

Thinking through weaving – An Experimental Approach to the UN Sustainable Development Goals

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Introduction

The United Nation has initiated the „Agenda 2030“ to foster global sustainable development. The great challenge of this agenda is to find a balance between its economic, social and environmental dimensions. The 17 goals and their 169 specific targets have given rise to an enormous number of graphic representations, working schedules, publications, events and much more. None of them seem to have the power to induce a transformation into a more sustainable way of existence. This experimental approach focuses on the inseparable nature of the goals by means of physically interweaving them and seeks to go beyond representation.

The starting point to this rather unusual endeavor were Verena Winiwarter’s reflections on the current separate handling of the SDGs by political stakeholders and research institutions. She voiced her concerns over attempts to fulfill the „Agenda 2030“ by ignoring common trade-offs between the SDGs and proposed to overcome that approach in her statement „Weaving a new fabric of society. Reflections on the Sustainable Development Goals and the links between them“ (See Appendix). In her role as a member of the *Deutsches Museum* board of trustees, she contacted Dr. Ellen Harlizius-Klück to ask for professional assistance from the field of textile technology. Charlotte Holzer, author of this part of the report, joined the cooperation with the task to carry out the actual weaving.

The main objective was to lay the groundwork for weaving workshops with stakeholders, politicians and scientists responsible for the implementation of the SDGs. The hypothesis was: Letting stakeholders experience the complexity and possibilities that lie in the design of ribbons and in the simultaneous manipulation of all goals (represented by colored threads) would benefit their decision-making skills. In this pilot project, the development of a booklet with technical constructions for such workshops was not the aim. However, by going through the learning process from the point of no knowledge to actually designing SDG ribbons, the outline of a step-to-step approach emerged.

During tablet weaving and the production of increasingly complex fabrics, that interlinked the SDGs, a cognitive process took place, that lead to the experiment becoming structured. Altogether, the project spanned from summer 2019 to autumn 2020. The phases of actual weaving were alternated with long periods of reflection, planning, documentation, discussion or pauses. Only when the practical work paused, the methodology became apparent and it was then possible to identify eight steps, that fell into three categories.

Category	Steps
<p>The technique</p> <p>Beginners learn how to do tablet weaving by following basic instructions. Ideally, an experienced weaver guides through the first steps and then there is sufficient time for individual learning processes. In this project, Ellen Harlizius-Klück gave the instructions on the weaving technique and provided literature about the design process.</p>	<p>Learn the technique</p> <p>Master the patterns</p>
<p>The representation</p> <p>The next stage is to get familiar with the SDGs by visualizing them in different patterns. Very early on in the project, it was decided to allocate a specific thread color to each of the 17 goals, according to the official UN design. In addition, background colors (white, pastel blue / green) were added in some ribbons.</p>	<p>Introduce the SDG content</p> <p>Weave the SDGs and design patterns</p> <p>Weave SDG patterns</p> <p>Refine the result</p>
<p>The imaginative synthesis</p> <p>The third step involved the materializing of personal thinking processes. The experience from this project showed that a clear set of content requirements stated by an SDG expert played an essential role in the planning and designing the ribbons.</p>	<p>Introduce individual thinking</p> <p>Practice „weave thinking“</p>

Together with a written and photographic documentation, the ten ribbons created represent the project outcome, upon which further interpretation, also within this report, is based.

The experimental setting

The great advantage of tablet weaving is the very simple and small equipment needed to produce the woven fabrics. A set of cardboard cards with four holes, colored cotton threads, a wooden shuttle and two strings to attach the construction to a doorknob, stool or railings were used (Fig. 1). The simplicity of tablet weaving equipment allowed working at many locations. As a result, the interaction with the author's social environment often had an impact on the weaving process.

The methodological approach was a combination of background research and knowledge exchange on the SDGs with the practice of tablet weaving. Additional topics included creative thinking and related cognitive processes, complex decision-making with a focus on space exploration, knowledge practice and strategies of climate action.

The team consisted of three researchers from various fields: environmental history, textile art / mathema-

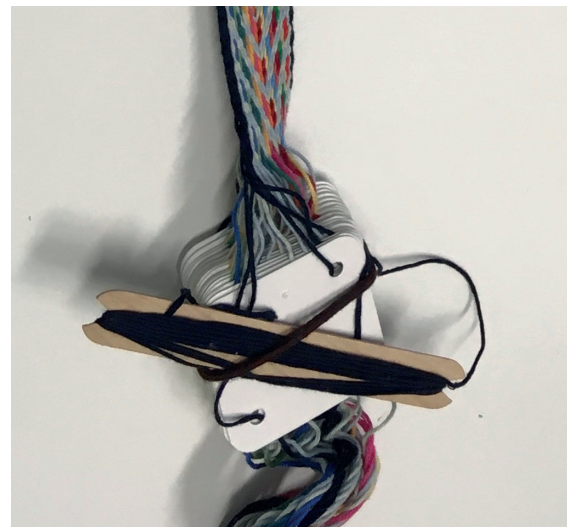


Figure 1: Threaded cards and wooden shuttle.

