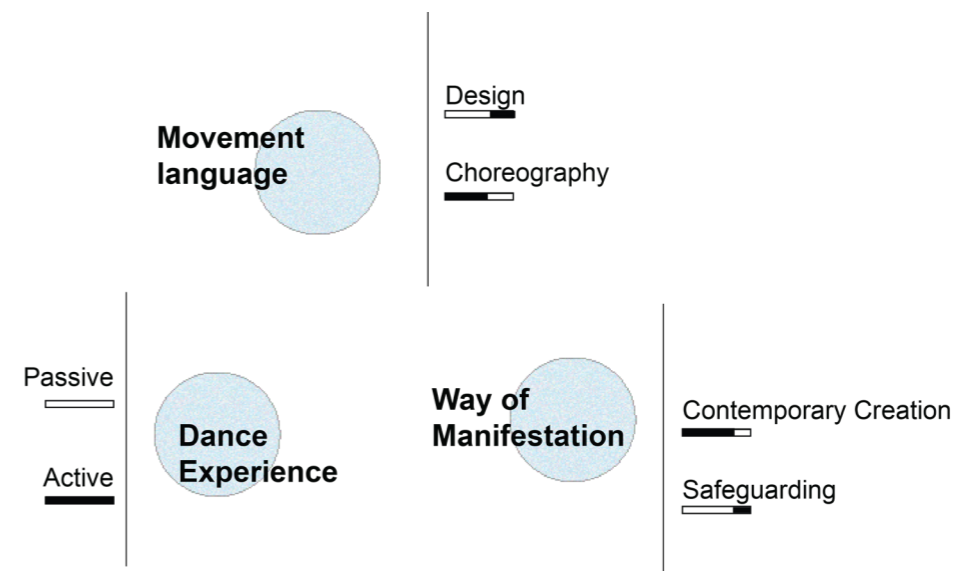


Sensorium Galaxy is a Virtual Reality environment where VR worlds exist. One of these worlds is Entertainment Star which is orbited by five planets. Planet of Motion is the one dedicated to dance. Sergei Polunin is a famous ballet dancer who managed to be the youngest principal dancer of Royal Ballet. His avatar inhabits the Planet of

Motion and has been created by capturing his dance moves. The avatar will inhabit different environments on the planet from traditional stages to futuristic surroundings. Planet of Motion enables friends to engage with each other in real-time 3D virtual reality while Polunin's avatar can interact with the users and they can learn from his techniques. At the same time recognized stars, choreographers and dance producers will also participate in this VR experience using motion capture technologies, teaching modern and improvised dance, ballroom, breakdance, ballet, and many other kinds. (Sensorium Corporation, 2020) Polunin's scope is to bring the world of dance into these new digital environments. and move beyond simple online streaming. (Au-Yeung, 2020)

Sensorium Galaxy provides an active participatory experience aiming to teach and therefore safeguard already existing dances, but at the same time, it creates a new form of heritage by merging cutting-edge technological advancements with broadly known dance techniques. The project completely changes the context of dance, taking the user into a galactic journey, and allowing them to communicate in real-time with their peers without having to be together at the same place. Therefore, Design influences the project's movement language for the reason that it does not highly intervene in the choreography itself, but it enhances the creation of a whole new context that dance takes place and therefore it sets the foundations where choreography can step to create a new movement language.

**Figure 11**  
Sensorium Galaxy evaluation according to the basic parameters of Dance Heritage



### 3.6.10. Ultraorbism

**Image 28**  
*Ultraorbism - Scene from the performance*

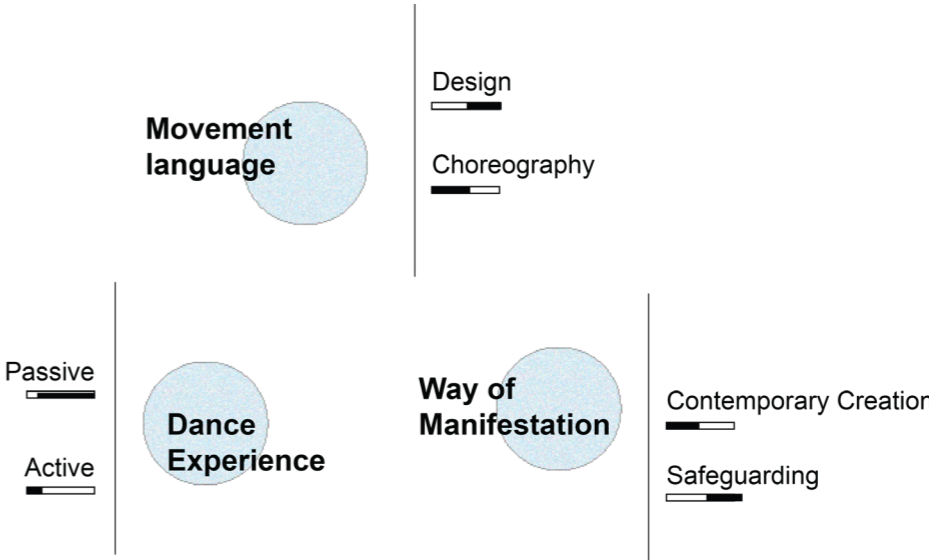


An 'interactive and distributed performance' (Promoter Srl., 2015), which is a collaboration between the artist Marcel li Antunez, actors and dancers from the University of Falmouth (UK), and telecommunication engineers from the i2CAT foundation. (Promoter Srl., 2015). The project is part of SPECIFI European project and a

RICHES project's case study (Promoter Srl., 2015a). The performance reinterprets the traditional cultural heritage of an ancient Greek fantastic narrative, using cutting-edge technology (real-time video, mechatronics, distributed action, feedback loops, and more) (Promoter Srl., 2015a). In this way, it explores how performers can create new artifacts and performances and develop new skills through the use of audiovisual and future internet technologies. The project also investigates how traditional cultural expressions can be reinterpreted and how all these can be transmitted to society through the use of cutting-edge technologies, proposing a new hybrid artistic form. The performance achieved a considerable impact on the public.

As we understand from the above, Ultraorbism is a performance that aims to preserve Cultural Heritage and at the same time to create new ways of movement expression by the implementation of digital technologies in the performing arts. Therefore, Design is as important as the element of choreography and movement for the final outcome due to the new demands that occur from this evolutionary integration. Finally, the experience that the performance offers is more connective than participatory since the spectators just watch the performance without interacting with it at a considerable level.

**Figure 12**  
*Ultraorbism evaluation according to the basic parameters of Dance Heritage*



### 3.6.11. Dancing Museums

**Image 29**  
*La Ribot, Panoramix, Centre Pompidou, Festival d'Automne, Paris*

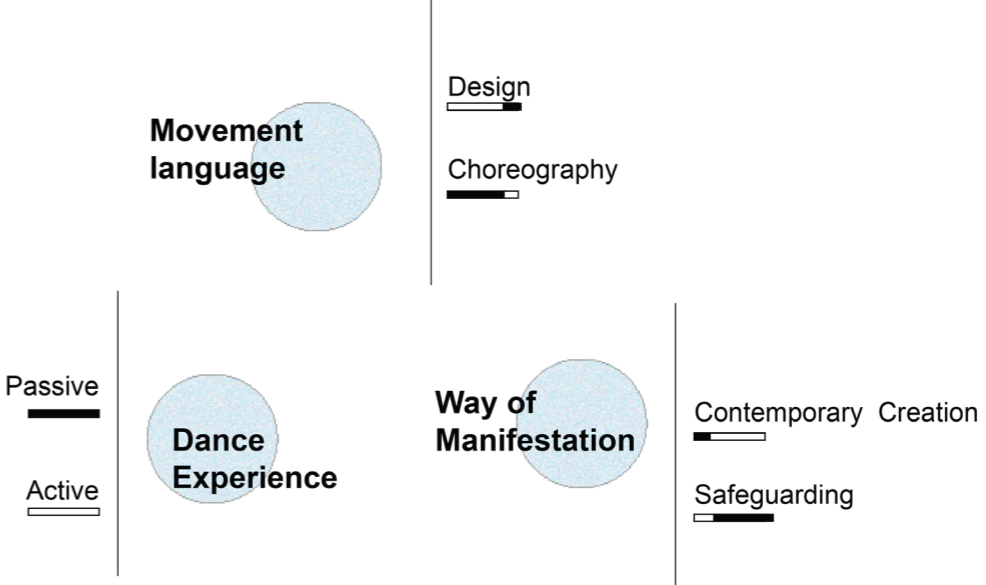


The 'Dancing Museums' project explores how dance can act as a way of engagement with the artworks of a museum, sustaining collaborations between museums, dance organizations, universities, and local communities (Dancing Museums, 2020). The contemporary dance company 'Made by Katie Green' has developed the projects Dancing in Museums and Dancing in Caves.

