

TRANSMEDIA COSTUME AS 'SUSTAINABLE' COSTUME? BLENDING PHYSICAL AND VIRTUAL BODILY MATERIALITIES

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Abstract

Combining tangible and digital means in costume design by merging live digital content with traditional costume materials opens new possibilities to create evolving performance dramaturgies and 'unusual' bodies. This article focuses on recent and ongoing explorations from the field of costume design for live and mediated performance that employ a combination of physical and virtual tools to design multi-layered characters and costumes. The study analyses experimental works that address questions of virtuality and materiality through the costumed body. Such works explore in practice ways in which the physical meets the virtual, and how art, body-oriented design, and performance-making merge and juxtapose with digital means through the medium of costume. The combination of analogue materials, digital technology and moving bodies can provide characters and costumes that can change and reshape over time, while also blending physical and virtual bodies. On a theoretical level, the article addresses the many dimensions and multiple 'physicalities' and 'materialities' that such costumes offer to the representation of human and non-/super-/post-human bodies and characters. The analysis suggests that the transmedia dimension embedded in the incorporation of physical and tangible materials with digital elements expands the materiality of the performing body and character and their interrelation through the(ir) costume. This creates a transmateriality resulting from the combination of materials, media and skin, that 'traverses material substrates' as expressed by Whitelaw (2012). The article aims to stimulate discussion on how digital tools may evoke new visions for costume design, and to propose that transmedia costume may carry a sustainability potential.

Keywords: Transmedia, Digital, Costume, Physical, Virtual Bodies, Materiality, Transmateriality

Introduction: costume as a relational and responsive material entity

Costume is a distinctive form of art that exists both as a material product as well as an artistic conceptual outcome. It is linked with bodily actions and representations, while also belonging to sociocultural practice as an integral part of the performing arts. The process of designing costumes contributes significantly to the meaning-making process of performance, not only in shaping characters, but also as a performative act(ion): costume can generate performance and storytelling, as well as experiences with multi-layered interpretations. Costume scholar Donatella Barbieri describes costume as a co-author of "the performance with the performer" (2017, xxii), while also acknowledging that the material costume has an immaterial presence, which is shaped "by the confluence of ideas that may be detected around its making, as well as those that are refracted through its performance" (2017, xxiii). The costumed body, therefore, is a compound entity that is concurrently physical and material, visual and spatial (three-dimensional), as well as immaterial and conceptual – and it carries synchronously more than one of these features.

There is an interrelating connection between concept creation and materialisation, which is essential in creating characters and narratives in performance. Costume provides a theoretical as well as practical system which "offers diverse options to elaborate on new conceptions of power, knowledge and representation" (Pantouvaki, Fossheim & Suurla 2021: 201) as well as context for material explorations. Storytelling plays an important role for the integration of new materials and technologies in costume design in relation to the bodily dimension in ways that are essential for both performers and audience. In the creative process of designing costumes, often, "the intention is to open up an experience through the construction of a poetics, with potential impact upon the imagination, sensibility, and expression of those who read it"

(Kozel 2007, 181). To achieve this, it is important to further explore costume's relational and responsive material agency.

This paper analyses expanded approaches to the materiality of the body through costume. More specifically, it researches the changing notions of materiality that are produced by the costumed body when digital technologies are employed in a combined way with tangible materials. The application of digital technologies in contemporary live performance intensifies the potential of costume to challenge the representation of the performing body and its material dimension(s). The focus of this study lies on the dynamic possibilities that costume provides to the body of the performer within a given performance narrative. The creative, conceptual, and material process of costume designing offers advanced options for concept development and storytelling in expressive and emotionally engaging modes especially because character is understood through embodied experience. Starting from the idea that "the biological body is itself under renovation, producing [...] a further meshing of the inside and the outside in new and viscous combinations of 'natural' attitude" (Thrift 2005, 246), I am interested in challenging the representation of the physical, biological body as a complex material entity. This allows to investigate bodily interpretations through visual design and specifically through new combinations of materials and technologies integrally in costume and the body, and not as a spatial background. The interest of this work is therefore in the yet unexplored potential of breaking, or blending, the material boundaries of the body through the process and possibilities of costuming. This discussion also aims at expanding the discourse on the potential of these combined means to offer sustainable costume design means.