tics / philosophy and conservation. Verena Winiwarter, chair of the *Commission for Interdisciplinary Ecological Studies* at the *Austrian Academy of Sciences* initiated the project. She contributed the content-related aspects and decided on the textile technique to be experimented with, namely tablet weaving. Ellen Harlizius-Klück, who leads the ERC project *PENELOPE – A Study of Weaving as Technical Mode of Existence*, acted as an expert adviser. She also recommended the author to carry out this experiment

of knowledge practice, whom she knew from her PhD project at the *Deutsches Museum*. All three participants have skills in interdisciplinary work from previous projects and from their professional occupation. Furthermore, a connection between their everyday theoretical work with experience in textile techniques is practiced by them.

- As a conservator Charlotte Holzer is used to link the knowledge of the humanities with the natural science, in order to understand and preserve cultural heritage. Being specialized on textiles means that she is familiar with the materials and techniques from an analytical standpoint as well as with the actual handling of flexible fiber structures.
- Prof. Verena Winiwarter is an environmental historian, trained initially as a chemical engineer, after years of practice, got a university degree in history and communication sciences. She was Dean of the faculty of interdisciplinary studies of Klagenfurt University, in which capacity she also researched and published on interdisciplinarity. As chair of the Commission for Interdisciplinary Ecological Studies at the Austrian Academy of Sciences, she has taken on the task of working for the implementation of the SDGs in Austria and beyond.
- Dr. Ellen Harlizus-Klück is Principal Investigator of the ERC project PENELOPE (HORIZON 2020, Grant No. 682711), interested in weaving as a procedure of establishing order and complexity at the same time. Being educated as mathematician, she especially draws on the fact that weaving is a binary art that nevertheless can reach high levels of representation by combining algorithmic and creative parts. She also investigates traditional and ancient weaving as a mode of existence encompassing not only technical but also social and environmental order.

The articulation and exchange of thoughts on the current state of the project played an essential part in the process. Opportunities to communicate included two meetings between the author and Verena Winiwarter in Vienna, regular talks with Ellen Harlizus-Klück in the research institute, e-mail correspondence and a final workshop with all participants. This workshop was also joined by Dr. Annapurna Mamidipudi, who is part of the *PENELOPE* project. In addition, infor-

mal talks with colleagues from the *Deutsches Museum*, who were not familiar with the SDG weaving concept contributed to method development, insofar as the principals had to be explained in an understandable way.

The following key elements taken from the proposal of Verena Winiwarter and discussions guided the author in her SDG weaving learning process.

- In order to balance the economic, social and environmental dimensions of the SDGs, five main areas „People – Planet – Prosperity – Peace – Partnership“ have to be handled in a non-hierarchical way.
- The SDGs are „inextricably linked strands of society and nature“.
- The Agenda 2030 is a collective journey for humanity, which is best represented by No. 17 „Partnership for the Goals“.
- The contradictions between some of the goals reflect their roots in the real world.
- In this project three different forms of visualization were reflected on and processed in the ribbons:
 - According to network analysis, the goals No. 10 „Reduce Inequality“ and No. 12 „Responsible Consumption and Production“ are key levers in the attempt to reach sustainable development.
 - The biosphere goals are fundamental, as shown in the wedding-cake diagram developed by Carl Folke and his team at the Stockholm Resilience Centre, Stockholm University (Fig. 10).
 - The synergetic linkages and trade-offs between the goals, examined by meta-level analysis (Independent Group of Scientists appointed by the Secretary-General 2019, Box 1-2).

Technical, representative and imaginative woven ribbons

Step-by-step the reader is now invited to follow a description of the methodological approach, illustrated by the resulting ribbons. At the end of each section interpretation is given for each step, reflecting on how the planning and execution of each ribbon lead on to the next. Thereby, an attempt is made to explain how the initial aims of the project were aspired, questions answered, and limitations met on the way.

1. Learn the technique

To get familiar with the task ahead, the author joined an introduction into the art of tablet weaving, by Dr. Harlizius-Klück at the PENELOPE Laboratory in the *Museum for Plaster Casts of Classical Sculptures Munich*. After a short theoretical description of the process, an easy pattern and a limited number of two

to three colors were chosen. The cards then had to be threaded according to the pattern sheet, the warp threads knotted at the end and the whole stake of cards sorted by the threading direction (one half „S“, the other one „Z“). Using a thread loop, the bundle was attached to the vertical loom available, in order to sort the tangled warp threads, knot them and put weights at the bottom. (In the following setups, the lower end of the ribbon was tied to a chair instead of using weights.) The last preparatory step was to wind a weft thread on a wooden stick with notches at both sides.

The weft thread was introduced, and the stack of cards turned in one direction. Changing the direction meant to mirror the pattern and also to disentangle the warp threads at the bottom of the ribbon. Alternatively, this was achieved by opening the knot. When the tension was removed from the structure (at the end of the first lesson), it was essential to tie the cards together.