The Imagination museum is part of Dancing in Museums project that narrates the historical collections through contemporary dance, collaborating with 30 museums across the UK and involving children and young people in workshops to explore the world of contemporary dance. (Dancing Museums, 2020)

The Dancing Museums project aims to thesafeguarding of heritage as we assume from the fact that the dances take place in historical and archaeological sites and museums. At the same time, this specific new context and place that dance takes place, create a new quality of performing. However, Design is not a fundamental element of the project because the choreographies are not executed with highly technological tools, and instead, the traditional idea of choreography is more applicable. Finally, the experience that is offered is passive because the performances catch the attention and engage the public to feel the atmosphere and travel in the times when all the historical and archaeological sites were alive.

**Figure 13**  
*The Dancing Museums evaluation according to the basic parameters of Dance Heritage*



### 3.7. Patterns of Movement

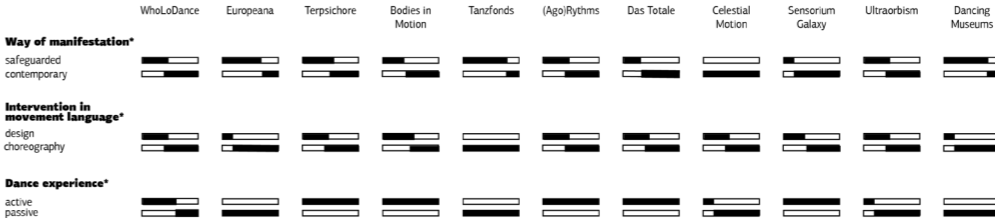
Movement is fluid and it is something that changes each moment. Therefore a pattern of movement could be interpreted as the pattern of change or in other words as a trend. From the summary of the case studies, as the diagram following depicts, we assume that the technological advancements of our times intervene directly in peoples' lives and cannot leave dance artistic creation unaffected. As a result, very significant changes happen which define Dance Heritage in a different way and enrich it with a new meaning.

From the projects that we have studied, which belong to the state-of-the-art as far as Dance Heritage is concerned, the safeguarding of heritage is a high-level priority. However, Dance Heritage is not a matter of stir preservation, but a strong and solid basis where contemporary artistic creation steps and moves further with the assistance of technology. The evolution of Dance Heritage and the creation of a living Contemporary Dance Heritage is set as a high priority. In other worlds. This is succeeded by Cultural Driven Innovation where Design plays a very important role.

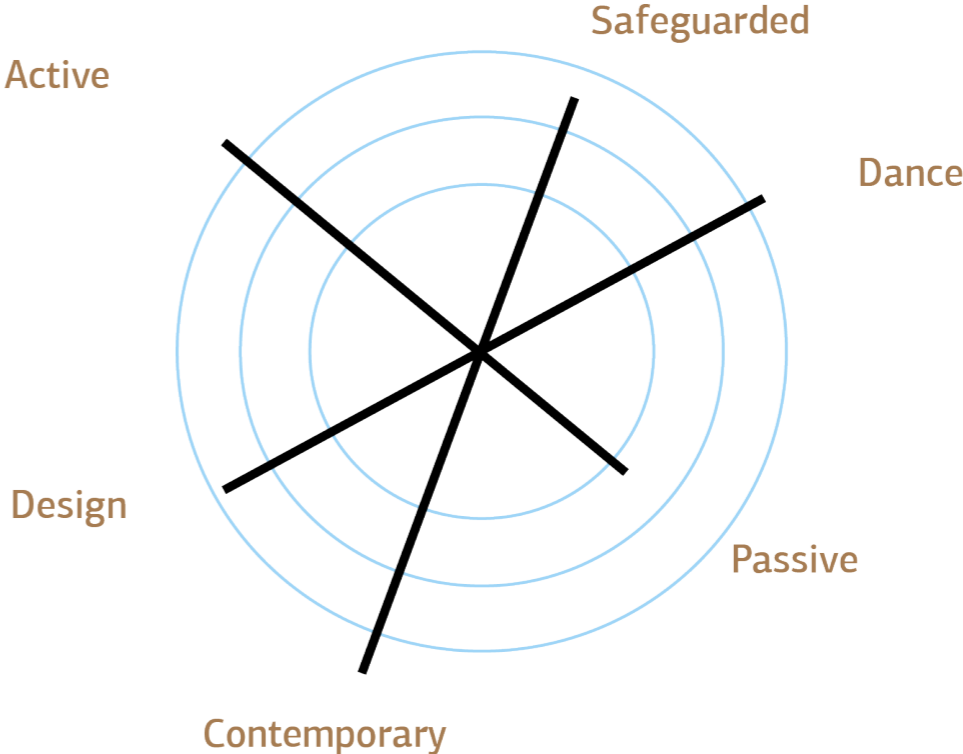
In addition, we observe that the experience of Dance Heritage is aimed to get more active than passive. This means that we move from the traditional passive experiences of an audience watching a performance of a choreographer who lived in the 19th century, towards the idea of the audience itself participating actively in the choreography, taking decisions for the final result, and forming the final choreographic outcome. This change gives people a more interesting and appealing experience.

Finally, as the exponential growth of technology demands, Design is as important as choreography as far as the final movement language that the dancing heritage is manifested. This happens because the rapidly growing intervention of technology in this sector makes Design a vital element for the integration of technology with a humanistic perspective. The Dance Heritage which was traditionally created either by the everyday life of people (Ethnic Dances) or by a master choreographer who translated his or her personal artistic taste into movement, changes its trajectory into a more interdisciplinary creation of scientists, artists, and researchers, where Design is one of the vital elements.

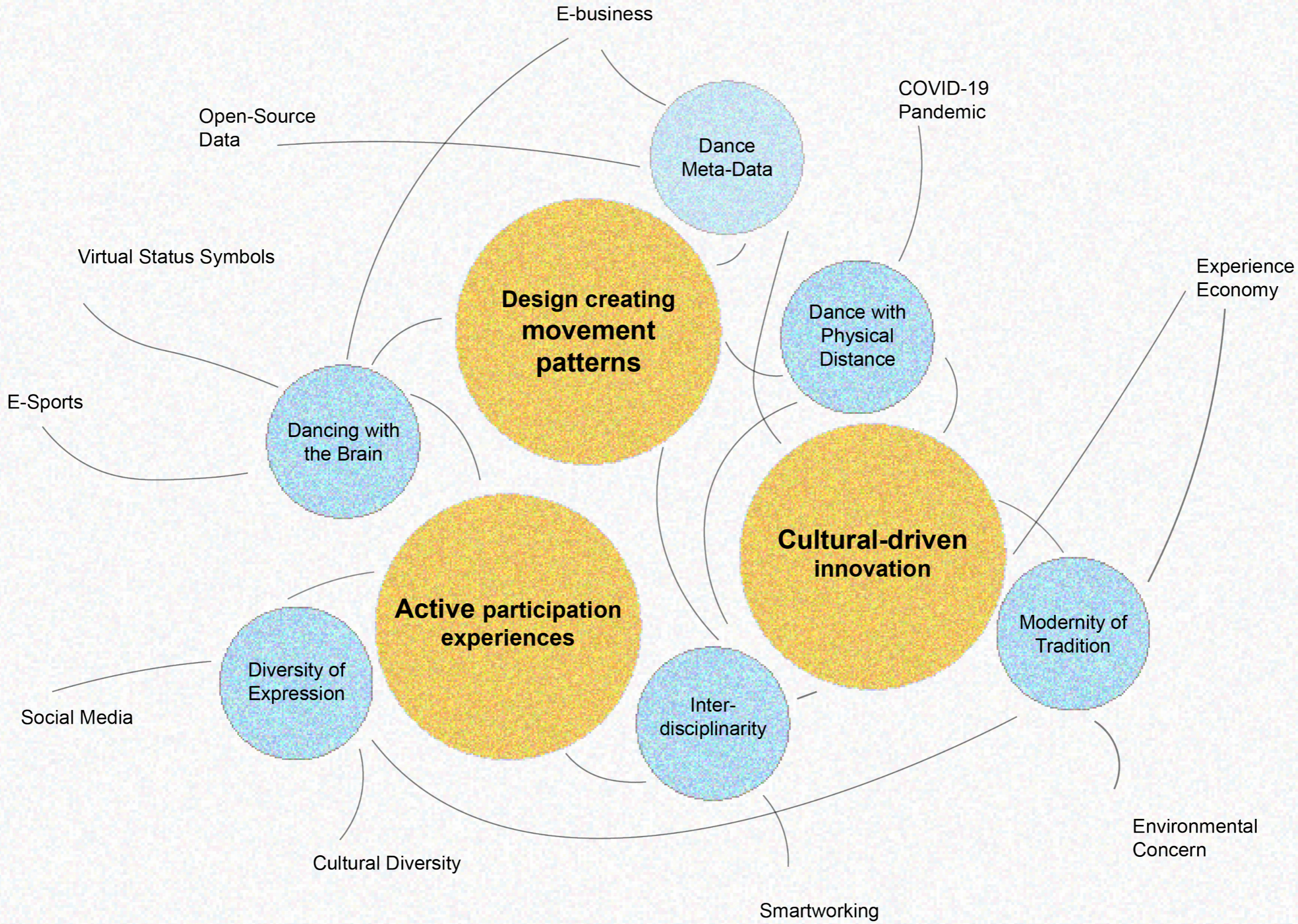
**Figure 14**  
Case studies total evaluation summary