Hence, this article investigates the possibilities of digital and virtual elements when combined and juxtaposed with analogue and tangible materials as starting points for new ideas through the lens of costume. In doing so, it aims to propose a radical revision of concepts, narratives, material and design

approaches to the representation of the body in performance. In such an approach, the physical body meets the virtual and merges with it, creating a transmedia and transmaterial costume, which is, at the same time, proposed as a new form of sustainable costume.

A changing costume materiality

Costume design is at the heart of performance making as a process for understanding, interpreting, and proposing characters. Customarily, it regards the representation of the human element in diverse contexts, as well as non-human characters (e.g. animals). However, designing costume involves broader questioning and reproposing; it involves a process of critical thinking,¹ which in turn requires examining the relationships between people –human beings– but also their interrelations to non-human or more-than-human actors around them.

Costume for performance has traditionally relied on well-known tangible materials, such as different types of fabrics and leather. This longstanding tradition has radically changed in the past one hundred years, when materials not previously used for costumes – such as paper, porcelain, found objects, and even ice, plants, and smoke (Pantouvaki 2015; 2019; 2020b; Pantouvaki, Fosshiem & Suurla 2021) – were introduced for the realisation of performance costumes. So, today costume has been liberated from conventional resources, as new types of materials, techniques and technologies are increasingly used in its creation.

In the 21st century, the materiality of costume is continuously expanded. Digital technologies offer new means that can be developed as 'materials' for costume. Still projected images

and/or audio-visual projection narratives are among the most popular contemporary digital applications in the field of costume. For example, choreographer Tero Saarinen's production *Hunt*, premiered in 2002 and based on Stravinsky's *The Rite of Spring*, premiered featured costumes designed by Finnish costume designer Erika Turunen consisting of white nylon forms on which moving images by multimedia artist Marita Liulia were projected. These projections enriched the performance with an embodied visual narrative that originally expressed "the mind and inner conflicts of a person being sacrificed and of the person who offers himself for sacrifice", according to the choreographer (Saarinen 2007, 11). This parallel and juxtaposed virtual narrative level was enabled by the digital projection which, at the same time, addressed "the effects of technological advances and the continuous flood of information that bombards us" (Saarinen Company 2022, n.p.).²

Hungarian costume designer Fruzsina Nagy has also used projection of her own drawings or paintings, or just photographs on white surfaces of physical costumes in theatre productions since the early 2000's, developing 'projected costumes' by using simple digital projection or, later on, 3D body mapping. The Catalan-Venezuelan multidisciplinary performance artist and costume designer Mariaelena Roqué has projected multiple still and moving images of her own work upon her naked body in a "costume in progress" that embodies herself, "dressed-undressed", in a conceptual synthesis of her works titled *DonaUllsDonaUll* created in 2011 and performed many times since. The projections indicate her intimate "inner-outer/outer-inner" connections to her work, where "the woman creator becomes axis and screen of her creations". In this project, Roqué considers herself "a primitive Venus of today in a contemporary artform, thanks to the 3D mapping technique" performing her "own repertory of images accompanied by sounds,

1 For further discussion on costume as a conceptual process and a means to think critically, see the articulation of the concept of *costume thinking* in Pantouvaki (2020a) and Pantouvaki, Fosshiem & Suurla (2021).

2 Images from the re-staging of the production *Hunt* in 2022 can be seen at the Tero Saarinen company's dedicated webpage: <https://tero-saarinen.com/en/creation/hunt/>.

experimenting altogether once again".³ This work offers us a poetic visual journey across the artist's career through an audio-visual narrative projected and thus embodied on the artist's own body used as a canvas (Fig. 1).