Figure 2: Detail of ribbon No. 1, showing a threaded-in design with variations of the pattern, due to the turning direction of the cards.

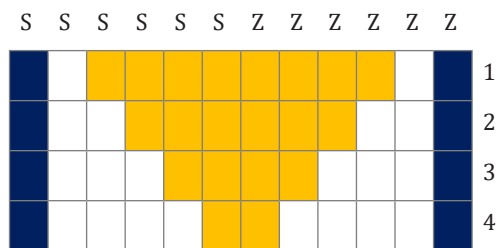


Figure 3: Threading pattern for ribbon No. 1

Upon finishing the ribbon, an illustrated documentation was made, in which the learning effects and the experienced emotions were noted beside the respective sections (See appendix).

In this first ribbon, the design resulted from different turning options that were tried with the initial threaded-in weaving pattern. For someone who has never done tablet weaving before, it was an interesting experience to realize the time-shift between turning the cards and actually producing the pattern in the ribbon.

It was motivating that one could arrive from a theoretical introduction to already weaving part of a ribbon within an afternoon. However, within that timeframe, only a first notion or intuitive grasp of the technique was acquired and a level of deeper understanding could not be reached. That was left for finishing this ribbon at home, go on weaving with the

help of guiding books and facing mistakes that needed to be unravelled.

A noteworthy characteristic of tablet weaving is the underlying, yet invisibly connecting role of the weft. The weft threads run from selvedge to selvedge and becomes embedded between the warp threads that cover them. They only appear as small dots at edges of the ribbons, at the turning points between the cards changing direction and sometimes, when weaving mistakes happen. Most designs in tablet weaving instructions even recommend to use the same color for the warp threads on the edge of a ribbon and the weft threads, in order for them to blend in. Playing with this technical concept behind tablet weaving became one of the means to reflect on and to visualize the linking element in the background.

2. Master the patterns

In order to learn how to actively manipulate the threads and create designs during the weaving process, a sequence of patterns was tried using a light-dark-effect. Two light and two dark threads were put into one card and the selvedge was made unicolor. While the cards with the threads on the border of the ribbon were left unchanged, the ones in the middle were alternated:

- the starting point for each color by turning cards individually,
- the threading direction by flipping them and
- the turning direction of all or selected cards.

The choice of color was led by a need for simplicity, so the focus could lie on the weaving technique. However, already in this step, the yellow, blue and red in warp as well as the dark blue weft were selected with their meaning for the SDG color coding in mind.

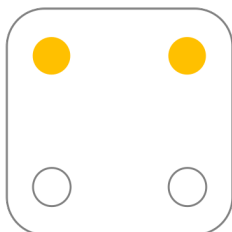


Figure 4: Schematic drawing of the cards, that were threaded with two light and two dark colors.



Figure 5: Detail of ribbon No. 2 with horizontal stripes.



Figure 6: Detail of ribbon No. 2 with diagonal stripes.



Figure 7: Detail of ribbon No. 2 with a sharp angle pattern.



Figure 8: Detail of ribbon No. 2 woven in the doubleface technique.



Figure 9: Detail of ribbon No. 2 with wide diagonal stripes.

After having understood the concept of threaded-in weaving patterns, another approach was chosen to begin mastering the technique. The light-dark effect allowed to see how the pattern changes, if the position of the threads in the cards and the threading directions were alternated. By trying out a set of instructions (Crockett 1994, pp. 83–102) a repertoire of patterns was acquired. While weaving that ribbon, changes between patterns could be practiced as well as dealing with errors (correcting them or observing how they unfold in the fabric). Also, the importance of empty space or „white space“ for the visualization of patterns was identified.

3. Introduce the SDG content

Since the aim of the weaving process included handling all the SDGs as inseparable, from this point onwards, all of the 17 SCG colors were interwoven. Since 17 is a prime number, that can only be divided by itself, a grouping, inspired by the wedding-cake

model of the Stockholm Resilience Centre at Stockholm University (Fig. 10), was chosen: One tablet weaving card can hold a maximum of four different colors and in this case the colors of goal one to 16 were allocated to four cards. The dark blue colored thread representing number 17, Partnership for the goals, was used for the weft.

