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# Rich Pictures – Beyond the tipping point

## Abstract

This paper concerns the interpretation of pictures which people draw in order to help them understand a situation – this includes critical and chronic situations such as those imagined in terms like: 'the tipping point'.

The pictures in question are called Rich Pictures (RPs) and the matter at the heart of interpretation is insight drawn from eduction (drawing forth). Insights relate to the individual, the group, the context in which the individual and the group find themselves, and the (often obscure or even hidden) means whereby the context can be changed or improved.

In interpreting RPs groups and communities in difficult places we discover the history, variety and power of drawing. RP drawing, often as a collaborative exercise, is a powerful activity which has the capacity to break down barriers of language, education and culture. Drawing upon research with RPs from around the world and spanning over thirty years of our combined practice, this paper demonstrates RPs utility, universality and resilience. We argue that RP drawing enriches problem solving and, in the long term, saves time and resources from being expended on erroneous and/or superficial tasks. RPs embody the commonly expressed view that 'pictures paint a thousand words' but because of the collaborative nature of the style of drawing they actually go further than this by representing a thousand ideas. We argue that RPs are a powerful under-utilised tool which can be applied to make sense of a confusing world – they help us to explore complex and conflicted issues like the tipping point; one of the central themes of ISDRC 2015.

To-date little effort has been made with regard to the comparative analysis of RPs between individuals and groups where they have been asked to address a common issue. Key questions surround how issues that are common across RP representations can be identified and 'ranked'.

This paper makes a case for RPs and sets out some thoughts and insights that we have had over the many years of working with them. To some extent the points we make are a 'call' to deeper and wider use; the setting of some frontiers that would warrant further research. For example we make the first case we are aware of for the application of techniques employed in 'content analysis' for assessing the meaning of multiple RPs. But we also want to talk about the relevance of RPs for a key theme of the ISDRC 2015 conference – the tipping point.

## 1. Introduction -  What are Rich Pictures?

The tipping point is no joke, humanity is really up against it. The challenges we face are pressing and inescapable if we are to survive let alone prosper. Ironically, much of what we are up against is us! <u>We</u> are a lot of the problem and a lot of the solution. We are facing hugely complex issues but we are hugely complex creatures and indeed on mass we are mercurially complex! But, again this seems 'right' and can even be seen as being hopeful. Roger Conant and Ross Ashby produced a theorem which was central to the study of cybernetics. It is stated that "every good regulator of a system must be a model of that system" (1). To regulate (and thus understand, assess and plan for) a system the regulator needs to be a model of the system – must be commensurate to the complexity of the system. It must contain within itself the essence of the system in question.

We have found that RPs are useful aids to assessing complex systems, but, what is a RP? We show an example in Figure 1; a   figure that shows a RP drawn by a group of sustainability professionals in Slovakia. In the space we have available we cannot go into the detail of Figure 1 but in this RP visual metaphor (the three 'wise monkeys', the marionette, globe and conference) combine to help the members of a group speak about things which they find difficult or even impossible. We particularly like the image of the marionette, the un-identified person being controlled by 'WB' – the World Bank?

"Rich Pictures would appear to be a means to almost 'trick' the individual or the group into an examination of cryptic (hidden meaning), arcane (pertaining it the inward or mystical) or occult (hidden secret) aspects of the individual or the group. In total, the picture is an acroamatic device." p34. (2)

[Acroamatic refers to a hidden teaching, abstruse and profound].

