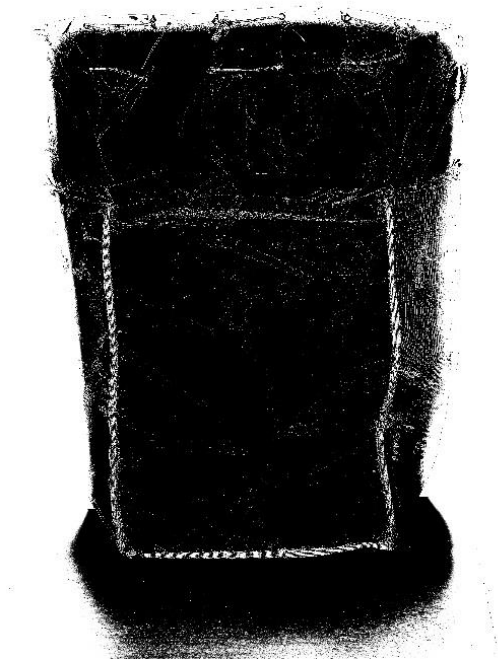




Military Textiles: Bergen

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By Jon Bottomley

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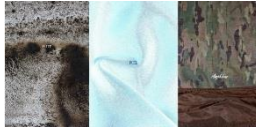
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Synopsis

This book is the third and final part of a research project. My aim for each book is outlined below.

BOOK 1

Suit is a series of interviews with soldiers turned artists, soldiers turned photojournalists and artists working in zones of combat and conflict. Simply, I wanted to explore the structures of military practice versus the fluidity of creative action.

BOOK 2

Fuel starts by exploring photographers and video artists who work in zones of combat and conflict, it then explores artists who use fabric, natural resources and man-made materials which disrupt the flow of the natural landscape. The third set of artists explore the fragility of loss and memory until eventually coming to a conclusion about the mixture art and science; how they can benefit each other and develop the human form in new ways.

BOOK 3

Military Textiles: Bergen is the third book which was a response to my research and interviews. I bought a Bergen (Rucksack used by the armed forces) and unpicked the different elements of it, such as the webbing straps, pouches and stitching. I then photographed the bag with three core themes in mind:

- Accommodation: The Bag is part of the soldier, working as a functionable tool which accommodates his supplies.
- Adaptation: The bag adapts to the soldiers condition, as a protective resource kit and also a source of comfort when off-duty.
- Amphibian: The changing state of the soldier also changes the bags function. Part of a history, part of a memory, the bags function changes states as either an abandoned entity or a respected symbol, a memento.

The first two books ‘Suit’ and ‘Fuel’ are interview books. I conducted the interviews via face to face studio visits, phone, email and skype interviews. The interviews are ways of seeing different perspectives, working methods and ideas.

The third book ‘Military Textiles: Bergen’ is a creative response to the design and purpose of Military Textiles. Focusing directly on the construction and design of the Bergen and then abstracting it by thinking about the occupier who uses it for a purpose.

Military Textiles: Bergen

Military Textiles are a second skin that act to protect those who are being targeted from enemy action. Ballistic tendencies and an understanding of the urgency of the manufacture of such materials is needed in order to prevent the injury or death of the combatant. The material is composed to fit the silhouette of the soldier and the thickness of the material applied is used for survival reasons rather than comforting variables. The requirements of the textiles is constantly in development, constantly reacting to the dangerous force. The consistency in development alludes to the material to never be finished, constantly in flux, waiting in line for the next tweak, the next attack and inevitably, the next operation. 'In essence requirements include art, science, engineering and an element of gut feeling. The art provides the abstract system views, the science provides the analysis, the engineering provides the technology, but it is the people that put it all together and make it work.'

The following are a series of images of a Bergen, a bag which holds the apparatus which a soldier can use for the needs of survival. Using the bag is dependent on the environment the soldier is in, it's a nurse, a mother, an employer and a best friend. Taking on all roles when the operation shifts, changes and develops as time goes on. As the soldier runs through the environment, sits on his boredom and fights through a line of fire the bag maintains its integral role: supply. Even when the content runs out and there is little hope of consuming new goods the bag still holds its shape as a layer of fabric. It exists as it wraps around the body in the landscape, a mechanical, processed design becomes bound in contexts of climate and experience.