Another exciting example is the innovative production of *The Magic Flute* conceived by the co-Artistic Directors Paul Barritt and Suzanne Andrade of the '1927' theatre company, interested in merging animation and live performance, in collaboration with Barrie Kosky, Artistic Director of The Komische Oper, and launched in 2012 in Berlin. This opera production became famous worldwide for its fairy-tale universe containing distinctive references ranging from Buster Keaton and German cabaret to British humour and Terry Gilliam, as well as projected animation as part of the stage scenery and costumes. The digital projection of the animations enabled the roles of The Child-spirits (a.k.a. The Boys) to be represented as non-human, flying fireflies – a bodily representation that would not have been possible with traditional costume materials. Also, the Queen of the Night appears high up the stage in a white surface costume onto which a spider-like skeleton animation is projected, until the spider legs expand onto the entire stage. Although the singer is largely static, the body and costume are animated, adding considerable dimension to the character in a way at times intriguing or humorous.⁴ This constitutes to date one of the most interesting examples of large-scale opera production using digital projection in relation to costume, body representation and dramaturgy.

These examples employ a combination of physical and digital tools for the design of multi-layered bodies and costumes. They provide characters in which the physical meets the virtual and they produce bodies that are intimate, dialogic, surreal or super-human. These lead to the core questions of this paper:

- What kind of artistic and expressive features does costume carry, afford and evoke when using digital technologies?
- Can the performer's body, and the characters, be represented as partly 'tangible' and partly 'intangible'?
- In what ways do costumes employing digital means provide new possibilities for bodily representation? How do they produce innovative characters and 'unusual' bodies?



Fig. 1 *DonaUllsDonaUlls* (2014) by performance artist and designer Mariaelena Roqué. © concept and images Mariaelena Roqué; © photo Joan Gil (LANAU 2014) (published with artist's permission).

³ Interview of Mariaelena Roqué with the author, 4 December 2022.

⁴ Both character examples mentioned here – the Boys and the Queen of the Night – can be seen in the production's trailer available at the 1927's website: <https://www.19-27.co.uk/the-magic-flute>.

To further investigate these questions, the study focuses on digital software and green screen technology, a widespread visual effects (VFX) method that involves layering (compositing) two images or video streams on one screen. The result of such mixing can be shown (e.g. project) in a physical three-dimensional environment. Green-screen digital technologies have been known for several decades but they have been mainly used for the creation of virtual scenography with the addition of a digital background, especially on cinematic and televisual applications to create virtual sets. One can think of the weather presenter standing in front of a green screen: Chroma-Key uses digital technology to replace the green background with a weather map. This provides a layered background and the presenter should not wear anything green similar to the colour of the screen background, because the software would make that body part disappear.⁵ This restriction is well-known to costume designers, especially when working in areas of professional practice where costume is mediated, for example, in television programmes, in films, or commercials. Costume designers are customarily constrained to take into consideration the effect of the green screen technology when designing costumes; thus, they are expected to avoid the use of green colour to prevent the 'dissolving' of the performer's body in the background, as in the example of the weather forecast. But - What if one *intends* to make part of the body 'disappear'? This would enable a new opportunity to complement the performer's body with a virtual part.

Such an approach opens a novel perspective in designing (for) the performing body beyond the limits of the dichotomy of physical vs. virtual, or material vs. immaterial, by proposing a layering of these dimensions. The use of analogue and digital means in such a juxtaposed way leads to a combination of multiple 'physicalities' and 'materialities' of costume: tangible and intangible, material and immaterial, physical and virtual,

all present at once. This results in the creation of a transmedia costume – a costume that exists and performs simultaneously in many dimensions combining the physical and the mediated. In his essay 'Transmateriality: Presence Aesthetics and the Media Arts', Whitelaw (2012, 229) suggests to "bracket the [informational or] immaterial illusion, in favour of the material". Whitelaw offers a useful description of the concept of 'transmateriality' as "a sketch of an alternative view in which both media technologies and their content are present with us" (2012, 232). The notion of transmateriality provides a framework for experimentation with digital media technologies as part of costume creation through diverse media, thus producing a transmedia costume. Blending digital and virtual technologies with physical, analogue and tangible materials *on* and *through* the performer's body suggests new ways to rethink body and costume in performance beyond conventional dualisms.