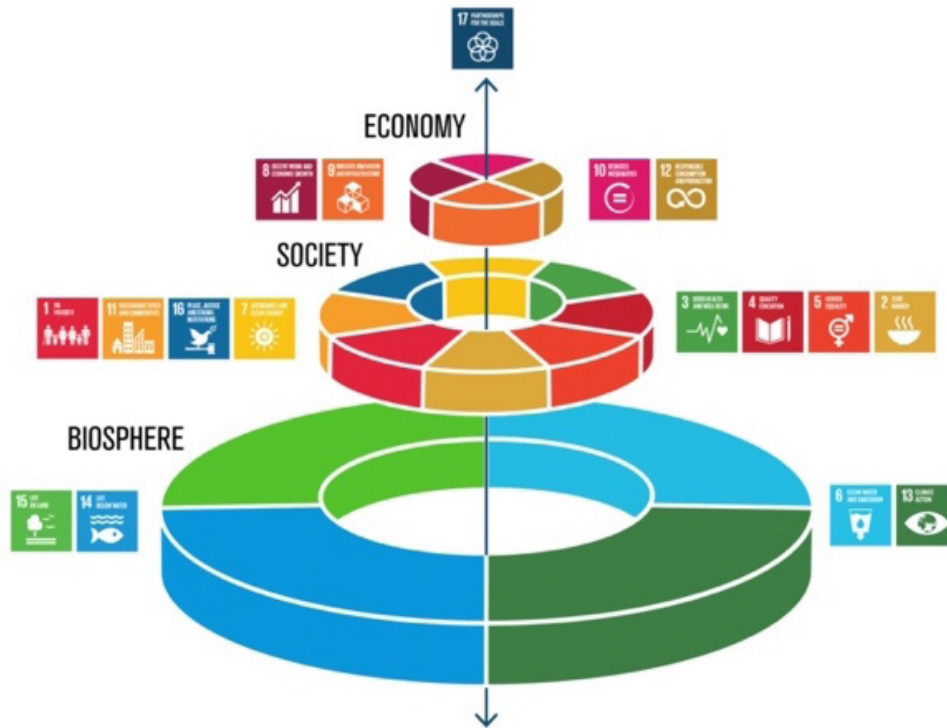


Figure 10: Wedding-Cake-Model of the Sustainable Development Goals, Credit: Azote Images for Stockholm Resilience Centre, Stockholm University .

Two versions were tried: putting the four colors of a group onto one card or on the same position of four adjacent cards. For the border a white thread was used, representing light / enlightenment / the role of science for achieving the SDGs.

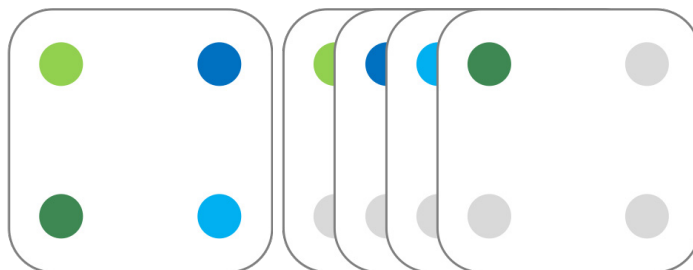


Figure 11: Schematic drawing of the cards, that were threaded with a group of four colors each or in the same position of four cards.



Figure 12: Ribbon No. 3 (above) and No 3. (below).



Figure 13: Threading pattern for ribbon No. 3.

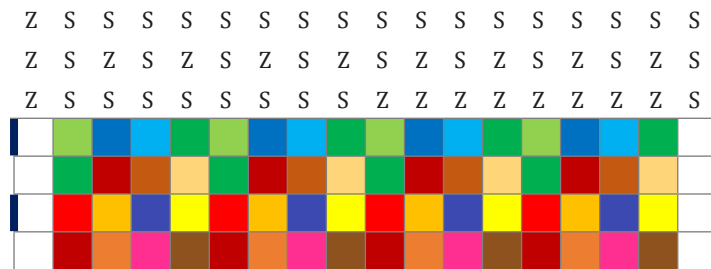


Figure 14: Threading pattern for ribbon No. 4 with the changing card slant.

From a technical point of view, these ribbons presented no further learning experience. However, to save threads, the change in pattern was done by rethreading the cards with the new sequence. When looking at a stack of four cards holding four differently colored threads, the act of changing the position of one thread felt like working within the system of a matrix.

An attempt to show synergies or trade-offs between the SDGs in this ribbon failed – probably due to the lack of detailed knowledge about the content and a clear specification of the goals to be compared.

Weave the SDGs and design patterns

In the next ribbon a combination of the two preceding weaving approaches was applied: the technique of light-dark-effects executed with all colors on a white background. The selvedge and weft threads in dark blue, representing **Partnerships for the goals**, framed the ribbon. Within these boundaries, the original numbered sequence of the SDG was maintained. Some technical difficulties were faced when it came to controlling the appearance of the pattern on the front or back. At this point this issue was ignored and left for a later stage in the learning process.

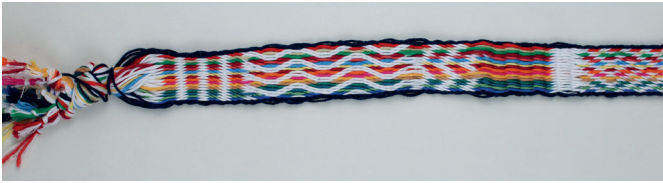


Figure 15: Detail of the beginning of ribbon No. 5.

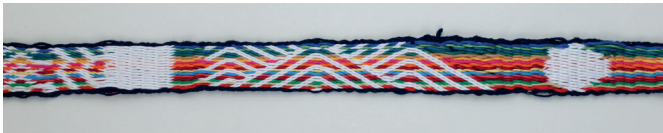


Figure 16: Detail of ribbon No. 5 showing the diagonal strips and a circle.