Static in its demeanour, and playful in its ability to hold large amounts of weight, the Bergen is no longer an idea of production but an instrument which is characterised by the individual who wears it.

1. Page 15, Wilusz Eugene, EW, MILITARY TEXTILES, 2008, First Edition, North America CRC Press LLC, Woodhead Publishing Limited

The Bergen is part of a synchronised attempt to control and order the combat environment. It is one of the ingredients which adds to the environment a sense of purpose, worth and function. Its values are not abstracted but simply purified to their basic essence of function. It is the wearer who shifts in focus and strategy, adapting to his wants and needs to better the situation he is currently in. A dint in the bag and an aching back alludes to injury but it is the meshing and composition of the Bergen which gives security; if any dirt is to reside on the surface it is ignored as the functionality and static masculinity wins over any attempt at decay.

The material is composed of nylon, foam and polyester. Its durability and strength resides and is attached through the stitching of the fabric and the result is a perfectly composed container. Its pockets, webbing straps and clips are used for security measures and again, keeps the bag compact and functional. Simultaneously it breathes when assigned to the candidate who uses it, embodying both action and thought.

Part 1: Accommodation

Military textiles visualise our relationship with conflict and combat. They are designed to shield the individual from getting hurt and potentially killed. In this regard, the fabric occupies a space which plays between the line of life and death. It has a function and the designers who mould the shape of the fabric use this as a way to engage with the environment.

The designers have to be meticulous in their strategy when designing new textiles and garments. They are part of a history, occupying a space which is in constant development. The garment is never finished, never finalised, because the environment which the soldier occupies is always changing and developing. The meticulous designing is embedded within the garment's history and yet it is only when violence erupts and adrenaline pumps in the battlefield that the function of the Bergen becomes a survival mechanism - operating as a tool in which the soldier can survive, thrive and heal from.

The imperative aim is always survival but the fluidity of the environment is the actual reality. The fabric which interacts between the individual and the environment is a physical object, it is tangible and offers a glimpse into the working methods that have gone into it. In part, the history of the object is invisible because it does not show you the time nor the people who have invested their hands and brains into it. This is why the history of military textiles bases itself on the physical products produced, rather than the people who have inhabited them. In this sense the physical overrides the personal, but it is through the person's reality that the textile can only truly be functional. Without human contact, the Bergen becomes static, untouched, left without a job to do.

The static state of the object can potentially be a way to engage a memory for a soldier. In this sense the function of the Bergen becomes a way to engage with the past, a way to remember different levels of a once physical subject matter. The occupier of the memory has a choice to think about their garment and memory in the way they see fit: either a nostalgic aching for the past or as a product of a once difficult time. It is within this editing of the past that the behaviour of the individual functions but it is the stillness of the textile, the enigma of its life, that the textile outlives the soldier². The fabric wraps memories in the soldier's mind and takes on new forms once being passed on to new occupiers. In this sense the garment becomes more powerful than its original function because it outlives both the soldier and the memories encased within it.

The fabric is able to accommodate a new occupier and adapt to a new function. The nature of fabric is both real and imagined; taking on new forms when applied to a different environment.

2. Page 69, Hemmings Jessica, 'Worn Worlds: Clothes, Mourning and the life of things', *The Textile Reader*, , First Edition, Berg, Bloomsbury Publishing Plc

Bergen: Product Outline ^{3.}

CORE

1000 denier waterproof Cordura fabric – providing the structure and holding the weight of the bag (100 litres). Cordura fabrics are made from a mixture of nylon and natural fibres.

Airflow spacer fabric – a cushioned surface which sits on the soldiers back. It has three separate layers for: moisture release, air flow and heat dissipation.

Light brown elasticated fabric - stressed over by a piece of rope that is attached and sewn at the top of the bag.

Camouflage: Light-tan, lime green and yellowish green gradients of colour are intermixed as patterns of camouflage which sit on the bags surface.

