

ANTICIPATIVE CO-CREATION METHOD

Nina BJØRNSTAD¹ and Cheryl Akner KOLER²

¹The Oslo School of Architecture and Design, Norway

²Konstfack University of Arts, Craft and Design, Sweden

ABSTRACT

We experience an urgent climate crisis that shakes our whole existence and calls for change. The field of industrial design education has expanded over the past decades towards a new language of speculative design projects, aiming to influence industry and address unsustainable manufacturing. How designers typically use their capacities for change, is shown in the discursive qualities of proposed solutions. Within the current educational context, not given a commercial brief, new methods arise. This international design master's course aims to find better future product concepts that nudge sustainable ways of living. How they initiate and prototype these product ideas, is through design fiction and co-creation, conceptualizing and proposing solutions to essential problems and needs. By the use of prototypes, designers can bring essential future solutions into the present.

This paper outlines how the new 'Anticipative Co-creation Method' emerged. As the foresighted concepts intend to address the negative trends in overconsumption and unsustainable lifestyle, the designs for the far future function as inspirational future versions of the relevant suggestions for today. Through interpersonal anticipatory engagement, concepts grow out of the design fiction. In a dialog with each other students verbalize scenarios and through co-creation concepts become 'real' as different videos were created. We have observed that the students build empathy for each other through co-creative activities within the method of anticipation. If we want a thriving future, we need to act now. The design profession has never been more essential in building and critically assessing design futures literacies.

Keywords: Anticipative, design method, co-creation, haptic, future studies, design fiction, prototypes, scenarios, industrial design

1 INTRODUCTION

This case study describes the unfolding of the new 'Anticipative Co-creation Method.' The systematic exercise emerged in the ongoing international industrial design master's course on anticipatory design practice, which blends design fiction with two- and three-dimensional prototyping.

We live in an intermediate period that asks for considerable life changes, where new occupational opportunities are emerging in the field of design. The mandate of this international design master's course now brings the tools of design inquiry [1] into the core of complex and dystopic 'glocal' problems. Using prototypes, designers can bring forward suggestions to help out on essential far-future needs. The main objectives are to get students to articulate during prototyping and to methodically co-create and play it out through video. The aim is further to make the scenarios by finding essential needs in United Nations' 17 Sustainable Development Goals (SDGs).

The course deals with new tools for developing, prototyping, and conveying design solutions for the 'far future.' Primacy is given to new contexts and themes that require radical rather than incremental solutions. The course is organized around two extensive main iterations and phases. The first phase is based on foresight 3-4 decades in the 'far future' and the second phase is backcasted in time based on the results from the first phase and transformed by design to a 'near future' contemporary context. The outcome of both phases is physical products conveyed by both digital media and physical models [2]. This course introduces a number of approaches to radical change and anticipatory practice. What characterizes the course is lectures and tutorials on video-based sketching techniques, integrated with early-phase prototyping exercises led by Nina Bjørnstad. By jumping between writing fictional scenarios and making two-dimensional (2D) and three-dimensional (3D) collages, the students find forms of interest they later develop into future products answering to essential needs.

2 THE ORIGIN OF THE AESTHETICAL APPROACH

‘Aesthetic driven Co-creative Writing method for short Videos’(ACoWV) [3] is a related method that was developed by the authors and two other professionals during an intra-disciplinary aesthetic seminar supported by the research project ‘Haptica’. The seminar engaged project members with diverse backgrounds in sculpture, design education, culinary arts, and hospitality. In the following quote by James Dewey ‘Whenever an idea loses its immediate felt quality, it ceases to be an idea and becomes, like an algebraic symbol, a mere stimulus to execute an operation without the need of thinking’ [4].

The introductory ACoWV method involved the following five stages. Preparing a short key video showing haptic interaction (brought to the seminar. Viewing of the video (2-3 min each). Reciprocal interviewing (5-7min each). Reflection & expressive writing (10-12 min). Oral performance of the expressive text followed by re-showing the short video (5 min each). The entire process was completed within one hour (for a group of 4-6 participants).