**Figure 15**  
Basic parameters' elements total evaluation



**Figure 16**  
Patterns of movement connected to dance  
and world drivers and trends.





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# PART 3

## DESIGN DIRECTIONS

**Image 30**  
*Contemporary Dance Heritage collage*



## 4. Moving Trajectories

The current chapter focuses on the development of future scenarios. The scenario technique used is the double variable method, which has been developed by Johan Galtung. According to this method, two major uncertainties are identified, which form the basis for the development of different alternatives. (Inayatullah, 2013)

### 4.1. Critical Tensions

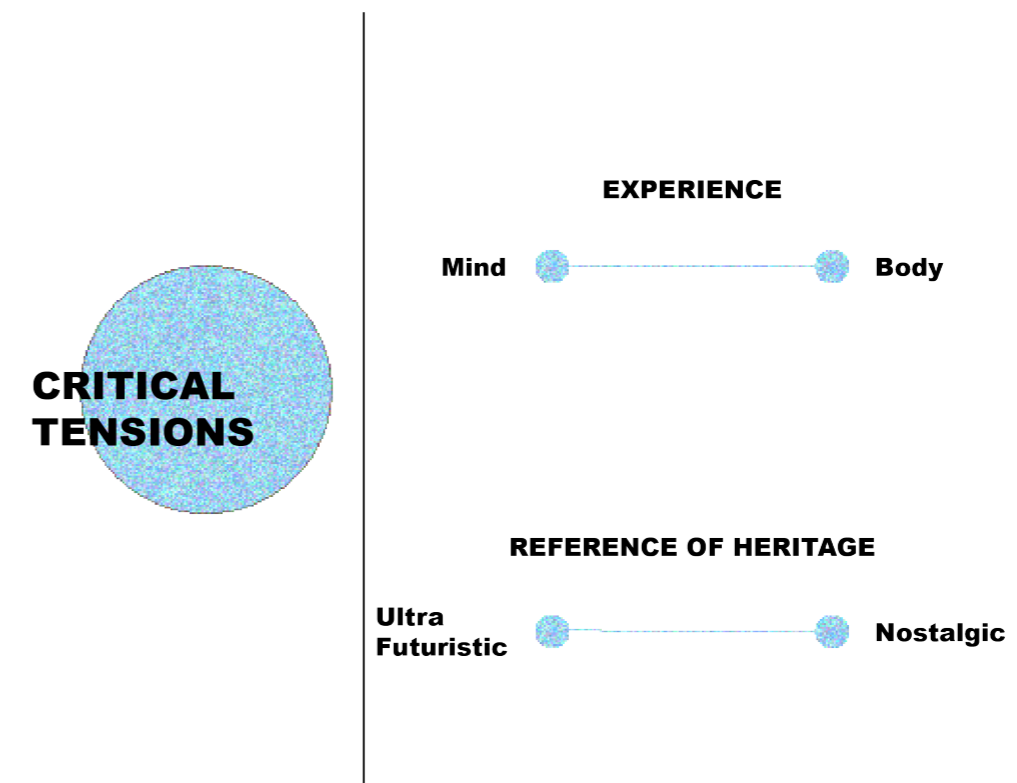
From the aforementioned examples and trends that have been researched, it is feasible to identify the most important critical tensions which influence the future perspective of Dance Heritage. As the role of Design in Dance Heritage is playing an increasingly important role, it is questionable which qualities of dance are going to be enhanced by Design and which perspective is going to be given in dance artistic creation with the growing intervention of Design.

As we have already mentioned above, there is an emphasis on the creation of new Living Heritage, which is enhanced by the intervention of Design. This fact could be evolved in two different polarized perspectives. This is because Living Heritage could be interpreted as something that we create in the present like tribal dances that have the characteristics of the people gathering up all together in order to express their feelings on a social occasion. On the other hand, Living Heritage could evolve into something progressive and futuristic that we have never experienced before. With the advancements in technology and the assistance of artificial intelligence, people have become more and more dependent on technology. This also affects the way they move and express themselves through their bodies.

Another question that occurs from the above is what will be the space of dance in the future. The boundaries between material and immaterial world tend to blur more and more. Therefore, it is questionable whether the active participatory experiences that seem to take over are going to happen in peoples' minds with the assistance of virtual reality and maybe even more advanced technology, or in peoples' bodies.

**Figure 17**

*Critical tensions that influence the future perspective of Dance Heritage*



## 4.2. Scenarios

To explore the aforementioned parameters and investigate the tensions between them, four different scenarios were created. The scenarios formulated occur from the tensions and their consequent values. The constant parameters of the graph are the three patterns of movement that have been identified in the previous chapter. First of all, we take for granted that Design is going to define Dance Heritage almost at every possible level. Therefore, we take as a fact that we are heading towards the perception of Living Heritage instead of safeguarding and that active experiences will become a high importance need in the perception of Dance Heritage.

The unstable parameters on the other hand are the tensions that occur. A two-axis diagram was set with the vertical one referring to the possible space of the dance experience. In the axis borders, the two opposite poles of the occurring tensions are represented - the mind and the body. The horizontal axis is referred to the possible reference of Dance Heritage which the opposite poles of uncertainties that are represented are expressed as the turn towards a tribal style of Living Heritage or a futuristic one. In this way, four different scenarios were formulated according to their position in the diagram.

The first scenario which is based on the exclusive mind experience is Duality. It is related to Dance Heritage as the safeguarding of the folk dance combined with the postmodern society's nostalgia about the past. Dance heritage is just a remnant of the past and there is no new artistic creation. People left in the nostalgia deal with psychological problems that happen to them because of the constantly changing environment and their difficulty to cope with it.

Mimisis is related to Dance Heritage as a tool for new creation which is strongly linked to commercialization via social media platforms. Therefore Dance Heritage refers exclusively to the contemporary creation always trying to be one step ahead to predict consumer's needs. Dance is a tool for E-commerce and A-commerce. Dance is experienced exclusively in peoples' minds.

On the other hand, Hybrid Tradition and Ecstasis are the scenarios related to dance experienced with the participation of peoples' bodies. Hybrid Tradition is related to Dance Heritage as a tool for a new creation where the traditional element is necessary. In this way, the society maintains coherence and a sense of belonging and identity and at the same time is productive and innovative.

Finally, Ecstasis is related to Dance Heritage as the safeguarding of the tribal element of every territory which is the tool for the creation of Living Heritage. It is combined with the need for a sense of identity of people, the environmental concern, and the need to gain back some of the humanities values.

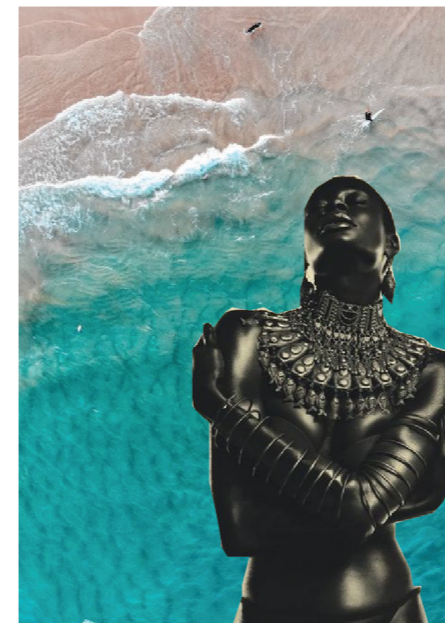
Figure 18  
2-axis diagram

## Duality

- Control
- Illusion
- Anti-depressant



NOSTALGIC



- Serve Nature
- Sacred
- Spiritual Connction

Catharsis

MIND

## Mimisis

- Social Status
- Marketing Tool
- Super-human



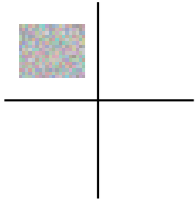
ULTRA FUTURISTIC



- Functionality
- Embrace New
- Daily Routine

Hybrid Tradition

BODY



### 4.2.1. Duality

*“I go to bed feeling trapped in my mind. I was not very productive today. I feel bad... I wake up with the best dream I could have. I was dancing along with others.”*



Image 31  
“Duality” collage



## Description

The environmental damages that human behavior caused, have brought multiple new diseases in people. They have to take medication every day to survive on the damaged earth. People are completely isolated because they are afraid the physical contact. They are afraid because of the diseases out there but also because people are too mean with each other when they experience the true feelings that physical contact brings. People do not need to move at all. They are vaccinated every day to get the demanded nutrients in order to function. To avoid the overdose and the poisoning of drugs, dance is used as a substitute to increase the lack of some substances that causes depression. Dream-like moving images are projected in peoples' brains every once in a while through their implants. These moving images are also used to tell people when something they do is good or bad for the government and therefore make them obey the rules while being more productive.