Body manipulation and costume: transmedia experimentation with the body

Experimentation with the body is certainly not new to the field of costume design. At the turn of the 21st century, the interest in body manipulation concentrates on the deconstruction of the body. Berlin-based dance-maker/choreographer Sasha Waltz took the body itself as her subject in *Körper* (2000), a project celebrated for its compelling imagery and body-focused choreography. Waltz later worked further on this topic also in the production *noBody* (2002), in which the subject of how we can live without a body is described, and where – in Waltz's words – "living beings merge together with a lifeless one" (quoted in Farnham 2020, n.p.). The Greek choreographer and performance designer Dimitris Papaioannou has paid tribute to Waltz's influential work by responding creatively to it, particularly with his productions *Still Life* (2014), *The Great Tamer* (2017) and *Transverse Orientation* (2021), in

5 See for example unsuccessful examples of weather forecast presenters (Cockerton 2012) or humorous use of this effect on purpose (Bruner 2017; Gordon 2014).

each of which different body parts assemble to create new performing bodies.⁶ However, all of these body-related experimentations are based on analogue solutions using black fabric to cover parts of the body and "reassemble" it. They remind of the Japanese puppet theatre tradition of Bunraku, in which the puppeteer performs in full view of the audience but is considered 'hidden' by wearing black robes. The artistic idea – to manipulate how bodies are represented – is clear, but the lack of appropriate means reveals that the distortion and merging of bodies in these productions relies on visual illusion and audience perception, but the actual body of the performer can still be fully seen.

This is where digital media emerges as a tool able to create alternative material patterns for the performing body. Digital technology can be used to design thought-provoking representations of the performing body and to envision 'unusual' bodies through the means of costume. As exemplified here, green screen is such a tool, able to incite bodily manipulation and to construct a 'new' body through a transmedia costume.

An early relevant paradigm that combined human body, garment design and blue-screen technology comes from the field of fashion.⁷ The Autumn-Winter 2002 collection by the Dutch fashion designers Viktor & Rolf, named 'Long Live the Immaterial', presented a series of garments that interacted with blue-screen technology on the catwalk. The collection featured parts painted in chroma-key blue, the blue-screen background colour; when layered digitally with blue-screen technology and projected in the background, the blue parts of the garments blended with footage of nature and cityscapes, creating a vivid visual narrative on the models' bodies. These

audio-visual materials became a live and moving surface pattern for the garments.⁸ Although the specific example was limited to visual effect, it provided good evidence of the possibilities that the layering of physical materials and digital media can provide to a creative process involving bodily design; it is still relevant today for further experimentation. Also, the synchronous presence of the models on the catwalk while their filmed and 'chroma keyed' selves were projected as a live feed on the background created the effect of coexistence of the live and the mediated bodies. Yet, this precedent project did not address, neither affect the bodies as entities, as the juxtaposition remained on the surface of the garments creating an alternative exterior visual pattern.

Very few examples are known from the field of costume design in relation to blue or green screen technology intentionally used to manipulate costume and performers' bodies for live performance. Costume designer Fruzsina Nagy has experimented with blue box, by chroma keying out body parts painted in blue colour directly on the performer's skin, allowing the audience to "look inside" the body of an actress in the production *PestiEsti* in 2007. The actress would paint herself with blue body paint, first imitating to cut herself, then spreading the paint with her hands on her half-naked body, and finally cleaning it with baby wipes. A cameraman recorded live her painted body while another live camera recorded some old photographs: through a video mixer, these personal photographs would be keyed into the blue painted body parts and thus shown as embedded in the performer's body, with the result projected live on a big screen on stage (Fig. 2). The effect was "amazing, like if we could look into her soul", according to Nagy.⁹ This example foregrounds the use of blue

6 For more details and images of Papaioannou's work, see his website: <https://www.dimitrispapaioannou.com/en/>.

7 Blue screen had preceded green-screen in colour keying (chroma key compositing) during post-production, but as blue clothing is more common than green, green screen would entail less challenges and thus became more popular.

8 The related runway is fully available online: https://www.youtube.com/watch?v=rkRnC6RHGdk&ab_channel=Viktor%26Rolf as well as a series of still photographs: <https://www.vogue.com/fashion-shows/fall-2002-ready-to-wear/viktor-rolf/slideshow/collection#18>.