2.1 Objective

The aim of the ACoWV method was to bring together key videos in a workshop designed to engage all of the participants in each other’s work and to inspire an expressive writing process concerning each video. It was meant to help both the individual researcher and the collaborative group to explore and develop the artistic- and research potential in the ‘Haptica’ project on haptic perception. The reciprocal viewing, interviewing, writing and performative stages were done to build empathic ties to each other’s work by exploring one’s immediate felt subjective and qualitative emotional response while watching the short videos. By daring to put something of ourselves into the work of another and to take a creative and free interpretive role as interviewer, we can offer a more personal account of how the video moved us. Later ACoWV method was presented in a workshop and published in the proceedings of the interdisciplinary micro-conference at Kolding School of Design [3]. Here we learned the importance of nudging the viewers’ emotional response as they viewed the videos and carried out the interview before retiring for a mindful writing session.

The following chapters describe the unfolding of a new method in the ‘Transform’ course by merging a co-creative reciprocal interview- and writing method ACoWV, from ‘Haptica’ [3] with a fictional explorative short video exercise of making and conveying a ‘far future’ product scenario. This *research-driven mindful co-creative method* complements the established *prototype- and video-based sketching techniques* that have been part of the course from the beginning.

3 THE NEW METHOD WITHIN THE ‘TRANSFORM’ COURSE

When looking at the course as a whole, it is recognizable as ‘design fiction’ (the ‘cousin of science fiction’) since it creates links between science facts and science fiction and provides the opportunity to speculate within the fictional reality [5]. These fictional design artefacts exist here in the real world and, at the same time, are part of a function in the ‘unreal world’ [6]. Through the ten years the course has existed it has changed its focus from travelling physically to other cultures to travelling through imagination. All the years we have kept the focus on prototyping. The name of the course changed in 2020 from ‘Protohype’ to ‘Transform’, to mark the emphasis on form, aesthetical explorations, co-creation and a transformative change.

3.1 Course context of the ‘Anticipative Co-creation Method’

The ‘Anticipative Co-creation Method’ is embedded in the course ‘Transform,’ between the initial research phase called ‘Refuturing workshop,’ and ‘far future’ concepts. In 3.2 you find more about the learning activities; how they imagine futures and the three types of videos that are created: A- Concept video, B- Process video, and C- Product videos. You can find the learning activities chronologically in the diagram below (Figure 1). From left to right in the diagram, we find the chronological listing of learning activities. After the ‘Refuturing workshop,’ we perform the anticipative co-creative exercises. Two longer phases follow first ‘far future’ speculations, and then the ‘near future’ designs.