## Elements

In this world performances are dreams. The role of dance heritage in the community is to control people. It is a powerful tool in the government's hands so they can manipulate people's emotions and therefore their minds. The government uses cutting-edge technology for this purpose. As a result, we could say that technology intervenes directly in peoples' minds and constitutes the technical mean which promotes the desirable aspect of Dance Heritage. Therefore the collective heritage is manipulated and forced by the authority, while personal heritage is tearful and inward. People are almost still. They do not actually move in reality because this keeps their brains from being highly productive. They do not use their agency resulting in acting like robots that are only programmed to carry out specific tasks.

This world's relationship with the past is characterized by a deeply nostalgic attitude, which exalts past generations' heritage without having the desire to evolve it and give life to it. Therefore, heritage is a collection of past memories which bring an instant feeling of pleasure and work as a drug in order to cope with reality. The only artifacts are the remnants of a "golden age", while the performance environment is restricted to peoples' minds where movement vocabulary imitates the past. The present is full of depression and fear and therefore "Duality's" attitude could be characterized as a denial of living the present. People need illusions and fake feelings to maintain their functionality.

**Figure 19**

*Duality elements that shape dance heritage*

● <b>Role of Dance Heritage</b>	Control
● <b>Relationship with the past</b>	Pojection of memories
● <b>Intervention of technology</b>	Directly in every people's mind
● <b>Relationship with present</b>	Denial of living the present
● <b>Collective heritage</b>	Manipulated, proper, respectable, authoritative
● <b>Personal heritage</b>	Tearful, inward, almost still
● <b>Bodies</b>	Physical: Tired, Sick, Not able to move much. Virtual: Slim, Healthy
● <b>Feelings</b>	Nostalgia, Depression, Fear
● <b>Perceptions</b>	Past is our lost diamond
● <b>Agency</b>	No. Everything forced by the state
● <b>Artifacts</b>	Remnants
● <b>Performance Environment</b>	Person's mind
● <b>Movement vocabulary</b>	Immitation of heritage, Based on the past
● <b>Performance</b>	Dreams

## Dance as a Participatory Experience

In a world where people have a passive attitude towards their lives and society, dance works as a small outlet of grief, creating an illusion of control in peoples' minds. Even though the experience of dancing is only mental and people cannot make any decisions of the outcome, an illusionary feeling of little control is created to substitute the true need for creativity.

## The Notion of Dance Heritage

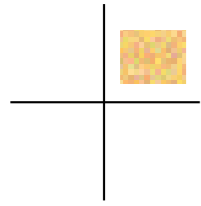
Dance Heritage is a remnant of the past. It does not exist in the contemporary world as an alive form of art and creation because the movement does not exist. Dance Heritage is strictly referred to as the dance that was created in another period as a historical monument that does not have any life in it now. However, using the dance knowledge of the past, the governments gain the ability to control peoples' minds while Dance Heritage also works as an anti-depressant substitute. Therefore, Dance Heritage is a powerful weapon that brings authority to whoever controls it.

## The Role of Design in Dance Heritage

Designers in this world are government trustworthy members who are responsible for the improvement of the implants that are used to manipulate people's minds. They recognize the power of Dance Heritage but they do not use it to bring sustainability and coherence to society. In contrast, they deal with it only as a government weapon to control people.

Design's role is to recognise the psychological patterns that demand the projection of dancing "dreams" when a person needs it in order to address the drug abuse. They are also responsible to create the movement patterns according to the desirable psychological effect that government wants to achieve in people.



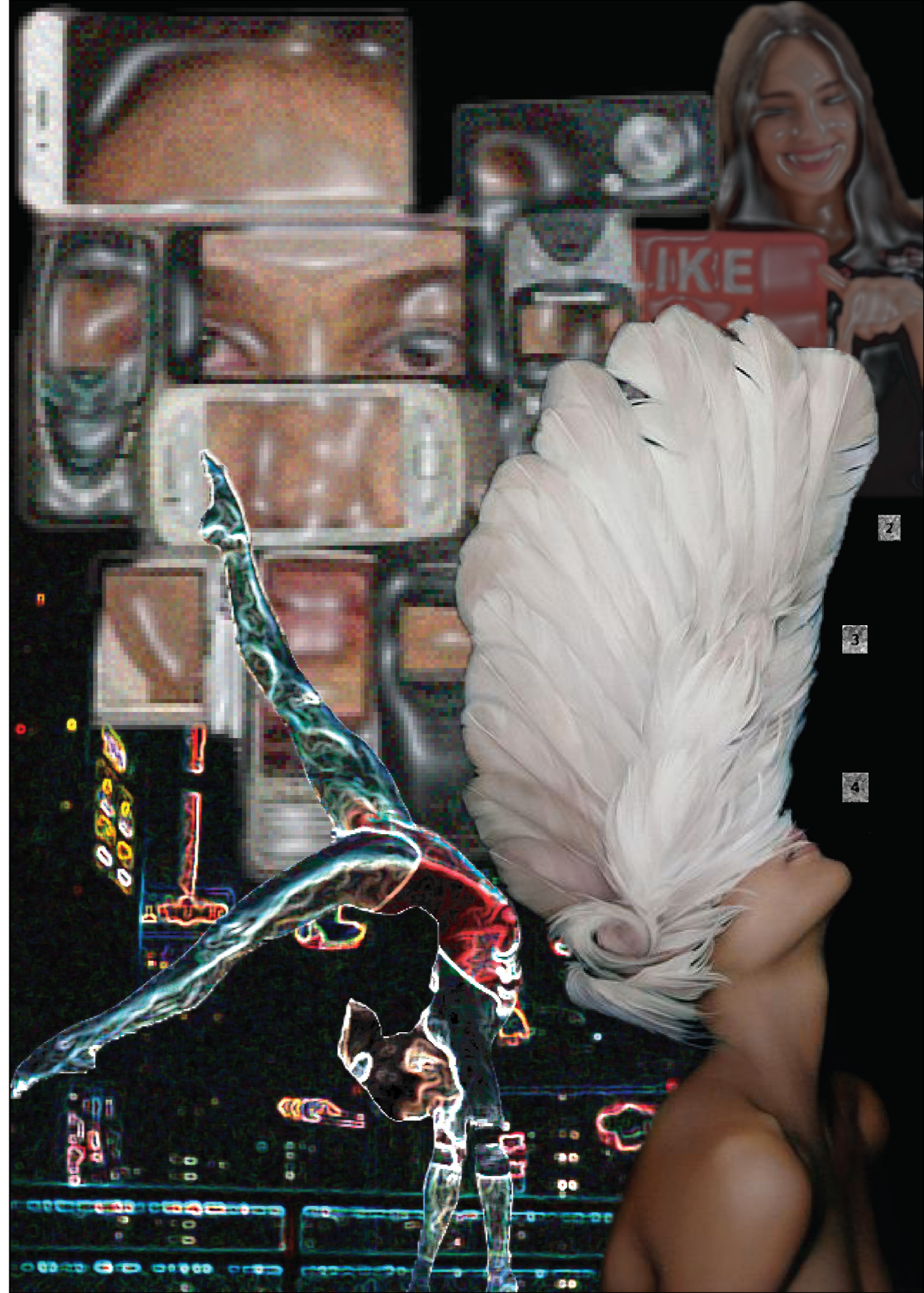


#### 4.2.2. Mimitis

*“I wake up in the material world. My subconscious never stopped being awake in the virtual world. Everything moves so slowly here! I feel exhausted.”*



Image 32  
“Mimitis” collage



## Description

Social media platforms are the space where every social and therefore merchandising and even political activity takes place. As a result, social media is full of live activities with the assistance of virtual reality. At the same time, all cultural activities take place on these platforms, promoting merchandising by engaging people through the visualization of impressive movements that the virtual world enhances and processes to make them more appealing to the general public. Dance works as a means of marketing strategy. People in this world crave publicity and social recognition that they achieve through social media. Therefore the intangible virtual space is the new space where things take place and the physical world is neglected and it exists only to serve the virtual demands.

## Elements

In this world, Dance Heritage is exploited for merchandising, serving as a marketing tool. Heritage is a living organism manifested with memes in online platforms, enhancing the social, political, and economical status of whoever uses it. Past is outdated and therefore the aesthetic of this world's Dance Heritage is ultra-futuristic, avoiding any reference to the past. Therefore, collective heritage is driven by social media, while personal heritage does not actually exist. This happens due to the fact that there are no intimate memories that belong to each person. People share everything on the web and something exists only when it is shared.

Human bodies, driven by greediness, are shaped in order to fulfill the demanded characteristics to fit in the trends and have the purpose to impress. They do not look natural and they exceed the limit of beauty, reaching an unhealthy and deformed aesthetic, which then is fixed in photoshop. People crave recognition and dance is a way to promote themselves and make money. The most recognized ones are the ones who govern the world. This happens because the agency is formed by social media and exists only if it agrees with the trends. Finally, because of the fact that the only performance environment is the online platforms, there are not real objects like artifacts.

