



PERIPHERAL OSTOSIS

BOOK

Maritta Nemsadze

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A Future Exoskeleton To Facilitate Our Relationship With Technology

MA Material Futures

University Of The Arts London
Central Saint Martins

2016

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Can Garment Perform As A Narrative To Emphasise The Behavior Of Millennials In A Smartphone Dominant Age?

The mobile phone has become a necessary tool in our daily lives. However, despite the fact that it is an extraordinarily useful tool, excessive use, especially among adolescents, has not only changed the way we interact with the environment around us, but is also changing us physically.

With the advancement of applications and the widespread introduction of web-enabled handsets, we have also seen the emergence of a new 'always-on' generation. For these new Millennials, the mobile phone is seen less as a secondary device, but rather a physical extension of their body. For many, the absence of their mobile phone evokes strong phantom limb sensations and feelings of vulnerability.

By highlighting these behavioural and physical trends, it is intended that these 'Exoskeleton' garments will illustrate how our physical bodies are moulding around contemporary technologies and cause us to question the long term impact such devices will have on our neurological and physiological selves.

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IN RESPONSE
TO
TECHNOLOGY



DEFORMATION OF LITTLE FINGER

Heavy smartphone users are at risk of injuring or deforming their little finger as a result of it being most used finger in supporting the smartphone's weight, while holding it in either, or both hands. Excessive use of mobile phones may cause the finger deformation and can even lead to early Stage of Osteoarthritis



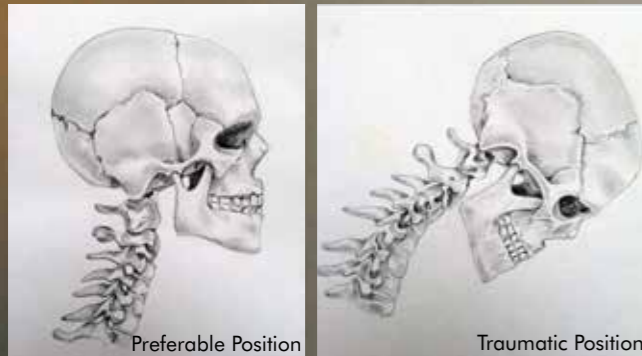
when using the phone, the Flexion muscles in hands become extremely tensed, while the Extension muscles become looser. This may cause some discomfort and if not treated on time, person can develop the finger movement disorder. Further studies are currently held in America and Japan regarding the possible finger deformation effects caused by Smartphone overuse.



Expert: 'Anya Nuttall,
Traumatolog specialist,
University College
Hospital, London'

NECK BONE DEFORMATION AND CERVICAL CURVATURE LOSS

According to the research carried out by Kaiser Family Foundation, the amount of the people suffering from neck pain is increasing rapidly due to the excessive use of mobile phones. Neck bone deformation can be caused by constant looking down on mobile devices, especially when individuals have their heads bent by 60 degrees for a long period of time, it puts more than 30 kilos of pressure to collar bones and first column of the chest bone.



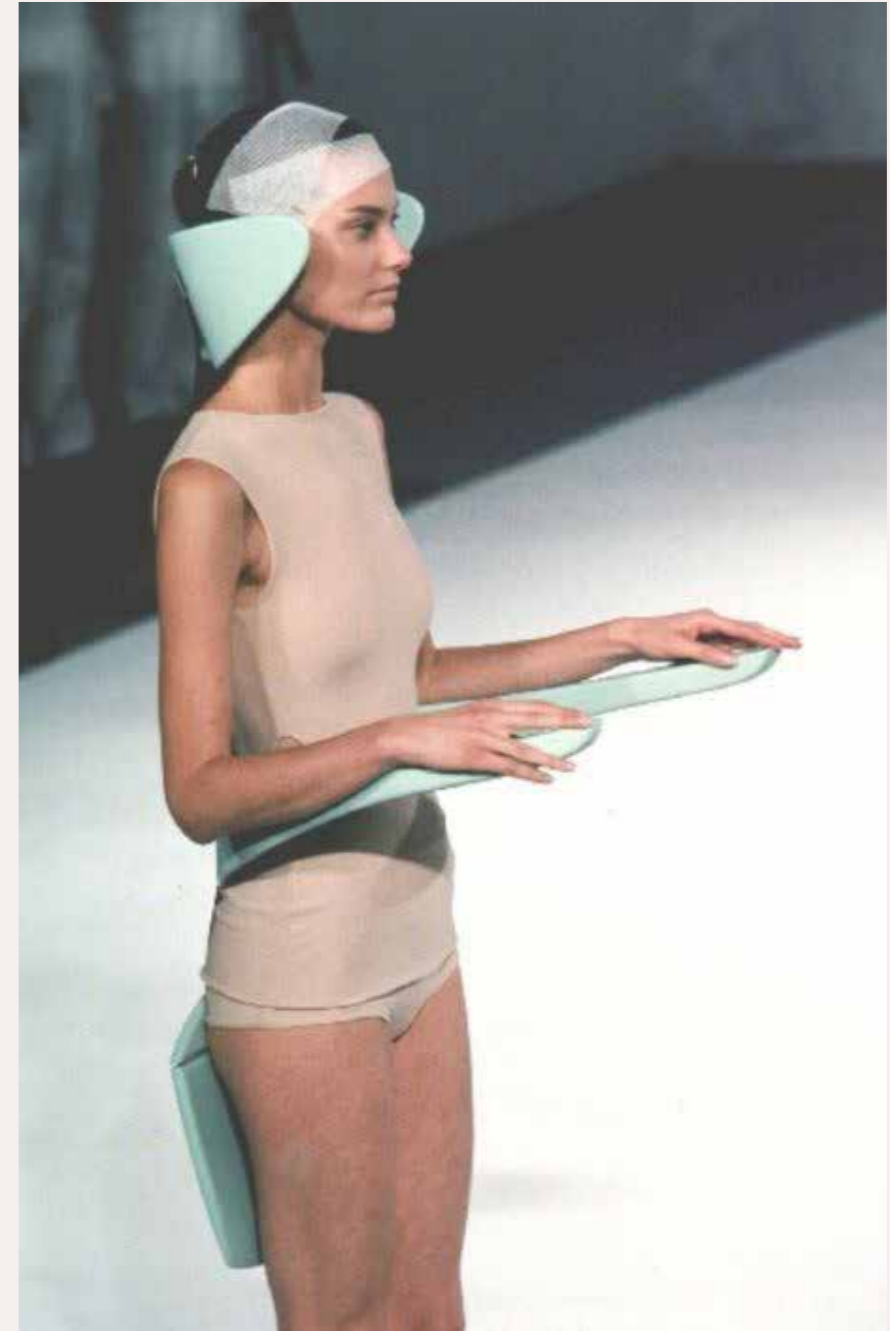
The visible changes in heavy smartphone user's physiognomy are cervical curvature loss and forward head syndrome. Long-term excessive use of smartphone and mobile devices may rise the risk of spine deformation and neck bone column damage.

