The Mission

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The Mission © 1996, Wolfgang Brunner Translation from: *Solvagnen, visioner till din miljöundervisning*

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The following text is an analysis and summary of the events that follow when students in the 9th grade (15 year olds) work with "The Mission". They are faced with the task to, as a kind of "Graduation Assignment", interlink knowledge from different subjects and different knowledge areas to form a functioning unity. The task begins when the students are faced with this mission:



If you give the students an open assignment of this kind you lead them into a process where they, with their accumulated knowledge, experiences, set of values and goals in life, slowly explore both their inner self and the outside world. The energy or the driving force behind their work mostly comes out of the fact that they themselves are allowed to deal with the task in their own way and decide which solutions they want to use. After having completed this assignment with a great number of students I have found that their thinking usually goes through a number of stages. Not that they follow one another in a streamlined manner or that all students go through them, but they still appear like reoccurring thinking patterns or methods to deal with the difficulties they are faced with. The stages can be described as follows:

The Warehouse Stage – thinking fast and short-term

The students cannot immediately get an overview or a general picture of what is necessary. They therefore usually start with the things that are closest to them selves and their first wish list may look like this:

- TV, video, stereo, CD
- Solarium, shampoo
- Sporting equipment, bed
- No adults and no school

"One has to bring a lot of stuff and it has to be luxurious and nice. Big freezers with hamburgers, a whole tank filled with ketchup and then paper plates so that you do not have to do the dishes. Bed, TV, video, video films, food and a lot of candy. Disneyworld, bars, discos, a mall and a golf course. Parentfree and no school."

"To bring: Clothes, diary, tape recorder, toilet bag, bed quilt, pillow, food, water, toilet, shower, matches, light bulbs..."

Namely they are filling the spaceship with everything that exists in their dreams of a rich, luxurious and independent life. If you are discouraged over the students shortsightedness you can consider whether they, through their choices, show us how they have perceived what we in the grown-up world seem to think life is about – happiness, success, the meaning of life may in a concentrated form be expressed as: *maximum consumption with minimum effort*.

And when the stereo "breaks down" one simply invents the waste hatch and sends the device into space, while one fetches a new one from the storage room!

With this way to deal with the problems the students are soon faced with a number of difficulties. The storage rooms will inevitably grow beyond their control. Section after section of frozen hamburgers, a giant tank with ketchup and paper plates so that you do not have to do the dishes.

– And water as well, I have to take a shower at least once a day!

Or

- Hey teacher, is there a way to produce air?

After a while this way to solve the task seems more and more unrealistic or even directly bad - food and clothes that are 5000 years old or TV-games that shall remain entertaining for thousands of years?

On second thought - What is necessary and what is the point?

Slowly the task is growing in their minds and it can for a time seem more and more unachievable.

- Who is to maintain and take care of all the advanced technology?
- How much work, knowledge and responsibility does it take?
- What is one supposed to do in order to make the food, the water and the oxygen last and what do you do with all the waste? Not mentioning the problems of overpopulation, inbreeding and justice?

"My buddy and me, and then 98 girls... and then... All-purpose factories and robot and a waste-disposal hatch where you can throw out everything that... A tap for the water!

First I filled the spaceship with every luxury article I could think of, then I realised that it did not work...then I mourned for three lessons..."

Some students begin to wish that their journey would finally come to an end. They try to escape in different ways, for example by letting future generations deal with the problems or by taking "sleeping pills" and sleep until the end. Some may in their despair ask:

- What is the meaning of this journey anyway, everything seems so difficult and boring!

Well, what is the meaning of life, I can ask them back. What is it that brings you deeper fulfillment? Which are the really important things in your life? Many students must get to these existential questions before they can go on with their visions. And many do not really want to talk about these questions seriously, having faced far too little of them both in their everyday life and at school. To many the discussions are also a turning point that makes it easier for them to enter the next stage.

Construction from the basics – hens instead of TV-games

The small greenhouse is often the first sign that the students have reached a new way of thinking, and now there are other needs they want satisfied – food, clothes, oxygen and water. Step by step they put the pieces together to slowly form an increasingly clearer picture of what has to be included in order to create a "living space" with functioning life cycles. They have arrived at the ecological fundaments of our existence and now the hard, but still very stimulating work to build a functioning landscape begins. They gradually change from super-consumers to farmers and willingly equip their ship with hens instead of TV-games!

