TRANSITION AREA BOUZOVSKO?

IS THE TRANSITION APPROACH APPLICABLE IN SOCIALLY/CULTURALLY LESS RESPONSIVE AREAS?

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ABSTRACT

During January 2009 millions of Eastern Europeans discovered how precarious their modern lifestyles were, when suddenly a dispute between a private corporation and a foreign state shut off the supply of gas. What would happen in the event of serious unrest in the oil production hubs of the world? Or simply; if the fuels we have become so dependent on, once again hit the price levels of the summer of 2008 …or higher…and stayed?

In particular: What would happen to the specific Czech rural area of Bouzovsko, if suddenly -or during a 15 year time span- a drastic shortage of fossil fuels occurred? Would it be possible to gradually implement a sustainable 'bottom-up' plan of resilience towards such as situation?

This paper argues the potential of introducing 'The 12 steps of Transition' to Bouzovsko, in accordance with 'The Transition Handbook'. Such steps include elements of landscape ecology, environmental management, renewable energy planning, along with enhancing the social infrastructure of the area, and securing local economy. The 'transition movement' is rapidly spreading across the world as it aims to prepare for such a possibility, through a communal based positive gradual energy descent. It is designed as a participatory response to the Peak Oil phenomena.

The research brought forth the conclusion that it is unlikely to implement the Transition approach in socially/culturally less favorable areas; that the parameter which prevents this is the lack of a popular understanding (by the local population) that there is no other way possible, and finally that the best way to ensure any resilience is to follow the model of the 'Shock Doctrine': A small group of citizens unite to create a specialized plan for transition to a minimal fossil fuel dependence in the future, and have the plan available for implementation when the time is right.

Key words: Sustainable rural development, resilience, post-peak development, transition movement,

INTRODUCTION

A series of leading researchers believes that the world reached its absolute peak in oil consumption in 2008, which means that the remaining half of crude oil will be more difficult to reach and thereby significantly more expensive (Post Carbon Institute/Heinberg, 2008).

In 1956, geoscientist Marion King Hubbert working for Shell Oil Company, predicted (fairly correctly) that the US oil production would reach its historical peak in 1969, then start to fall, never to rise again (Campbell and Laherrère 1998). This defined the concept of 'Hubberts Peak', according to which the production rate of oil will follow a roughly symmetrical bell-shaped curve, based on the limits of exploit-ability and market pressures. This term later became interwoven in the term 'Peak Oil', and has been experienced by a series of oil producing countries (Deffeyes, 2003). Based on their experience and statistics, Campbell, ex-chief geologist for Amoco along with petroleum engineer Laherrère, announced for 2008 the "cheap oil crisis", when the world will turn to a permanent fossil fuels scarcity, a context where it would become impossible for the industry to maintain its required level of production, as the prices of energy will rise drastically (Campbell and Laherrère 1998). This story can be told for the majority of the natural resources, and is reflected in the important rise of the gross cost of products. This movement is accelerated with the rise of new economies in the emerging countries and climate change, leading to an additional increase and instability in overall supply and demand.

Introduction to the Transition concept

The first notion of the 'Transition Town' concept originated in N. Ireland in 2004, however an internet search of "Transition Initiatives" (as the concept has developed to be called) will currently find 1007 'official' (as of June 2012) small towns, large cities, even entire peninsulas and bioregions (and 1000's of 'mullers' and unofficial initiatives) engaged in a grassroots exploration of what it means to redesign our local systems so that our basic needs—food, water, energy, economics, transportation, health, and housing - are sourced locally and dependably at all times (Online response by Rob Hopkins, 2009).

The transition movement is a whole-systems approach to community design focused as much on the relationships between elements as the elements themselves. So rather than approaching urban planning as an isolated concept, the Transition movement emphasizes the impact which planning decisions have on all other aspects of community life. Instead of creating policy in reaction to events, the Transition movement suggests looking at the bigger picture, and then approaching policy based on creative, thoughtful relational design. The approach is different than the conventional top-down planning, which tends to focus on putting out fires while the other focuses on creative, empowered, design processes. It all begins when a small collection of motivated individuals within a community come together with a shared concern: "How can our community respond to the challenges, and opportunities, of Peak Oil and Climate Change?" (www.transitiontowns.org)

The start is to form an initiating group and then adopt the Transition Model in order to engage a significant proportion of the people in the community to kick off a 'Transition Initiative'.

The Transition model and it's central element, the '12 transition steps' (Fig. 1), as described in '*The Transition Handbook'*.

