**Title: Collaboratively Re-Designing Extreme (Future) Living Conditions**

**Social Change Account:** (300-600 words)

Why is change important, urgent, and tricky:

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|  Extreme weather conditions and desertification have become a common threat to populations worldwide. While desertification is yet to threaten urban areas every day, extreme weather events such as wildfires and floods are now part of the seasonal cycle around the globe; therefore, there is an urgent need for a different approach to live with and possibly confront these extremities and to re-think human habitat given the newly expected- unexpected life conditions. |

What is the change and the multi-disciplinary collaboration that supported it:

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|  For six years Bezalel’s Master’s program in Industrial Design ventures to the Israeli desert for an annual 4-day seminar, entitled ‘Extreme Conditions’. The Arava desert, with its extreme climate conditions, is the heart of the activity. Carried out in collaboration with Israeli R&D agriculture centres, this seminar brings together scientists, farmers, and community leaders together with designers from varied backgrounds. During the seminar, the teams define and deal with real-world challenges and develop innovative, deployable, and sustainable solutions for life in extreme conditions. The challenges the seminar is dedicated vary and have included: reducing agricultural waste; introducing the benefits of better measurement and management system; the datafication of agriculture; employment in the (distant) community; innovative approaches to education to sustainability in k-12; and more. The organizers developed a unique methodology combining design thinking methods with a speculative design approach to build alternative scenarios in different timelines to address societal and environmental problems. Holding the seminar in the isolated desert gives the teams a better understanding of the field, its conditions, specific circumstances, and the particular needs of the inhabitants. The intensity of the seminar motivates the designers to work on projects that are both experimental and implementable in a very short time span.The students, coming from varied backgrounds, arrive at the R&D centre knowing which multi-disciplinary group they will work in and the challenge they are asked to face. The seminar opens with several short presentations by R&D centre scientists and the locals, followed by a short visit to the labs, research facilities and greenhouses, where the students are acquainted with the different approaches held by the stakeholders. Many of the speakers are idealistic individuals speaking with passion about their goals, their aspirations, and the degree they were met, as well as about the difficulties they experience. The schedule is tight. In the first three days each team, mentored by a lecturer from the Masters program: learns and unpacks the design brief – its emphases and possibilities; explores the field; makes acquaintances with the different stakeholders; and executes field research consisting of interviews and observations followed by the production of a solution or an intervention. The last day (and night) is an intensified effort to “wrap up” the research and proposed solutions to a presentation. The seminar ends with a presentation of all groups in front of the community and all the participants. |

What challenges or insights does the case foreground?

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| Given the short time of the seminar and its intensity, the outcomes are prototypes and not finished products. The solutions the teams come up with are often adopted by the community – be it a solution for flash floods based on visitors deploying a citizen-science approach, or a proposal for the local museum to open a special area dedicated to craft, or a call to reuse and recycle agriculture material from the waste sites and landfills in the area. Another potential path is a more in-depth, independent research pursued by the students in collaboration with the local farmers and communities. A recent project by a graduate who is a textile designer, was dedicated to raising awareness to agricultural waste, and encouraging craftivism (craft by the community) focusing on the transformation of agricultural textile waste into local raw material for textile products (see link below). |

**Author relationship to the case:** (max 50 words)

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| Romi Mikulinsky is the head of the Master’s program in Industrial Design and a member of the organizing team of the seminar for the past 5 years.  |

**Keywords:** Co-design; Design Methodologies; Agriculture; Agricultural Waste; Israel

**Web Links:** (max 5) a student final project inspired by the seminar, <https://mdesgrad2022.bezalel.ac.il/graduates2022/roni-yeheskel>

**Summary:** (max 75 words)

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|  This 4-days seminar by Bezalel Academy’s designers is all about ‘Extreme Conditions.’ The seminar takes place in the Arava desert, with its extreme climate, and is based on an ongoing collaboration with Israeli R&D agriculture centres, and local communities. This seminar brings scientists, farmers, and community leaders together with designers from varied backgrounds. During the seminar, the teams define and deal with real-world challenges and develop innovative, deployable, and sustainable solutions for life in extreme conditions. |

**Country:** Israel

**Date of Collaboration:** 2017-2022

**Project funded:** No

**Type of partnership:** Citizen – Academia – Charitable R&D

**Acknowledgments:**

Principal Investigators: Dr. Oded Keynan (R & D Arava), Roee Bigger, Dr. Romi Mikulinsky (Bezalel Academy)

Israeli R&D agriculture centres; Arava desert communities; Bezalel Academy

**Case Image**: is there an image you can provide to support the case? YES to follow.