

Abstract: Arts & Crafts, Panarchy power

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Different unexpected combinations between industry, local government, private participants, educational institutes and artists resulted past year in challenging opportunities for transitions in urban and rural areas.

The power of art with the perspective of the artist approaching challenges evokes a chain of thoughts and (cascading) events, affecting systems. This results not only in innovative sustainable social & industrial products but also in change of systems.

Panarchy is the paradigm of transition and change (Holling). Panarchy is interaction of countless interconnected and nested complex adaptive systems. Panarchy is the paradigm where small actions can have major effects for good or worse. It is to expect the unexpected. Panarchy holds the promise of positively changing the anthropocene. By being prepared we can anticipate upon unexpected emerging phenomena which can be used as leverage for creating change.

SDG-labs are the environment where we can experiment and create new resilient concepts for adaptation to the antropocene. SDG-Labs have two aspects, the first is creation of concepts for change within the lab-setting, its content; the second is the process of organisation of the lab within its environmental and societal context. The Lab itself can be regarded as a complex adaptive system while the organisation of the SDG-Lab is within panarchy, acting on multiple levels and on different scales. Both faces, content and context, of the SDG lab have their own emerging properties.

For facilitation of the SDG-lab we organised workshops where creative methods based upon TRIZ ("Theory of inventive problem solving") and CPS (Creative Problem Solving) were applied. TRIZ makes use of pre-established thinking patterns and proven abstract solutions to sets of abstract problems. TRIZ provides a toolbox for solving complex (wicked) problems. TRIZ uses the heuristics of intrinsic technological and societal evolution once a concept emerges. CPS is used for application of the TRIZ toolbox, by making concrete problems abstract and abstract solutions, concrete. TRIZ and CPS makes use of analytical and design thinking. Results of these workshops are emerged pre-concepts which have the potential to create change.

Contextual settings of the SDG-lab determine its rate of success. Many good ideas perish in the "valley of death", before they can realise their full potential. The contextual setting determines acceptance and hence increases probability of idea realisation. The action of organising SDG-labs generates curiosity, enthusiasm, resistance and other emotions with people and organisations. This lead to disturbances in panarchy, which is rendered in emerging opportunities that can be seized by imaginative people.

Sarasvathy and Simon (2000) coined for this approach the concept of effectuation as an entrepreneurial principle for seizing opportunities which emerge from entrepreneurial actions in contrast to causation where managerial thinking obscures seeing opportunities. Effectuation is actor dependent where given specific means, choice of effect is driven by characteristics of the actor and his or her ability to discover and use contingencies. This approach is also recognised in innovation theory where the concept of "exaptation" is explored. Exaptation is the attribution of a new functionality to an existing artefact (or organization, scientific achievement, or cultural model) (Bonifati, 2010). Once recognised, effectuation and exaptation are major change drivers based upon

emergence of contingencies in existing systems. Our SDG-lab has discovered by accident the power of effectuation and exaptation for creating impact and change by using content and context of the SDG labs at the same time. Tangible results of our SDG-lab are cooperation with City of Groningen (Netherlands) as living lab for coping climate change and the initiation of the “Hemp Design and Innovation Factory” for reintroducing domestic manufacturing (reshoring) with hemp-fibres for producing high-design artefacts and fashion in the Northern Netherlands.

Exploring the paradigm of panarchy as principle of change and transition has opened up our minds for seeing and seizing emerging opportunities as change drivers and this to our surprise seems very promising.