"Banira Jam" – Our Village

In the outskirts there are barns with all sorts of things. On one side lie the storage houses where the food is kept. We try however to take as much as possible directly from the fields and plan the farming so that we do not get a surplus that rots away. A horse pasture also lies in the outskirts so that you can ride if you need to. It is a beautiful village with simple, but aesthetic houses; everywhere you see flowerbeds with cultivated flowers. Since everyone lives so close to nature there are many skilled gardeners. Here and there lie small workshops and also a bigger house where many different crafts are exercised: forging, pottery, glassblowing, shoe making, textile manufacturing, wool preparation, net making etc. Most of the houses are made of wood. There is a lot of wood onboard; it is needed for firewood and reparations of the houses and boats. In the middle of the village lies the well. The water comes from the lake and it runs through the ground where it becomes purified. There is also a community house where you have parties and conferences. Often you are out in the village square on such occasions. A fireplace is placed in the middle of the square next to the statue of TELLUS. Around it you dance on festival occasions. Just outside the village, on a beautiful place surrounded by trees where crickets sing in the evenings, is an amphitheatre. There performances are held regularly. In that way Romeo will explain his love to Juliet in the middle of the unknown space. A sports arena with room for ball games and other sports also lies a bit outside of the village.

Lisa Östborn

Looking back onto the life people lived onboard as it was described in the students' first visions it can be briefly summarised like this: The humans were exclusively young people their own age. They had no task, no responsibilities and no connections back or ahead in time. They lived a life where they, put simply, consumed to a maximum at the least effort possible.

Yet most of the students abandoned this "Land of Milk and Honey". They let the sun rise over a landscape with plants and animals, with cultivations to maintain and wool to card and spin. They went on happily, as if they had rediscovered Earth.

– You could bring the water supply in the shape of a lake, and in it you could also bathe and fish.

- For stables, living quarters and furniture we need wood. Therefore we put aside a part of the ship for a forest and at the same time we get a recreation area and mushroom and berries to pick.

– I can take care of the beekeeping because my grandfather has got bees. Then we get honey and the bees are also good for pollinating the plants.

– We have to plant rubber trees so that the ship does not get overpopulated and medicinal plants!

As the students begin to think in cycles, their self-image changes as well. The disco music dies, the important thing is to deal with the basic needs for survival and well-being and take responsibility for the future generations to come. The more it becomes clear what a lot of knowledge that is needed as well as how important cooperation, understanding and justice are, the larger the needs get for the transfer of knowledge between the generations. One must have schools and the elderly that have lived their whole life onboard will of course educate!

- Or else the spaceship children never will make it!

Summary

As shown above the assignment is such as that by making the students into actors it challenges them at the same time. They want to have a rich and good life and that encourages them to seek answers to all the questions that appear. They seek with lust, energy and of necessity because they want to know. At the same time they discover that they already have many of the answers and the knowledge, and they slowly put them together to form a wholeness. As with all creative work they rejoice in constructing and are astounded by everything they have within themselves.

With the help of a dedicated teacher the task can lead to many of the things that are mentioned in both Agenda 21 and the curriculum as essential components as well as to an integrated environmental education. It is true that we have shrunk Earth and heavily reduced the population, but in principle the passengers onboard the spaceship face the same task as humanity as a whole when it comes to the searching for a long-term sustainable way of living on a limited area.

If you have performed this assignment several times you may find that the students' discussions often follow a pattern. They describe a kind of outgoing spiral movement, where they time after time return to the same kind of problems or areas, but with increasing depth and width. These can be summarised under the headings:

- Ecological fundaments
- The structures of society
- The meaning of life
- Long-term sustainability

Of course the students cannot get an overall picture at once, but it will gradually appear as they move round the laps of the spiral. And with each lap they will penetrate deeper into the problems and the new things they find under each one of the headings will give obvious impulses to proceed to the next one. The fact that they "see" all the aspects at the same time, and that they thereby are forced to connect them to each other, is at the very heart of the process. They create a miniature world and slowly they obtain a coherent picture of:

- The conditions of a sustainable system.
- Values, approaches, rules that help them obtain a functioning society and a prosperous and satisfying life.