Fig. 1: The 12 steps of Transition

1) Set up a steering group and design its demise from the outset.
- This stage puts a core team in place to drive the project forward during the initial phases.
2) Awareness raising
-Build crucial networks and prepare the community in general for the launch of your Transition initiative.
3) Lay the foundations
-This stage is about networking with existing groups and activists.
4) Organise a Great Unleashing
-This stage creates a memorable milestone to mark the project's "coming of age."
5) Form sub groups
-Tapping into the collective genius of the community, for solutions that will form the backbone of the Energy Descent Action Plan.
6) Use Open Space
-We've found Open Space Technology to be a highly effective approach to running meetings for Transition Town initiatives.
7) Develop visible practical manifestations of the project
-It is essential that you avoid any sense that your project is just a talking shop where people sit around and draw up wish lists.
8) Facilitate the Great Reskilling
-Give people a powerful realisation of their own ability to solve problems, to achieve practical results and to work cooperatively alongside other people.
9) Build a bridge to Local Government
-Your Energy Descent Plan will not progress too far unless you have cultivated a positive and productive relationship with your local authority.
10) Honour the elders
-Engage with those who directly remember the transition to the age of cheap oil.
11) Let it go where it wants to go…
-If you try and hold onto a rigid vision, it will begin to sap your energy and appear to stall.
12) Create an Energy Descent Plan
Each subgroup will have been focusing on practical actions to increase community resilience and reduce the carbon footprint.
The 12 steps are not prescriptions, but principles that anyone can use to begin the process of transition from oil dependency to local resilience. It is worth noting that although the term "Transition Town" has stuck, what we are talking about are Transition Suburbs, Transition Islands, Transition Valleys, Transition Anywhere-You-Find-People.

Rob Hopkins, The Transition Handbook

It is noteworthy that the hitherto successful Transition initiatives are all initiated in the aware and relative wealthy 'hotspots' of the world; in essence confirming the theory of Robert Inglehart, that people with "post-materialistic" values are much more likely to prioritise protection of the environment (Inglehart, 1996). The term "post-materialistic" is hardly a definition that characterizes the rural region of Bouzouvsko (the area chosen as subject of this thesis), not even the current development of the Czech nation. This raises the question:

1) Is the Transition approach applicable in socially/culturally less favorable areas?

Parameters to answer this question are largely derived from a study trip by the author in rural Norway, displaying the approach to sustainability in a country/region where the wealth isn't a discouraging factor, but where the public interest is comparably low. In comparison, another study trip to Transition Town Ashland (Oregon), and personal conversations with Jason Bradford, the founder of WELL (Willits Economic LocaLization www.well95490.org), revealed the potential and pitfalls of the movement, when an aware and involved group of citizens get together in a rural area.

A central theme of 'Transitioning' is to re-establish the local infrastructure; to implement local production of basic resources, it is necessary to re-establish grain and oil mills, grain-silo's, renewable power and heat generation, other food processing facilities etc. All in all, a whole new landscape ecology. This brings us to question number two:

2) How can Bouzovsko again become sustainable?

The transition concept may be viewed as the question of the egg and the chicken; what needs to come first? Is it a question of changing the approach in order to change the society, or is the society in reality changing its own approach, due to other pressures? Question 3 therefore is:

3) How may Transition concepts should be applied in Bouzovsko?

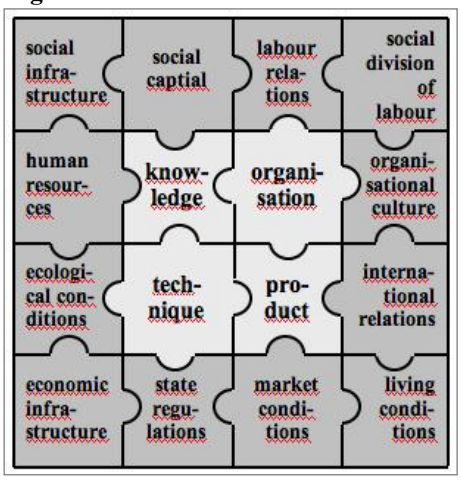
The research included analysing two future scenarios, and conducting a back-casting experiment based on acceptance of peaking of fossil fuels and climate change. The outcome of this theoretical exercise was balanced through comparison with elements of Aalborg University's Environmental Management curriculum, such as 'Institutional and Discourse Assessment' and both "social construction of technology" and 'Social Carrier of Change'. The empirical research is based on experiences abroad, evaluated in comparison with the knowledge gained from 13 years work within -and study of- the particular rural Moravian region of Bouzovsko, Czech Republic. It is within the above context that the feasibility and method of introducing the '12 transition steps' to Bouzovsko was examined.

Social carriers of technology and related methodology

According to Charles Edquist and Olle Edqvist, we may view the local area of Bouzovsko (as any area), as numerous social units such as town hall, businesses, organizations such as the football clubs, or the volunteer fire brigade, households, or simply the regular pub-goers. These social units are called social carriers of technology (Edquist & Edqvist, 1979), with technology being defined as "one of the means by which mankind reproduces and expands its living conditions, embracing a combination of four constituents: Technique, Knowledge, Organisation and Product" (*Müller et al.,* 2003).

This definition is illustrated in what has become known as the 'puzzle model', with the four elements of technology illustrated in white and here surrounded by some contextual elements, which it relates to illustrated in grey

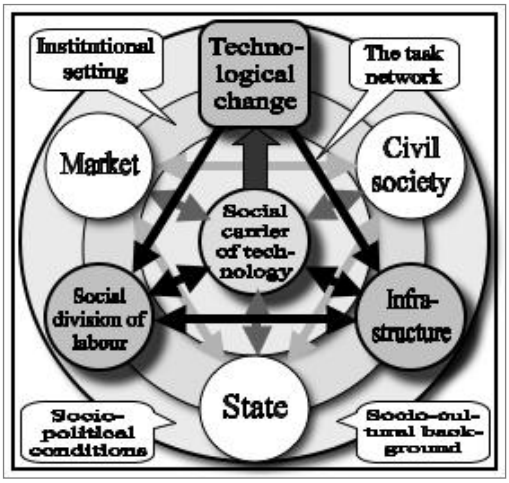
Fig. 2: Müller's Puzzle model



color. It is important to bear in mind that this is a static illustration; the reality is that the four central pieces are in motion, in effect each element being in contact with all of the surrounding elements, which are also shifting and interrelating with each other.

