

# Cultural Change from Theory to Practice

(adapted from *Searching*, 1999)

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## The Theory

In a very real sense the whole of the theory and practice in *Searching*, 1999, is an essential element in the determination and change of culture. Every concept, principle and seemingly small detail of method has been found in numerous applications to have a rightful and necessary part to play in the whole. All the big blocks discussed in *Searching* are merely the extended pieces of scaffolding that hold the edifice together and make it work. Just as important are all the little drops of methodological glue which provide the adherence.

So this little article is a condensation of the critical contours of the making of cultural change, free from the many elaborations which accompany these contours in *Searching*. The elaborations are, of course, the rich theory which fuels all the practice as there is no practice without an extensive and comprehensive theoretical base. Here much of the richness of that theory is simply summarized so the interested reader can refer back at their leisure.

As we have seen through many applications, *Searching* is the translation of a system of understandings into practice. This is to extend the emerging culture and to bring it under conscious control. As it is the theory in practice so it is demanding of attention to all detail of its underlying dimensions. Since the first SC in 1959 (Trist & Emery 1960) theory and practice have undergone extensive integrated development.

The SC is the intensive blip in the middle of an extended period of preparation and planning and an infinite and evolving implementation. Its success depends upon the quality of the preparation and the structures consciously understood and built into the implementation phase as well as design and management of the event itself.

*Searching* is an operationalization of open systems thinking, uses ecological learning and the second design principle which together produce the 'creative working mode'. It establishes the conditions for influential communication and rationalizes conflict, celebrating diversity and producing diffusion through positive affect. It focuses on action plans embedded in the Strategy of the Indirect Approach and effective structures for successful implementation.

It also requires theoretical and practical knowledge of the design, organization and management of dynamic open learning environments. Theoretical understanding is critical. The SC is a **large** group method requiring knowledge about and experience with the total set of concepts, their internally consistent nature and the dynamics they produce. The long developmental history of the SC has shown that there are, unfortunately, no short cuts. It is also demanding of a high level of maturity and responsibility in collaboration with participants. There is both equality and a strict division of labour between managers and participants. Participants are wholly responsible for the content and the outcomes. Managers are responsible for the design and management of the learning environment and process until such time as the community becomes self managing. A good manager produces a totally self managing community.

The SC is, therefore, an environment or econiche specifically designed and managed for learning and the emergence of ideal seeking. Those observing a Search for the first time are struck by the profound differences in behaviour during the event from that 'normally' seen in everyday life. This is simply because the structures within which we conduct most of our everyday life are not conducive to learning, ideal seeking or taking control of our futures. The Search is quite explicitly an experience of *participative democracy*. The learning required here is that of ecological and puzzle learning within DP2 structures. Participants see a large group producing a vast amount of creative work and learning, efficiently and responsibly

with good order and with energy, humour and positive affects. They are reassured that participative democracy does not mean anarchy or chaos, laissez faire. It has a tight functional DP2 structure which fulfils task and people at one and the same time. We have learnt, however, that such awareness is not, however, an adequate substitute for direct conceptual knowledge of organizational design and the design principles underlying it.

Because the framework of the Search is conceptual rather than mechanistic as in a fixed series of steps, it provides enormous flexibility in its design and application. New issues will constantly arise and demand attention. People must know how to define systems and draw appropriate boundaries for effective new systems to take responsibility for these issues. Similarly, as existing systems themselves coalesce or fragment, new systems emerge demanding open systems knowledge and design skills. Searching is a wholehearted and consistent commitment to and demonstration and learning of contextualism. It sharpens the choice faced by all of us (Emery F, 1985) and creates through its practice a higher probability of a new contextualist future.

System, environment and their integration for adaptation provide the **content**. The **process** consists of the 'transport equations' across the system-environment boundary, the functions of learning and planning. The V or 'funnel' shaped design is symbolic of the creativity inherent in the process as all possibilities are searched, not merely the probabilities. By the time the desirable future of the system (its set of strategic goals) is decided, every possible major variable pertaining to that future has been considered. All dimensions cohere into a wholistic, systemic internal structure and process. Taken together they form a unique entity. Searching as econiche provides maximally conducive conditions for the development of learning, planning 'communities', those which continue to take responsibility for control and coordination of their own affairs. The ultimate goal is a productive, psychologically healthy and therefore creative, pocket of learners.

The SC also has as one of its goals, automatic *diffusion*. Because we knew the ideals are highly motivating, we created a theory of diffusion which when put into practice, would carry the process and its outcomes into the future.

The focus of diffusion was, as above, cultural transformation based on active socioecological adaptation and methods which produce learning about and adoption of it. The theory presented in *Searching* differs radically from previous theories because it accepts not only the reality of the Type IV environment but also adopts an internally consistent view of humans as systems in their own right. As individuals they, therefore, bear the same open relationship with their broad social field as do the organizational systems they inhabit. Once the concepts and practices of transformation are alive and well in the field itself, the concept of the leading edge of change becomes irrelevant. Behaviour which diffuses is, therefore, similarly a result of the nature of the relationship between people, their organizational environments and the extended social field. As people themselves are purposefully adaptive, they make choices towards adaptive change. They do this as unitary open systems within which cognition and emotion cannot be separated.

*Searching* contains a thorough discussion of both previous theories and the new one which naturally flows from the rest of the theory and forms an integral part of it. A theory of change without a component of diffusion would be a sad inadequate theory indeed.

A new definition of learning encompassing the whole open system is then available as a base for a definition of diffusive learning, that learning which intrinsically motivates further learning for self and others. Diffusers are also life long learners.

From the open systems perspective, human behaviour and motivation is the property of an ecosystem. It is not possible to ascribe behaviour to 'motives' inside the skin. Human systems and environments constantly redefine each other. This emphasizes the importance of

conscious conceptual knowledge of how to deliberately create all the environments within which people live, work and learn so that people are enhanced rather than diminished.

There is a systemic relationship between structure, affects, energy and learning where, the motivational power of the positive affects, particularly joy, are shown to be the driving force of diffusive learning and thus a motivated move from the *hatred of learning* to the *joy of learning*. All this is encapsulated in a simple process model of 'learning to act wisely' which includes the basic components which have found to be essential for diffusion. Both experience and conscious knowledge of these components are essential for continued long term diffusion of the new learning for cultural transformation.