**Figure 20**

*Mimisis Elements that shape dance heritage*

● <b>Role of Dance Heritage</b>	Merchandising, marketing tool
● <b>Relationship with the past</b>	Outdated
● <b>Intervention of technology</b>	Dominant in social life
● <b>Relationship with present</b>	Defined by social status
● <b>Collective heritage</b>	Driven by social media
● <b>Personal heritage</b>	Non existent
● <b>Bodies</b>	Unhealthy, impressive, not natural
● <b>Feelings</b>	Vain, greed
● <b>Perceptions</b>	Driven by social media
● <b>Agency</b>	Only if it fits to the trends
● <b>Artifacts</b>	No
● <b>Performance Environment</b>	Online platforms
● <b>Movement vocabulary</b>	Memes, athletic, focus on the potentials of the body
● <b>Performance</b>	Memes

## Dance as a Participatory Experience

Active participation experience, as we have already mentioned, means to actively participate in an experience instead of just watching and observe. In this world, however, we have active participation dancing experiences but only in the space of mind. That means that people can make decisions and affect the outcome without physically moving, but only by deciding and picturing it in their minds. They create dance memes without physically moving. Therefore a contradiction between physical and digital reality is created. The dance experience has the aim to enhance the realistic possibilities of the body through the higher possibilities of the mind.

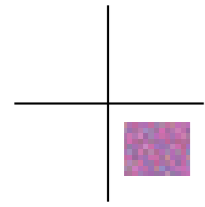
## The Notion of Dance Heritage

Heritage is a marketing strategy and it is exclusively contemporary. It is used as a marketing tool as big databases are created to document movement techniques existing in the media in order to be improved and reformed according to the market demands. Memes work as the trademark of each company and there is a huge investment in them to increase the recognition of the brand.

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## The Role of Design in Dance Heritage

This world's economy is based on experiences and the role of marketing is incorporated in the role of Design. Therefore, Design is the field that creates virtual experiences for the consumers and as Dance is in the forefront of experiences merchandising, the designer is responsible to select dance patterns that create the most appealing experiences to the consumers.



### 4.2.3. Hybrid Tradition

*“My implant wakes me. I cannot get up. There has been quite a time but I still find it hard to coordinate my new body parts. I feel different.”*



Image 33  
“Hybrid Tradition” collage



## Description

In this world, people and robots are integrated into one body and therefore in one mind and one soul. Hybrids hold two identities and two different natures—the human and the robot— and consequently movement obtains a new meaning as physical and creative activity. It is partly robotic and partly human. Therefore, a gap is starting to rise as hybrids face difficulty trying to move around in their everyday lives as their movement is not completely natural. As a result, training is demanded, both for the mind and for the body, in order to adjust and function in their everyday lives.

## Elements

In this world, Dance Heritage is a necessary tool, fundamental for living and coping with everyday life. The performance is the everyday life itself and the performance environment is not limited to a specific place. Past gives shape to the present and present shapes the future. Heritage is living and evolving as a part of reality. Technology is an inherent part of people, forming their hybrid bodies. Collective heritage refers only to the traditions of the past which highlight human nature, while the new hybrid heritage is unique for each person and does not belong to a collective memory.

People feel the need and make the effort to embrace their two different natures both practically by learning how to manipulate their bodies, but also mentally. With their high agency, they use past knowledge to innovate for the future, having artifacts that could be characterized as modern souvenirs.

**Figure 21**

*Hybrid Tradition elements that shape dance heritage*

● <b>Role of Dance Heritage</b>	Tool for living
● <b>Relationship with the past</b>	Past forms the future
● <b>Intervention of technology</b>	Inherent, part of people
● <b>Relationship with present</b>	Create paths for the future
● <b>Collective heritage</b>	Refers to the human nature of the past
● <b>Personal heritage</b>	Unique, intimate, shapes the way for the new hybrid future
● <b>Bodies</b>	Hybrid
● <b>Feelings</b>	Effort to embrace their different natures
● <b>Perceptions</b>	Past is the key to innovation
● <b>Agency</b>	High level
● <b>Artifacts</b>	Modern souvenirs
● <b>Performance Environment</b>	Everywhere
● <b>Movement vocabulary</b>	Half human-half robot
● <b>Performance</b>	Everyday life

## Dance as a Participatory Experience

The experience of dance in this world is active and it is related to the basic needs of everyday life. People use dance as a tool in order to develop their own personalized experience which is translated into their own new movement language. Therefore the experience is characterized by both the participation of mind and body which both have to be trained in order to encounter the new hybrid demands. However, the manifestation of the dance experience has tangible results and therefore the body is the space where the action of dance is manifested.

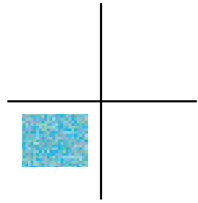
## The Notion of Dance Heritage

Dance Heritage in this world starts as a tool that helps hybrids in their everyday lives and becomes a vital part of them. This happens because, in order to make hybrid movement functional and efficient, experts have to go back to human movement as it has started from the primitive times and research its evolution according to the

developing environment and vice-versa. Data motion repositories are used to create meta-data of movement patterns. These data serve as inputs for AI which works as a substitute for today's dance teacher. Therefore the artistic creation obtains a new notion as it starts from the exploration of what should the hybrid movement be, trying to incorporate it with the most primitive motion perceptions of humanity. Dance Heritage becomes extremely futuristic, however, with a significant reference to the primitive elements of human movement.

## The Role of Design in Dance Heritage

In this world, Design is the reference point, as it is the element that puts human nature in contact with the artificial one. The mixed and multifaceted nature of Design is the key that puts the hybrid mechanism trying to combine the knowledge obtained from the past as far as human movement in relation with the surrounding world is concerned, with the technological advancements which are an inherent part of the human body. As we understand, hybrids work partly as machines and as a machine needs to be functional and cost-effective, hybrids have to perform at a high functioning level. At the same time, they have human emotions and needs so it is not possible to deal with them as they were just some soulless objects designed by engineers to be productive. In order to accomplish the naturality of hybrids and merge their dual nature, Designers are responsible for understanding the new hybrid movement needs in relation to the surrounding context and decide the way that they can work effectively without being time and energy-consuming. In order to assist in the better functionality of hybrids, interdisciplinary teams of designers, choreographers, dance heritage experts, programmers, and engineers, try to generate a new hybrid movement language.



#### 4.2.4. Catharsis

*“The sun is starting to rise. We are going swimming in the sunrise. There is a holly celebration tonight. We thank the planet for hosting us here. In this way, the atonement comes. And we are alive again...”*



Image 34  
“Catharsis” collage



## Description

In this world, the artistic creation is communal as it is a way to contact the only truth that inhabits each person's soul. Past is sacred and it is honored with rituals. Peoples' aim in life is companionship, love, and intimacy with the loving ones. They feel the urgent need to get rid of the sinful past where its so-called "evolution" brought all this misery in peoples' lives with social media, environmental damages, and globalization. The agency of human beings is controlled by faith and spirituality is everywhere even in everyday objects. Technology serves people as a tool in order to revive the tradition and keep the sacred heritage alive. Even though people use artificial implants in order to communicate and assist their perception, they try to keep balance being as close as possible to their human nature and the natural environment. The performance environment is limited to the rituals and the movement is ecstatic, improvised, aiming to communicate with inner feelings, healing the soul, and achieving universal relatedness. Dance and performance are sacred.

## Elements

The performance is each time an ecstatic improvisation during rituals. Dance Heritage is the key that opens the door to people's "inner self" mediating in the achievement of "catharsis". Past is sacred and it highlights the way to sustainability. Therefore, technology intervenes only when it serves the environment and promotes the spiritualism of the past. The agency of people is guided by the purpose of sustainability, which is the element that forms the collective heritage, bringing people closer to their roots and the environment. At the same time, personal heritage is a reflection of the collective, focusing more on the connection with the person's "inner self", achieving the desirable spirituality.

Bodies are close to nature and formed by it. They are natural and athletic and affected by the climate conditions of each territory. People's effort is focused on companionship and relatedness to each other and nature. The dominant perception is that mankind is the child of mother nature. Finally, the artifacts have a direct traditional reference.

**Figure 22**

*Catharsis elements that shape dance heritage*

● <b>Role of Dance Heritage</b>	Communicate with "inner self", achieving "catharsis" from the past
● <b>Relationship with the past</b>	Effort to make up the mistakes of the past
● <b>Intervention of technology</b>	For environment restoration
● <b>Relationship with present</b>	Live today with spiritualism of the traditional past
● <b>Collective heritage</b>	Strive for sustainability through tradition
● <b>Personal heritage</b>	Spiritualism, reaching the "inner self"
● <b>Bodies</b>	Natural, athletic, influenced by nature
● <b>Feelings</b>	Companionship, relatedness
● <b>Perceptions</b>	Man is a child of mother nature
● <b>Agency</b>	Guided
● <b>Artifacts</b>	Traditional, spiritual
● <b>Performance Environment</b>	Rituals
● <b>Movement vocabulary</b>	Ecstatic, natural
● <b>Performance</b>	Ecstatic improvisation

## Dance as a Participatory Experience

Everyone participates in the ceremony mentally and physically. It is a unique process that heritage gives, where people associate with each other by dancing. Each person influences the ritual by interacting with dance moves and this is the way the movement language is created.