If the core of the above 'puzzle model' is viewed in relation to the Transition concept, the knowledge would express the awareness and aim of creating local resilience, the organization the overall 12 step plan; technique the individual local adjusted steps, and the final product the implemented changes, the (Energy Descent Action Plan (EDAP), etc.

Fig. 3: Technological Dynamism of Society



Proceeding from this definition of 'technology' and 'social carriers of technology', professor Jens Müller further defines: "The aptitude of a society to reciprocally match its changing social structure to the changing technological capability of its social carriers of technology, we define as the technological dynamism of the society."

This illustration notably illustrates the framework for technological dynamism of society as one where the social carrier of change is central in the development, however influenced by many strong external factors. The side-effects of these strong surrounding parameters are high-lighted by the fact that the following 6 conditions must be fulfilled for any 'social carriers of technology' to successfully introduce a particular technology:

Fig. 4: 6 conditions for success of 'social carriers of technology'

1. ***Interest*** in applying the technology, i.e. be motivated to obtain and operate the technology;
2. ***Power*** to materialise its interest, i.e. be in possession of the required socio-political and economic means;
3. ***Organisation*** to exert the power to establish the necessary internal conditions for applying the technology, and must be affiliated an interactive external task network;

The unit must further have:

4. ***Information*** about the technological options, i.e. be able to assess the potential alternatives in relations to the desired need fulfilment;
5. ***Access*** to the technology in question, i.e. be able to obtain and procure the hard- and soft ware of the technology;
6. ***Knowledge*** about how to operate the technology i.e. be in possession of the capability to handle the required technique and work organisation.

(Müller et al.,2003)

While it is clear that the 'Transition elements' fit within such definition of technology, and constitute a social carrier of technology, a dilemma arises when we incorporate the different vested interest of the receiver and the supplier, as a long term successful outcome

is hinged on a joint fulfillment of the above 6 conditions. Research within this topic (Müller 1980, Robinson 1988 and UNIDO 1995) has lead to the conclusion that both the introduced technology and the social setting need to be changed in order to ensure a successful outcome.

Fig. 5.: Relative degree of technology receiver

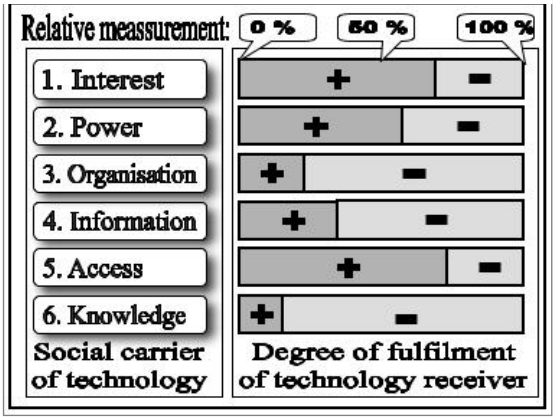
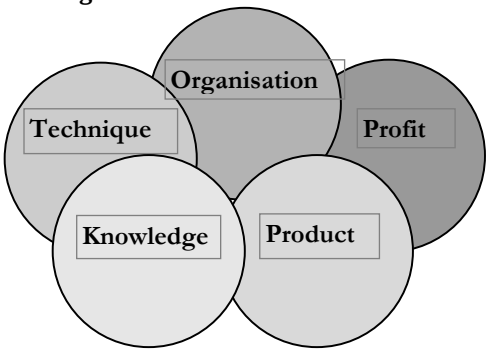


Fig. 5 exemplifies it graphically, which imposes a dilemma for introducing transition model in a less than favorable area such as Bouzovsko; the accompanying text clarifies that "ideally the receiver is the most motivated, has the main sociopolitical power (possibly not the economic power), and is organized to a reasonable extent. What he lacks most is information, access and knowledge." What would happen if the rating on a similar graph, based on a survey of residents in Bouzovsko, would indicate that the three first bars would be close to zero? In other words; the technology may be out there, as well as a supplier, however, is the consumer interested in receiving it?

We may also want to compare it within the framework of the definition of "Radical technological change", a concept aimed at illustrating why knowledge about politics and power is a must for planners and the like (Hvelplund, 2008). The central lesson is that the question is not whether the suggested changes are beneficial, that the time is right or if it's relatively easy to implement; the issue is whether the 'power' (be it financial, egocentric, formal/non-formal etc.) among the recipients is ready to receive it. In this depiction of technology a 5th element is included, that of 'Profit', which typically is a cornerstone for any consideration. This does not work against using the model for the transition model, as it is partly built upon the permaculture principles by David Holmgren, one of which specifies: "Obtain a yield" (Holmgren, 2003).