The ribbon again served for the familiarization with different modes of representation. The connecting and separating effects of the diagonal patterns (diagonals and waves) was tried and also the visual effect of the goals running along each other. Personal limitations were met when it came to the realizations of circles and change into white space (floating threads). The white background also dominated the design, which is why it was decided to look for contrasting, but unobtrusive colors.

Weave SDG patterns

The pattern of wide diagonal stripes, running over the whole ribbon came to be the guiding design for the final representative ribbons. A similar layout to the one before was chosen, however the appearance of the color followed an environmental theme: in going through the targets that describe and connect the SDGs, goals with a similar amount of reference to the

biosphere category of the wedding cake model were grouped together as can be seen below.

Following the overall topic of this ribbon, the background from which the goals gradually appeared, was held in greenish-blue colors in a pastel shade.

At the end, it was attempted to weave a sandglass-shaped form. The inspiration for that pattern derived from the cover of the UN SDG report „The Future is Now“.

When creating this ribbon, the initial thought was that life on planet earth is the fundamental condition for social or economic dimensions of sustainability. By starting the diagonal patterns with the biosphere goals, it was suggested that in caring for the environment, basic knowledge on caring for each other in general could be acquired. In addition, many options that would have initially been open to reach other goals are ruled out right from the beginning. For example goal unlimited access to energy would jeopardize the only planet currently available for humanity.

The technically most challenging aspect of creating this fabric was to introduce the new goals at the right moment (see the numbers). It was felt that the experience reflects the planning and implementation of a multi-faceted project with many different participants. While it took some exercise to arrive from the initial background to the diagonals, it proved even more difficult to change back to the uni-colored area. In both ribbons, this can be seen in the floating threads that were just bound again by the weft after some turns with all the cards.



Figure 17a: Schematic drawing of the concept behind ribbon No. 6 and No. 7 with the SDG tiles being introduced.