Expert: 'Nugzar Saralidze, Rheumatology specialist, CYTO, Central Institute of Traumatology and Orthopedics of N. N. Prirov, Moscow'

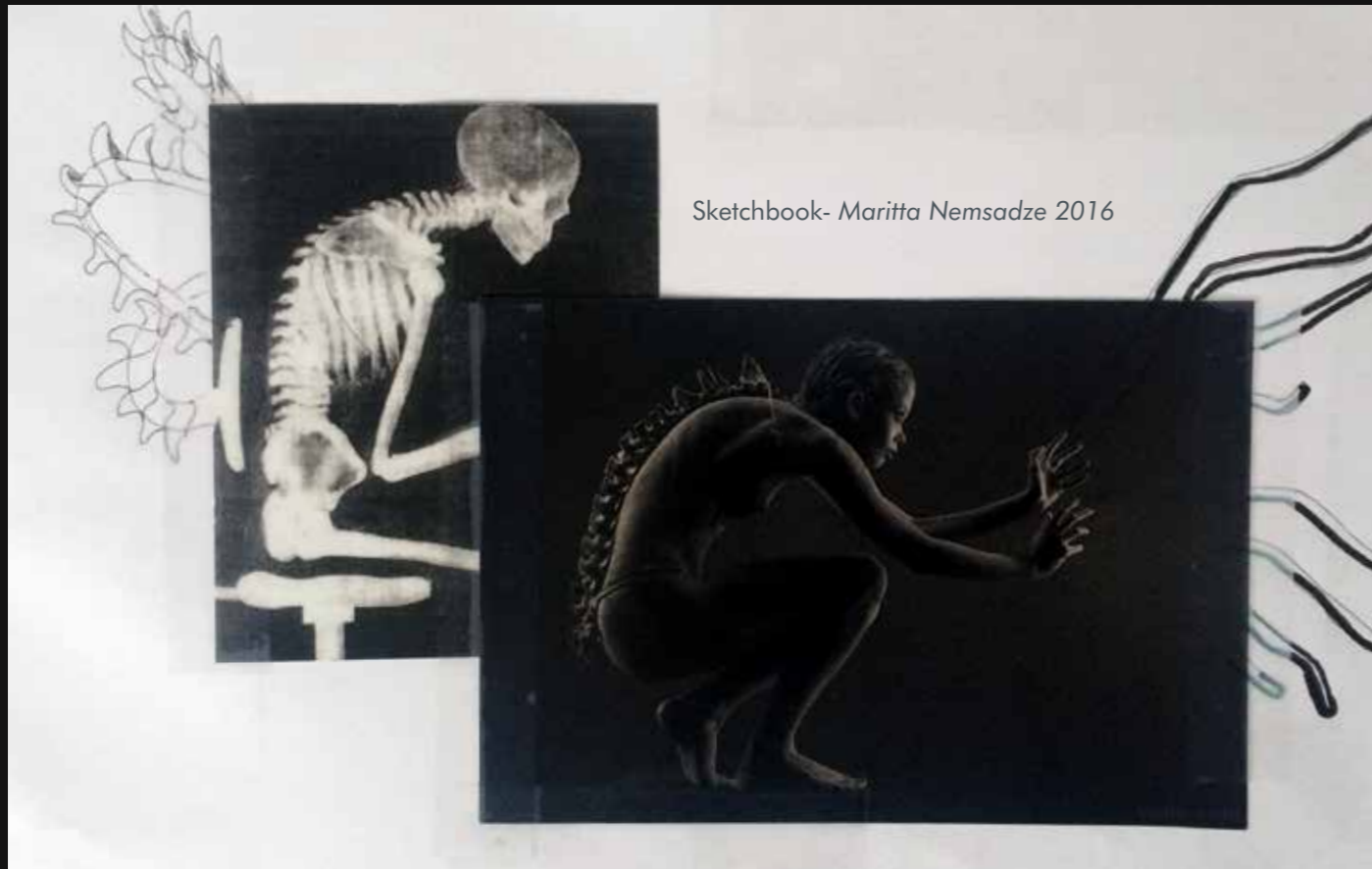


'Cervical Curve loss and forward head Syndrome'
A visual demonstration of the alteration of the human skeletal structure in response to the modern technology.