Figure 1 An example of a Rich Picture
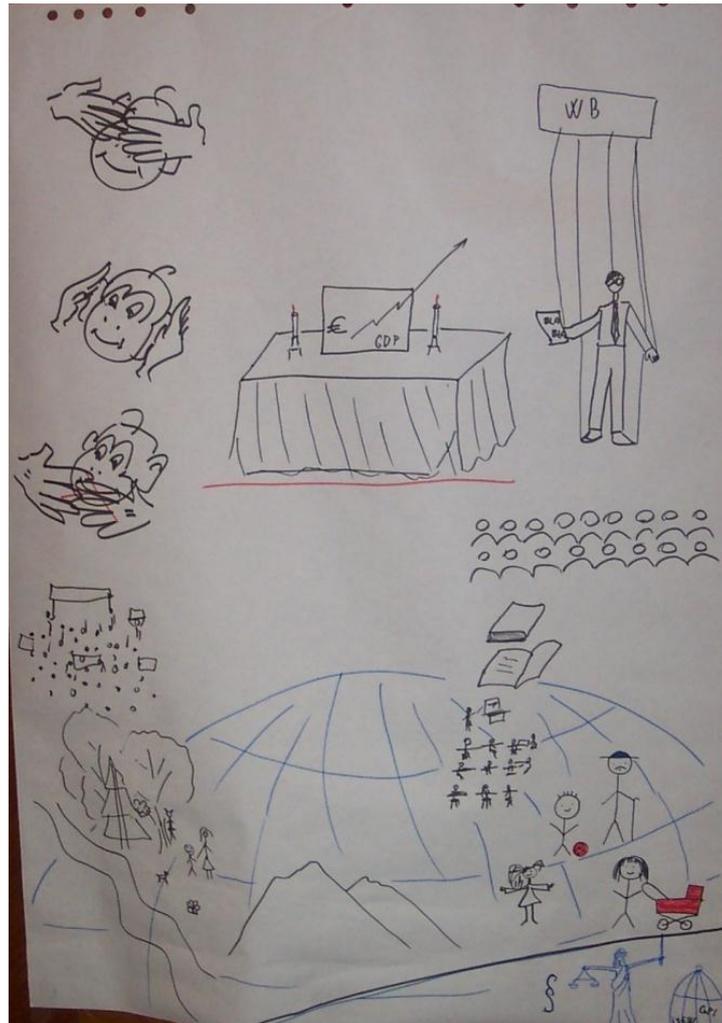


The RP is an image that merges text and visuals to show complex stories. The RP assists the exploration of different world views. The RP is a physical picture drawn by an individual or a variety of hands which encourages discussion and debate for groups and helps them to arrive at an agreed understanding. This makes it a powerful device in participatory processes and RPs are often employed in such processes to encourage groups to scope out and identify relevant components, linkages and issues for a complex system. We find that RPs provide us with a way to produce models of complex systems. For some the RP can be regarded as a modelling language in its own right. However, it is important not to get too carried away with modelling. In this regard it is worth remembering another of Ashby's ideas, the Darkness Principle (3) which simply states that no complex system with many components and feedback loops can be known completely. Practitioner humility is important in all explorations but RPs do seem to have powerful potential.

## 2. Scope - Making Rich Pictures which 'work'

RPs appear to be anarchic and structure-less but resilient to a huge variety of changes and external pressures. RPs would also seem to offer great potential for shared thinking and communication and in the twenty first century social groupings of all kinds need to be resilient and to make use of resilient methods if they are to face the multiple challenges of the age (see 4). It is an anecdotal truth often commented on that identifying real problems is the main problem for those engaged in real problem structuring. The formative stage of problem structuring is often short-changed by methods and by the advocates too keen to get to a 'solution' and to be 'busy' "sorting out the mess". This 'solutionizing' attitude finds its roots in some or all of the following:

- Superficial identification of real problems below or behind those that present on the surface

- Abrupt and/or curtailed time allocation to problem identification

- Scepticism that time spent on 'thinking' is merited in increasingly busy schedules.

- Asking the wrong people to describe the problem

- Desperately wanting the "solution" too quickly

- Desperation more generally. Being desperate to be seen to be effective

One of the several points of focus for this paper is on the value of groups and communities developing RPs as visual narratives of current and potential future situations. This, of course, immediately raises the question as to what we mean by community. Indeed just who can benefit from the use of RPs and who are they made for? Well the answers to these questions are relatively simple, at least on one level – RPs can be used and made by anyone. In our practice the kinds of groups we have seen use RPs include:

- Local people in a geographic area (urban and rural)
- Work groups
- Teachers, administrators and governors
- Consultancy professionals
- Local government officials
- Charity workers
- Counselling services
- Students working in proximity and also working at distance, asynchronously on complex system (natural or manmade) issues.

And so the list goes on. It is not exhaustive but you get the idea. It is very inclusive in our experience.

It is not a tool that can only be used by a highly trained practitioner, and neither is it restricted by some sort of copyright to those that have to pay a subscription or sign up to a set of conditions. There are 'rules' of a sort for creating RPs, and we will go through them later, but they are more like guidelines than hard and fast statements of the 'you must do this' nature.

RPs are not new or owned. We argue that they are ancient, the prehistoric legacy of the whole human race. What are 30,000 year old wall paintings if they are not visual capturing of complex realities? If they are this, are they not a form of RP?