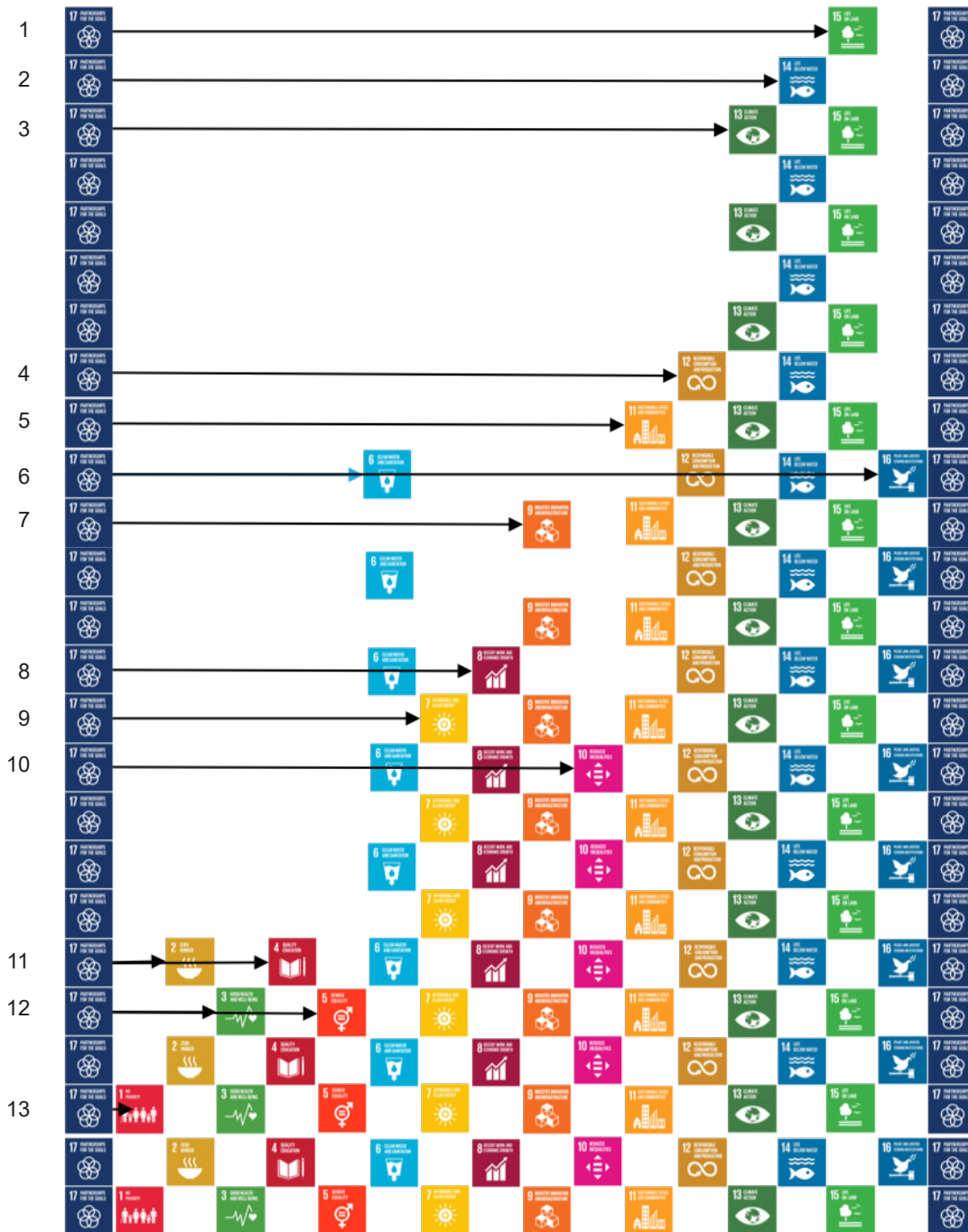


Figure 17b: Schematic drawing of the concept behind ribbon No. 6 and No. 7 with the SDG tiles being introduced.

Refine the result

In the second version of this ribbon, the requirements and advice from Verena Winiwarter and Ellen Harlizius-Klück were reconsidered by

- a. Back coupling the achieved weaving reflections with the original objectives specified in the project proposal,
- b. Solving problems from the beginning and the end, to meet in the middle.

While the beginning was designed in the same way, as before, the combined SDG colors faded out at the end merged again with the greenish-blue background. The last remaining goals were **Reduce inequality** and **Responsible consumption and production**, which proved to be driving forces in achieving the SDGs, as was shown by a network analysis (Winiwarter 2018, S. 22). Again, the other goals were ranked by their relation to those two social driving forces by going through the contents of the targets.



Figure 18: Ribbon No. 6 (above) and No. 7 (below).



Figure 19: Detail of the end of ribbon No. 7 with the colors fading out into the background.

In finishing the second version of this ribbon, an endpoint in finding a way to represent the SDGs was reached. However, the aim of the experiment was not to produce another aesthetically appealing representation of the 17 SDGs, but to gain more understanding in how to deal with the complexity of reaching them.

Introduce individual thinking

By now, a certain ability to express individual ways of thinking on how to connect the SDGs with tablet weaving was reached. From this point on, the ribbon served as an „extended mind“ to outsource thinking (Clark and Chalmers 1998). The grouping of the goals in relation to the biosphere was maintained and **Partnership for the goals** still acted as a framing and connecting element (selvedge and warp). In contrast to the earlier ribbons, two goals were chosen for the background: The blue from **Peace, Justice, Strong Institutions** was threaded into the cards with the other two biosphere-unrelated goals (**Gender equality, Reduce inequality**) and given a central position in the pattern. **Clean water and sanitation** was allocated the role of a connecting and flowing actor between all other goals. This choice was inspired by a theory based on the change that is caused by colors in water, opposed to the reflection of light causing the perception of colors (Arnold 2019). Templates for threaded-in-patterns from „Tablets at Work“ could be used as a basis for the pattern (Wollny 2019, p. 107–119). The effects of different turning points were observed during the weaving.

While working on the ribbon, interesting (subjective) experiences were made, about how thoughts could look like in a fabric. The process elicited feelings about dead-ends or approaches worth pursuing by the author. The ulterior motive of making it was not to find a solution for the implementation of the agenda 2030, but to try expressing and processing information by manual means.

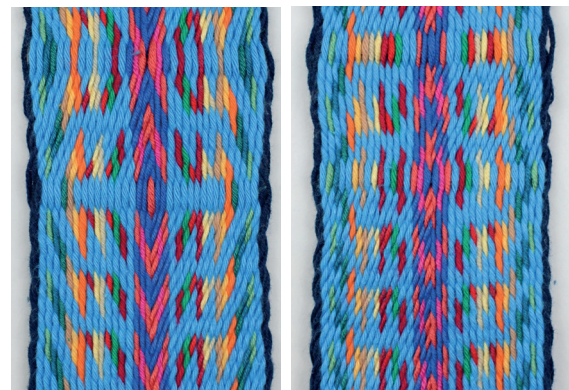


Figure 20: Detail of ribbon No. 8 from both sides.

It was felt that the dominance of the light blue, representing water, gave the design a very lively appearance, but at the same time induced a feeling of discomfort. Since „water“ / blue was chosen to represent change and flow, it gave the author the impression that change and speed in itself are not beneficial in a project and aspects of reflection need to be added.

The central strip had a much more dividing effect than intended, therefore this element was not used further. The combination of more than one aim on a card was maintained to deal with the fact that the 17 of SDGs are a prime number. The sequence of colors, representing the SDGs started with the greens and blues of the biosphere goals and continued with those, that had less and less direct links to the environment.

Practice „weave thinking“

For the last two ribbons, no additional note-taking or sketching was used to plan and design the pattern. The sources of knowledge consisted of the experience gained through practicing tablet weaving, the memories on the SDG contents (literature, discussions, handling the colors) and the ribbons made until then. At this point experience took over and sidestepped the typical idea of design/drawing first in favor of experiments based on the knowledge from within.