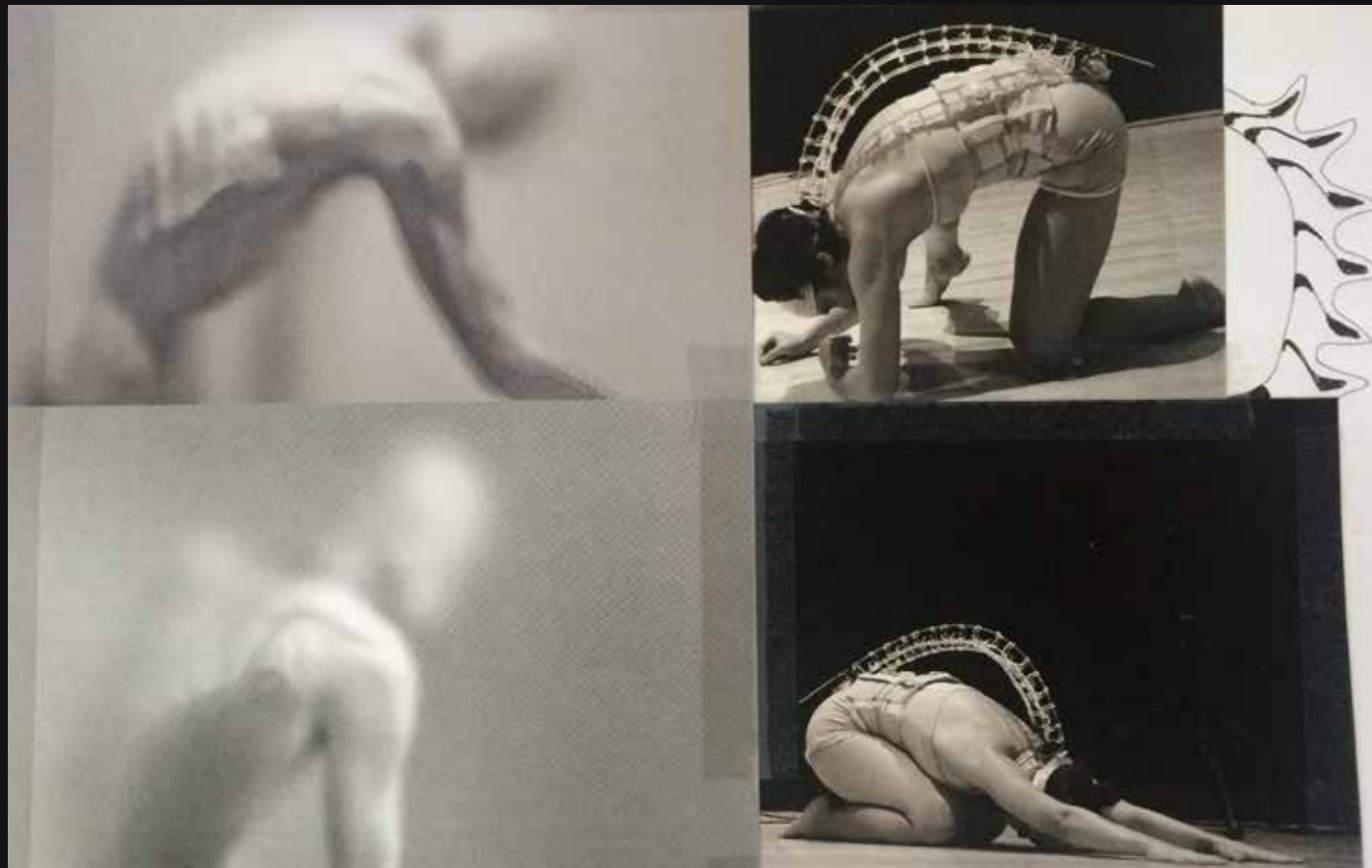
INSPIRATION



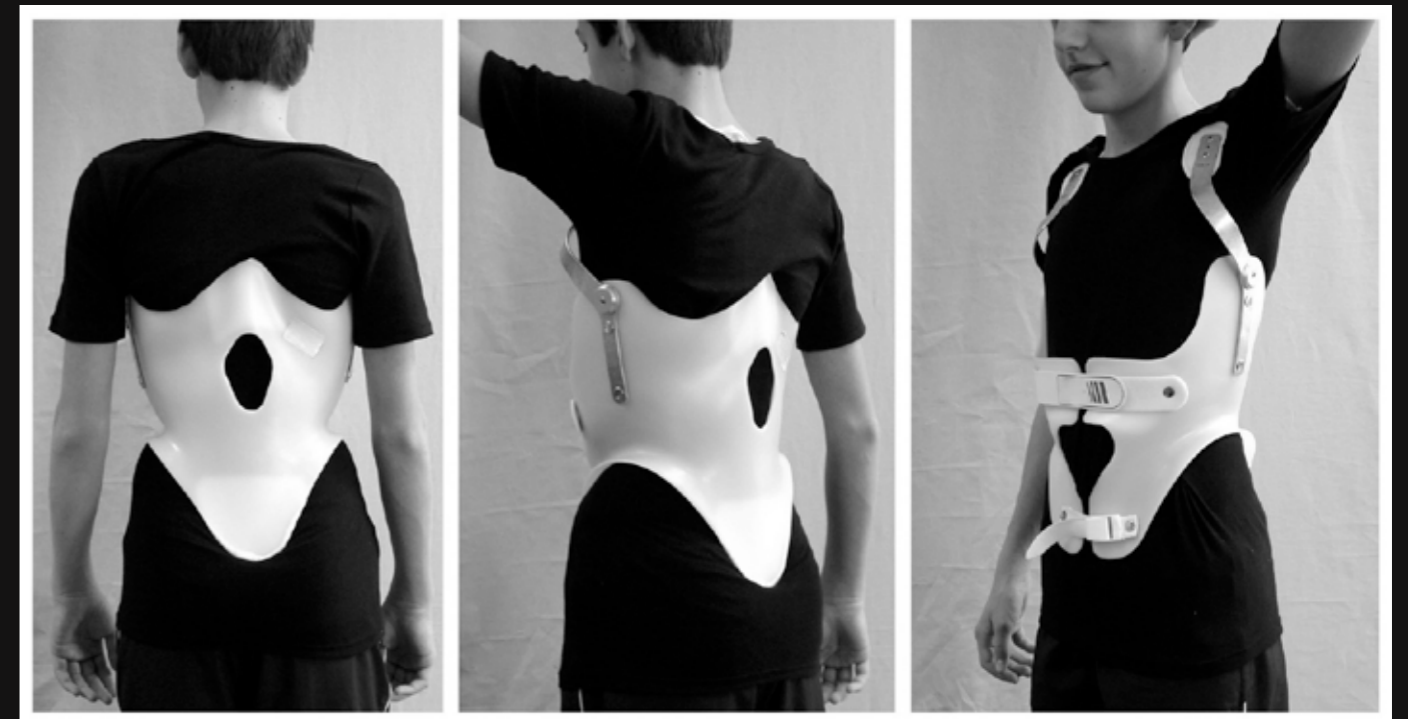
Hussein Chalayan s/s 1999



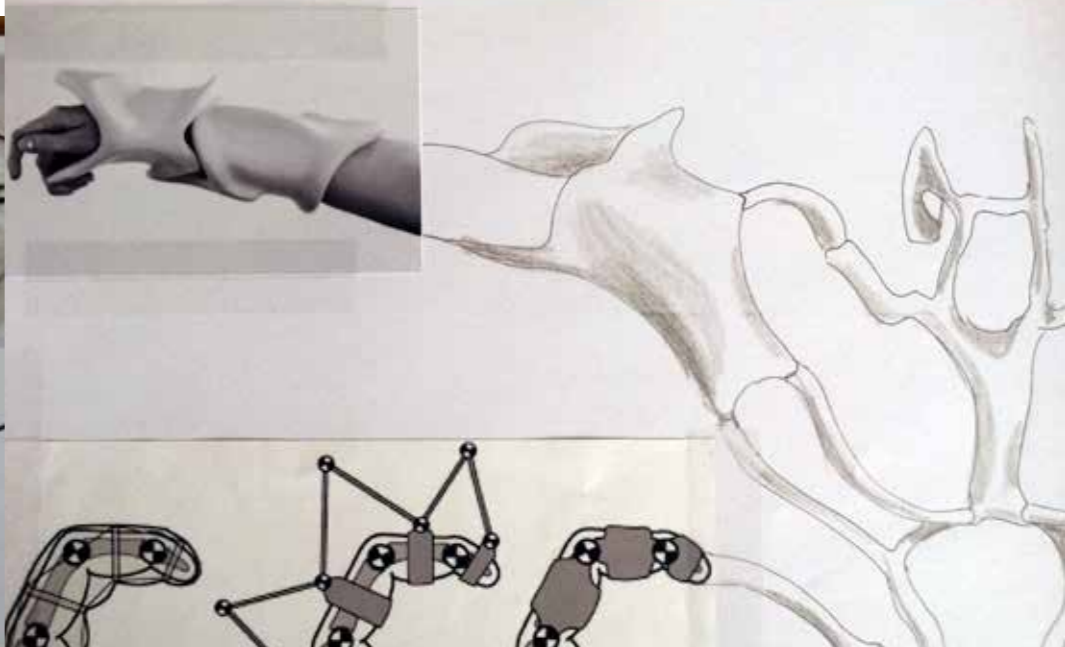
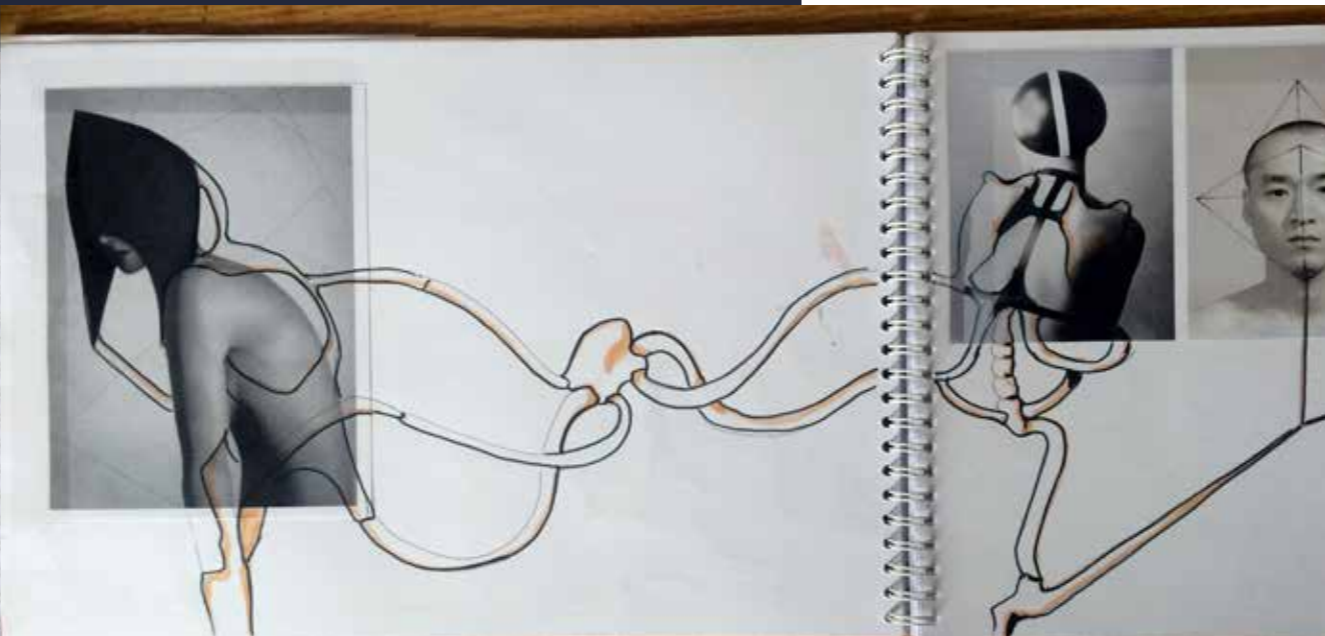