9 Interview of Fruzsina Nagy with the author, 5 March 2019.

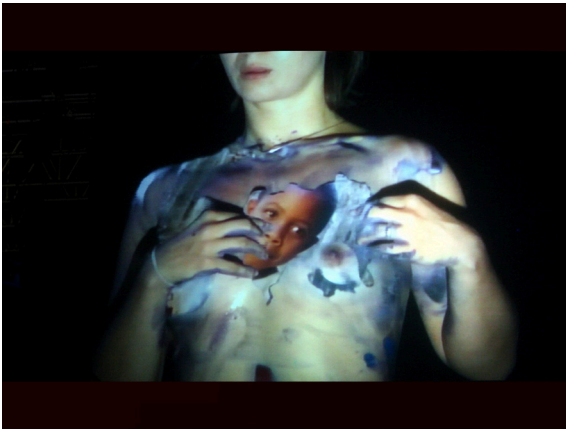


Fig. 2 Production still of video projection from *PestiEsti* (2007), Krétakör Theater. Actress Annamária Láng; Costume designer Fruzsina Nagy (published with artist's permission).

screen in relation to body painting and makeup, as a part of designing costume. The notion of costume here transcends the traditional tangible garment and affects substantially the representation of the performer's body, demonstrating that costume can obtain an expanded role.

However, the potential of engaging this digital technology to produce 'new' bodies that would be depicted as partly physical and partly virtual, deconstructed, fragmented, dissolved, and possibly merged, has not yet been fully explored from the perspective of costume design. To examine further and more systematically the potential of green screen technology in relation to storytelling, bodies and costumes, I have organized at Aalto University a series of research-oriented, explorative workshops focused on the juxtaposition and blending of tangible and digital materials. The aim of these explorations has been to identify how the layering enabled by green screen can inspire new visual and sensory narratives; and importantly, to discover what kind of new materialities and transmaterialities emerge.

The first experimental workshop was organized in 2015 under the umbrella title 'Digital Character Design' and was co-moderated by costume designer Simona Rybáková and digital scenographer Tanja Bastamow. It used as a starting point the challenge to investigate the potential of dissolving bodies. Starting from the very basics of green screen for costume designers, the work built on discussions and numerous tests with materials. The experimentation involved the combination of physical materials (fabrics and tangible objects) with digital images and developed through hands-on work with green-screen technology in a studio space. The preliminary results from this workshop consist of design proposals for characters from Antoine de Saint-Exupéry's *The Little Prince*; this laboratory work produced unconventional characters that combine physical bodies and digital parts (Figures 3 and 4). These sample characters provided preliminary conceptual findings and served as pilot research materials, documented in still pictures, demonstrating the central idea that the blending of physical and virtual bodies offers multi-layered characters and transmedia costumes.

Theatre scholar Aoife Monks (2010, 12) notes that bodies produced by costuming, "are bodies that are unstable, unreliable and occasionally disconcerting". The complex set of shifting relations between physicality and virtuality, enabled through costume, is exactly what this costume-led research investigates through technologies that provide innovative expressive means and options for conceptual interpretations.

I intended to develop this exploration further, working towards conceptualising, designing and realising costumes for characters who can change, dissolve and reshape *over time*, thus intensifying on a temporal level the combination of analogue materials, digital technology and moving bodies. The next exploratory workshop, organized in 2019, was facilitated by Fruzsina Nagy, who carried prior experience on the use of blue screen in relation to performers' bodies. This workshop



Fig. 3 and 4 Digital Character Design: *The Little Prince* (2015). Preliminary testing. © Aalto University.

was held under the umbrella title 'Virtual Space and Body' and drew inspiration from Hans Christian Andersen's *The Nightingale*. The use of a classic literary source in both workshops served the purpose of exploring storytelling via a layering of digital and physical content. The focus of both was on creative artistic work; and a low-key approach to technology was applied.

In this second workshop, green body paint was introduced and blended with digital images and video content in a green-box environment. This material combination led to a further manipulation of body surfaces, as the body paint was applied directly on the skin of the physical bodies. One of the sample projects developed in this workshop focused on the visual and digital manipulation of faces, and investigated the concept of a dissolving face, disappearing and being replaced by another face. This resulted in a layering of faces

from different physical and digital bodies: from a still digital face of a geisha to the face of performer one, which then dissolves to reveal the face of performer two (Fig. 5 – a, b, c, d). This layering did not happen solely by digital mixing and juxtaposition, but also through the performers' live action, manually adding or removing the green body paint, and thus shifting the surface for the chroma keying. In this series of tests, body painting and makeup, as parts of costume design, exemplified how the blending of physical and digital materials expands the boundaries of the performers' bodies – here, the faces – constructing a 'new' body with combined physical/digital qualities and more-than-one layers.