***This is a new theory of diffusion. Within the open systems model of active adaptation and its assumptions about whole people-in-environment, diffusion can be seen to be a product of and dependent on the generation of positive affect. When conscious learning takes place within and about an econiche in which ideals are elicited and positive affect and energy are generated, the learning is intrinsically motivating. People are motivated to recreate such econiches for themselves and others.***

### **The need for cultural change**

It should be obvious to anyone today that we desperately need cultural change. As if the inability of the world's richest nations to radically reduce their CO2e emissions to ensure the survival of our species were not enough, we now have the example of a global failure to confront the fact that the President of the USA, the biggest, richest and most militarily powerful nation on the planet is a rather intellectually deprived, old man suffering from progressive dementia plus a host of related difficulties such as megalomania.

These are not failures arising from any idiosyncratic problems of any specific nation(s) but the identical problems of all our major, and minor, cultures around the globe. None can relinquish the possibility that they may gain a little something by playing up to the US President or become a little richer by digging up and/or exporting more fossil fuels before their populations finally revolt and vote them out, or the disasters become so ubiquitous and damaging that everybody is forced to stop. Where is the common sense, adaptive response to both problems, the coming together of at least the most significant nations to form a united front to address both problems?

The COPs for example were formed years ago now to do precisely that, bring all countries together to deal with climate change but the organization was not strong enough to deal with the subversion of nations that either didn't believe in the science of climate change or were determined to continue making money by flogging fossil fuels. Like all United Nations projects, the COPs made no attempt to equalize the status of member nations or enforce a genuinely democratic process but tolerated the same dominant hierarchies and inequality of representation which had almost always failed to achieve its goals. Thus they started with high hopes but are now a shadow of their former glory. For an analysis of the UN and its possibility as a DP2 structure, see *Afterwards* (Emery M, 210).

***So our cultures are sick and in the process of self immolating. And still nothing is done.***

The theory and practice described here have coevolved with their cultural context over many decades now. It is important to understand this context as the whole purpose of not

only Searching but also many other aspects of OST are a direct result of it and providing an effective remedy. That is, the need for cultural change springs straight out of a terrible cultural malaise.

*World Hypotheses*

Over and above our theoretical framework of open systems is a world hypothesis called **contextualism**. World hypotheses (Pepper 1942: 105) are “modes of cognition”. They purport to inform us about the structure of the world and how best to approach knowledge of the world (p74). Each flows from a root metaphor. The hypotheses are mutually exclusive. The adequacy of a world hypothesis depends on its potentialities for description and explanation. Pepper considered four world hypotheses relatively adequate which means that “they are capable of presenting credible interpretations of any facts whatever in terms of their several sets of categories” (p99). Inadequacies arise mainly from internal inconsistencies so that the minimum requirement today for a world hypothesis is unlimited scope.

Three world hypotheses are particularly relevant here. The first is **mechanism** which is currently still endemic in the industrialized West. Its root metaphor is the machine and it assumes that everything is and works like a machine. The second is **contextualism** whose root metaphor is the historic event in the life of a whole in context. Table 1 shows that each bears a direct relation to the more detailed frameworks and adaptation.

**Table 1. Mechanism and Contextualism, People and Organization  
World Hypotheses**

	<b>Mechanism</b>	<b>Contextualism</b>
<b>Systems</b>	Closed/Static	Open/Dynamic
<b>See People as</b>	Goal seeking, Objects	Purposeful,
Potentially Ideal	seeking	
	Irresponsible	Responsible
<b>See Learning as</b>	Inadequate for Meaning,	Adequate, Direct
perception,		
learning	Need Teaching	Encourage Ecological
<b>Design Principles</b>	(DP1) Redundancy of parts	(DP2) Redundancy of
function		
resourceful peers	People as redundant parts	People as valuable,
located with actors	Responsibility located at least	Responsibility
	one level above actors	
<b>Produce:</b>	Group assumptions which	Creative Working Mode which
communication	inhibit learning, communication	increases learning,
commitment,	Maladaptions	Active adaptation,

Mechanism springs from the assumption of a closed, static mechanical universe and consequently views people as goal seeking within closed systems generally (Wertheim 1995). Pepper has traced the intellectual origins of mechanism back to Leucippus and Democritus (p95). Theories of learning based on mechanism assume a fragmented perceptual or sensory system from which it is difficult to conceptualize the production of fully meaningful knowledge, particularly abstract knowledge. Within mechanism, there is a place for everything with everything in its place. Rather than flexible structures within open systems, there is rigid unchanging hierarchy, the expression of DP1. This organizational design principle and the structures which flow from it, inhibit learning and creativity. People are

viewed as only goal seeking and unable to extract meaningful information about their world. When people become prisoners within these systems, they gradually become unable to make the purposeful creative effort required to affect the nature of their extended social field. If they cannot do this, they cannot bring this field under their control in such a way as to preserve the health of people-in-environment. The assumptions of mechanism preclude active adaptation.

The integrated system of concepts which are subsumed under contextualism lead to the opposite conclusion. If all systems are open to their environment and if those within them can directly extract meaningful information from, and learn about it, there is constant change and the possibility of purposefully designed change. If human systems are structured on the second design principle, the learning and creativity of their members is enhanced. Even the most difficult ecosystem can be subjected to intensive learning towards creating an adaptive and mutually beneficial relationship between system and environment. Therefore, both in theory and in practice, we can only sensibly explore and establish active adaptation within the world hypothesis of contextualism.

The third world hypothesis of relevance to us is **organicism** whose root metaphor is integration. Its relevance lies not in its ubiquity but in the surging popularity of ‘systems’, particularly whole systems and ‘holism’ more generally. The process of integration is towards an absolute or ideal whole and according to the organicist, “facts are not organized from without; they organize themselves” (Pepper 1942: 291). The absolute is implicit in all of its fragments or parts (p307). In organicism as in mechanism, unpredictability is inherently inconsistent and explained away whenever it happens to emerge. If all else fails, the unpredictable is declared predictable (p145), the disorder or chaos is found to contain order.

While organicism and contextualism have much in common, they diverge around matters of time and change and these relate to the core difference. Like the other three adequate world hypotheses, organicism admits of no context while it is of course an essential component of contextualism. When we look at the ever increasing variety of ‘systems’ and systems theories available today, we can see that we are faced with a very basic choice - open or closed.

The environment as defined in OST is an explicitly knowable entity in its own right, governed by laws which are very different from the laws governing systems. The inclusion of a discrete environment is the major defining difference between open and closed systems models. Without losing the concept of whole system, open systems theory escapes the many dilemmas involved in closed systems. Not the least of these is that closed systems theories are attempting to deal with social issues which are a product of change and whose solution will involve further change, but closed systems are by definition static, incapable of change.