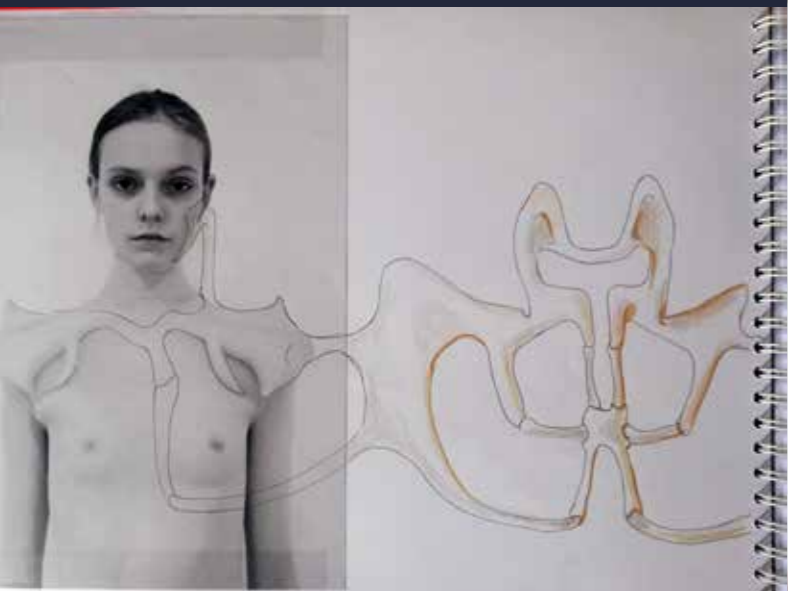
When head is in forward bent position, extra weight is added to the upper part of the human skeleton, especially affecting cervical spine, which may lead to cervical curve loss (J. Park, et al, 2015)