In contemporary terms RPs are an important component, indeed the starting point, for a number of participatory methodologies yet to date almost nothing has been written about them in book format. Typically a community will be asked to share its ideas and perspectives and the RP is a key device for achieving that. A RP provides a readily understandable, "ice-breaker", shared space where the members can set out their ideas and negotiate what should be included and what should be left out. Yet while they have literally been employed in thousands of participatory sessions globally very little has been written about them other than a set of (sometimes conflicting) guidelines.

At some point within the RP process of drawing the mutual understanding occurs. That magic exciting moment when group ideas are visualized, discussed and considered. The moment when instability and risk is okay to consider because the group embrace allows for dangerous and previously unsaid thoughts to be permissible. The freedom to suggest a critical change or an idea that might dramatically alter the development/state of a system. The group consent to imaging the unimaginable and seeing a great wide picture of complexity.

The environmental tipping point alluded to in this conference is often un-addressable other than in terms of pessimism and doom. RPs provide the space in which really difficult situations – even the most apocalyptic – can be engaged with and mapped – if only in a preliminary way.

## 3. Results – finding out how can groups and communities use Rich Pictures?

Perhaps the best way to describe the use a community can make of a RP is to draw down from anecdote.

*"I was working on a coastal community project in Lebanon in the mid 2000s. I was not shining as a person at this time. I was aware of the recent history of Lebanon, the unrest in the area, the continuing pressure of the Palestinian community and the anxiety caused by Israel and it's super-presence in the south. I knew that hostages had been taken and I was anxious. This was all very silly of me. There had been no significant trouble for a while, the Arab Spring and the mess which was to become Syria had not yet begun, I had fantastic in-country support from great people. I had to keep telling myself not to be so self-indulgent and "me-focused". I was only partially successful. The result of all this inner conflict was that I was not in the most objective or sanguine frames of mind as I began my work.*

*I found Lebanon to be wonderful. A joy to experience. I worked mainly out of Beirut but went as far south as Saida and north to Biblos, west into the mountains with a view into the mythical Becca valley. We ran workshops in three municipalities. In each case those attending represented the various cultures which made up the wealth of Lebanon.*

*The workshops should have been a disaster. I was speaking in English with simultaneous translation - usually in a 'conference-style' council chamber in the municipality council chamber. Disaster!  The lack of empathy I could communicate via translation, the ambience of the rooms, the expected inter-group hostility of the participants. All should have contributed to a nightmare. Almost everything was wrong to produce the west European cultural artefact of the rich picture.*

*The outcome of the process were some of the richest and most vibrant rich pictures of my experience. Sometimes the groups were strongly led by my colleagues from Beirut and, in one or two occasions a local important male dignitary "took over" his group, lectured them for a long period and then left them to produce the RP to order. Ha! This did not work. The groups of listeners, once the power symbol had left (too busy to stay to draw) the group went about an anarchic process. My memory is not perfect and my notes are limited but I recall having to brush up on my interpretation of body language because everything proceeded in loud, joyful and rapid Arabic. There were loud shouting voices, cell phones everywhere - sometimes one person using two at once, many hands with many pens, rivers of beautiful text (to my eyes) which I could not understand and speech which I could have listened to for ever. The result was the production of rich, textural, expressive, astonishing pictures. Pictures which showed corruption and pollution and power and conceit and pain and humour and fear and joy. Glorious. At this time I was a bit wiser and knew how to disappear and how to see without being seen. I knew more about getting <u>me</u> out of the way. I watched and learned.  (Simon Bell, 2005).*

*Figure 2 RP from anecdote*



Once it has been produced by the group, the RP is an artifact. What do you do with it? The group has had an experience but how can this be maximized post RP? There are two outcomes of the RP exercise:

1. The physical picture drawn by a variety of hands

2. The dynamics and team learning that have emerged.

Both of these can be put to positive use and applied as a basis for project planning using purposeful activity approaches like Soft Systems Methodology (5).

In this section we want to briefly describe some approaches to critically analyse RPs - what are the 'elements' that make a good RP? How can we define good? Is there such a thing as a bad RP? There are lots of questions to consider here.