Chronologically, these material explorations met with a large-scale attempt to use the possibilities offered by the green screen technology in a live broadcast event: the Greek participation in the Eurovision 2021 Song Contest. The staging of



Fig. 5 (a, b, c, d) Virtual Space and Body: *Layering of Faces* (2019). Preliminary testing. © Aalto University.

the song 'Last Dance', conceived by Greek stage director and choreographer Fokas Evangelinos, involved dancers dressed in green bodysuits which would 'chroma key out' their bodies, or parts thereof, allowing only their white costume items to be seen on the television screen. In the beginning of the song, 'bodiless' single dancing garments are seen – a jacket with a cap, a pair of trousers or a hoodie – all 'empty' of the performers' physical bodies which disappeared in the keying of the green screen. The audience in the live hall was able to see the performers' physical bodies dressed in green. The television audience, on the other hand, only saw partial performing bodies, indicated by "bodiless costumes" – costumes worn by invisible bodies – dancing in front of (a green screen showing) filmed cityscapes. In the second verse of the song, the singer, Stefania, walks up a flight of stairs accompanied by four dancers whose bodies, dressed head to toe including the faces in a green bodysuit, are fully invisible. This gave the impression of bodily absence, in other words, of costumes dancing while the human bodies had 'disappeared' (Fig. 6). This staging entailed a high risk of failure due to the synchronous performance live on stage in the arena for the in-person audience and at the same time mediated through the camera and the green screen keying for the television audience (Fig. 7).¹⁰ The technical risk was due to the stage lights, which

created shadows on the dancers' moving bodies, impossible to fully control in order to have a perfect green screen layering. Although the final effect had some inevitable flaws caused by small shadows from the live stage lighting, the result was spectacular on screen, while also offering a very different visual experience to the two audiences it addressed.

In April-May 2022, I organized a third exploratory workshop at Aalto University tutored in collaboration with media artist Marikki Hakola, under the umbrella title 'Character Design and Virtual Materiality'. The stimulus provided this time was Italo Kalvino's *Invisible Cities* (1974), a text that does not deal with recognizable cities, but invented cities bearing women's names and inviting to 'a reflection which holds good for all cities or for the city in general' (Kalvino 2004). The workshop participants were invited to respond to the question: 'What is the city today?' reflecting on the urban city as a metaphor, as a potential utopian or dystopian world. They were invited to envision possible inhabitants of a city, or to personify cities and spaces as 'characters'. The aim also here was to combine digital tools and physical bodies, and to mix live digital elements with traditional costume materials in order to create an evolving dramaturgy. Hakola's interest in new concepts and possibilities of virtual action space

10 A pair of screenshots that compare the live in-person audience view with the mediated television audience view can also be found by clicking on section "10. GREECE: STEFANIA – LAST DANCE – 170 POINTS" here: <https://www.gofugyourself.com/featured/eurovision-2021-italy-won-and-wants-you-to-know-they-absolutely-were-not-blowing-rails>. Clips that juxtapose these two viewing experiences can also be found on YouTube, see: "Stefania - Last Dance (Greece) - Behind the Scenes - Eurovision 2021" here: https://www.youtube.com/watch?v=gJ6D57ip-PEI&ab_channel=Archidibus2; and also "Stefania – Greece Eurovision 2021 grand final – green screen on TV vs. real life" here: https://www.youtube.com/watch?v=lqK9eft08bk&ab_channel=wiwibloggs.



Fig. 6 'Last Dance', Stefania, Greece, ESC 2021 second rehearsal, Amsterdam Ahoy, 13 May 2021, © EBU/Andres Putting.

and cinematic interaction as an essential part of it was also influential in this workshop. Moreover, another conscious focus was added to this exploration: to reflect on the dimensions, 'physicalities' and materialities that the *Invisible Cities* characters may have.

