

BACKGROUND

Swiss Paramedics face the most diverse situations in their daily work-life and are always working under great time pressure. Their field pack is their first aid kit in all rescue operations.

PROBLEM

The standard-issue pack has various features that can cost the paramedics time or even put them in harm's way.

SOLUTION

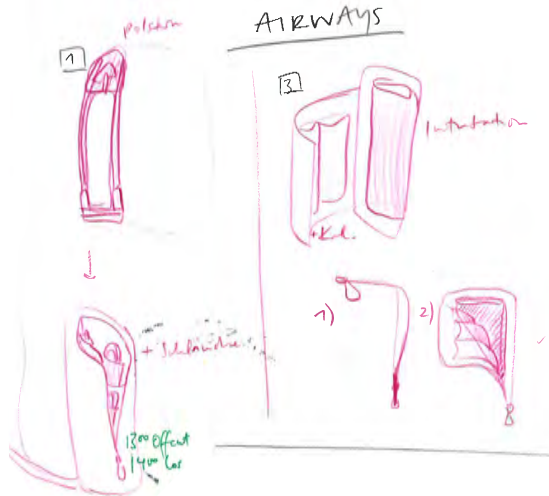
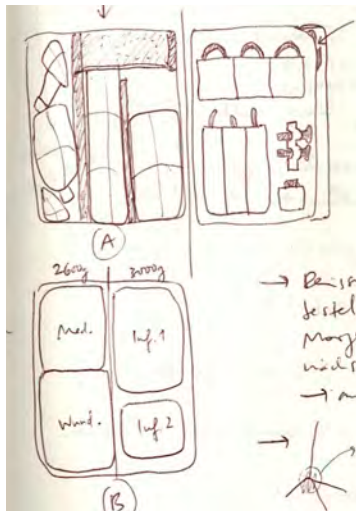
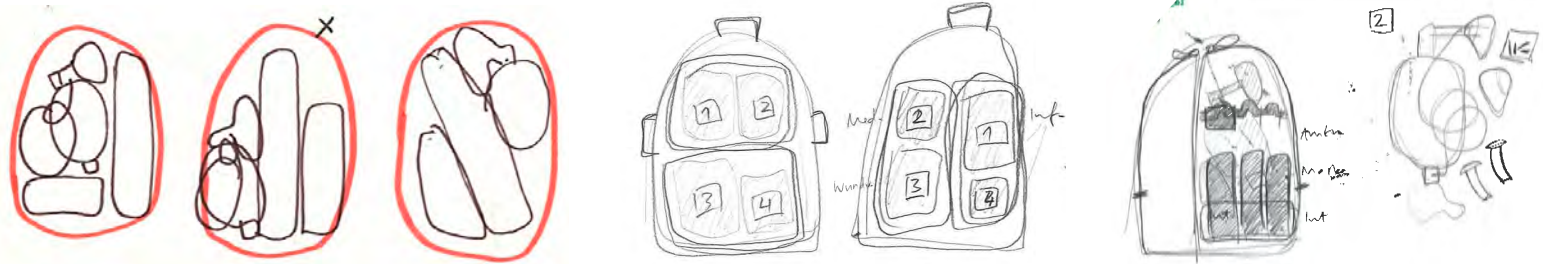
In collaboration with the Bern Ambulance Rescue Team, a thorough research of the daily use of the pack and its inventory was made. The new pack supports them by providing rapid access to all contents. Thanks to additional improvements and the employment of an innovative textile, the pack has become a robust aid that meets the high demands of paramedic rescue operations.