"Radical technological changes":
When more than one out of five circles are changed

Fig. 6.: Radical technological changes



TECHNOLOGY

The action of 'Transitions' has been defined as follows by Philip J. Vertragt *et al.:* "… gradual continuous processes of societal change in which society changes structurally (Rotmans et al. 2000; Kemp and Rotmans 2001). A transition is the result of connected developments in several societal domains: culture, technology, economics, ecology, institutions, behavior, and worldviews". Viewed in line with implementing the Transition concept in Bouzovsko, it would…

1. Alter the organization in Bouzovsko to a 'bottom-up' involved movement, rather than the current representative town hall model.
2. Re-direct the profit issue, as in the current model majority of profit from local manufacture leaves the area to the estimated 90% of owners/shareholders (based on income) who live outside of the Bouzov region. Generation of the local economy and 'recycling' of the profits within the community is central to ensuring local sustainability.
3. The products would need to be geared more to local needs rather than 'export' of the region; this would ideally result in less animal fodder being produced within the agriculture, and more final products made from the logging industry, etc.
4. The knowledge to do so may be old, however predominantly it is lost and has to be re-established. This could mean retraining or replacement of the persons in charge of the current production.
5. Lastly, new small-scale techniques, silos and manufacturing plants would have to be established; ideally, current industry based on negative use of the local resources for export and/or polluting industries, would be altered to a more sustainable level of production.

All in all we are looking at a serious "Radical technological change". The above description emphasizes that 'Radical technological change' is the same as changing technological path, and that "Technological path dependency exists, when it is institutionally very difficult to change technological path." This emphasizes that the political system must be independent of strong interest groups (Hvelplund, 2008). Hvelplund goes on to identify the three following solutions for "Radical technological change":

> 1. The three levels: Regulative, Normative and cognitive are dependent upon the system in which they are embedded (Macro-structure, economic interests, ecological conditions, etc.)
> 2. Therefore: An old system cannot change itself radically.
> 3. Consequently, radical technological changes need the construction of new organizations having a new set of regulative, normative and cognitive institutions.
>
> (Hvelplund, 2008)

This seems to be a solid support for the creation of a new paradigm in Bouzovsko; potentially the 12 steps of Transition? (Hopkins, 2008).

As outlined in the 'Institutional and Discourse Assessment of the political decision process in Bouzov' (Jensen, 2008), it is clear that, based on the political power in Bouzov - the 15 town hall members, and directing in the shadows, the management of the traditional dominating business, the Agriculture company; Klopina s.r.o - the situation in Bouzovsko can at best be described as being ruled by strong individual interest groups. Furthermore, in addition adhering to 'Groupthink', as it can be described as 'thriving' under the following three conditions, as outlined by social psychologist Clark McCauley (McCauley, 1989).

* Directive leadership [The word of the Mayor is traditionally accepted across the board]
* Homogeneity of members' social background and ideology [The upbringing during the socialistic regime enforced a tendency to always accept/agree rather than oppose, when being confronted directly, such as during a council vote]
* Isolation of the group from outside sources of information and analysis [The rural life in Bouzovsko is relatively isolated, (apart from the influences of mainstream media), especially when added to the fact that the town hall members are 95% mono-lingual, and not known to be particularly open for new input].

Kamau and Harorimana illustrates how such collective behaviour results in any of the following failures, of which the last is exactly why there is a need for a transition plan in Bouzovsko:

1. Incomplete survey of alternatives
2. Incomplete survey of objectives
3. Failure to examine risks of preferred choice
4. Failure to re-evaluate previously rejected alternatives
5. Poor information search
6. Selection bias in collecting information
7. Failure to work out contingency plans.

(Kamau, C. & Harorimana, D. 2008)

The chosen methodologies of this study are a hybrid of approaches used within business management, such as the future scenarios (though the two specific models were chosen due to their emphasis on peak-oil/climate changes), as well as a series of theories within technology transfer/ social carrier of technology, and reaching somewhat into sociopolitical aspects of such decision-making. The discussion about the methods introduced dilemmas of implementing the transition model in Bouzovsko; particularly in consideration of the current administration of the area, however also in lieu of the general population; issues which we will learn more about as we include the empirical research.

DESCRIPTION OF THE CASE STUDIES

Location, Setting and Delimitation of Bouzovsko

The Moravian rural region of Bouzovsko consists of 12 small villages united under the larger village of Bouzov, all together constituting the home of about 1,500 people. The concept of 'environmental management' of this forested rural region is symptomatic to many other rural regions, in fact it is virtually unknown: Any related development is largely depending on state/EU measures and funds along with the personal convictions of the town hall members.

Bouzov consists of a rural landscape with about a 40/60% distribution between forests and fields. The forests are mainly on the slopes and peaks of the hilly landscape, that varies between 280 and 425 metres above sea level, and new forestry plantations are predominantly non-native deciduous. The profitable hunting business maintains an unnaturally large population of deer and wild pigs, which poses a difficulty for surrounding farmers and gardeners. Following the approach of the previous regime, the fields are relatively large, not intercepted by hedgerows, tree lines etc.: A landscape element further made difficult by the present faulty local administration of the EU agriculture donations

(Jensen, 2008). All fields are intensively managed and very limited measures are taken to prevent erosion. Ninety-eight percent of the agriculture is managed by one large corporation 30 km away, a result of changing the nationalized agriculture Co-Op‘s into shareholding companies, which gradually has merged. The result in Bouzovsko is that virtually all resources are removed from the local area, and in reality substituted by fertilizers, insecticide, erosion and some low-income seasonal employment.