Organicists clearly have no answer to questions such as ‘adaptation to what? Without a concept of environment, this question makes no sense. As well as escaping the dilemmas involved in such organicist models, open systems also avoids mechanism and closed systems thinking in general. The terms ‘systems’ and ‘systems theory’ should not be taken to cover a unitary phenomenon. Open and closed systems are incommensurate in terms of change. Active adaptation for cultural change and open systems theory have developed together through integrated theory and practice.

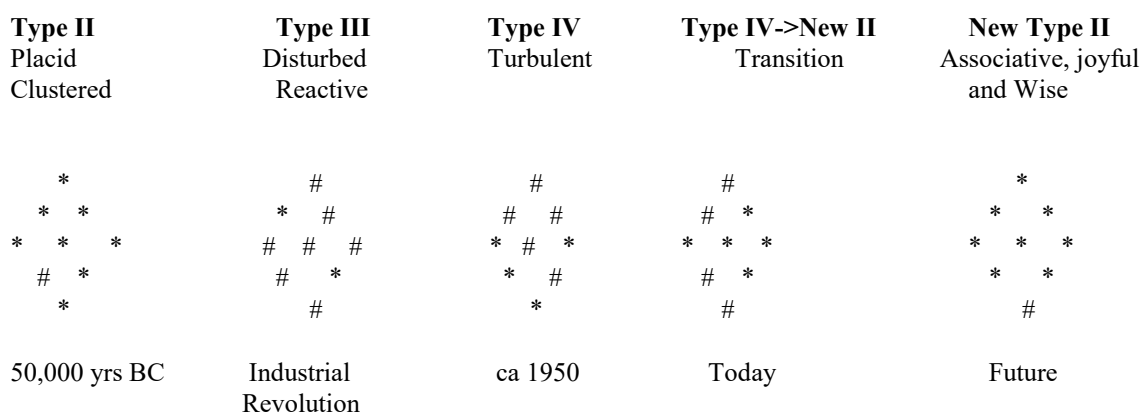
### *Historical Contexts*

Adopting the world hypothesis of mechanism suppressed our group life and capacity for ideal seeking, reducing our collective purposefulness and ability to work adaptively with our extended social field. Its many legacies include the widespread introduction of the first design principle and bureaucratic structures which treat people as cogs in a machine, replaceable parts. This design principle has affected every institution and facet of our lives. The epoch in

which mechanism flowered in the West created what is known as the Type III environment, a disturbed reactive environment characterized by competition (Emery & Trist 1965, Emery F, 1977). Its life expectancy in the West was inevitably short lived as it conflicted with predispositions to the earlier Type II environment, the most long lasting and adaptive option yet tried by the human race, in all ways different to the Type III (Graeber & Wengrow, 2021). The Type II, called placid, clustered, was characterized by cooperation at all levels. It is undergoing a resurgence in parts of some countries such as Australia and Canada where the invaders failed to destroy its basic strength. Figure 1 shows that while the concepts are pure, the reality of transitions is that there will be remnants of previous epochs carried through into the new. The old learnings from this time are being rediscovered and new visions are constantly being generated. They have a common core which is described here as *associative, joyful and wise*, a new form of Type II.

But since about 1955 we have been living in a new environment, the Type IV, which is the result of the unintended consequences of mechanism, a breakdown of its assumptions and structures. People have reacted to the Type III environment, increasingly taking things into their own hands (Emery F, 1977a). They are sorting out their values and the Type IV environment is known as 'turbulent' because it is characterized by rapid value shifts and discontinuities. It is an intrinsically dynamic environment which induces **relevant uncertainty**. This makes it unpleasant and unhealthy. There has been a growth of maladaptions, particularly dissociation and superficiality (Emery F, 1977b), illustrating reluctance to engage at a meaningful level.

Obviously just simply reacting to this Type IV will exacerbate its nature and effects. Some have trod this path, attempting to reassert the authority of the mechanistic way. But some have accurately intuited adaptive moves and over time, these trends have also strengthened. The mix of opposing trends has created even greater uncertainty within the field itself. Clearly deliberate interventions to create adaptation out of maladaptation must carefully elevate them as a unitary phenomenon above the confusion in the field. Fortunately there is evidence that they can achieve adaptation and a new cultural way. In terms of cultural history, therefore, *Searching* is framed against the sequence shown in Figure 1.



Where # means DP1 and teaching abstract knowledge, \* means DP2 and Ecological Learning

**Figure 1. Cultural Change and Environmental Texture over Historical Time**

Figure 1 shows our current cultural status in the context of the previous stages of the human past and a possible future. The purpose of cultural change is to further the present transition to a more humanly and ecologically oriented way. At the moment *Searching* is

creating pockets of this new way and as wise adaptive ways become more common, pockets of the new Type II spread. Because the new ways are intrinsically attractive, embodying the **Ideals**, so ultimately the associative, joyful, wise ways may once again become the accepted culture.

### **Failures of Implementation**

From the beginning of the seventies, it became clear that there were two classes of Search Conference (SC) failure, those that failed because of inadequate preparation, design or management and those that failed during implementation. The former attracted by far the most attention and much conceptual and practical effort was put into developing the method to its current high reliability.

The latter class, failures of implementation, received far less attention. The early SCs in Australia were predominantly community and issue based Searches. Pretty soon, however, after the first few had been tried and news of them diffused, organizational Searches began to be held. A consistently different pattern emerged with a much greater success rate during implementation for these organizationally based events than for the geographical community, industry and issue Searches. Organization for implementation was clearly involved.

Some SC managers faced with imminent failures of implementation of their community Searches, but without a clear theoretical answer, reverted to the older consultancy practice of holding the client's hand during implementation and working to create the results on the ground. While this almost certainly increased the success rate on the ground, it in no way solved the dilemma and just as certainly slowed the growth of confident self managing communities. Even when there was understanding of the cause of the failure, the cases were dealt with in isolation.

We worked to restore a participative group process in order to put energy and motivation back into the system. But nobody made the leap to prevention. This had long been a serious issue on the back burner and my attention was drawn back to it in late 1991. The theory came together quickly.