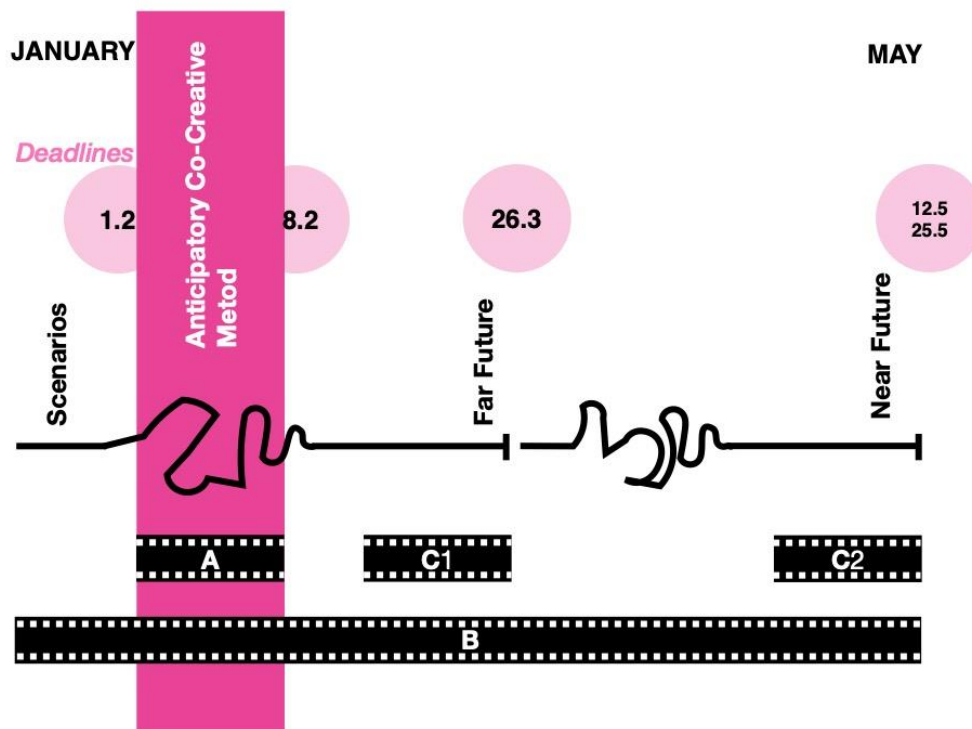


Figure 1. The illustration shows where the method is performed, within the timeline for the 'Transform' course between Scenarios and Far Future

3.2 Learning activities

The initial activity by Håkan Edeholt and Jomy Joseph in the 'Refuturing' workshop is a discussion of the climate and nature crisis, which generates consciousness and backdrop for their future scenarios. Continuously since the course was established, the course programme takes a stance against 'business as usual.' To quickly build up prototypes activate the core industrial design skills, and simultaneously render them into their future scenarios. Jomy Joseph has stated: 'Design fiction is explored here as a focused- and creative way to think about possible future scenarios that broaden the solution space through designed artefacts. These fictional accounts create 'what-if' scenarios' [7].

'Refuturing' and preparing scenarios, happen before the 'Anticipative Co-creation Method' and the creation of the explorative videos are introduced. The first is a *Concept* video, where they might film a material exploration or a roleplay, which plays a significant role in the second *Process* video as it explains the mood and shows the fuzzy beginning of a creative process followed by the third *Product* video communicating the situated result for an audience. The imaginative co-creative process during the making of this first concept video and the unpredictable outcome of explorations show a mindset and actions from which a 'far future' scenario could materialize.

3.3 Early phase anticipative prototyping

The core of anticipation studies lies in 'making futures' through direct participation and co-creation in the ongoing materialization of prototypes [1]. Even though the student's scenarios reveal big-scale problems, objects can bring in positive solutions for basic needs such as lack of food, energy, or safety. Quick 2D drawings and simple paper/clay models represent products on several levels of idea development. The 2D and 3D collages integrated with writing suggested environmental conditions of the surroundings and landscapes for a future scenario to take place.

The rough models are treated as any other intermediate model, with simple cut-outs, found objects, and glued-on parts. Paint is used to blend them into early scenarios. A major inspiration for early prototypes is to explore haptic- and tactile properties in materials themselves and in re-purposing of waste materials from industrial products.

Learning to work with a myriad of rough explorative 3D prototypes and gradually articulate the shapes and details, pivots around the use of 'aesthetic abstractions' of three-dimensional form and space [8].

Cheryl Akner Koler defines the mode of aesthetic abstractions as contextualized reasoning where four categories of abstraction, i.e. I) elements and properties, II) movements and forces, III) relationships and VI) organizational framework, are directly related to the authentic situation and the sensuous cognition of the individual [8]. Aesthetic abstractions complement other modes of abstraction, numeric and linguistic, which are highly coded. All modes of abstractions are used to give the possibility to 'step out' of the situation and treat it in an explorative way. In the aesthetic abstraction mode, one can reconfigure the particular sequence of the images that make up the narrative and even ignore the storyline altogether to freely test other possible combinations. By working with aesthetic abstractions new spatial relationships can also be tested, for example turning things upside down, rearranging things so they create different local relationships, or by testing proportions and shapes that also determine the movements and forces within the composition [8].