PARTS

5 MOLLE (Modular Light wear Load Carrying Equipment) straps sewn directly onto the front of the bag.

12 MOLLE webbing straps loosely attached both at the front, side and back of the bag.

3 pouch pockets with are attached to the bottom of the bag. Each with clipped hoods which helps to secure the equipment inside the pouches.

4 foam straps which crease over the body of the soldier.

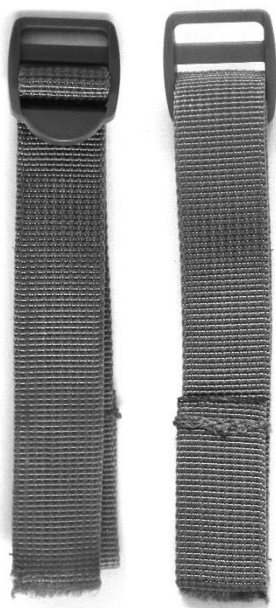
2 foam straps which crease over the back of the bag that interact with the individual who wears the bag.

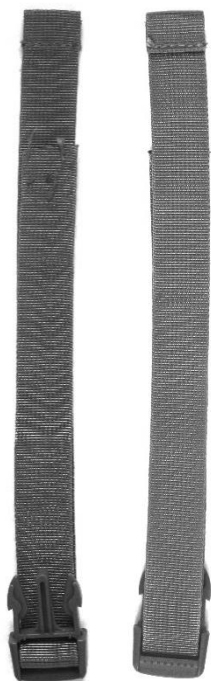
8 clips and **4** zips to secure added content.

1 detachable hood to protect the contents of the bag. The hood comes with three webbing straps, Velcro, two clips (to secure to the rest of the bag) and two zips for added content use.

^{3.}

http://www.militarykit.com/product_categories/rucksacks/bergens_patrol_packs/product_pages/bergen_kombat_airborne_100_litres_multicam.html

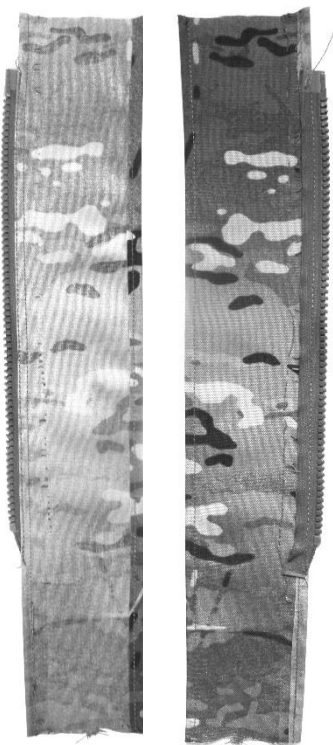


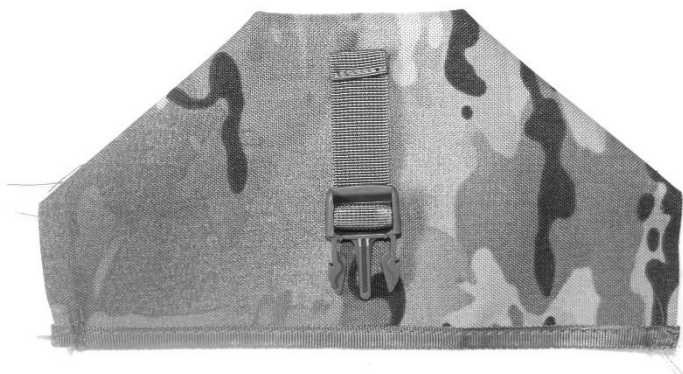
























Part 2: Adaptation

Comfort is tricky because it's a subjective experience with many different outcomes. It can be a physical thing which keeps the individual warm and protected but it can also be a mental process which is dependent on a collective or independent experience; balancing the individual's mental state and level of satisfaction.