The reflections in the weaving pattern focused on the collective journey during which all mankind should work on the SDGs together (diagonal strips). The contradictions and separation of processes that precede a productive teamwork, were realized as waves that never touch each other, chaotic clashes of color and the beginnings of diagonal strips containing all colors.

The refinements for the last ribbons were based on personal aesthetics and experiences from work in the museum: The dark blue borders next to the biosphere goals seemed to restrict the uncontrollable development of nature and was replaced with the light blue color, representing [Clean water and sanitation](#). Instead of the dark blue weft, white was chosen to

emphasize the role of science in achieving sustainable development together.

By weaving just slightly differing ribbons technical problems such as the changing of front and back could finally be mastered.

The main (personal) realizations from weaving the final two ribbons were that the importance and beauty of nature in its uncontrollable, self-sustaining way should be respected and trusted. That includes aspects of nature in every person. At the same time, decisions such as the commitment to peace justice and equality are highly human-centered and characterized by a high level of control. Finally, the connecting importance of partnership and science was again emphasized and made tangible.



Figure 21: Ribbon No. 9 and No. 10.



Figure 22: Detail of ribbon No. 9 showing the transformation from divided efforts to reach the SDGs to coming together.



Figure 23: Detail of ribbon No. 10 with colors, representing SDGs being connected and the white weft thread appearing along the edge.

Conclusion and follow-up

In practicing SDG weaving, a mode of „external“ thinking was activated that surpassed the mere representation of goals and fostered ideas about handling all 17 goals at the same time. In a playful way, the author went from a point of curiosity in an unusual idea to mastery of an ancient weaving technique that can be easily integrated into every-day life. Be it as a means to reflect on SDGs or as a general support to one's thinking.

In discussions within the team, the effort of learning how to weave was perceived as a hindrance to using tablet weaving in a time-constrained workshop environment. However, the author thinks, that weaving confronts you with the fact that complex tasks cannot and should not be solved with superficial approaches and in haste. Therefore, the slowness and time-consuming aspects of tablet weaving actually proofed to be the strength of the method.

Out of personal curiosity the author produced another ribbon to, some months after the official end of the experiment and thereby transferred the newly acquired cognitive skills to her own field of expertise: textile conservation. In September 2019 she joined a team of handcraft men and restorers, to prepare the original glider by the flight pioneer Otto Lilienthal (1848–1896) for a new permanent exhibition at the Deutsches Museum in Munich. The first steps on the path to an informed conservation decision is always the close examination of the materials and techniques used by the original maker as well as later additions. The glider shows many traces of repair on the textiles, which are characterized by the weave of the fabric, sewing threads, glues and the mode of application. In a month-long process data was collected on each textile in order to differentiate between original vs later addition, to put them in chronological order and to understand the ageing behavior of the material. Based on the information, visualized in a drawing and an excel sheet, the author used her knowledge on tablet weaving to create a pattern, that connected the data and allowed her to process it. In the end the weaving took just about ten minutes, while days were spend to plan the pattern and thereby find the linking elements as well as individual characteristics of each textile. They were then allocated to one tablet weaving card. During the weaving the position of the cards could be changed easily and so it was possible

to sort the textiles, they represented, in a chronological order and by material in one ribbon.

This final example showed, that practicing tablet weaving has the potential to handle complex situations and guides the weaver from mere representations of data to real interaction with it. However, the author made the experience that this level of reflection could only be reached, when working with familiar information. Furthermore, Verena Winiwarter and Ellen Harlizius-Klück agreed on the assumption that a predisposition in the field of textiles is needed to achieve this level of cognitive development. It was therefore concluded to follow-up this project with professional weavers, who could contribute their tacit knowledge on a complex textiles technique to linking the SDGs, rather than organizing weaving workshops with SDG stakeholders.

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Appendix

Weaving a new fabric of society. Reflections on the Sustainable Development Goals and the links between them

By Verena Winiwarter, August 2019

The SDGs are not just yet another set of UN policy goals that will fuel research and deliver above all money for consultants.¹ A compelling case can be made that they are a departure from the usual in at least three ways. Firstly, they put all countries in the world in ONE pot. They apply to all countries; they are NOT „us“ talking about „them“. Priorities and challenges will be vastly different depending on the country, of course. But at long last, the world is united in an UN goal effort. Secondly, they are the result of a huge consultation process and not the product of a few desk writers and closed meetings. Thirdly, they are encompassing. They seriously try to cover the entire future development of all countries and not just sectoral slices. Yes, this leads to contradictions. But this is the simple, if sad truth about policies: They have to balance different, often contradictory interests. Actually, there are vastly more goals that are connected synergistically, but there are, true, a few difficult contradictions. For me, the contradictions

are proof that the goals are not aloof, but situated in reality.

The UN came up with a prime number of SDGs, 17, although No. 17 is more about the process than about any particular goal. Depicting the goals must have been a formidable challenge to the communication department, and in fact, the icon for goal No 10 was changed in January 2018. The guidelines on the use of the logos and other rules fill 68 pages.² A quick browse on the internet shows that the effect of the guidelines is limited. But most users, despite altering their relative sizes, putting them into circles instead of squares, changing their relation to each other (all forbidden), stick to their tiled character: They remain separate, although their interrelation is often acknowledged by arrows or lines, or even networks of criss-crossing connections.