## The Notion of Dance Heritage

Dance Heritage works as a tool in order to recreate memories of the past and in this way the "catharsis" is achieved. It is the element that helps people to maintain a sustainable attitude towards the environment and society through the deep connection with tradition. It keeps people together and united and educates them, giving them a common attitude towards the evolution of technology. The only aim of technology use is to assist in the sufficient small societies and the environment rescue. Therefore, a tribal form of Living Heritage is created.



## The Role of Design in Dance Heritage

In this world Dance Heritage and Design work towards sustainable and self-sufficient societies promoting the idea of circularity. Designers have the repositories of heritage in their implants, trying to find the real feelings that tribal people had in the past when dancing the dances honoring nature. In this way they are able to transfer these memories of feelings through movement, guiding people in specific choreographies during the rituals. They also work as the link between the past and the present and between people during the dancing experience. Therefore they work in a very specific way that tries to understand the experiences of the past and transfer them into the present.

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## 5. Design and Dance in the Digital Era

In the current chapter, the future hypothesis of the present thesis' research is stated, which is the result of the parameters analyzed in the scenarios combined with the world's current reality and adjusted to the needs of modern lifestyle. Therefore, the "Hybrid Tradition" was chosen as the scenario that interprets the current world situation and its directions in the best way, and the scenario's interpretation of Dance Heritage and its role of Design is a way to reach the desirable outcome for a sustainable society that embraces digitization.

### 5.1. The Emerging Role of Design for Dance Heritage

As we have already mentioned and it is profoundly seen in the scenarios built, Design and Dance Heritage are two communicating vessels as they are directly dependent and influence each other. At the same time, the shifts in their context correspondingly influence both of them. Besides, they both have the power to create and enforce cultural identity. Dance Heritage and the way that it is manifested, create new roles and new directions for Design.

The new digital era, which is rapidly deepening in our everyday lives, creates a new lifestyle that is here to stay and shape the world. The pandemic has contributed to the acceleration of this phenomenon and therefore it is easy to assume that the post-pandemic situation will be characterized by the massive interference of digital tools in every possible sector. As J.H. Caldwell refers in his article in Deloitte:

"COVID-19 has turned digitization from a "nice to have" to a "must-have"  
(Caldwell, 2020, Digitization is Upon Us)

This fact has a huge impact on people's interaction with these tools. The way that this interaction happens defines the way that people are going to move in their everyday lives.

Lauren Bedal is a designer and choreographer who attempts to design choreographies that people use to navigate in their digital devices. Her intention is to promote the embodied interaction within user centered design and

"place the body as a knowledgeable decision maker in the design process."

(Lauren Bedal, n.d.)

She claims that:

"Interacting with digital information in 3D space contains similar elements to choreography. [...]. Designers in this space are actively defining a new lexicon of movements to create intuitive and playful methods of interaction".  
(Skybetter, 2020)

Future artistic and especially dance creation will be strictly dependent on these new movement patterns and spaces. As Ghislaine Boddington claims:

"It is clear that today that finally the body is the interface"  
(Boddington, 2021, Conclusions)

Therefore, the design of digital tools that we have in our hands, is of utmost importance and is directly creating a new Living Dance Heritage. The second aspect which arises a new role of Design for Dance heritage is the intervention in the choreographic decision-making. As AI explodes the potentials of choreography, it starts playing an important role in the decisions taken in the choreographic outcome. An executive example is the work of Studio Wayne McGregor which in collaboration with Google Arts and Culture Lab, developed a choreographic tool named "Living Archive". The tool works with AI trained for hundreds of hours of McGregor's choreographic videos and finally was able to respond to a new movement, suggesting new original movement possibilities. Therefore, in cases like this, Design is probably going to be responsible for the decision-making of the choreography, as it is capable of intervening both in the technological part of AI and also the human factor of movement in the choreography. (Studio Wayne McGregor, n.d.)

Therefore, a very significant role of Design is arising, which is the creation of active participation digital movement experiences that contain a strong cultural identity. These experiences are not only limited in the element of active participation, which enhances each experience, but it has also the potential to educate and spiritually promote people and bring them together mentally to develop a sense of common identity, embracing the new digital era and bringing a humanistic perspective to it. This is the reason why Design for Dance Heritage is highly important.

In this way Design has the power to educate people and promote culture, enhancing the development of sustainable societies, bringing personal development to the center of the world's attention. As a result, we assume that Design for Dance Heritage is going to play an important role for society.

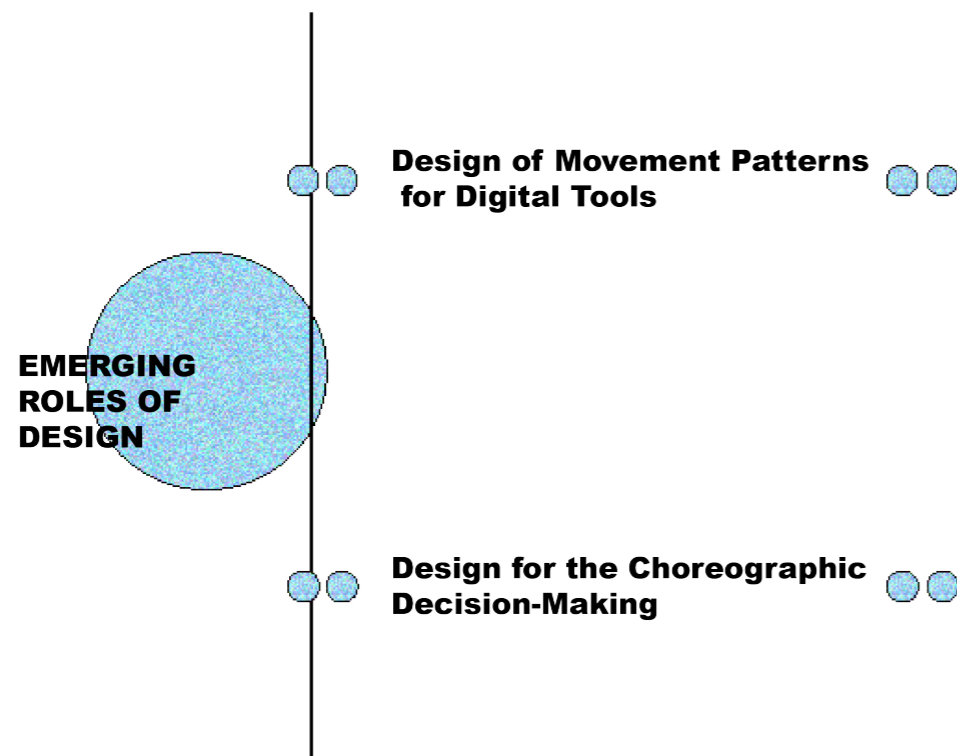
Except for the above, we can assume that Cultural Heritage and Design share the same values because they both struggle for sustainable and coherent societies. To achieve this, we should focus on Cultural Driven Innovation by building strong interdisciplinary

teams which will be able to create the Contemporary Dance Heritage and implement it in our everyday lives, to improve the quality and the mental and physical health of people.

Therefore, it is possible to understand that it is important for future Design to innovate in many aspects, with the assistance of choreography and vice versa, which means that future choreography and the creation of dance Heritage will not be feasible without the assistance of Design. As a result, a creative collaboration between Designers and Choreographers is needed.

**Figure 23**

*The emerging roles of Design for Dance Heritage*



## 5.2. How Designers can Become Aware of their New Role

In order to understand the actions that designers should do to become aware of their role, blueprint modeling was used. Blueprint modeling was proposed by the banking executive Lynn Shostack in 1984 (Rios, 2019) and it is described as:

“a detailed plan or design that explains how something is expected to work.”  
(NESTA, 2011, p.9)

It gives a general outlook of the activities and the basic points of interaction that refer to the audience that is intended to be engaged

(NESTA, 2015), and assists in the reduction of intangible experiences' complexity. (Rios, 2019)

With the assistance of blueprint modeling, a diagram of actions was made which summarizes all the activities that should be done in order for designers to become aware and start exploring Design for Dance Heritage. In order to achieve this, the idea of heritage itself which has the power to form societies and build connections was used. Therefore, the idea is to develop an online community of designers and choreographers that gives them the opportunity to get in touch with each other, convince themselves of the importance of Design for Dance Heritage in the digital era, and enforce the existing knowledge by participating in the initiatives and the activities of the community. The online community is firstly hosted on a website where people can subscribe in order to participate. The website contains all the research material which forms the theoretical background behind the initiative. At the same time, it enables the subscribers to participate in the creation of a movement-experience with the assistance of an open-source editor which is specifically built according to the demands of user experiences.