### **Explaining Failures Of Implementation: Arriving At The Complete Model**

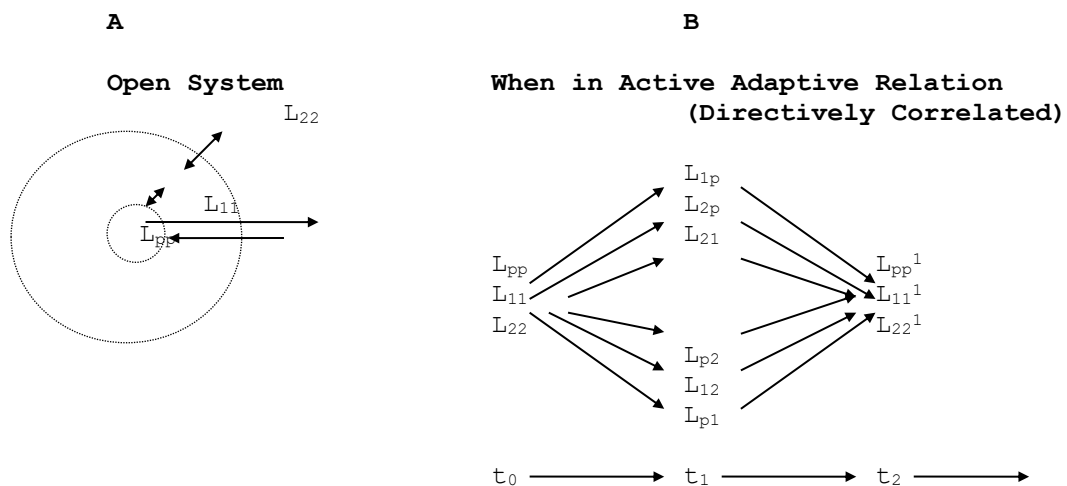
Not all are as honest as Alan Davies when he noted (1992: 281) that many of the Searches he has designed and managed "failed to meet their primary organizational objectives". A well designed and managed Search usually only runs into problems in the third phase of implementation. When participants are asked why the Search worked so well, they often say it was because everybody worked so well together as equals, regardless of status and other differences. This observation is accurate because the SC has a DP2 structure. Implementation however, particularly for organizational Searches, proceeds through the current organizational structure which is usually DP1. People, therefore, do not work together as equals, nor do they communicate accurately or when they should. The DP1 structure overcomes the positive experience of the SC. People have a vague idea of the difference between working together in the Search and then trying implement in a different context. What is missing for them is the conceptualization of the design principles and their effects. Without it, there is no clearly articulated and understood alternative to DP1 and no barrier to reverting to it. Implementation can then just fade away. While the Search Conference is designed to produce adaptive relations between system and environment, it is insufficient on its own to maintain the adaptation in the long term. It lacks a component.

*Adding Purposeful People to the Open System*

The basic formulation of system and environment says nothing specific about internal changes in the system, or about people per se. Up until now, there have been two discrete components of adaptation, between the system and environment and intrasystem. A connection was vaguely perceived in the early theorizing about open jointly optimized sociotechnical systems but a complete definition was never explicitly formulated. Nor were its practical implications spelt out. As we have seen, this caused problems in practice.

The necessity for a complete conceptualization is easier to see if the basic model above is elaborated into a slightly more complex picture of adaptation between system and environment. What is a system in one context is an environment in another depending on the focus of the inquiry. Let us redraw the open system diagram with purposeful people at the centre (Figure 5A).

Figure 5 shows people as **purposeful systems** living and working within larger systems which function as task environments. There are, therefore, three sets of relations. The third set of arrows representing the relation between individuals and the extended field is often forgotten but it is required to completely explain the dynamic nature of the set. It is obvious that people bring to any system or organisation, values and expectations derived from the whole of their life and their immersion in the broad social field. When these expectation and values are not met, an intensifying spiral of discontent is generated. While the system or organization may be aiming for outcomes which are adaptive in terms of the environment, it is producing behaviours which are maladaptive in terms of these desired outcomes



**Figure 5. Individuals Within Systems Within the Extended Social Field**

The system ( $L_{11}$ ) acts as an environment for the individual systems within it. Rather than have the simple model of open system in environment which yields the one set of transport equations ( $L_{21}$  and  $L_{12}$ ), the more complex model yields 3 sets of cross boundary relations, the original plus two sets involving the individual purposeful people themselves. If staying with the original notation (1 for system, 2 for environment) and adding a p for individual people, the diagram looks as in Figure 5. The  $L_{pp}$  then is the lawful nature and internal dynamics of people themselves as above. The relations  $L_{1p}$  and  $L_{p1}$  then define the system acting on the people or the people learning about the system and the people acting on the system, ‘beating the system’ or otherwise working with it. This model also shows that when people are living and/or working in a system, they also have a continuing set of relationships with the environment or field, learning from it and acting upon it as individuals regardless of the behaviour of the system.

In Figure 5B, adaptation can be seen as a constant state of change appropriate to both the nature of people and a continuously changing environment. Learning and dynamism are inherent to active adaptation. Note however that these sets of relations with the environment ( $L_{12/21}$  and  $L_{p2/2p}$ ) cannot be totally independent if the system is a human system as it consists of these people in some type of structured relationships. There is, therefore, constant interdependence between the people and the system but the implications of the model for active adaptation are quite clear. If there is to be genuine active adaptation between the system and the environment, all sets of relations must be congruent in meeting the needs of the people and securing a directive correlation with the  $L_{22}$ .

The system itself must be one which is appropriate for people. Amongst other things, the system must provide the six psychological requirements (Emery & Thorsrud 1969) which balance the tension between autonomy and homonomy (Angyal 1941). Critical to this striving for balance is the need for the organization to be structured in such a way that the people within it can learn and go on learning, i.e. it must be a 'learning organization'. There is no implication here that organizations can learn. By 'learning organization' is meant "an organization that is structured in such a way that its members can learn and continue to learn within it" (Emery M 1993: 2). It is more accurately called a 'learning environment'. Only organizations or human systems designed on the second organizational design principle (DP2) can provide these conditions. So the full set of conditions for active adaptation must include a DP2 structured system. The three sets of relations in directive correlation are shown in Figure 5B.