Social context:

The following description from EU‘s initial rural development plan for The Czech Republic (‘Sapard’), briefly explains both the psychological/social obstacles towards new initiatives, as well as the decline of populations within rural areas:

> *“Many rural micro-regions are in a great need of renewal of their technical infrastructure, renovation of premises and provision of services. Until some of these basic needs are met it will be difficult to reduce the present rates of rural depopulation and the consequent drift to the cities, and expect economic regeneration at the same time. In the past decades, agricultural functions in rural settlements were separated and placed in large agricultural establishments. Farm buildings inside settlements remained unused. Under the former totalitarian regime, nationalization of land and the development of large-scale collective farming reached the greatest dimensions in the former Czechoslovakia compared within the entire Eastern bloc. Farmers became accustomed to 8-hour working days and an employee-type regime. As a result, ownership relations were broken and thus the relationship to the land changed. The jobs available in agricultural enterprises could not cover the demand for employment in villages. As a result, at present many workers commute to towns and rural population suffers more from unemployment.”*
>
> *Sapard, 2002*

Employment:

No existing official statistics are available that only cover Bouzovsko. The estimate of the Vice-Mayor, K. Zatloukal, is as follows: 40% general laborer (incl. drivers), 5% agriculture workers, service trade 25%, state funded (such as retired, teachers, post, town hall) 15%, finance/ administration 10%, and 5% others. Bouzov had 14.2% unemployment in 2010, as compared to the national average of 9.1%. In addition wages and salaries are well below the average. The regional share of GDP per inhabitant is also low—with 77% of the national average and slightly less than 47% of the EU average (Czech statistical office, 10/09.2012).

Public participation:

The organizations with most active members in the region are the volunteer fire brigade, as well as the football clubs; which at times overlap, with the former arranging the sports tournaments. A central part of the activities of these two organizations are social drinking, and it is rare to find women as members in the groups. In addition there is a group of people united around the catholic church in Bouzov, and a few special interest group around themes such as the upkeep of a couple of lakes, a group of senior women, and the choir. It is noteworthy that a large part of the non-formal social infrastructure traditionally is hinged on the ‘camaraderie’ between the men at the pub; this is where exchanges of services are arranged, frequently in a non-monetary exchange.

With regards to political parties it is my impression there is very little active involvement; that the few who speak up get voted into the town hall, often as ‘independent’. Even so, research presented at the Eurorural 08 conference by Jaroslav Čmejrek demonstrated that

the cooperative party constellations in the rural regions frequently completely contradict the party lines, as compared to the national level. It is important to emphasize the significant difference between the development of environmental politics, public participation, social movements etc., as experienced in Scandinavia/ Western Europe, and the contemporary situation in Bouzovsko.

While the regulatory instruments predominantly are aligned through the common EU measures, and some of the social movements and public viewpoints of the larger cities may correspond to the development in N-W European countries, this is far from the case in the rural municipality of Bouzovsko. This situation here can well be subscribed as a vortex of status quo. As mentioned above, the culture mentality is to not participate in the public decision process, apart from voting for the various elections. It is important to consider the sociocultural effect implemented during the previous regime, combined with the change to a capitalistic society where everyone fends for themselves.

In other words, the various phases of environmental politics and activism have not reached the town hall or municipality of Bouzovsko. Changing this aspect is a difficult challenge, as even the current Czech president in his recent book "Blue Planet in Green Shackles - What Is Endangered: Climate or Freedom?" states that there is no environmental crises and further proclaimed "*The largest threat to freedom, democracy, the market economy, and prosperity at the end of the 20th and at the beginning of the 21st century is no longer socialism. It is, instead, the ambitious, arrogant, unscrupulous ideology of environmentalism".* Viewed in such a local public opinion, the integration phase of environmental activism with its agenda 21 issues seems utopian, as the conditions for such development such as context, accepted bridge-builders, enlightened civil servants, and cultural acceptance are non existing. The 'relation' based on solidarity constituting the civil society in the classical model of the political power structure is, in other words, without power.

Transition inspiration: Ashland, Oregon

Ashland Oregon is one of a string of progressive 'green' towns on the West coast of the USA. Common to most of these 'green pockets' such as Santa Cruz, Berkeley, Ukiah, Arcata, Ashland, Eugene, and Corvallis, is that as a University town they traditionally attracted the alternative 'hippies', who moved to the surrounding area and developed homesteads and micro businesses a generation or two ago. Now the towns all have very well-established natural food co-ops (as large as European super markets), farmers markets, and a wide selection of local shops and products. In addition, this segment of the population has been very active in grass root organizations and local politics.

It is within such context that "Transition Town Ashland" operates. In other words, a world apart from the scene in Bouzovsko or as experienced in Norway, but quite like Totnes, the de facto 'birthplace' of the transition movement; a progressive town in the UK. It is a place where the concept of transitioning is well received, and where a network of similar minded individuals and organizations already exists.

The project was officially accepted as a 'Transition Town' in December 2008; it was instigated by individuals who already were quite active and experienced within synergetic groups, and well rooted in the community, who adhere to the '12 steps of transition' very well. Their events ranked from monthly movie nights, to presentations with a series of varied community groups. They cooperate with youth groups at the University to disseminate information at events there, and utilize several established transition tactics aimed at ensuring involvement by some of the many curious people who showed up to the open monthly transition events every 3rd Thursday.