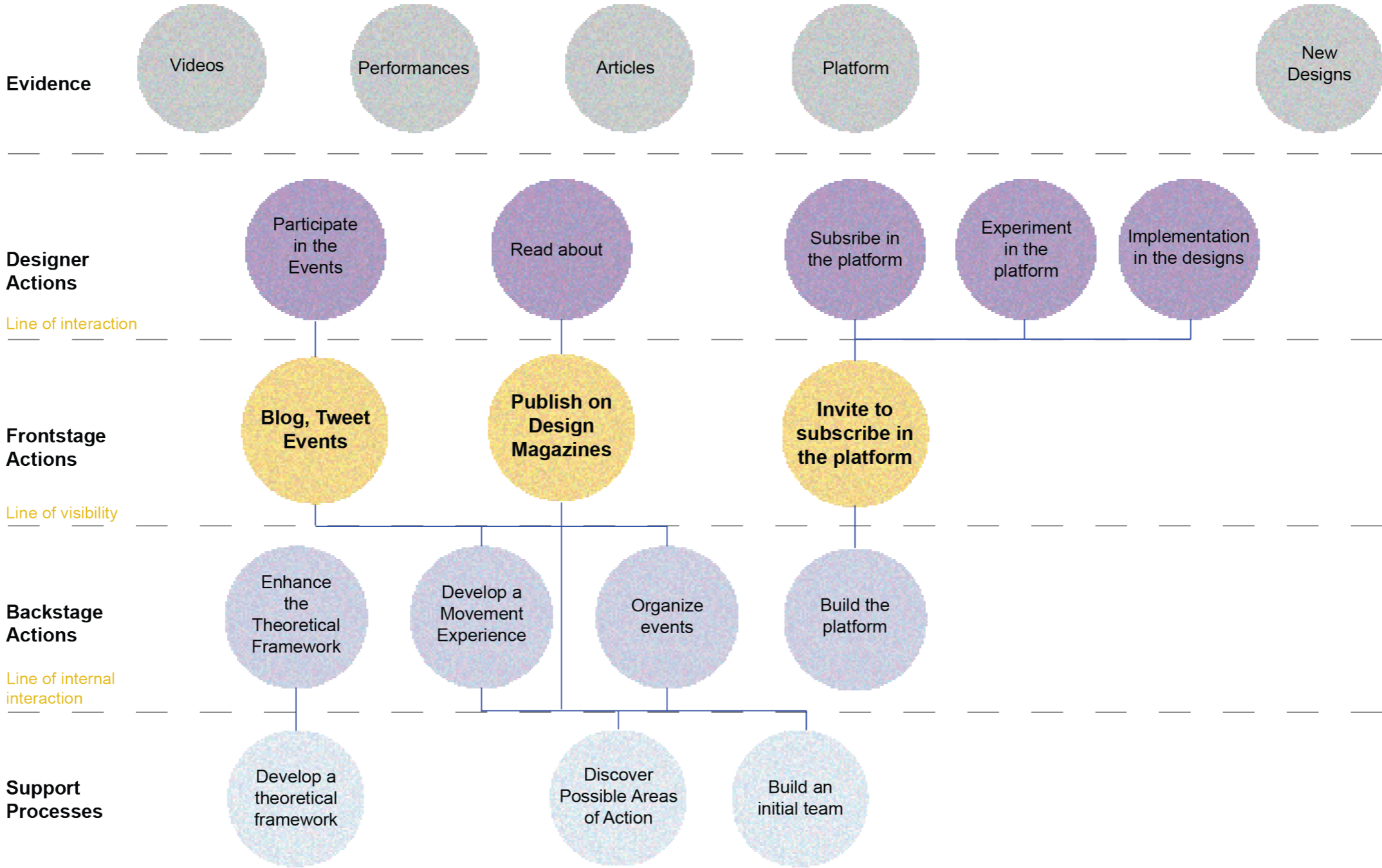
The first step towards the development of the community is the creation of a theoretical framework. Therefore, desk and field research and the systematization of the material are needed in order to develop a fundamental basis where everything else would step. Except for the theoretical framework, a consideration of the possible fields of intervention is also highly important. These actions are called support processes in the blueprint methodology and we could consider that a major part of them is set in the present thesis. Finally, among the support processes should be the constitution of an initial team in which the basic members are going to be designers, choreographers, and programmers. As the team grows, the space will be open for many disciplines, who are going to interact with each other, contribute in the theoretical knowledge, but at the same time assist in the development of the online community.

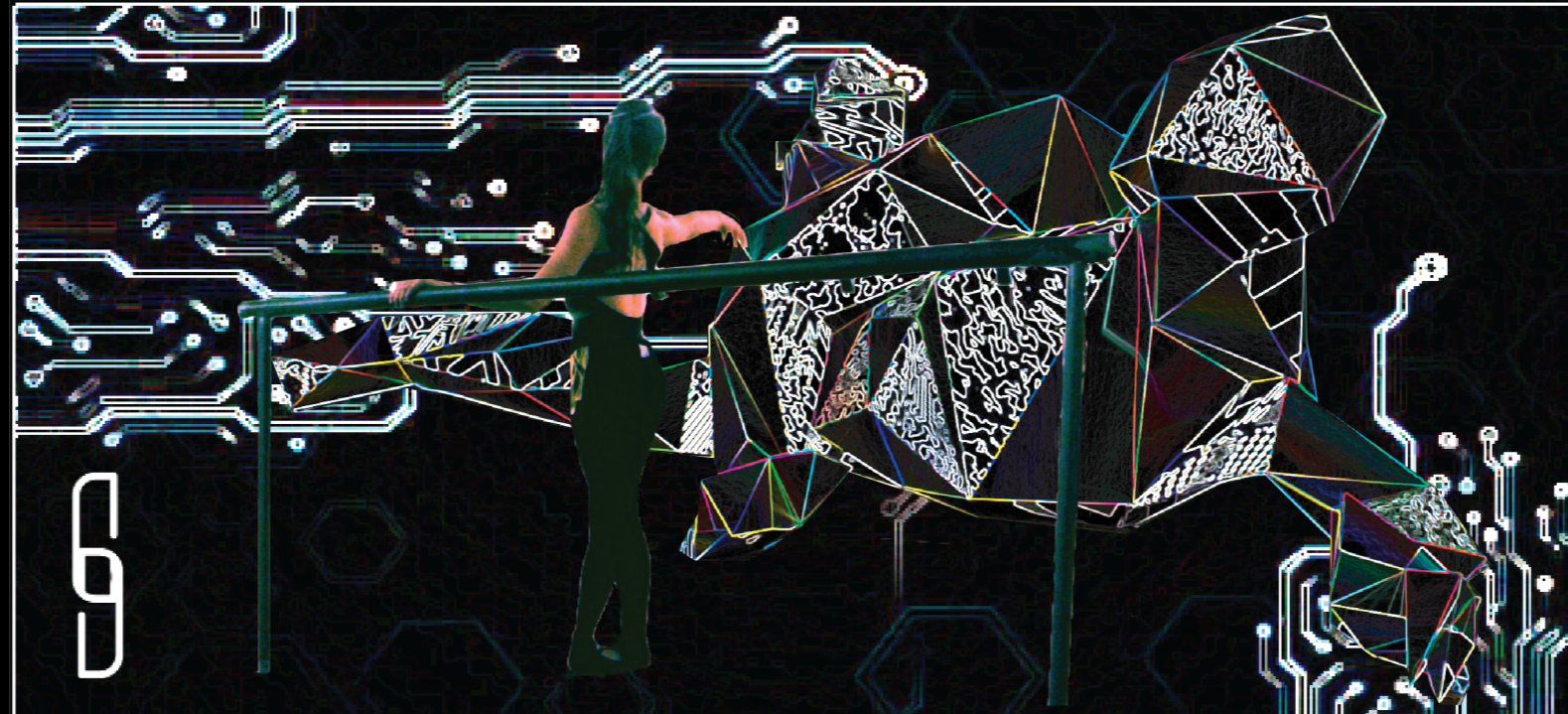
After the support processes, there are the backstage actions. These are the actions done by the team that are not visible to the public. The team contributes to the enhancement of the theoretical framework and the development of an everyday-life digital movement experience prototype is getting into practice. Afterward, the organization of online events and installations and finally the actual building of the platform is starting.

Frontstage actions are the ones that follow the backstage actions and are characterized by the fact that they are witnessed by the public (Rios, 2019). These actions are blogging on social media, the publication of the research on design magazines, and the invitation for subscription in the online community.

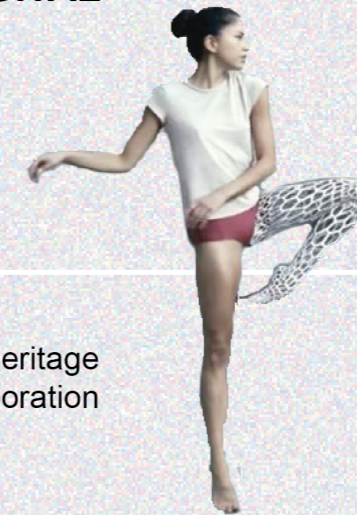
Everyone is able to participate in the community. However, the designers who participate in the community are able to engage themselves in participating in the events organized, reading the research available online, and experimenting by creating movement experiences in the experience-maker of the platform. Afterward, they are able to incorporate these experiences into their own designs.