#### *The Open DP2 Sociotechnical System*

Right from the very early days of theorizing about sociotechnical systems, it was made clear that there was a need for the concept of an 'open system' as opposed to a 'closed system'. Open and closed were stated as alternative concepts in the development of theory but the intrinsic nature of enterprises dictated that only open systems thinking had the power to comprehensively explain the relations between an enterprise and its external environment. "If it is to achieve its ends, an enterprise must reckon upon the constraints implicit in its means and resources, both human and material. Beyond this, the people within an enterprise, particularly those concerned with leadership must come to see that:

- they must organize themselves in ways appropriate to the nature and order of the tasks required by their environment
- their institutional ideologies and self-perception must in some way reflect their real relations with their environment" (Emery F, 1959: 39-40)

The success of the Norwegian Industrial Democracy Program proved that open sociotechnical systems structured on DP2 had far superior ability (than DP1 sociotechnical systems) to meet human needs and achieve directive correlation with the environment, or the goal of active environmental adaptation. The language of DP2 systems as they are structured on the second organizational design principle, redundancy of functions (Emery F 1967; Emery & Emery 1974) has replaced the old language of jointly optimized sociotechnical systems (Emery M, 2026).

This early work clarified that if one wants an organization or system to be in directive correlation with or actively adapted to its environment, it is necessary to have a DP2 system. The method used until the Norwegian Industrial Democracy Project was pronounced a success was sociotechnical analysis and design, known today as 'STS'. It was the appropriate method for proving unequivocally that there was an alternative to autocracy in the workplace.

It was never the appropriate method for diffusion and once the proof was in, STS had outlived its usefulness.

The Participative Design Workshop (PDW) was specifically invented as a method for diffusion, doing exactly the same job as STS but custom designed to provide the concepts and conditions for speedy and effective redesign of existing organizational structures, i.e. currently bureaucratic or DP1 structures into DP2 structures, by the people who work and live in those structures. Of course 'joint optimization' was the operational term until experience with DP2 showed overwhelmingly that once people accept responsibility for the system, the socio- and tech-systems are no longer jointly optimized. The people, the social system immediately starts to change the technical or other system so it is most productive and adapted to meet the relevant purposes. Progressively pursuing these purposes once responsibility for coordination and control is colocated with the action, the employees continuously adjust their new responsibilities and accountabilities which are then encapsulated in their comprehensive set of measurable goals. It is an ever changing dynamic system.

Putting together the conceptualizations of the SC and the open DP2 system and redrawing it in the form of the open system, it is easy to see the implications for implementing the action plans of a Search Conference. ***The model has been incomplete.***

For continuing long term adaptation, the system itself must be organised as an environment for learning. Only in such an environment do people have the opportunity to continuously learn from and about their changing environment and to continuously and actively adapt their systems to it. One of the implications of that is they must have conscious conceptual knowledge of the design principles. Without that knowledge, they cannot be purposeful. It is now necessary to see the focus of active adaptation as '**purposeful people in environments**'.

We should perhaps now regard Figure 5 rather than Figure 3 as the basic concept of the open system. It could then act as an intrinsic immune response to those approaches which prey on humanity through appeals to the efficiency of the 'system'.

The relations  $L_{21}$  and  $L_{12}$  as part of the set required for active adaptation define the process of the SC and are necessary but on their own insufficient. The other necessary part is given by the adaptive structure of the  $L_{11}$  such that the relations  $L_{1p}/L_{p1}$ ,  $L_{2p}/L_{p2}$  and  $L_{21}/L_{12}$  are directly correlated. **Therefore, the Search Conference cannot achieve active adaptation unless the organizational structure of the system which implements the action plans is also either designed or redesigned as a DP2 structure.**

#### *Explaining Failures Of Implementation More Precisely*

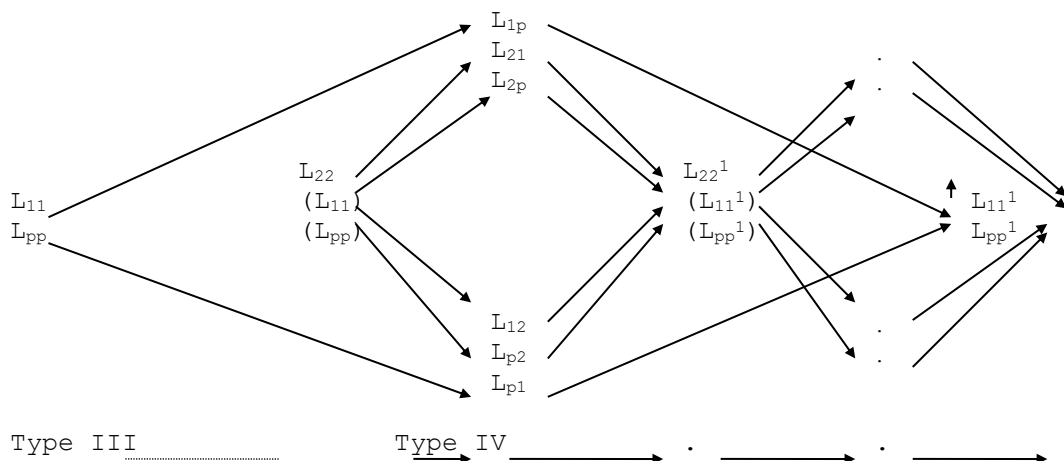
Because the SC is designed and managed as a DP2 system, at the end of it one of two things may happen, depending on whether there is an already existing system or not. For an existing system, as in an organizational SC, the system begins to implement the action plans, still with the existing DP1 structure. The people walk out of a democratic system within which they have determined their new future straight back into a bureaucratic one within which they are supposed to implement it. Immediately, there is a conflicting or maladaptive relationship instituted between the system and environment on the one hand, and the system and the people on the other.

In the cases of a geographical community, new networks or issue Searches where there is no pre-existing organizational structure, one must be designed to implement the action plans. Our original hope that the experience of the Search as a DP2 structure would be sufficient to overcome the conventional but implicit assumption that there must be a DP1 structure was naive. It sometimes wasn't sufficient and, therefore, they set up what they knew, usually a committee structure with the normal results. Again, the same maladaptive relationship is

instituted as is in the case of the existing organization. **Conscious conceptual** knowledge of an alternative is obviously required.

But there is another factor in maladaptation. The interval  $t_1 - t_0$  is called the **back reference period**. It helps to conceptualize maladaptation. In order for a person or system to make an adaptive response to the  $L_{22}$ , that response must be determinate and single valued. That is, it must always map a given value of the starting conditions onto the same values of the  $L_{22}$  at  $t_1$ . "It is the timescale of the change and the back-reference period of the response that determine whether the response can be adaptive with regard to the change." (Johnston & Turvey: 163-4) If a system or person is still responding to an environment which no longer exists, its behaviour cannot be said to be adaptive.