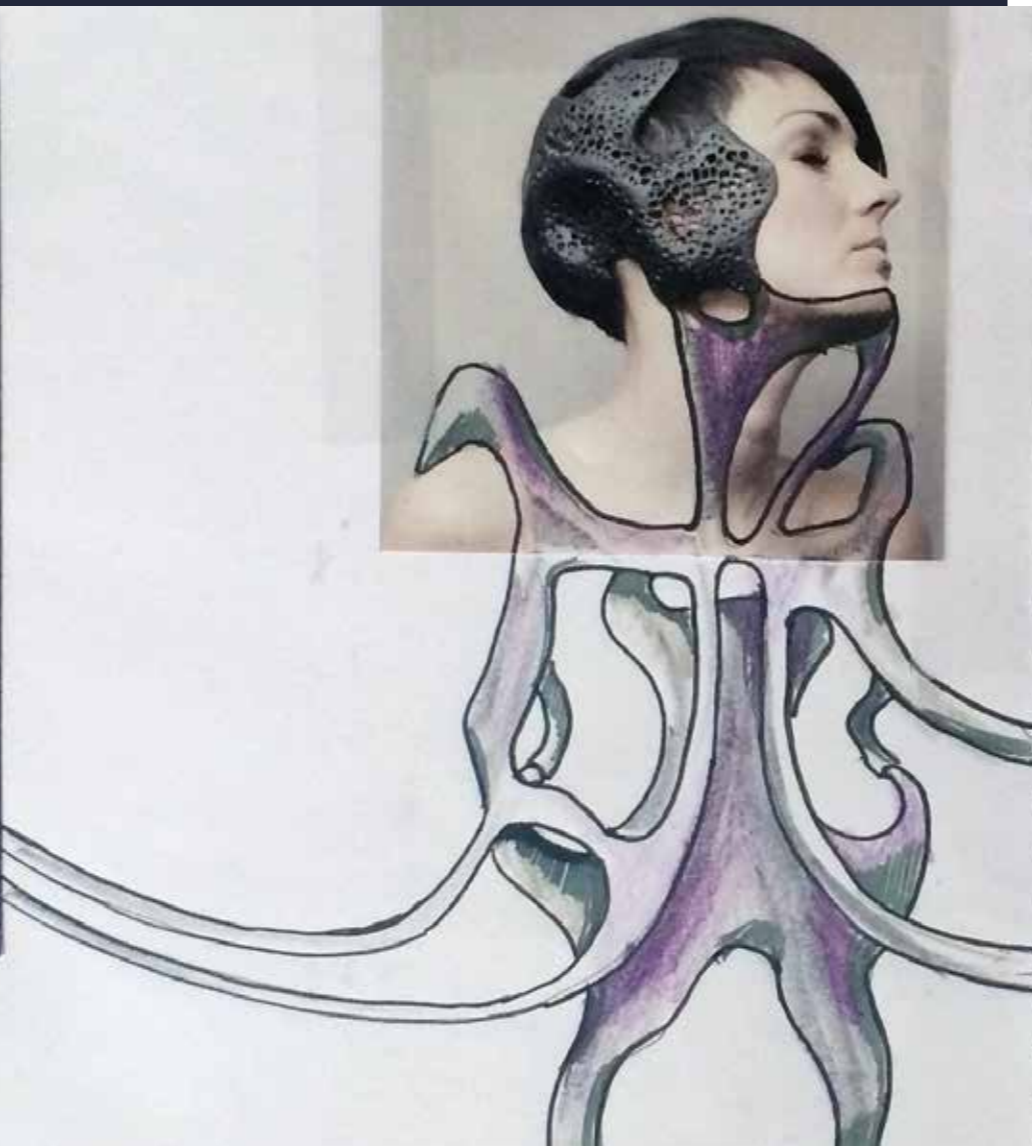
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Boston Brace Scoliosis Moulde



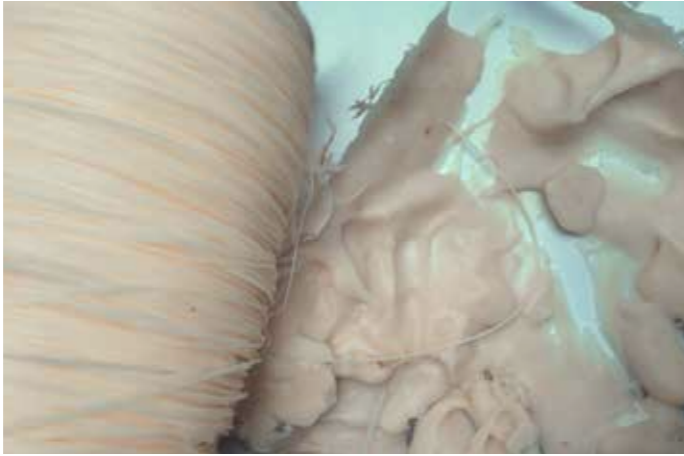
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EXPERIMENTATION



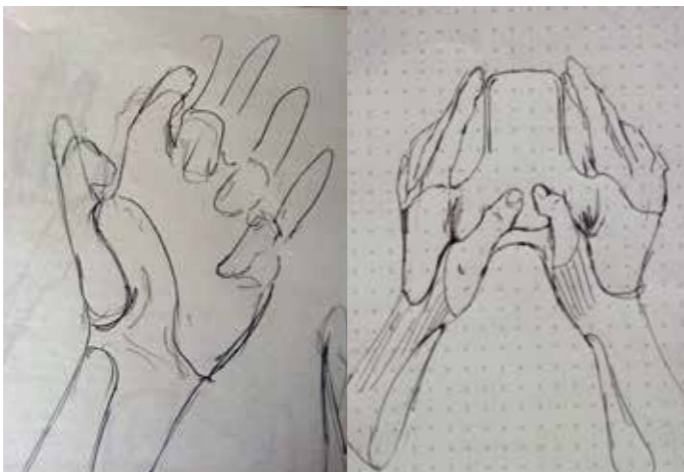
MATERIALS



Jelly Yarn - Machine knitted
Collaboration with Samuel Gui Yang



Mouldable Polymorph - Pigment - BLRTRONICS



PART OF A SELF

According to the research carried out by world Unplugged programme, the psychological attachment towards the mobile phones is significantly growing in young generations. To some, absence of mobile devices equals to missing a limb. Some of the participants of the research described it as phantom phone sensation.

"I felt something very similar to a phantom limb, only it would be like phantom cell phone" (R. Alleyne 2011)

Majority of young generation has strong Psychological and physical attachment to their mobile phones and often describe them as part of their body.

On voice-recorded survey lead by Queensland University of Technology (Human Research Ethics Committee), most of the responses by thirty-two participant Millennials were very much alike. One such example of response was:

"I think it really becomes a part of you because it's with you more than anything else in the world... like I feel naked without my phone. (Female 16)" (Walsh, White & Ross P.15).