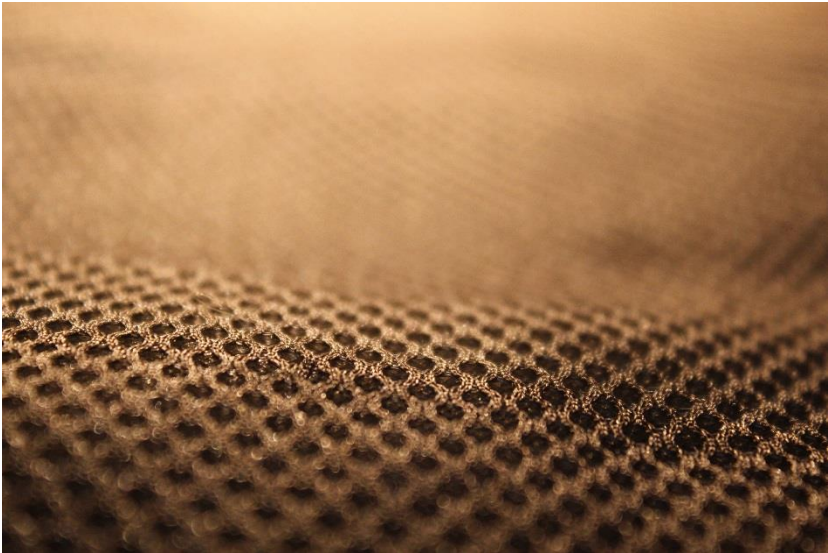
Conflict and combat can offer a wealth of hardship and toil. Work over-rides any sense of comfort because the objective is to survive and protect. The uniform which the soldier wears elevates a sense of urgency through its practical construction and design. The uniform is static and needs the fluidity of the soldier's movements to function within the environment.

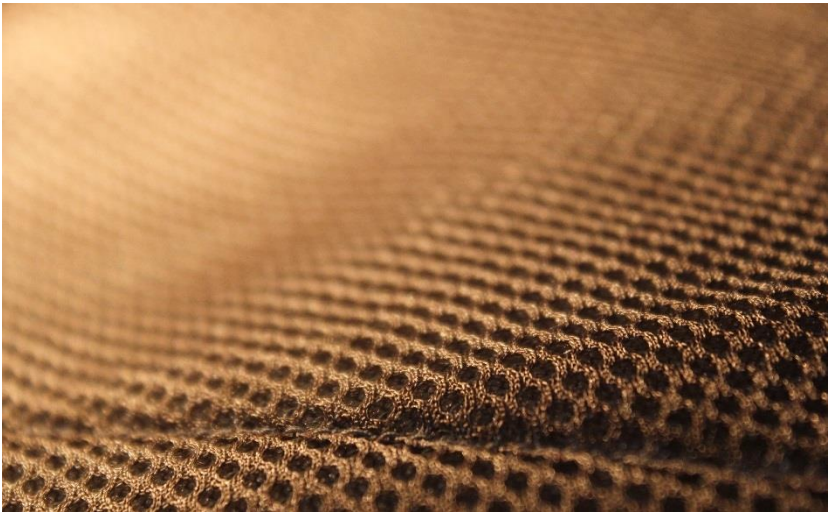
In the battlefield the soldier acts between the line of life and death, and so his training beforehand is imperative to how successful he deals with reality. Comfort becomes an abstracted view but the designers still have to take it into consideration when designing the uniform; to protect, keep warm and filter into the soldier's senses. The uniform adapts to both extreme environments and times of being off-duty. In order to adapt, comfort has to be simplified in order to help the soldier to function: physically and cognitively.

Past experiences, attitudes and beliefs are tamed by the training which embeds itself on the soldier's presence. The only sense of attachment is that which covers the skin and hangs on the weight of the soldiers back. These objects, these textiles are containers which have the potential to supply both protection and comfort.

The limbs, muscles, arteries and nerves work and react as part of the behaviour of the individual's temperament. The garments act in a static form, waiting to be worn, used, needed and wanted. It adapts to the changing state of the soldier and the soldier adapts to the protection and warmth the garment can supply.

The Bergen is a protective entity which pumps the physical and mental actions of the soldier, developing and growing as he does. In its static state the Bergen can supply a sense of calm through the weight, material and goods which it holds on to – adapting to a need of survival and a want of comfort.