¹ See the latest report at: <https://unstats.un.org/sdgs/report/2019/The-Sustainable-Development-Goals-Report-2019.pdf>

² https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/01/SDG_Guidelines_January_2019.pdf

This separation, while an important prerequisite for the needed specificity of policy measures, could, and indeed, should be complemented by an equally strong message communicating their inseparability. The ring logo of the SDGs, still set apart in segments separated by white, does not convey this message.

I suggest to turn to one of the oldest techniques of humankind, weaving, to allow another narrative of the SDGs than that coming with tiles and rings of segments. I suggest to tell the story of the SDGs as that of a fabric, a weave, as that of separate, yet inextricably linked strands of society and nature. Such a fabric allows potent metaphors: Each thread on a weave is of equal importance. If one thread is pulled, holes ensue. If they are not properly linked, there will not be a weave, but rather a chaotic and loosely tied mess. I suggest to take the SDG structure as a guideline to the weaver: 16 goals are the warp, goal 17, „partnerships for the goals“ is the weft. The biospheric goals and the blue-green hues, complemented with the browns and yellows and reds of other goals make for a colourful new weave of society. It is also quite clear that many different patterns can and should be woven.

Network analysis shows that the goals No 10 and 12 are central, meaning that sustainable consumption and production and the curbing of inequality are the best way to reach other goals. This could be reflected in the patterns.

The so-called wedding cake diagram, another way of thinking through the goals' relationship, shows that the biosphere-oriented goals (13, 14, 15 and 6) form the basis of all sustainable development – again this is a message to be transported in the weave pattern.

Yet another weave could arise from a meta-level analysis of the relations between the goals, showing how many goals are linked in a synergetic way but also pointing at the trade-offs. All such patterns can be based on already existing scientific analysis.³

While any such artistic implementation is of high value in its own right, and while the idea of a new weave of society needs to be made tangible in objects, there is also an important practice aspect: Actual weaving as a shared group activity, embedding the results into an actual fabric, e.g. as armbands or as bookmarks, to name but the simplest products, provides as a community strengthening activity and would bring a much-needed practical component to seminars. It would be transformative in the sense that not only cognitive, but also manual skills and the design thinking of weavers would become recognized through experience as essential for the SDGs.

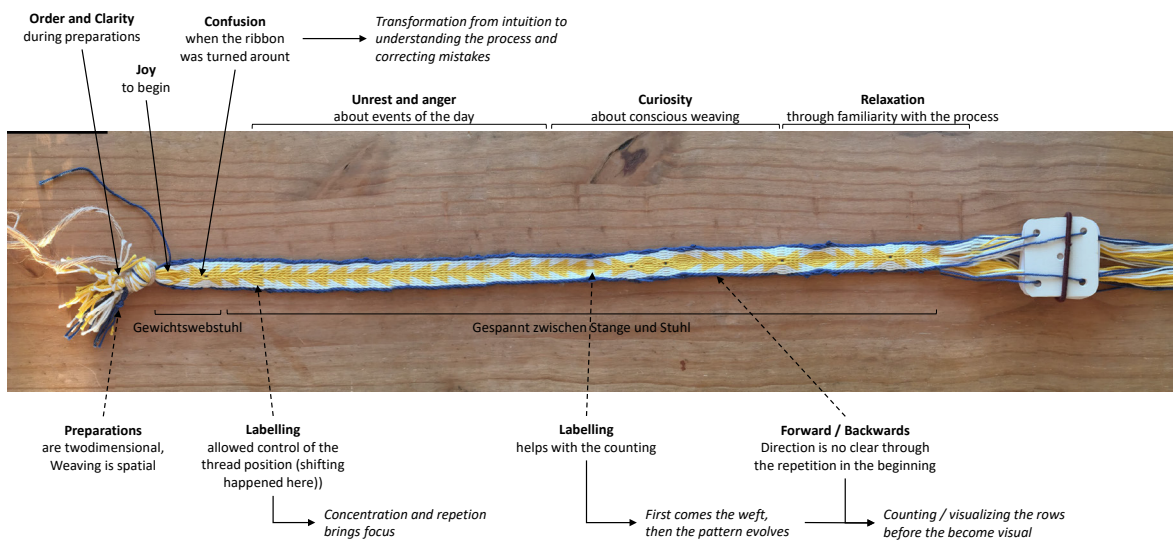
For all these reasons, „weaving a new fabric of society“ could be developed as a transdisciplinary endeavour and an important contribution to the sustainability debate.

3 KIOES Opinions Ausgabe 8 (2018): Umwelt und Gesellschaft - Herausforderung für Wissenschaft und Politik <http://epub.oeaw.ac.at/0xc1aa5576%20x0038bae2.pdf> (in German)

Documentation of reflections and feelings about the first attempts in tablet weaving

By Charlotte Holzer, August 2019

Emotions



Reflections

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

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