The design reasoning applied when working with aesthetic abstractions in this course was built on decades of teaching done by professors Rowena Reed Kostellow and Alexander Kostellow at Pratt Institute in New York City, as they established the first university-level industrial design programme in the US starting in 1934 and is still evolving to this day [9]. Rowena Reed Kostellow applied her sculptural insights from figure studies and sculptural armatures that act as the skeleton of a composition. This inner sense of form and its interdependent relation to space is where creativity may lay [10].

In the 'Transform' course the students are working in the physical world with all its sensory stimuli to explore solutions to products for essential needs that include food, energy, and water. They are also working in a digital world that is mediated through visual and audio signals. How these analogue and digital worlds go together depends a great deal on the time given to explore the physical world, because this is where the students nurture their anticipatory drive. It is our present behaviour in real life that helps us stay in touch as we design for the future, and this is a core aspect of the anticipatory approach.

4 RESULTS

During the 'Transform' course, the 'Anticipative Co-creation Method' was developed by Bjørnstad by adapting and transforming the related ACoWV method, by redesigning a techno-optimistic educational process. To begin with, the students pair up for a reciprocal interview session within a fixed time frame. The interviewer was instructed to ask empathetical questions that reflect their own immediate aesthetic response to the written scenario formulated by the other student. Notes are taken by the interviewer that documents the interviewee's verbal expressions formulated in response to the interviewer's curious questions. At the end of the session, the pair of students sit together and reads through their notes and take turns re-articulating each scenario in a more expressive text using the words from the interviewee in a co-creative fashion. This expressive text is sent to the course leaders. From this point, the students begin to gather and create 2D and 3D prototypes to be used as design probes in the first version of their concept video.

To support co-creativity, the students are encouraged to consider how the re-articulated scenario may affect the production of their concept video. They might also tap into any deep connections they may have felt during interviewing their partner that may bring value and meaning to their own scenario. Finally, the students should assess each other with support from the whole class and the teacher.

The hands-on making of the 2D and 3D prototypes gives rise to associations, which in an empathetical way feeds the imagination. The direct haptic signals received from the tangible stimuli of the materials and tools, feed-forward to spark the creative process. How the haptic imagery is used to shape an imaginative scenario depends on the students' ability to apply aesthetic abstractions that resonate with their emotional connection and intentional motivation.

With time the project starts to make sense. Now the fictional narrative, that holds the scenario together, can begin to unfold. Reflecting on their experience from the co-creative method, the students understand that their emotional responses are significant for imagining the future.

4.1 Step by step 'Anticipative Co-creation Method'

In a design studio lot of interactions are happening, student to student or student to the material, or student to teacher. As we saw the outcome we saw the exercise was liberating, and we found the need for structuring the way we worked.