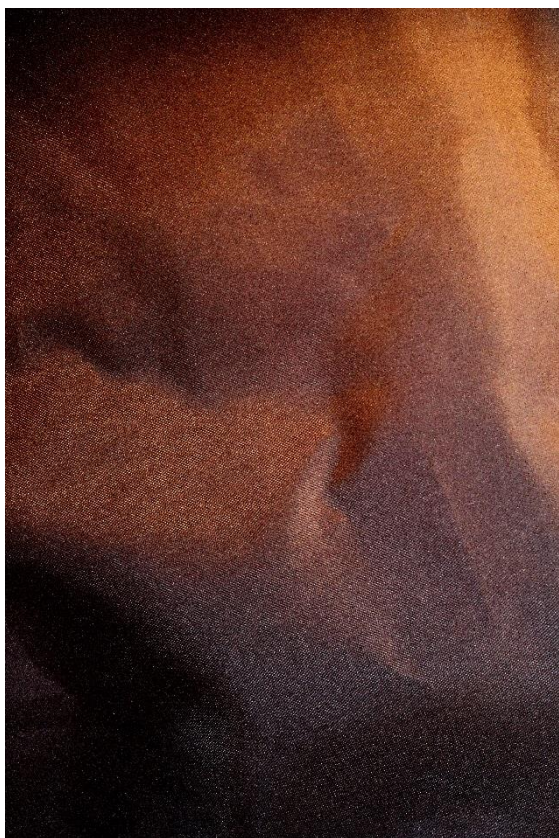












Part 3: Amphibian

The Bergen is a tool and is part of a designer's history, a company's policy and a soldier's productivity – functioning in different contexts.

The production line aims to be fit for purpose; aiding an organisation, an infrastructure and a community who require tools to perform and maintain a duty of work. These tools are designed objects and are valuable both for their uses and their financial properties. In this sense the security, maintenance and policies which surround the use of these tools is backed up by the companies who design, own and make a profit from them. It's never as simple as picking up a tool and using it. It needs the attitude of the individual to respect his proximity and disposition when using the tool itself.

Part of the Bergen is made from Nylon (named Cordura by the manufacturers who have developed the material for its function in the armed forces.) Nylon was created in 1935 by Wallace Carothers who was part of the company 'DuPont Experimental Station' based in Delaware, USA. At the time of its invention the company was famed for its production of TNT, dynamite and gunpowder and through its success with nylon the company began to experiment and produce new synthetic fibers which eventually aided DuPont to be recognised as a modern chemical industry⁴.

The history of the Bergen is bigger than its current manufacture and business prosperity. It's a product of the experiments conducted and commodities developed, and shows the complex relationship it has with its chemical past, from gunpowder to synthetic fibers – eventually stitched together to form a container, a whole.

The Bergen presents itself in the reality of the working day for the soldier: obtaining, shielding and containing credentials. It's a multi-disciplinary object which shifts and changes states as the soldier does.

The individual soldier is a single strand, working in the environment. It is through the business of war that the movements of the soldier has to work within new grounds; to meet the aims and objectives of the job at hand.

The infrastructure of the armed forces is in constant flux. It is through the shifting state that the financial and logistical aims change. In this sense the maintenance of a wholly stated and administrated military force is an idea rather than a reality⁵; leaving its footprints in the scenery, lingering in the minds of the many, never to be finalised because the factors involved are too great to realise.

As the soldier leaves the armed forces and becomes a citizen, he leaves his tools which have been part of his job. His tools become abandoned memories, but they have the chance to become momentos; which are thought about from time to time and respected for their significance. The visibility of the object and the weight which they contain have roots within the soldiers mind frame. The Bergen changes states in the civilised environment and needs a status in order to stay connected to his occupier. It's up to the civilian to decide whether or not he wants to keep his memories in sight. If not visibly then at least through the strength and fluidity of his mind, his entity.

4. Pages 3 - 20 Handley Susannah, 1999, *Nylon: the manmade fashion revolution: a celebration of design from art silk to nylon and thinking fibres*, London, Bloomsbury

5. Introduction, Parrott David, DP, 2012, *The Business of War: Military Enterprise and Military Revolution in Early Modern Europe* – Introduction, First Edition, Cambridge University Press.























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