Search Conference failures due to lack of an adaptive organizational structure to carry implementation can now be explained precisely in terms of directive correlation. DP1 organizations are a hangover from a previous environment, the Type III described above. In this Type III environment people were literally treated as replaceable parts of the industrial machine and, therefore, the relationship between people and DP1 systems belongs to this previous era. During the Search, all of the interrelationships between people, system and environment belong to the current era, the Type IV environment. The Search establishes a new adaptive relationship between the system and the Type IV environment. Up until the end of the Search and the beginning of implementation, there is no conflict in direction between any of the elements.



**Figure 6. Lack of Adaptation between People-System and System-Environment Relations**

In Figure 6, we see the results of continuing with a DP1 system while attempting to implement an active adaptive relation between system and environment. The notations in brackets indicate that while these people and systems are real, existing in real time, their interrelations are not contributing to the desired goal of complete adaptation. The starting point for the people-system or internal relation predates that for the system-environment relation, indeed, it belongs to an entirely different historical and cultural environment. As the diagram indicates, it is strictly impossible for a directive correlation to be established. The actions, learning and planning, of people, system and environment are not at any point in time going to coincide.

## The Practice

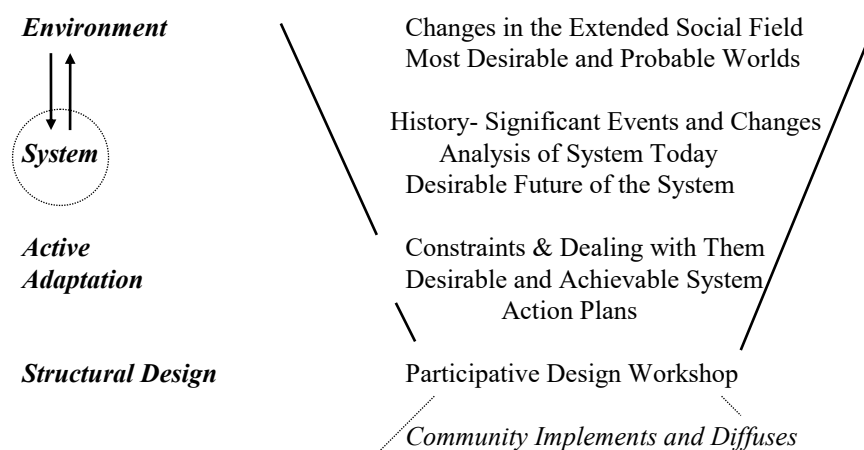
*Practical Solution: The Two Stage Model*

The model is clear. Adaptation must inhere in all sets of relations of people, system and environment. But at the end of a community SC, either a geographical community, industry or issue based Search there is no organization (system) to redesign. One must, therefore, be designed. Note that whether or not this is consciously conceptualized, an organizational structure will be brought into being. And as above, this is precisely where so many failures of implementation have arisen. The very act of people coming together to implement a set of action plans means that an organizational structure has been decided. And when people know of no alternative to DP1 (bureaucratic) structures such as committees, this is what they design. They then experience the disillusionment of watching the inevitable results - attendance at meetings fade, energy rapidly drain away and implementation stalls.

If there is to be an organizational Search, e.g. the Future of Existing Organization X, best results over the long term will be realized only if the existing structure is redesigned on the second design principle. Searches for existing organizations have a better track record of implementation than do community Searches. And that is simply because there is a known structure regardless of its design principle. Any reasonably well run organization, and most that initiate SCs are amongst the better run, will use the most appropriate parts of the organization to carry the implementation. And for the short term, this is sufficient. The problem for existing DP1 organizations begins later in that the people who live and work within them are not motivated to maintain the adaptive relation between organization and environment. Without a change of design principle and the creation of a learning environment, all of the implicit individual learning of environmental change and its implications is lost to the organization. Worse, when the people realize that the new relation between system and environment has little relevance to their daily work, they will come to regard it with the same cynicism as any other non fundamental change, that is change which does nothing for them, the people.

So as the SC does not contain a component of conceptual knowledge of the design principles, a Participative Design Workshop modified for design rather than redesign, must be added.

Figure 2 shows characteristic schematic or minimal **external structure or design which is the translation of the open system into practice plus the missing link of structural design.** This radically increases the probability of successful implementation. The Search community now diffuses as it implements.



**Figure 2. Schematic Design of Searching as the 2 Stage Model**

The 2 stage model has now been used for nearly 40 years in a wide variety of circumstances. In practical terms, all that was required to prevent these failures is to tack a modified PDW onto the end of the Search.

At the end of the 2 stage model, the community not only has a strategic plan for active adaptation, it also has an effective democratic structure to carry it through implementation. The critical element of learning about the nature and effects of the design principles and the structures it produces has proved its worth. The deficiency in the original concept of active adaptation has now been recognised and addressed. We also know now that people can design a DP2 organization from scratch.

### **Successful Implementation**

Implementation, producing effective change, is the purpose of the whole thing so that a failure of implementation is real failure. A glossy report without action on the ground is not implementation. As the SC is designed to bring into being confident (non dependent) and active adaptive learning planning communities, the effective end point of the role of the designer and manager must be known beforehand. This is an educational aspect of the preparation and planning stage. Participants must know that from the end of the Search, they are on their own. Managers do not in normal circumstances, write up, follow up, monitor or intervene during implementation. During the closing stages, managers usually reconfirm these understandings. SC communities usually applaud these sentiments as they intend to continue in the self managing, creative working mode. The last thing they want is somebody looking over their shoulder like the supervisor of old. Obviously, communities will sometimes contact a manager if they have queries or run into problems but it is mutually understood that this will happen again only in similar circumstances of collaboration. What often happens in fact, is that the designer and manager becomes a real colleague to all members of the SC community and future contacts are on this basis. That continues as the affectual basis of trust from which many and various processes of diffusion arise.

Even with a single SC, we are not always dealing with a simple linear process. There may be points at which it is realised that additional information needs to be generated or collected and there is always a need to reconvene the original or enlarged SC community to re-assess priorities and adapt strategies. Action plans may require a series of further Searches involving others, which may generate other needs unforeseen at the time of the original. All such possibilities are in the nature of active adaptation and the Strategy of the Indirect Approach.

### *Original and Modified Participative Design Workshops*

Here we look at both forms of PDWs, the original PDW for redesigning (Emery & Emery, 1974) and modified for design so that the differences are clear.