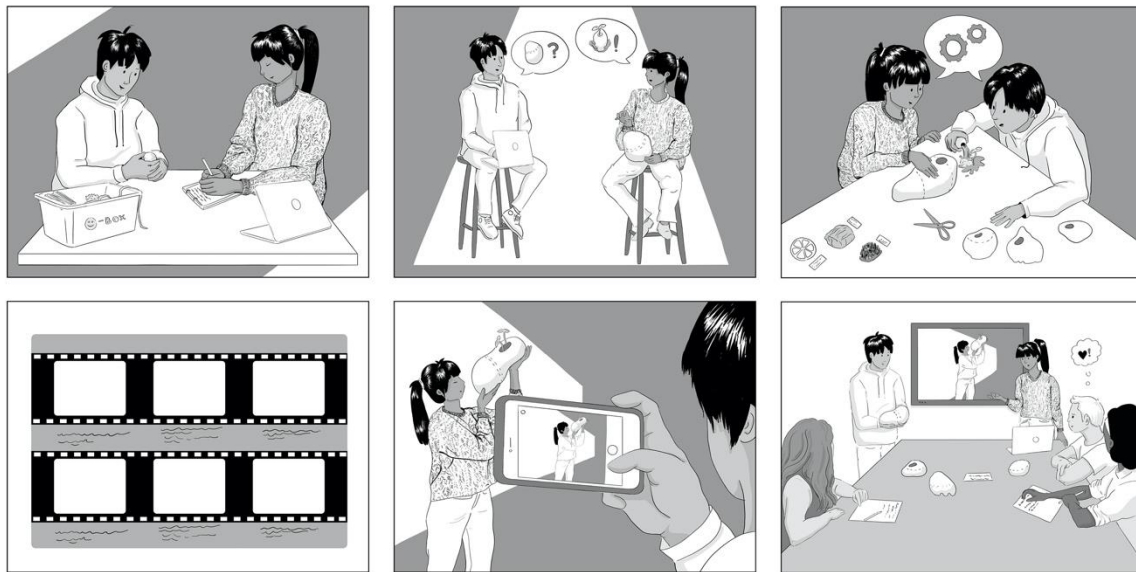


Figure 2. Illustrated model of the 6-stage 'Anticipative Co-creation Method'. From left to right. 1. Writing and illustrating their scenarios, 2. Reciprocal interviewing and re-writing, 3. Embodied scenario building, 4. Storyboard for the concept video, 5. Concept video, 6. Students/teachers assessment

Illustration: Alice Ekelöv

Description of the 6 stages:

1. Writing/ illustrating: This stage intertwines writing a creative text and consequently adjusting the scenarios. With inspiration from e.g., science fiction imagery or biomimicry, students do illustrations including a landscape or cityscape. They are then asked to imagine humans living in this scenario and write in the first person, speaking through their voices. Intentionally, these stories give us a glance into fictional futures.
2. Reciprocal interviewing and re-writing: The students work in pairs and take turns to be interviewer and interviewee, respectively. They interview and listen actively from a subjectively felt curiosity and take notes trying to capture the spoken language of the interviewee. Students continue the co-creative exchange and help each other write a more expressive text, that re-articulates the first version of the scenario into a second version. The interviewee better understands the narrative of one's own scenario and clarifies their intentional drive in the making process.
3. Embodied scenario: The students continue to work together in pairs. The early physical prototypes used in this embodied scenario are often of abstract character and may show some early form concepts spanning from simple paper shapes to 3D printed models. By also using ready-mades, they sometimes mimic categories of objects with solid form, cables, and buttons, without thinking of how it functions in detail. Metaphorical associations occur as the teacher provides the students with a mix of materials.
4. Storyboard for the concept video: An introduction to dramaturgy is given before students draw their own storyboard. They got general advice such as explaining product features and environments through natural sound.
5. Concept video: The students were instructed to act out the storyboard using rough prototypes to create a concept video. The video should capture and give focus to the 'fuzzy phase' in the ideation process. The student voices came through in both product, dramaturgy, and editing. Essentially the video communicates the concept by setting the scene, showing cause (product) and consequence (product function). It is about exploring some embodied aspects of the storyboard by making mock-ups that execute some functions. Each concept video can be seen as an anticipatory action since it highlights behaviour within a tangible life situation in the present [11]. Often the concept videos

- show making aspects, which are typical for designers' way of focusing on 'close to body' actions.
6. Students/teachers assessment: The paired students take a strong role in assessing each other's concept videos. The other students in the class are encouraged to give constructive feedback and the teachers assess the narratives.

5 CONCLUSIONS

This paper outlines how the new 'Anticipative Co-creation Method' emerged. By a reciprocal way of working together, that creates an atmosphere of support, we nurture cooperation and try to keep it through the entire course. We have observed that the students build empathy for each other, and generosity through co-creative activities. The emerging new 'Anticipative Co-creation Method' with its co-creative reciprocal interview and writing method unfolds into making physical prototypes, created to emotionally engage the designers in making the fictional scenarios. The products they describe in the scenarios accentuate the basic needs of our future. Foresight is possible through students that co-create and verbalize concepts, based on the SDGs and explore them through short videos. By inviting one student to respond to another student's short video, they can cultivate a felt experience for the video and support the emotional and narrative qualities of the scenario as it unfolds.

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