One of the projects developed in this workshop drew inspiration from the cities of Moriana, Irene and Zoe, which depict, for Calvino, similar topics: they seem to be cities whose identities rely heavily on the imagination or the opinion of their visitors, thus could be represented as "cities of the mind". The creator of this project, scenographer Federica



Fig. 7 'Last Dance', Stefania, Greece, ESC 2021. Comparison of live vs. mediated view, screenshots by Heather, blog 'GoFugYourself'.

Galli (2022) explains that she intended to rely heavily on the concept of the mind and to explore how to represent it using green screen. Eventually, the conceptualization of the mind took the form of a small ball that could fit inside a head (Fig. 8), representing "the inner surrealistic world that is our thoughts" (Galli, 2022, 6).

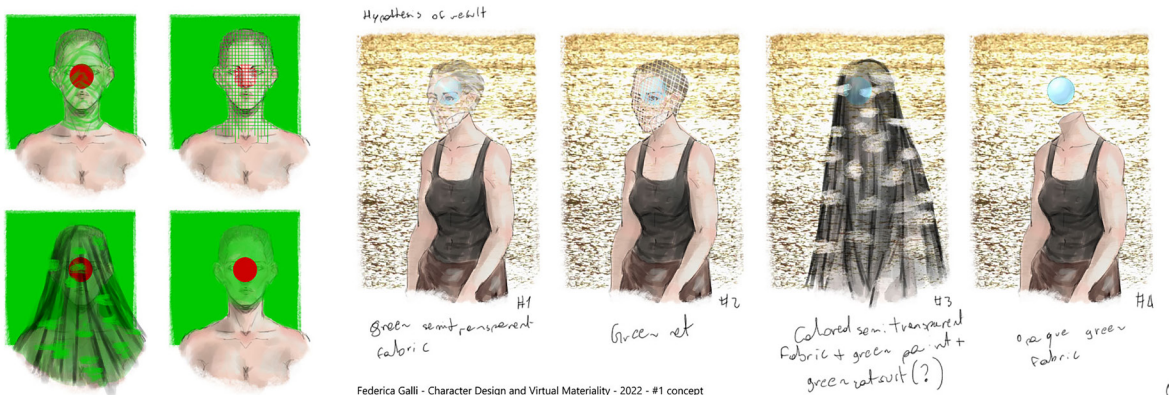


Fig. 8 *Invisible Cities: Moriana, Irene, Zoe* (2022). Concept and design: Federica Galli, preliminary concept. © Federica Galli.

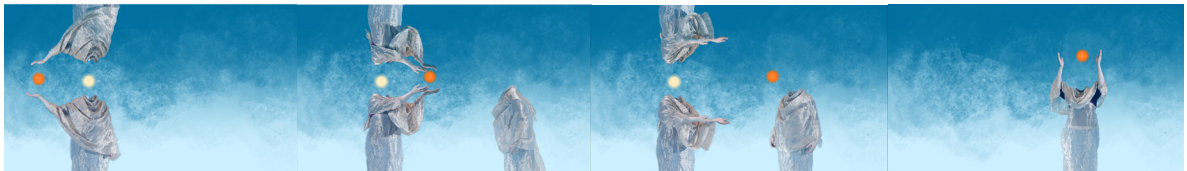


Fig. 9 (a, b, c, d) *Invisible Cities: Moriana, Irene, Zoe* (2022). Concept and design: Federica Galli, video stills. © Federica Galli & Aalto University.

Galli further remarks on this project:

The idea is to show a relation between minds, a transference of information and ideas, a metaphorical birth of a new dimension of unlimited possibilities. The first [headless] figure passes the new mind to the second one, who has to decide what to do with it. It [eventually] rejects the ball (Galli, 2022, p. 6).

The video shows the physical, if abstract, representation of the mind, through the use of a small ball – the only element added in the editing phase (Fig. 9 – a, b, c, d). “Rejecting the ball doesn’t imply that the symbolism of the head and the mind is lost”, notes Galli (2022, 10); detaching the ‘mind’ from the body “still heavily refers to it as a head even if the body then leaves it behind”.