Apilada Dew Vorachart

RECOGNISE THE FAMILIAR

Taking the 'phantom phone' syndrome into consideration, the intention of this project is to visually demonstrate the alteration of the human skeletal structure in response to the modern technology. The Exoskeleton type of garments that supports wearer in holding the digital device outlines the idea of technology becoming a part of self.



The shapes are structured in response to necessary habitual body movements specific to mobile phone use. However, they also illustrate the case study suggestions, with regards to concerns of maintaining un-harmful postural position while using mobile device.



THE NARRATIVE

By highlighting the possible change in physiognomy, these garments become the interpretations of the emerging social behaviour and become the metaphors of our ordinary daily routines that we certainly recognise, yet do not see until observed differently.

1

Hortense Duthilleux

Pheral - 18H

Main body: Moulded Polymorph. Elongated rib structure to support arms.

Knitted panels: Elastomeric Lycra yarn. Machine Knit on double bed.

Hand accessory: Moulded Polymorph and Knitted Elastomeric Lycra yarn.

2

Heera Singh

Pheral - 11H

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both elongated sides.

Knitted top: Elastomeric Lycra yarn. Machine knit on double bed. Attachment detail on both arms.

Arm attachment details are detachable from main body.

3

Shota Maskharashvili

Pheral - 10S

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both lower sides.

Knitted top: Jelly yarn, semi-transparent, custom-made color. Machine knit extra stretchy, crochet hemline.

Connection detail on arms: Attached on the top.

4

Jesrisse Bullman

Pheral - 16J

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both lower sides.

Knitted panels: Elastomeric Lycra yarn. Machine Knit on double bed.

Hand accessory: Moulded Polymorph and Knitted Elastomeric Lycra yarn.

5

Istabraq Yasin

Pheral - 19Q

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both elongated sides.

Knitted top: Elastomeric Lycra yarn. Machine knit on double bed. Attachment detail on both arms.

Arm attachment details are detachable from main body.

6

Audrey Speyer

Pheral - 17A

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both elongated sides.

Knitted top: Elastomeric Black Lycra yarn. Machine knit double bed. Attachment detail on both arms.

Arm attachment details are detachable from main body.



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Hortense Duthilleux

Pheral - 18H

Main body: Moulded Polymorph. Elongated rib structure to support arms.

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Heera Singh

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Shota Maskharashvili

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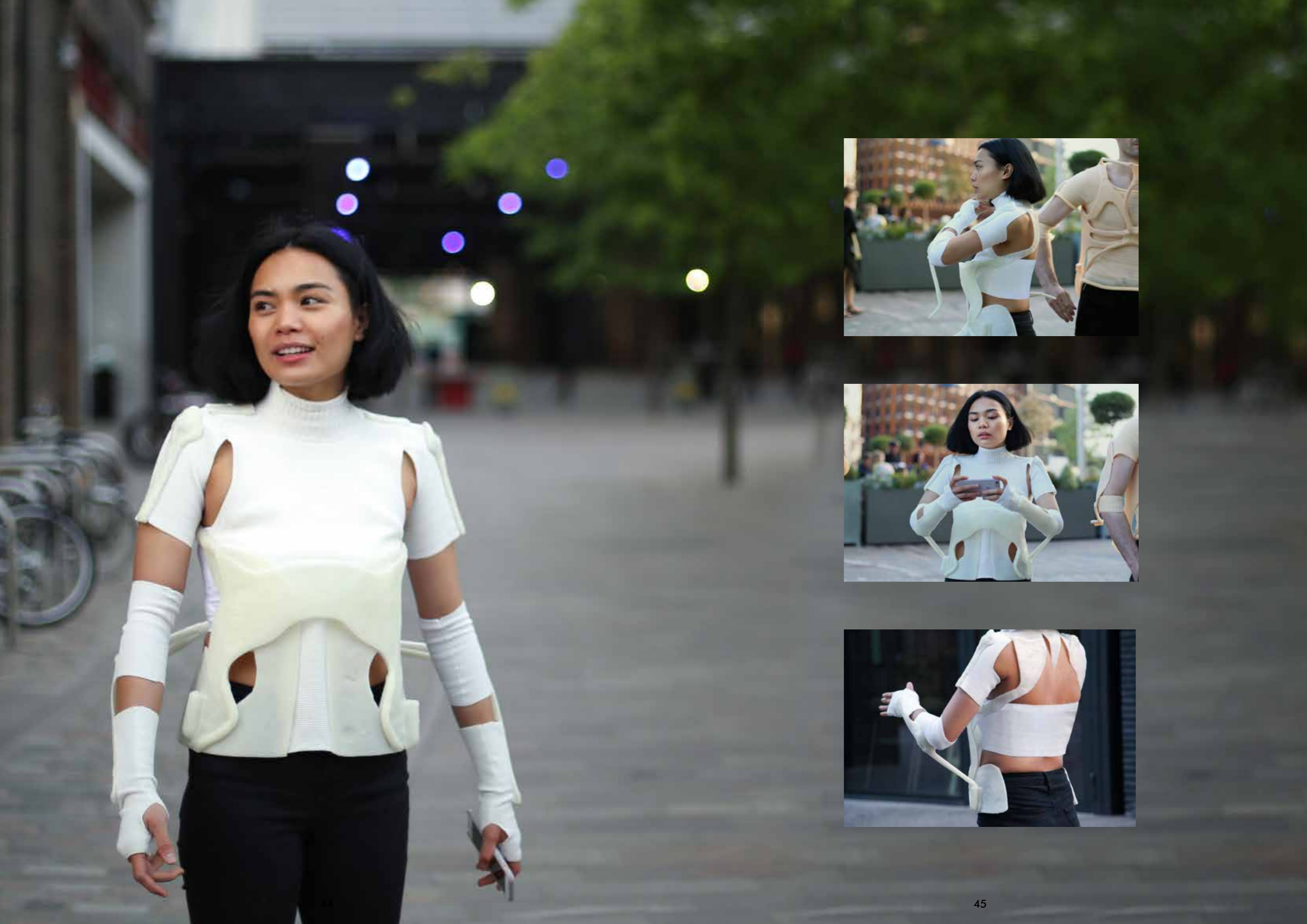
Main body: Moulded Polymorph.
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Knitted panels: Elastomeric Lycra yarn.
Machine Knit on double bed.

Hand accessory: Moulded Polymorph and
Knitted Elastomeric Lycra yarn.