A central element underlying the popularity of the transition concept is that it attempts to be very mainstream and personal; plenty of online information exists, including a wide geographical range of social 'ning' groups, however it is through the interpersonal exchange that the groups have success. This includes events such as participating at the annual 4th of July parade, where the electrical vehicle powered float of the Transition Ashland won the 1st prize, which served as a great publicity stunt for the newly formed official organization.

Several of the people attracted at the events gained a feeling of having influence in local public decision making, for instance by contributing to a report providing feedback to the local town hall on their Values, Vision and Goals.

Transition inspiration: 'TCLocal', Tompkins County, central New York State.

This initiative is apparently situated in 'fertile grounds' (much like Ashland and Totnes), however rather than following the public approach of Transition Ashland or WELL, the initiators of TCLocal have chosen to function as a 'think-tank'. The steering group consists of only 3 people, with about a dozen of co-researchers and 100+ subscribers to their public newsletter. The summary of their public presentation of the aim is articulated as follows:

TCLocal: Planning for Energy Descent

Some time in the next 30 years, life will start to become very different from what it is now. By mid-century we will use much less energy; we will live every aspect of our life much closer to home; and we will be much poorer in material terms, because energy and wealth are basically the same thing in an industrial society…[]…Since the supply of oil and other fossil fuels is finite, this outcome is guaranteed. The only question is, shall we plan for what we can see coming, or just let it happen to us?

A group of area citizens, TCLocal, has begun planning now. TCLocal contributors are committed to researching various aspects of energy descent in Tompkins County and writing up a preliminary plan for each aspect based on purely local challenges and resources. This is one such plan.

www.tclocal.org

On their website (www.tclocal.org) they have made an impressive list of topics for a comprehensive energy descent plan, with main topics such as:

Food production and distribution	Water	Heating	Transportation
Emergency services	Health care	Education	Manufacturing

Each topic has a long list of sub-chapters as apparent in the reference. A central issue of TCLocal is that they limit the amount of involved people to the ones interested in contributing with the various chapters; avoiding the effort of bringing people up to speed on the general need for sustainability as briefly explained; "We are not telling people what they ought to be doing; we will be telling people what they have to be doing, when we pass the peak of oil production" (Bosak, 2006).

Part of the possibility of doing it this way, is that the public education is taken care of by several other organizations in the progressive area; TCLocal is simply installing themselves as the back-up system if/when the precautionary principle should not function sufficiently.

The force of the TCLocal approach is not only the ability for qualified citizens to focus on the issues; it is also a very professional approach to build relationships and confidence among administrators/authorities, which may not be the case when typical idealistic grass roots approach the same people.

Transition inspiration: Norway

Having spent a total of 2 years in Norway, during 3 different periods at several different locations (during the period from 1989 to 1998) my general experience of the 'Norwegian way of life' is that it represents a paradox in comparison to my observation; that most countries in Europe start being progressive about environmental/ ecological/ community issues, once a certain level of wealth has been reached. Not so with Norway in 1998; The amount of organic products on the shelves in the most progressive supermarket would not reach more than 10 different items; vegetarian cooking was equal to starvation according to most peoples' opinion, and the country was high on consumerism. My study-journey in August 2009 aimed to see if this had changed; if there indeed was a movement of resilience happening, despite the lack of official transition initiatives in the country. I did find pockets of it, however the general environmental conscience still seemed absent, or at best at an infant stage. In other words, quite comparative to the state of Bouzovsko

Hurdalsjoa ecovillage, the only ecovillage under development in Norway at the time, contained several straw bale houses, had a strong focus on community, low-impact living and in due time, intended to expand their agriculture. Unfortunately the issue of setting up a community from scratch in a relatively remote area, consumed the majority of the sparse resources of the approximately 30 inhabitants, making it analogue to an island in a big ocean, without any serious impact on the surrounding population in the rural area.

The feed-back from the founders of the Norwegian network for natural building and permaculture (as well as one of the most well known natural builders in Norway) was somewhat similar: The Natural Building organization had not been successful at generating 'new blood' for years, and is rather stagnant, lacking a replacement for the board members who are now withdrawing. The permaculture association is somewhat caught in teaching for the choir, though common for both organizations is involvement in small development projects in Russia.

The vocational secondary organic agriculture/Waldorf school Foldsae, was much more inspiring; not a fair comparison as they took over a huge agriculture school for the price of 1 Norwegian crown(!), and has about 25 pupils +volunteers and state funded staff working more or less full time In relation to the surrounding region they operate a small shop providing organic dairy, vegetables, berries and eggs. They also provided a series of cultural events open to the nearby village, including many demonstrations of natural building and appropriate technology. In addition, several people moved to the school as employees, though suspiciously many come from different nations; Germany, the Netherlands, UK, Chile and Columbia, as does many of the long term volunteers. It's good for the global aspect, however it raises the question - why is it not more attractive to Norwegians to be working with these issues? Despite the many inspiring aspects of Foldsae, the fact is that it isn't a Transition initiative, as it (along with the other places we visited in Norway), is more of a working demonstration of sustainability, not quite an initiative created "by the people, for the people". In this aspect they are more akin to a miniature TCLocal; they have low tech answers and knowledge ready when people will come to ask what they should do when we pass the peak of oil production", paraphrasing the quote by Jon Bosak. [Update: Foldsae closed down in 2011 due to lack of students and consequent too low budgets].