For us teachers, watching the students wrestle with their assignment is a splendid opportunity, partly for evaluating what our teaching has lead to in terms of useful knowledge, partly to more clearly detect the knowledge and abilities they need in order to be able to solve the assignment. Or in other words, what our teaching should consist of!

We have, as already mentioned above, the ability to use the work with "The Mission" to obtain a visualisation of the goal for our education for sustainability beginning with the students' world as the starting point.

Discussion (see chart on page 14)

We will now make an analysis of the image of what the students must understand and know in order to master "The Mission" and how these knowledge areas are connected to each other.

Ecological fundaments

In order to manage the assignment the students naturally must have understandings of the basic interplays in nature; plants, animals, food chains, dynamics and stability and have as much knowledge so that they can build a number of basic natural life cycles onboard:

- The water
- Oxygen and carbon dioxide
- Minerals
- The natural cycles of metals

They must also understand something about the concepts of energy and energy-flows so that they can see what forces that are "propelling" the living processes and the natural cycles. They must be able to distinguish between the energy we derive from stored energy sources like coal, oil and gas; and the energy we get from the flowing energy sources originating directly from the sun. They must also have the ability to reason about the resources that can be recreated onboard and the resources that will be consumed during the trip.

To make the fundamental ecological conditions more visible one can preferably use a corked-up demijohn (bottle) in which plants are placed to grow. It is often enough that it is standing totally unannotated in the classroom - the bottle as a miniature model of the spaceship! From this small-scale closed system we can together discuss flows, natural cycles, recycling, internal influence impacts, long-term sustainability etc. And if the students have understood the events occurring in the bottle it is easier to transfer this understanding to the landscape onboard the spaceship and naturally also onto Earth!

Apart from understanding the large-scale connections in nature it is important that the students also have touched upon or come in contact with "the essence of life". To have a feeling for the living, to see it as an ally, that all life is a unity and that we humans are a part of nature!

Many groups place the ecosystem and themselves far away from each other, sometimes even on different floors in the spaceship. They can also in many other ways mark the boundary between the certainly necessary nature, and the place where they themselves "live". Some of these "boundaries" I interpret as an expression of isolation from nature, an isolation that in many other ways also manifests itself in society as a whole. They really have very little contact with "untouched or pristine" nature and can describe it as "disgusting", "dangerous" or "threatening". Obviously they know that the food does not come from the stores, but is produced in fields and in pastures. Yet this connection to it can be rather inaccessible, not only geographically but also in terms of feelings and understanding. This does not only apply to children in cities, but I have also found this isolation with many students living in rural areas.

This fact presents us with the question – from where does this isolation originate and what can we within the schools do to overcome it? The way I see it, one way can be that we consider in what spirit we describe what is living, the questions we ask, the type of experiments we perform, what we do on excursions and open air school days. To allow us to use all our senses and feelings when confronting what is living and that this is as important as the analysing, the measuring and the registration.

The structures of society

Apart from achieving a functioning ecosystem the students also must be able to give examples of crops, domestic animals and medical plants for our basic needs, and also what is needed for a little comfort and for satisfaction. They must be able to find a reasonable technical level for 100 persons to manage and be able to identify what is resource efficient and sustainable so that the technology does not lead to difficulties onboard or that finite resources are wasted. All of this naturally places high demands on the travellers onboard and that automatically leads to discussions on how to look upon mankind. Is man good or evil? What means are to be used in order to bring about cooperation and justice? How will you, without violating individual freedom, make sure that there will be some kind of a body onboard that takes on the responsibility for the wholeness and cares for the future?

The issue of democracy naturally becomes important as well as mastering the risk of overpopulation or that great conflicts may spoil everything you have accomplished. The collective knowledge of the society soon becomes an invaluable asset and the discussion about what type of school you want, apprenticeship and what wisdom really is become important questions.

On this small-scale and up close level it also becomes much clearer that "society" to the highest degree is something you create together and where everybody contributes and are effected by the climate that will prevail.

The meaning of life

It very soon emerges that the students have received a very demanding assignment and many ask themselves: "What is the meaning of it all, is it really worth the effort?" These existential questions put many of the struggles of everyday life to the test and often lead to discussions concerning the goals in life and the quality of life. From having a rather narrow point of view on existence with rich opportunities for easy rewards, their "value horizon" quickly widens. And since I as a teacher have not set any standards for how to think or what is right or wrong, they have to deal with that struggle themselves.