5

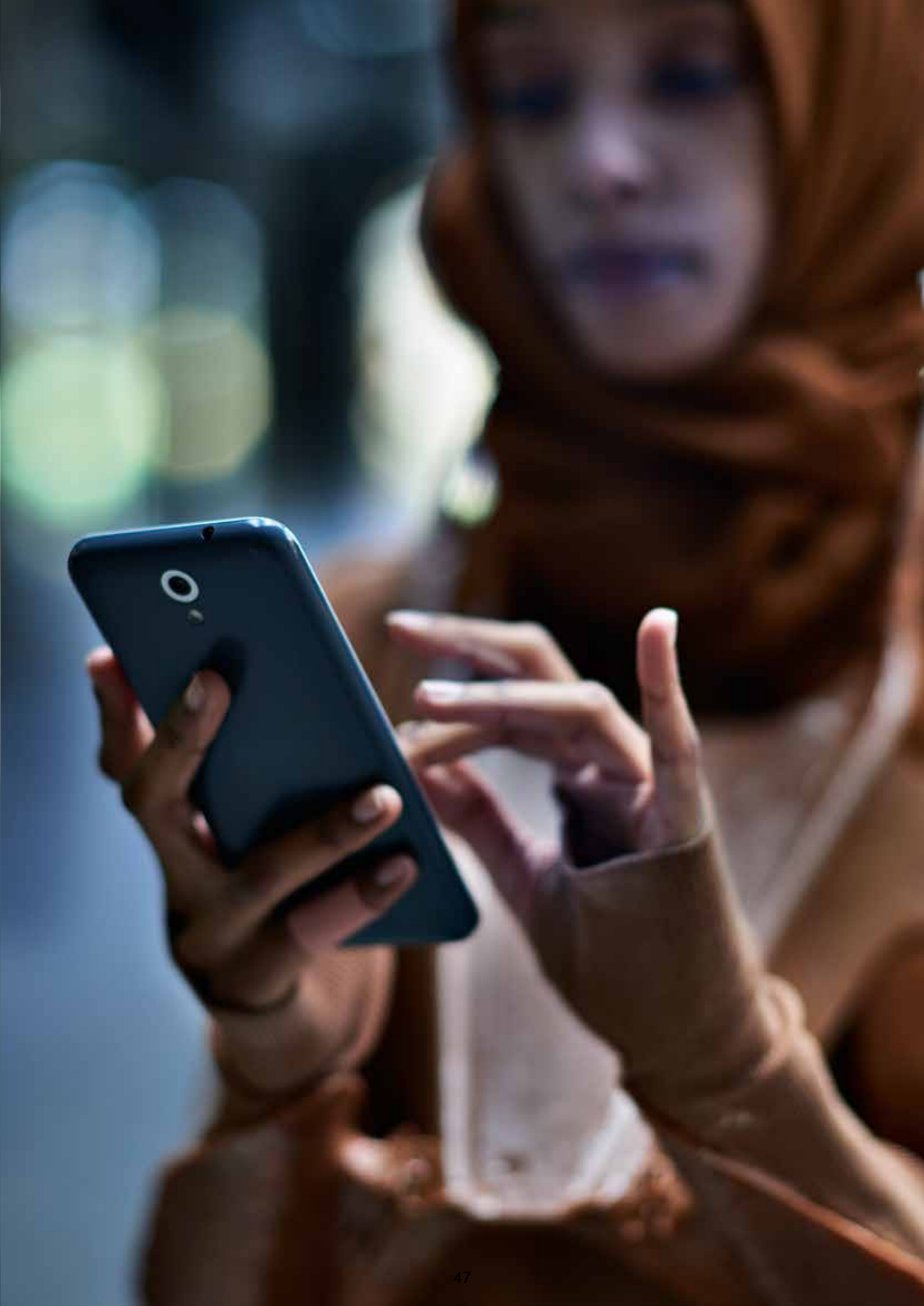
Istabraq Yasin

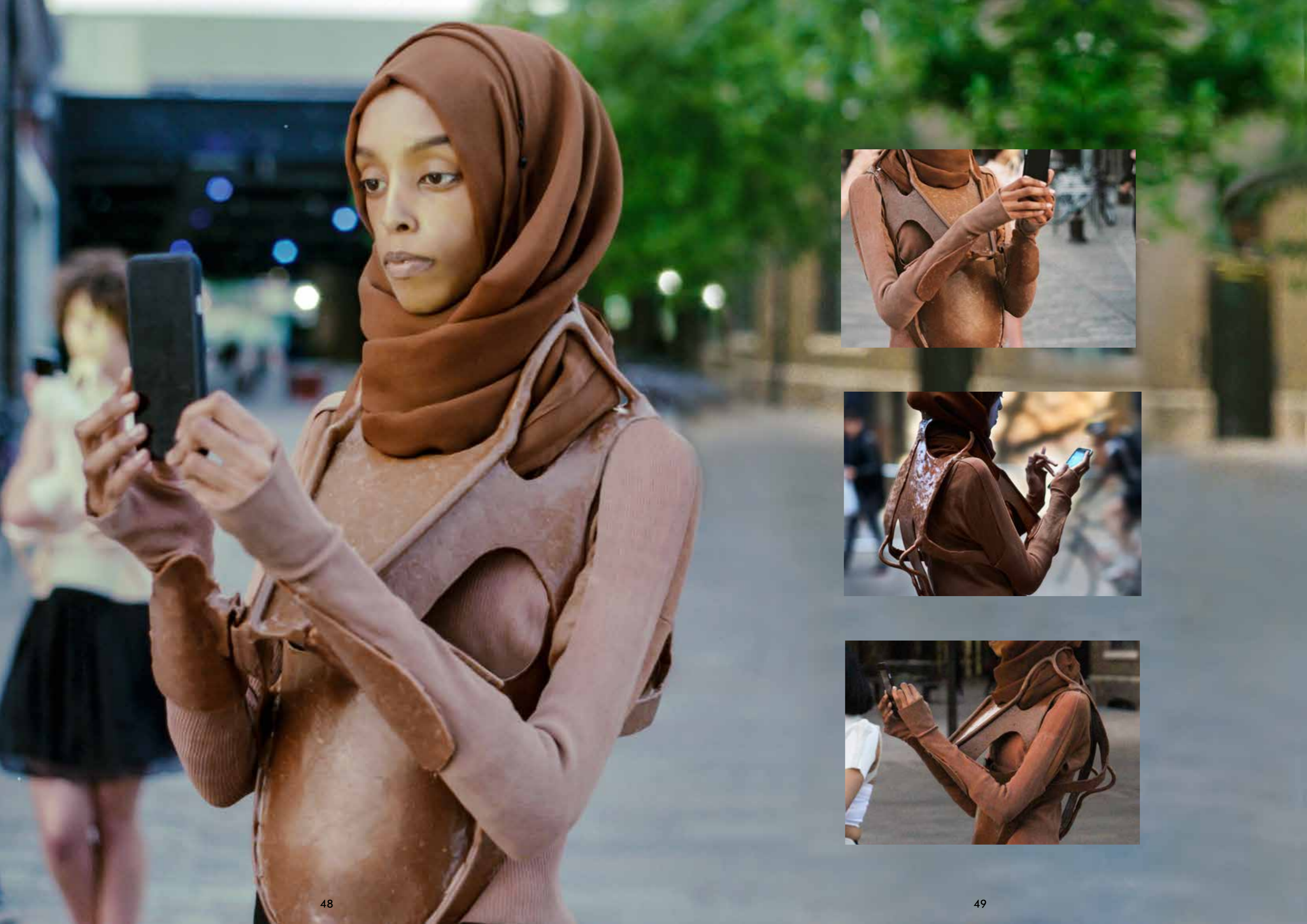
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Arm attachment details are detachable from main body.