The Norwegian impressions should be viewed in light of Norway being comparative to the Czech Republic, due to the fact that it still has a considerable amount of its inhabitants situated in remote villages and a thriving widespread respect and knowledge of its old crafts and traditions, despite the fact that the country is one of the world's most developed countries. The many rural settlements are quite self-contained in terms of electricity, water, sewage etc. Perhaps the reasons for the lack of transition initiatives are that the steps towards resilience in Norway (in general) are not so significant as in many other parts of the 'developed' world? The challenge for Norwegians would be to be self-sustained with food, however for a country with as much oil reserves and finances as Norway, it would not be hard to establish self-contained energy efficient multi-level food factories, likely floating in the Fjords, as many of the Fjords offer the best growing conditions, but flat land is hard to come by. The fact is that vegetable gardening on a household level is extremely rare in Norway. Despite the hardship of short seasons and climate, this is an obvious transition issue to address.

Partial conclusion of input from case studies

It may seem absurd to compare The Czech Republic with Norway, considering the difference in economic development, climate, infrastructure, etc. however due to my personal experiences after having lived 14 years in The Czech Republic, and 2 years in Norway, I repeatedly find social parallels and believe it is due to a well anchored patriotism; it is noteworthy that both countries have a long history of foreign rulership and are both relatively young as an independent nation. It leads to a firm connection with the crafts and cultures of the past, along with a strong individuality; it is clear that both countries are lacking far behind in such social developments as ecovillages, co-housing, co-operative managed industries etc.

Comparative Analysis of the empirical cases

Apart from the above empirical research, the study included two future scenarios, various social/organizational methodologies and two of the approaches of the Transition 'tool-kit' used to engage people and ensure cooperative planning, namely 'back-casting' as well as a 'Transition Tale'(Timeline tool #2 and 3, Chamberlin 2009). The consequences of the scenario building in relation to the methodology were used to narrow down the approach of implementing Transitioning in Bouzovsko. Due to the limitation of this IALE publication this part has been omitted, but can be found in the thesis itself.

Transition Bouzovsko related to social carriers of technology (and related) methodology

Regretfully I did not execute any surveys of the local residents of Bouzovsko, nor do I have a series of representative interviews to scientifically analyze the possibilities of successful "Degree of fulfillment of technological receiver", should the implementation of the back casting be an option.

I am basing the following statements on my subjective opinion, after a series of experiences of managing a Local Agenda21 based NGO in Bouzovsko the previous 13 years, along with excessive interaction with the Czech local, regional and national administration, as outlined in previous studies (All projects available on www.permalot.org).

It became clear from both the back-casting example and the 'transition tale', that points 4,5 and 6 of the relative measurement of 'Social Carrier of Technology' to a certain extend is available for the recipients; the residents in Bouzovsko, though hampered by the dominating lack of language skills (according to Eurostat June 2011, C.R. Has 53% of

mono-linguists -European record- and more so in rural areas). The Czech information exists, but is easily over-looked, especially if the interest is lacking. As mentioned in chapter 2.2, this is likely to be the biggest factor undermining the acceptance of 'Transition Bouzovsko'; The first three factors; interest, power and organization.

Several very skilled and involved 'transitioners' offered advice of how it might be possible to engage the rural population through a variety of approaches, from asking them to demonstrate their particular skills, interviewing them about Bouzovsko in the past, encourage them to reflect upon why they are active in the volunteer fire brigade, and transpose this into transitioning, introduce it through the pubs and draw parallels to the resilience which many favor as seen in their gardening, or husbandry… Never the less, I don't believe it would be successful in generating a 'transition-interest' among the locals.

The reason for this stance is likely due to what generally is referred to as "Post-Socialism Stress Disorder", which has deep roots in the local Moravian population, if not in the country (and surrounding ex-socialist countries?) in general. This is exemplified with an intuitive counter approach to most things of a 'social' or 'community' nature by large parts of the population.

In the example of Bouzouvsko, we are significantly dealing with the part of the population who did not leave. That is; the majority of residents who were ambitious, creative or seeking have left Bouzovsko during the past 23 years in their quest to fulfill their needs. The remaining population moves slow (the whole region -'Hana'- is somewhat known for this within Moravia).

This is not to say that a given concept could not gain approval/respect, however the approach would have to be from someone allied with the local authorities, with a proven local track record of a considerable enterprise, and not the non-person fixated development which is very central for the Transition movement; it is even part of the first step of the 12 step transition ladder: "Set up a steering group and design its demise from the outset".

The biggest obstacle is, perhaps, that the typical villagers are already set up to take care of themselves. Perhaps they now have adapted to the new gas heating, however it wouldn't take much to switch back to the wood heating (in addition, the central village of Bouzov is heated by a modern biomass plant). Many take care of parts of their own food production. Informal local direct exchange systems are in place already; this is the central function of the pub talks, however it is on a very person-to-person level. The houses rely on private wells, and the fundamental living situation under the soviet regime is less than 23 years away, so the rural people have not forgotten the basic skills necessary to maintain life; securing heat, providing food, maintaining shelter.