In that process many touch on something that could be called "the core of religions". They suddenly get a picture of religion as something that does not only come from the outside in the shapes of dogmas, decrees or doctrines, but that it is all about the inner struggle which all humans have in common with regards to:

- Right and wrong
- Good and evil
- Thinking of oneself versus caring about others

The students then realise that the issues of quality of life, satisfaction, "being able to sleep well at night" cannot be solved privately or individually, but that they can only be expressed in cooperation with or in relation to other people! That my well-being is dependent on the well-being of others!

Then who are these others, how far are you supposed to extend your solidarity? To the next of kin, the neighbours, or should it perhaps include animals and plants or even the entire ecosystem?

Asking these questions immediately show the students' views on mans relationship with the living as a whole and also how they view the society they create. They deepen and sharpen the outlines of the image of what it in a wider perspective means to "care". That it is through this concern, and the feeling of togetherness that it gives, that life is provided with much of its content and meaning. That this concern is the force that both can make us exercise restraint and make us act for the good of everyone and everything: the appeal is concern – the reward is participation!

Added to this is the insight into the importance of culture, partly as encouragement or recreation, partly as the force in society that helps the people cope with these questions. Life cannot only be about crass survival or duty but there must also be room for festivities, lust and love.

It also becomes clear that there is no given objective truth or justice, but that behind everything we do lie values and moral concerns. The question that then arises is what viewpoints, attitudes, values and rules are the ones that could help people manage the task.

...

Otherwise you could say that our religion is "live with the Earth". Then it is not a planet that is the Earth, but instead the earth that is in Cu'polo and that we all are totally dependent on.

There is only one God, but God is within all humans wherever we go. That is the most common view onboard the spaceship. Erwin teaches from that starting point and then he holds a service in the church (or the prayer hall or the Mosque, whatever you want) every Sabato. Then everyone attends that is able to, and we sing and play a lot and then we have silent prayers when everyone can pray to what they themselves want to. (Katrin always prays to her mother - for candy.)

We light candles for the dead as well. The dead are buried outside the church and we do not plan to remove any tombstones and "clean" the cemetery for new graves. That was one of Earth's mistakes.

If you want to be cremated and scattered in the wind, you will be, or else you will simply be buried.

The nameless children are named in the river Porla during splashing, play and seriousness.

The Bible is read more or less as a fairytale so to speak. Christianity was left on Earth, the Faith in God is growing stronger than ever out in space.

Nanna Jonsson

Long-term sustainability

The assignment they have been given is of the kind that they gradually have to try and form their conception of what long-term sustainability really could mean. What consequences could having such an objective impose on our lives?

Since they themselves have created the landscape onboard, and they themselves have added all the animals and plants living there, they understand their task and "care about" them. They can have an overview of the world they have created and slowly an understanding of the system arises, which leads to that concepts like sustainability, natural cycles, recycling, etc., gets an actual and deeper meaning.

Onboard the spaceship it gets so much more obvious that they live in a sealed system with finite resources, which makes it a whole lot easier to discuss the limiting system conditions:

- -There is a certain amount of resources for storage onboard, and if you do not circulate them in the natural cycles they will soon run out or even cause environmental problems as growing rubbish piles.
- The renewable resources that are created onboard are completely made from what is created through nature's circulation. It is the collected production of the plants and the animals that gives the people onboard products through farming, forestry, cattle breeding, hunting and fishing. It is the sun that ultimately propels all natural cycles.
- Health, well-being and prosperity will be directly dependent on how well the people onboard succeed in achieving functioning circulatory systems and in preserving the natural resources.

When the students have come so far in the process that they begin to get a general picture of the life onboard, it could be time for them to write down a summary of their discoveries and achievements.

They then get the possibility to visualise the process they have been going through and rejoice at everything they have learned. If you give the students the freedom to formulate this report their own way you will often find that they perform much better than they have before in other contexts, and you discover that they very seldom have had an opportunity to show their real capacity.