Bachelor thesis at Basel University
in collaboration with the
Bern Ambulance Rescue Team



PARAMEDIC PACK

DESIGN PROCESS: CONTENTS



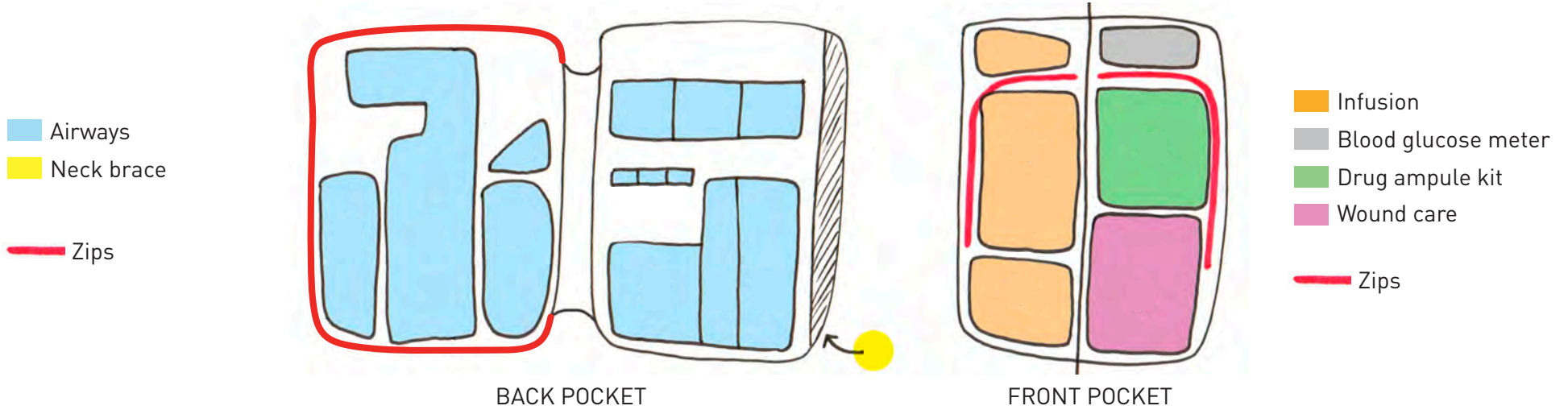
Mock-ups to assess possible arrangements

Reflections on new arrangements of the contents

PROBLEM The paramedic pack is both first aid kit and worktop at every accident scene. It has to provide the quickest access possible to its contents. The standard-issue pack has no system of organizing its contents and provides no way of affixing the individual items.

SOLUTION The priority and frequency of use of each piece of equipment was assessed individually. The new arrangement organizes the equipment by topic, while the most frequently used items are the most easily accessible. The new pack keeps the original basic division into front and back pockets but changes the axis of opening (lengthwise to breadthwise) for easier handling.

NEW EQUIPMENT ARRANGEMENT



The equipment is now organized by topic. The most important items are the most easily accessible when opening the compartments.