**Figure 24**  
Necessary Actions in order for Designers to become aware of their new emerging role





An **ONLINE COMMUNITY** Which Attempts To Bring **DESIGNERS** And **CHOREOGRAPHERS** Together In Order To **CREATE EXPERIENCES** For The Promotion Of Contemporary Dance Heritage In The New **DIGITAL ERA**, Aiming Towards a **SUSTAINABLE FUTURE**.



**Become acquainted** with the notion of Design for Dace Heritage through our published researches that were conducted in collaboration with choreographers.

**Participate** in our series of events like workshops, performances and installations to experience what DD is all about.

**Create a unique dance experience** and contribute to the promotion of Dance Cultural Heritage and its integration with digital tools with our online Video Maker.

**Exchange ideas** with us and contribute in building the future of our society through motion subscribing in our platform.



**A team of choreographers and designers imagines the new digital era different than we are used to, highlighting the significance of Cultural Heritage.**



Eleni Sofia Pentsiou, 2 February, 2020

Team DD is trying to build a community of creators who aim to the sustainable innovation for our future societies, believing that culture is the fundamental element for the sustainable development. The team is constituted by designers and choreographers who explore the relationship between Dance Heritage and Design and strongly believe that the one is able to enhance the other and vice-versa.

The initiative has started by the trend observed, that the projects which occupy with Dance Heritage, bring Design more and more into practice, in order to safeguard and also promote and create Dance Intangible Cultural Heritage. With the technological advancements, Design is not only used for the creation of costumes and sceneries in performances, but it also takes part in the creation of new movement patterns.

At the same time, we observe that the vast digitization, brings designers to the position of deciding in which way people should interact with their digital tools, and therefore the way they are going to move according to them.

DD is trying to engage designers in their new role and develop collaborations in order to design for choreographies and choreograph for designs to create new experiences.

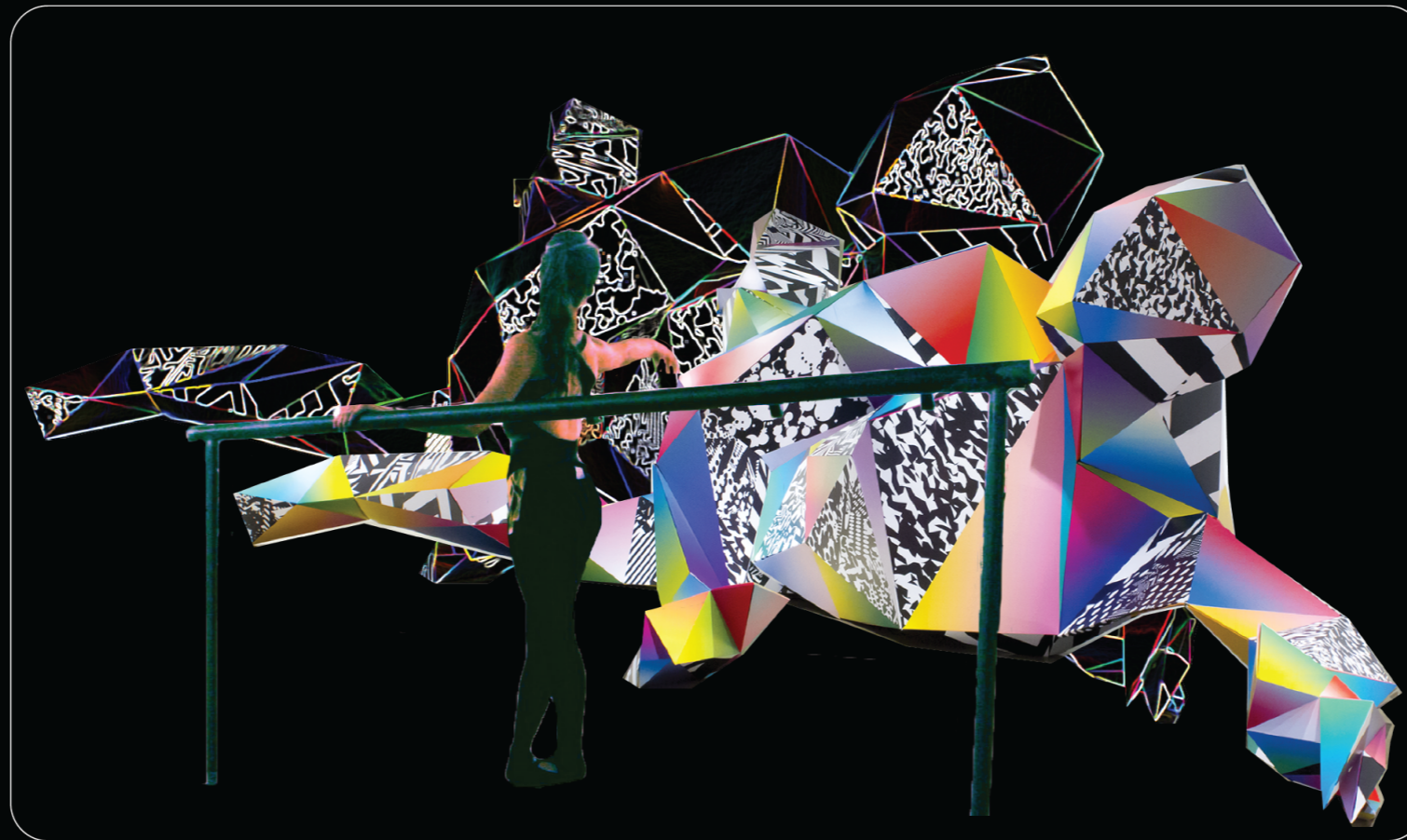


Image 37  
Representation of a tweeter post



**DD team** @Design and Dance Feb 8

Join our first webinar [#DDwebinar](#) Feb 25! Explore how you can design dancing experiences and implement it to your designs. [#DesignyourHeritage](#) [#DancingExperiences](#) [#PromotingCulture](#) [#DigitalEraAwayFromYourCouch](#) [#ExpressWithMovement](#)



### 5.3. Conclusions

The present thesis dissertation is a result of the combination of many factors. The research, due to the lockdown of the COVID-19 pandemic, was conducted only remotely, and therefore many consequent limitations and restrictions defined the final outcome.

To conclude, the research has demonstrated how digitization and current resulting trends, influence and eventually change the notion of Dance Intangible Cultural Heritage. At the same time, it points out the importance of Design in this direction of change, and attempts to create a new context where digital experiences are designed driven by Dance Heritage. This process of designing a design process is called Metadesign, and the action of innovation for Cultural Heritage which emphasises in the “use value” of the heritage is called activation. (Giunta, 2011)

In order to achieve this, the deconstruction of the notion of Dance Heritage was attempted. This initial step concluded in the different ways that Dance Heritage is manifested each time, examining historical elements, and contemporary initiatives. Afterwards, an overview of societal trends and consequently the trends that dominate in the dance world were depicted, to finally conclude to the three basic parameters that constitute Dance Heritage in the contemporary scene. These parameters were a result of the deconstruction of the notion and the main directions that Dance Heritage is starting to take. In order to examine the tensions between these crucial parameters, eleven case studies were selected to be demonstrated that constitute the paradigm of the incorporation of Dance Heritage with technological tools.

The vision of future Dance Heritage was introduced by four scenarios that emerged from the critical tensions highlighted by the case studies. With the realization that the space of dance experience could be either the mind or the body of a person, and the vision of heritage could be characterized either as ultra futuristic or fully nostalgic, the four axis diagram was set and the visions of the future were developed. The visions explored the possible trajectories that Dance Heritage could take, investigating the different notion of Dance Heritage and the resulting dance experience, and also the consequent role of Design.

These scenarios assisted in the formation of a vision closer to the current world's reality. This vision attempts to take advantage of Dance Heritage and its basic parameters in order to incorporate it into the development of the digital tools that surround us. COVID-19 pandemic has accelerated the digitization, and as a result, we realize multiple changes that affect immediately our routines. The way we move is a major element of every human being, and affects the way we feel, think, function, and relate to each other. Therefore, Designers are responsible to take decisions and design digital tools and at the same time influence the way that people move. In other words, Designers eventually create Dance Heritage in contemporary

societies. This Heritage has a high cultural value and belongs to everyone.

Finally, the present thesis attempts to find an effective way in order to initiate the education of designers towards this direction, and proposes the creation of an online community which promotes the collaboration between designers and choreographers, and includes all the material demanded to develop effective tools for future designs.

The massive changes of the pandemic affected every level of reality. Design should stand out and lead society towards a positive and sustainable future. Culture together with Design can make a step together and bring optimism and visions to people despite the hard times we are going through.



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