The locals can be described as quite sceptical and in a way so grounded so they have become the definition of complacent; "self-satisfied, usually in an un-reflective way and without being aware of possible dangers" (Encarta World English Dictionary, 1999): The stereo-typical "Good Soldier Švejk". From personal conversations it is evident that an awareness of the depletion of resources and climate change exist among some, however the majority have an inherited feeling that changes cannot come from the bottom (part of the socialist legacy, though a contradiction in terms!). Others have the opinion that either there is no crises, as their president claims, or that technological fixes will take care of it all. I have not encountered anyone with confidence that the issues will be solved politically. -On a national level a poll of 1,260 Czechs during the start of December 2009, claims that 80% of Czechs believe global warming exists and 75 percent of them believe the change is due to human behaviour (STEM, 2009).

This lack of interest relates to point two of the *'Social Carrier of Technology'*: Power.

As outlined in chapter 2.3, the local power is constituted by the town hall, which for better or worse represents the inhabitants. Throughout the past 13 years the town hall has been administrated by the same Mayor, who with an inner chamber of 4 of the 15 town hall members in effect rules everything, frequently ignoring laws and regulations, and often according to the directions of the large agro-company Klopina a.s. This company traditionally employed 100's of locals and supported the area's culture and infrastructure, however now only employs about 5 locals full time, and due to mergers operations has moved 30 km away.

Though a biomass heating plant was constructed some 8 years ago to heat the households in the central village of Bouzov, any other 'green' measures from the town hall are very unlikely under the present management. This again induces an obstacle living up to point three; *Organization.* The majority of the infrastructure is outlined within the transition manual, however, as mentioned above the concept of locals organizing around a concept seems quite unlikely, and as outlined in the back-casting, the initial support of the town hall would be very beneficial.

Radical Technological Change

During the introduction to the concept of 'Radical Technological Change', it was illustrated how transitioning would evoke changes to all of the 5 components, making it a class 1 *'Radical Technological Change'*. It was also highlighted that the solution for implementing such changes necessitate the "construction of new organizations having a new set of regulative, normative and cognitive institutions". In other words, a revolution! I believe I can safely reassure that there is no revolution looming on the horizon in Bouzovsko, which is very unfortunate for the introduction of Transitioning in Bouzovsko.

The exercise of 'back-casting' highlighted the need for participatory involvement by the residents of Bouzovsko, preferably supported by the town hall, in case the outlined positive and sustainable end result should be achieved. By relating those parameters to the methodology of the relative measurement of 'Social Carrier of Technology' and the parameters for 'Radical Technological Change', it became clear that a seemingly insurmountable dilemma occurs, as it all falls back on the interest of the local population.

CONCLUSION

The Transition approach is unique in the positive bottom-up approach, which is what is causing the rapid growth throughout the world. The aim of this thesis was to review and analyze if such an approach is also possible in areas where the residents, due to a difference of social/cultural background, are less adapt to welcome such a foreign community approach of conscientious down-scaling. As a case example, such an approach with regards to the rural population of Bouzovsko was considered.

In lieu of the outlined possibilities for a transition development, as presented in the back-casting, and Transition tale, weighed with international scenarios of future development, chosen scientific methodology and compared to four different case studies abroad, the thesis found in relation to the first research question, that the Transition approach is not applicable in socially/culturally less favorable areas.

Scenarios were presented to answer the second research question: "How can Bouzovsko again become sustainable?" As examined in the thesis, these technology changes constitute radical changes and naturally other avenues are possible; much of this is determined by the speed and extent that changes need to happen. The parameters of the outlined changes were

to achieve close to 100% autonomy for the area during the next 15 years. The scenarios for Bouzovsko includes this element, which is why the aim is autonomy as rapid as possible, in essence learning from the Cuban example of 1989, where total system failure occurred during a matter of months, due to the reliance of external resources (from Soviet in 1989 and emphasized by the US embargo of 1990) (Wright, 2009).

Unfortunately the above conclusion, of not being able to utilize the transition approach in Bouzovsko, severely hampers the suggested solution for this second research question. Perhaps the best solution is the one articulated by Venezuela's President Hugo Chavez at the COP 16, who referred to the signs of the NGO's saying: "Don't change the Climate; Change the system"(Chavez, 2009).

This radical statement brings us to the third research question: "How may the Transition concept best be applied in Bouzovsko?" The outcome of the thesis suggests, quite clearly, that what is necessary *is a right solution at the right time, with the significant emphasis that the right time is when the population is ready for it, i.e. is aware of a vested interest in a solution.*

One solution to this dilemma is the approach outlined by the TCLocal initiative, where a small group of concerned residents (with sufficient expertise) join efforts and develop a 'life-boat' plan for a sustainable development for the area, in order to have such plan of action in place as an alternative 'shock therapy' once the surrounding residents wake up to the realization of the need. This is similar to what economist Milton Friedman taught, and Jeffrey Sachs implemented, for the change from socialism to capitalism for the Eastern European countries after 1989 (Times, 1992) and brought to world attention by Naomi Klein (Klein, 2007); the difference being the social/economic/environmental sustainable approach, as seen in Cuba after 1989 (Wright, 2009).

Such a solution should not be viewed as an underground conspiracy by a reclusive group, but more as a transparent lobbying effort (as clear from the web site of the TCLocal), which builds an understanding and trust among the decision makers as part of gaining the data for their research, ensuring that the decision makers are aware of their plan, once the situation is ready for it.

Concluding the thesis, this is the solution I advocate for a historically socially and culturally less responsive area such as Bouzovsko, as well as areas with similar dilemmas towards implementation of the Transition approach.

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