The journey to Earth

We used the cultivation in the corked-up bottle as an easy-to-understand model of the basic ecological conditions onboard the spaceship. In the same way the spaceship becomes a model of the conditions on planet Earth. This the students discover gradually during the process and in their discussions they make more and more comparisons with Earth. To many it still is something of a shock, or an "aha-experience" to see their Earth put into a corked-up bottle:

– So you mean that we live in a world that is as sealed as a spaceship?

 But it is a lot bigger, someone quickly adds so that it will not feel to threatening.

Through the work with the spaceship the students have acquired a tool to understand and discuss the environmental problems that we on Earth are threatened by, and as they also see Earth as an enclosed system the environmental problems suddenly become much more urgent and serious – ozone dilution, green-house effect and acidification!

For that reason it becomes more and more important that the threats must not be dominating when we talk about the environmental problems, but that we give the students the time and knowledge so that they see the possibilities for a positive development.

If the students, helped by the spaceship, have understood the basics of a sustainable system and have come across the existential questions from their own horizon, then it could be easier to have a discussion about how we need to build our society. It then becomes easier to reason about environmental technology, natural cycles thinking and even a change of lifestyle. Much of the Agenda-21-work that is taking place out in the communities could very well be used to shed light on that there are others who think like they themselves do, that many things are happening and above all that a lot more can be done.

Short guide lines when doing "The Mission"

The Mission can be used for a number of different purposes and that of course influences the guide lines very much. That means that you will have to adapt the following to the prevailing circumstances.

The primary goal is to start a process where the student gradually discover vital elements in a sustainable world and get a feeling of how they influence each other.

Reminder to the teacher

As you face your group with this extraordinary task you also start a development process where they themselves are the main actors. This also means that you as a facilitator of the process should adopt a somewhat restrained and cautious attitude:

- Never reject a proposal or an idea even the "wild ones". Let them
 argument and discuss, let them even go in directions that you already know will lead to dead ends. Because, it is much better if they
 themselves discover that instead of hearing it from an omniscient
 teacher.
- Don't deliver readymade solutions to their upcoming problems but stimulate their thinking and creativity through discussions and parables.
- Provide them with tools to handle the mass of aspects they have to embrace and a structure that can help organize their discussions.

Workflow

A. START

1) Hand out The Mission and let everyone consider the task individually during 5-8 minutes. No discussions are allowed and the participants are instructed just to put down what comes into their heads on a piece of paper.

2) Form groups with 4-6 persons and start their work by just asking them to read to each other what they have written down without any long explanations.

3) From now, they are free to pursue their work as they like, but with the common goal that:

"The interior of your spaceship should be so well designed and inviting that all the others would like to join your spaceship!"

A simple contour of the spaceship may be helpful in this face of the process.

B. TOOLS TO ORGANIZE AND STRUCTURE THEIR DISCUSSIONS

After a while their spaceships will be filled with all the things and functions they have run into in their discussions and they may need structuring tools. Here are some examples:

To find a starting point

Ask them to use Maslow's "hierarchy of needs" and urge them to begin to find solutions for the most "fundamental needs". Later on they can tackle the ones higher up in the hierarchy.

No waste hatch

Some groups may get stocked with the idea that they can solve all their problems by just taking everything they need for the journey with them from Planet Earth and put it in a huge storing room onboard the spaceship. Challenge their assumptions and introduce the fact that "there is no waste hatch so you can't throw garbage into space".

The inner space

Some groups may run into difficulties because they design their spaceships with many floors, staircases and elevators. Urge them to collect all the essential life functions on one floor and start to design that one.

A key aspect to get an inner space in their ships may evolve from their discussions when trying to find solutions to the circulation of water. Make sure that this will be one of the first tasks, and then the other pieces easier will fall into place.

Gravitation

After a while some students may discover the lack of gravitation onboard the ship. Congratulate them to that finding and reward them by offering them free gravitation of exactly the strength they prefer. Without gravitation they will have to rotate their ships and the design will become much more difficult.

C. SUSTAINABILITY

There will be a lot more difficulties and challenges for the students and it is up to us as facilitators to support and encourage them not to give up. Depending on how far you would like to go into the process you have to set concrete and achievable goals for your students.

Getting a glimpse of sustainability always demands a holistic perspective and that a number of elements are present at the same time. (See attached chart) If there isn't time to go deep into all of them it is better to do it more superficial instead of leaving a number of them out.

Vital elements in a sustainable world