Another project developed in this exploratory workshop builds on the concept of “dreams as cities and cities as dreams” where life can be seen as “traveling from one dream to another” (Korhonen 2022). Here, the proposed citizen called “*yksin kanssani*” (“alone with me”) is a free traveller. The creator of this concept, costume designer Meme Korhonen (2022, 1), observes:

Future, past and present do not exist for them. They can travel freely through their own time. Imagining and remembering something for them is not different from experiencing it. They are a serpentine streamer fluttering open, unravelling in a sudden blast of air. But unlike blowing a piece of serpentine that takes a

few seconds from start to finish, ‘*yksin kanssani*’ can unravel and wrap back up in different ways forever.

This character was created by a combination of several artistic fields (writing, directing, costume creation, performance, filming, video editing and creating a soundscape) that expanded the costume designer role to that of a multi-disciplinary author/creator. The idea evolved naturally with every step, “circling closer and closer back to the *Invisible Cities*”, in Korhonen’s words. The outcome – the character – evolves from breaking the barriers to one’s “past and future selves and conversing with them”. Korhonen (2022) concludes: “To me the piece is about finding comfort in your existence as a being who can remember and imagine”.

Concluding thoughts: what are the possibilities of a transmedia costume?

The examples analysed here indicate that costume design is able to contribute to an expanded representation of the performing body through its processes of conceptualisation and materialisation. These processes of costume creation offer an important site as well as a method to research as they involve critical thinking and conceptualization of ‘new’ bodies. To that direction, the combination of tangible and intangible materials, including digital and audio-visual materials, enables novel approaches to design the body in performance, blending physical and virtual bodily materialities that emerge in the transgression from the physical to the digital and vice versa. This amalgamation of the physical and digital elements offers to costume design a transmedia dimension.



Fig. 10 *Invisible Cities: yksin kanssani (alone with me)* (2022). Concept and design: Meme Korhonen, video still. © Meme Korhonen & Aalto University.

The combined use of analogue materials, digital technology and moving bodies through body-oriented design and craft in a free performance-making process formulates a transmedia costume of unlimited possibilities. The costumed body acts in particular ways in a given time, space and context, and determines how characters are presented and how they interact within this specific spatial, temporal and dramaturgical transmedia performative context. This context expands the notion of materiality for the performing body and character through the(ir) costume. It produces a materiality of media and skin, that transcends the conventional notions of bodily or costume materiality, creating patterns that “can traverse material substrates, as the embodied is dynamically reembodyed” (Whitelaw 2012, 223). Hence a transmedia costume aims to challenge the representation of the performing body by expanding its biological boundaries. It creates a transmateriality which has the potential to expand, compress, dissolve or fragment the depicted body, beyond any a priori convention or currently established boundaries. Thus, when the elements of a costume transcend diverse dimensions and media, then the costume that is produced is not merely a ‘digital costume’, but one that is communicated through more than one medium and combines more than one material dimensions; it is concurrently transmedial and transmaterial.

Understanding costume design as a critical tool (Pantouvaki 2020a) evokes

new performance narratives and cultural landscapes to be thought of and created, pushing the boundaries of wider philosophical understandings and innovations that carry the potential to influence the future making of performance as well as broader, environmentally-aware cultural and societal contexts (Pantouvaki, Fossheim & Suurla 2021, 214-215).

The space of this article does not allow an extensive discussion on the potential of a transmedia costume as sustainable costume. For this, the aim of the article has been primarily to introduce the concept of transmedia costume and to frame the notion of transmateriality in relation to the costumed body in performance. Expanding the range of costume design to a transmedia dimension not only offers pioneering creative narratives and representations but also proposes a sustainable ecosystem of performance making. Formalising a critical and ecologically-sensitized understanding of costume materiality has been at the core of my current work (Pantouvaki, Fossheim & Suurla 2021). Technology-based materials and tools need to be further explored in order to expand this potential of costume design towards innovative visual, sensorial and ecological spatiotemporal and sociocultural identities of performing bodies. Therefore, this article further aims to stimulate debate and reflection on future developments of transmedia and transmaterial costumes that will challenge the representation of bodily materiality while also propose a sustainable paradigm shift that might interest all areas of live and mediated performance, and beyond.

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