Both forms of the PDW prove that organizational change needs neither to be slow nor extremely painful. Workshops vary depending on circumstances but a section of an organization or a small organization can redesign in a long day or so. (PDWs for design take less than a day, sometimes only a few hours.)

The PDW is a workshop with the single purpose of changing the organizational structure from DP1 (bureaucratic) to DP2 (democratic), designing back in the human dimension of work which is summarised by the six requirements of productive activity. These criteria which are the intrinsic motivators were first published in English in 1969 (Emery & Thorsrud 1969) and have been confirmed through many studies since, both in the form of actually changing the design principle of an organizational structure and surveys.

The six criteria are:

1. Elbow Room, autonomy in decision making

2. Continual Learning for which there must be
  - a. ability to set goals
  - b. accurate and timely feedback
3. Variety
4. Mutual Support and Respect
5. Meaningfulness which consists of
  - a. doing something with social value
  - b. seeing the whole product or service
6. A Desirable Future

The first three criteria must be optimal for each individual. The second three exist within the climate of the organization itself. They are things you can never have too much of. The criteria are measured in the first stage of the PDW to analyse the effects of the current structure on its people. A DP2 design maximizes them.

Those who work in a section of the structure design their own section. For whole system change, a series of PDWs is carefully designed to cover the whole organization as efficiently as possible, ending up with a simple, elegant total DP2 structure. A word of warning here - do not attempt this task without considerable knowledge and experience of what is involved. Changing organizational structures involves changing virtually every system within the organization including pay and classification. Such a change is, therefore, an industrial relations matter and has flow on effects to family and society.

<b>Comparison of PDWs for Redesign and Design</b>	
<b>PDW for Redesign</b>	<b>PDW for Design</b>
<i>The basic design of the PDW for redesign</i>	<i>The Most Simple Follow up Design</i>
<b>Phase 1. Analysis</b>	<b>Phase 1. Analysis</b>
<i>Briefing 1 - Design Principle 1 and its effects</i>	<i>Briefing 1 - Design Principle 1 and its effects</i>
Groups complete matrix for 6 psychological requirements of productive activity.	Task forces complete the matrix for the 6 criteria using a previous experience similar to the implementation now facing them. (For already existing organizations, the members can of course complete the matrix for their own work.)
Reports and diagnostics	Reports and diagnostics
Groups complete matrix of skills available	The community lists the major essential skills required to implement the action plans, then completes the matrix in terms of who holds what skills on the list
Reports and diagnostics.	
<b>Phase 2. Change</b>	<b>Phase 2. Change</b>
<i>Briefing 2 - Design Principle 2 and its effects</i>	<i>Briefing 2 - Design Principle 2 and its effects</i>
Groups draw up work flow for information only.	

Groups draw up formal legal organizational structure and redesign it.	Action plan groups design an organizational structure for implementation
Reports.	Reports and negotiation of final design if necessary
<b>Phase 3. Practicalities</b>	<b>Phase 3. Practicalities</b>
<i>Briefing 3 - What Is Required to Make the Redesign Work</i>	<i>Briefing 3 - What Is Required to Make the design Work</i>
<ul style="list-style-type: none"> <li>o Groups spell out : <ul style="list-style-type: none"> <li>▪ a comprehensive set of measurable goals.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>▪ training requirements (from skills matrix).</li> </ul>	
<ul style="list-style-type: none"> <li>▪ What else is required, e.g. mechanisms for coordination, changes in technology, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ What other resources do we need, if any? (from the skills matrix)</li> </ul>
<ul style="list-style-type: none"> <li>▪ the basis for designing career paths.</li> </ul>	<ul style="list-style-type: none"> <li>▪ What else needs to be done? (This may involve more work on action plans or an additional set of action plans.)</li> </ul>
<ul style="list-style-type: none"> <li>▪ how the redesign improves scores on the 6 criteria.</li> </ul>	

The PDW for organizational design rather than redesign is more simple than that for redesign but again, it is recommended that you do not attempt this before you thoroughly understand the design principles, their practical consequences and the process of structural design itself.

The table of comparisons summarizes the two forms of PDW showing the similarities and differences.

For both purposes the first phase of the PDW is an analysis of what currently exists, phase two makes the change and phase three covers all of the practical design matters which accompany the systemic change and ensure its effectiveness.

In phase 1, the manager does a final briefing on DP1 and its consequences and the participants then analyse the effects of the existing structure in terms of human motivation and current allocation of skills. (DP1 structures deskill over time.)

In phase 2, the manager covers DP2 and its consequences and the DP2 structures appropriate for specialist as well as potentially multiskilled self managing organizations. Participants briefly draw up the workflow through their section of the organization to ensure that everyone knows what happens in the section as a whole and where critical decisions about control and coordination are made. They then draw up the formal legal structure of their section and redesign that structure. When they have the best possible DP2 structure, they move on to phase 3. In phase 3 they do a first draft of the goals which will control the work of that section or the groups within it, work out their detailed training requirements and anything else required to make the new structure work in practice. These drafts are later negotiated and agreed with whatever designated organizational authorities. They also do a first draft of a new career path based on skills as it would apply to them in their work. A final career path at the organizational level based on payment for skills will be designed by a professional career path designer.

Let us deal with the case of the community SC first. The major differences in workshop design between those for redesign and SC follow up (design) are:

- These people may never have worked together before and as there is no existing organization, the 6 criteria must be done on a previous similar experience. Most people will have been involved in some community or voluntary activity which involved trying to get some plan achieved.
- Goals have already been set as in the Most Desirable System and action plans have been devised for these
- If particular resources such as skills do not reside within the implementing group, they must be brought in. Communities usually will not have the resources to start training up people in specific skills or knowledge. Instead, the community must do some further action planning to acquire the required skills or other resources, either directly or through the process of diffusion.

This workshop has also been used for project design such as large transdisciplinary research projects. It can be used in virtually any such project where an organizational structure will come into being regardless of whether this is consciously conceptualized. The history of project work is littered with examples of grand plans that failed because of maladaptive structuring. The workshop can also be an integral part of unique and more complex designs.

The PDW for design can also be used to design greenfield sites. In some circles, it was still believed that greenfields still required STS. Then Syncrude which had used PDWs for redesign started experimenting with modified forms for new sites and plants. Engineers and staff from the previous sites experienced with designing structures using PDWs, sit down together and design the new site. Even with technologies new or different to the existing site, the process works well. The essential knowledge and skills workers from the old site bring to the design process are those involved in designing and working in DP2 structures.