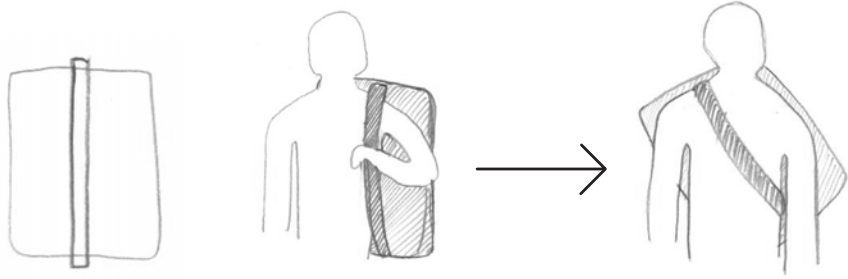


The former pack: Contents are neither affixed nor organized

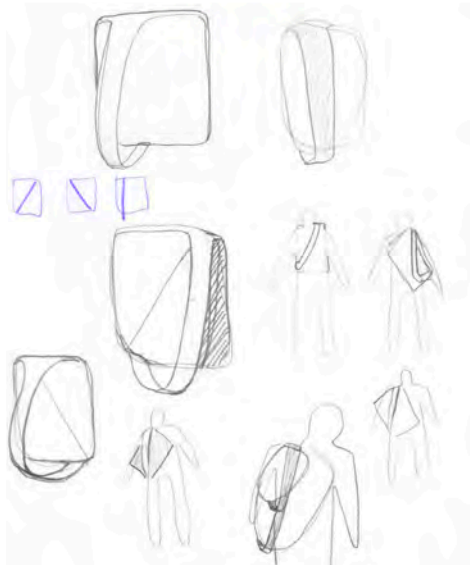


The new pack: Everything is where it should be in the back pocket

DESIGN PROCESS: BACKSTRAP



Assessing the comfort of using only one centered strap



The standard-issue pack



First prototype sewn



PROBLEM Investigating the daily use of the pack showed that the paramedics use only one of the backstraps, so as to be quicker into action. The leftover strap then often snags on handrails, etc.

SOLUTION A single, centered strap can be used by both right-handed and left-handed paramedics. It's easily swung onto the back and can be worn diagonally over longer distances.

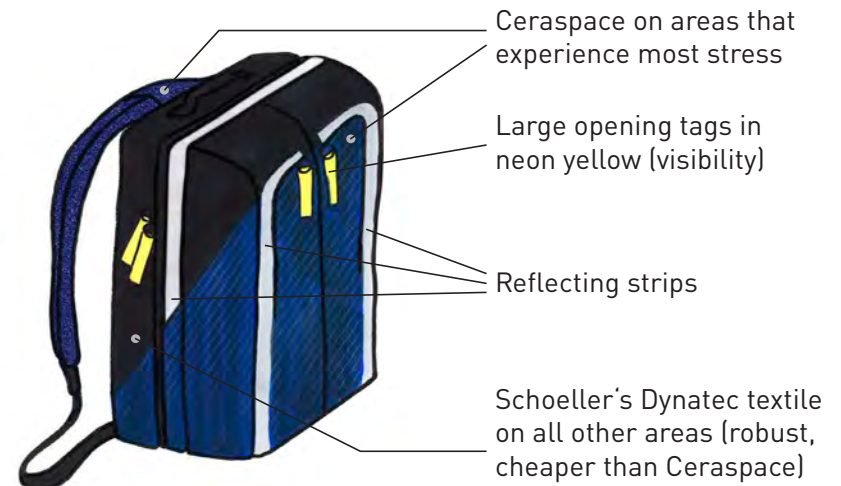
DESIGN PROCESS: MATERIAL & STABILITY



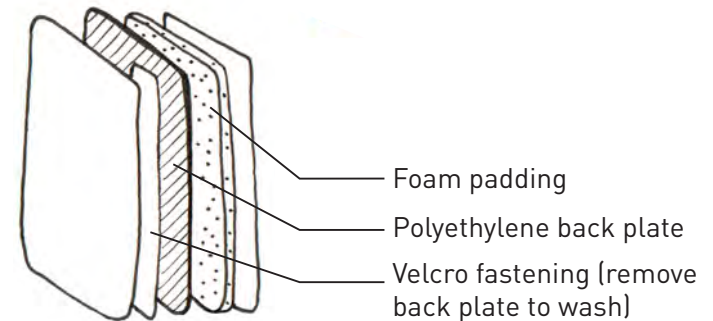
Visualizations of colouring and material placement



A tough, innovative material for the new pack: Ceraspace by Schoeller Textil



NEW STRUCTURE OF REAR PANEL:



PROBLEM The unreinforced rear panel in combination with the elongated shape makes the standard-issue pack prone to tipping over – dangerous, considering there is an unprotected gas bottle inside.

The previously used textile tended to fray and caused the zippers to jam – possibly fatal in an emergency.

SOLUTION A squatter form helps decrease the risk of the pack tipping over. Adding a rear panel to the back part improves its stability and shape.

The innovative material Ceraspace by Swiss company Schoeller Textil replaces the original material. It is a highly abrasion-, heat- and water-resistant textile – ideal for rescue work. In addition, it is machine washable.



The new paramedic pack fits snugly in its ambulance compartment. It can easily be opened and worked with when placed on the floor by the door.