6

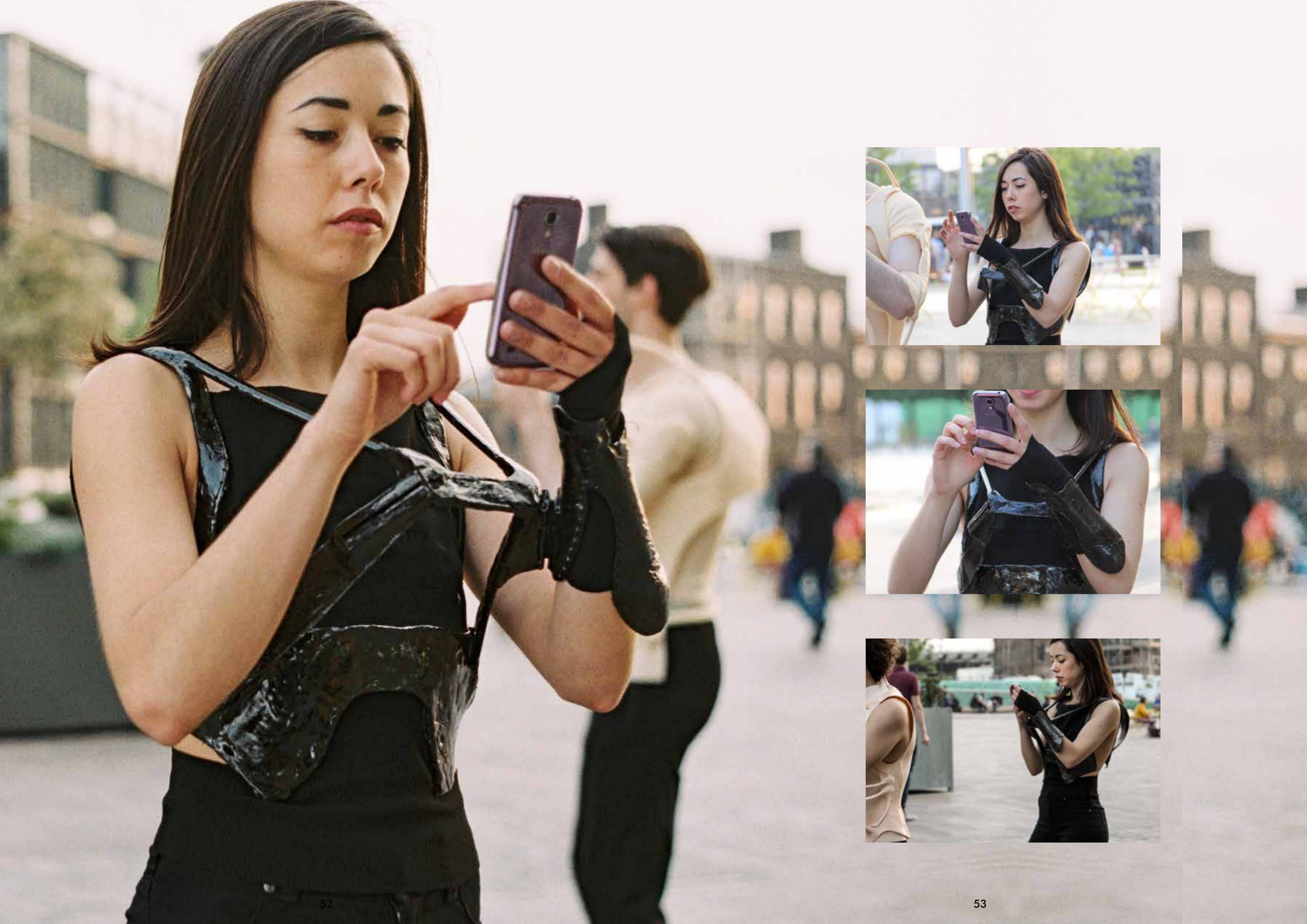
Audrey Speyer

Pheral - 17A

Main body: Moulded Polymorph. Connection detail on main body: slide in pockets on both elongated sides.

Knitted top: Elastomeric Black Lycra yarn. Machine knit double bed. Attachment detail on both arms.

Arm attachment details are detachable from main body.





In one hypothetical future, these garments become the prototypes of the potential commercial products, should the mobile phone usage continue its course similarly as it is today. But in another, when fast advancing technology transforms mobile phones into physically non-existent communication tools, then in such future scenario, these design pieces might evoke the sense of nostalgia and become the narratives of a specific generation, existent in a specific period of time.

CREDITS

Photographer	Tinatin Shaburishvili
Life Drawing Model	Shota Maskharashvili
Traumatology Specialist	Anya Nuttall
Rheumatology Specialist	Nugzar Saralidze
Graphic Design Collaboration	Maciej Rackiewicz
Stylist	Sona Singh

MODELS

Axel Perry Anglin	Shota Maskharashvili
Krystyna Kozhoma	Jesrisse Bullman
Hortense Duthilleux	Istabraq Yasin
Heera Singh	Audrey Speyer
	Apilada Dew Vorachart

SPECIAL THANKS

Samuel Gui Yang
Jamie Blair Krystyna Kozhoma
Shota Maskharashvili
Nana Tsqitishvili Gia Nemsadze



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