Then other organizations followed. It should be noted that once the new site is operational, PDWs for redesign there should put through so that both the conscious, conceptual knowledge of the design principles and 6 criteria, and the knowledge of how to redesign (and design) is built into everybody who works there. This avoids the problem of greenfield sites gradually reverting to DP1 over time.

#### *Implementation for an Existing DP2 Organization*

When an existing DP2 organization Searches, there is no need for the 2 stage model. They will handle any new organizational form required to implement their action plans in exactly the same way they handle any other evolutionary or adaptive development within their organization. There is an exception to this. It covers the cases where the DP2 structure has been designed in by the old sociotechnical analysis and design method, STS, or any of its modern variations. These methods do not include conscious conceptual knowledge of the design principles and not everybody in the organization has been involved in structural design and redesign. Although the structures are DP2, they tend to be static and inflexible as people don't have the understanding to constantly evolve them to meet external and internal changes. In these cases, the PDW after the SC will redress the situation and may lead to a more comprehensive organizational redesign, one which is genuinely active adaptive.

#### *Implementation for DP1 Organizations*

There are two separate cases here. The first is when the organization has embarked on a SC for a purpose unrelated to total organizational change. It may be a Search for a new product range or new markets. The second is when the SC has been deliberately conceived as the first phase of an overall change process whether this is expressed as ‘becoming a best practice organization’, ‘high performing’ or ‘service’ or ‘quality’ oriented. All such terms cannot be realized in the long term unless there is a change in design principle. The form of the PDW follow up will be different in the two cases.

#### *Search Unrelated to Organizational Change*

For existing DP1 organizations in this case, the 2 stage model has several advantages. At least it should produce a cooperative form of organization between those people directly attempting to implement and taking responsibility for the action plans. It will also introduce the senior management to the design principles and their consequences probably for the first time. They will then become aware that they have an alternative to their current structure and again at least, will now understand why many similar ventures in the past didn’t work in the long term. They will also understand why they have so many sometimes unrelated organizational problems such as high error rates, communication problems, personality problems, high wastage etc.

It gives them an opportunity to start asking themselves why they shouldn’t consider changing their total structure to one based on DP2. Such a move would ensure that the results of the SC will not ultimately be wasted by the inertial dynamics of the non adaptive organization structure.

#### *Search for Total Organizational Change*

Here we are talking about a Search followed by a carefully planned series of PDWs for redesign rather than simply design for the implementation of action plans. The typical strategic goals coming out of this type of SC include having high morale, safe healthy workforce, high productivity and quality, customer orientation, being flexible etc. All of these will flow from the change of design principle. If there are other strategic goals which do not flow directly from a move from DP1 to DP2, action plans can be done for those. But for the rest, moving immediately into the series of PDWs takes the place of action planning.

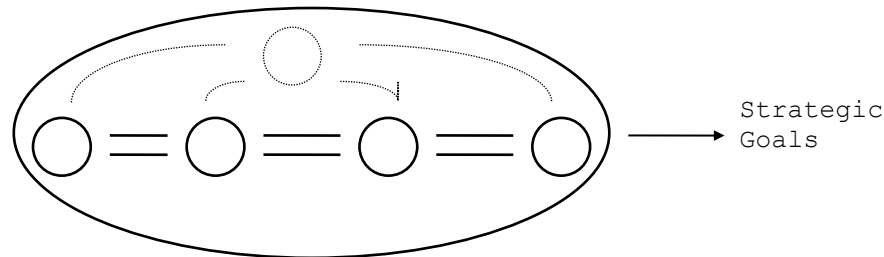
#### *Implementation of Community, Industry and Issue Searches*

These are the cases where there is no existing organizational structure at all. There may be an industry or association structure in some industries but the composition of participants in an industry SC is almost always wider than those covered by the existing organization or organizations. For geographical community Searches it can sometimes be argued that the local representative government structure covers them. But the community itself usually disputes that view. Issue Searches are the most clear cut case as they are usually called because there is no existing organization to plan and deal with the issue. These Searches are also those that are subject to the highest failure rate of implementation and, therefore, have perhaps the most to gain from the 2 stage model.

The additional advantages in these cases are much as for the DP1 organizations. People often meet the design principles for the first time and after having used them can see their efficacy for other applications, including the organizations in which they have their primary affiliation. There has always been a lot of diffusion of the Search from this class of SC because people come wearing many hats. Introducing them to the design principles through the 2 stage model also serves their diffusion.

The designs that come out of a PDW following a SC are usually very simple, consisting of self managing groups implementing the action plans plus a coordinating group chosen by

some DP2 mechanism as shown in Figure 32. The dotted lines mean that the coordinating, convening group at the top is not a permanent part of the structure but is a selection of the community serving that function periodically. It is a one level structure. The double lines between the self managing groups implementing the action plans indicate that these groups are cooperating and sharing responsibility for the overall set of goals. The whole community is working towards the strategic goals as contained within the Most Desirable System.



**Figure 32. Typical Organizational Design Following the Search Conference**

### **From Searching to Way of Life**

Organizations who have searched and democratised their structure can metamorphose into a continuously evolving active adaptive system as ecological learning becomes accepted as natural as walking and talking, which it is. Members of such an organization will develop an almost unconscious awareness of the extended field in much the same way as a farmer keeps his/her weather eye open. Storm clouds over the horizon will jerk the brain back into the conscious thinking mode.

However, such an organization will also take the precaution of reading the weather forecast. At regular intervals, a few hours to a day or so will be set aside for formal long term planning follow up. The form of this meeting is very simple. What has changed in the L<sub>22</sub> since last time? What are its implications for us? What has changed internally (L<sub>11</sub>)? What do we need to do? Regular intervals vary depending on the nature and purpose of the organization or community, but appear to be more determined overall by the rate of change in the field. We used to consider every nine months an optimal interval but more recently, six monthly periods have seemed more appropriate.

As an organization grows into this cultural mode, the form of the searching undergoes transformations. Management, or the future of the organization, is everybody's business. Rules and conscious rituals have evolved into a more spontaneous and purposeful conversation towards task. Searching has become a way of life.

The theoretical model for cultural change is now complemented by a corresponding set of practices. The 2 stage works effectively so those engaging in cultural change can be assured that their ventures have a high probability of success. There are other methods out there which claim to make cultural change but unfortunately, their initial success does not last long. The OST approach to cultural change has been shown to stick around. We now know how to produce an *associative, joyful and wise culture*.

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