The RP that is drawn by a group of people is a form of collaborative art but the RP can also fall into many other categories of art styles. The diverse field of art interpretation has been of considerable interest in our work. Art interpretation is a tricky and subjective area to explore due to the controversial nature of aesthetics. The RP, in our opinion and as with many forms of art, seeks knowledge of the 'inner' by way of the 'outer' or put simply there is perhaps more to a RP than just what is seen at first glance. The RP has forms, shapes, boundaries, colours and kinetics that both correlate and contend with certain art appreciation styles. The RP is, in essence, a tool that outputs both individual art and group art so therefore areas such as art appreciation, aesthetics and appraisal are of great consequence. We delve deeper into these topics in our book but primarily RPs are an aid to group thinking alongside personal understanding. They offer an autocratic platform to consider the effect a tiny change might have on a large system. They allow us to conceptualise the tipping point and dip collective toes into possible futures.

The RP is the outcome of an analytical process – either by an individual or a group (two or more) people. The RP thus reflects thoughts, feelings and beliefs that are present at the time of drawing. It might not capture all of the discussion that the group had and does not explain why things may have been included or left out. To date that has been the end of the matter. The RP is an 'output' and goes no further other than as an aid to helping the group identify priorities and future actions. But we wish to go much further

than that and propose the idea that RPs can be analysed so as to tell us something about the 'hidden' thoughts of those that make them. This is a deep dive into the RP that could tell us a lot about the dynamics and mindset of those composing the RP.

To date, RPs have been seen mainly as an enquiry or discussion aiding device and its real usefulness expires after completion. However there is unique iconography in RPs. In our experience the 'message' of a RP can be drawn out (educed) by making use of an approach we call Eductive[1] Interpretation (EI). This approach can lead to enlightened understanding of the pictures. EI provides a chance to scrutinise, study and analyse pictures. Understand what you are seeing, don't allow pre-made expectations to take over. If you see a fish icon then think....is it really a fish? Does it represent only a fish? Is it a metaphor for something else, what icons, if any, are close by, are they linked in some way, do they help tell a story about the fish. Is the fish alone....why? Is the fish in the water environment ,if not then why? Does the fish display emotion or movement? Is the fish in a boundary? Is the boundary within a boundary and so on and so on. Really pour over the picture and ask yourself questions whilst you explore. What is rich to one person is poor to another, what is beautiful in colour is ugly to another, what is considered a relevant and understandable picture is open to wide interpretation. Perhaps it is worth considering Plato, he would argue that richness is an abstract sense and not actually visible. For example, we see a rich element in a picture but we never actually see the *form* of 'richness' Richness is a property that more than one picture or thing can have and therefore many things can be rich. Richness is but a universal independent property, as with the form of beauty, that more than one thing can have. In essence, RPs can be destroyed but 'richness will still exist. For Plato, the term 'richness' would be the ultimate universal perfection to all that could be considered to be rich.

It should also be noted that perhaps a poor RP is actually rich in information insofar as it reflects the situation i.e. 'poor'. A poor RP might be reflecting an 'information poor' situation which has a low set emotional chord or mood.  Perhaps the situation is deficient and lacking with inadequate material or data to be reflected upon thus the constitution of a poor RP. A RP has a singular purpose which is to reflect a situation. The RP, for some, is never actually finished there will always be more to add and take away.  It should be noted that no person or persons set out to draw a poor RP they are, however consciously or unconsciously obeying, Socrates advice , 'to know thyself'. To examine a situation one must a weigh up of the best material to be investigated or to be shown in a RP, and this might be so lacking in depth and clarity that a 'rich' RP would be out of the question.

The RP is so much more than a series of process, structure and relationship outputs and therefore, to interpret both soft and hard facts, the appraisal methods need to be holistic as well as deconstructionist. By this we mean, it is only possible to understand certain formal information when taking the RP apart. However, Looking at the whole picture gives a more comprehensive view which can highlight the more subtle, soft or tacit messages or nuances.

While RPs have been around for a very long time it is surprising to us that to date no one has considered applying the techniques of 'content analysis' to them. Thus while it is common practice to analyse the content of textual documents (interview transcripts, reports, minutes of meetings etc.) the notion of applying this to RPs so as to help identify patterns across groups and individuals has not been considered. In part, of course, this is a reflection of the fact that the RP is itself an analysis; a story of what the group/individual thinks is the situation as they see it. This is fair enough, but there are cases where a number of groups will be asked to analyse the same situation and this adds a whole new level of richness. Not only do we have the insights within each group but also an additional layer of richness between them. To date these have tended to be treated as separate analyses and while groups may be asked to present and talk about their RP, which may have some influence on what other groups do, the tendency is to keep each group working within its own shell of exploration. But surely there is scope to 'analyse the analyses'; to explore the ways in which the analyses overlap and indeed differ. With a topic such as the 'tipping point' this could lead to a whole new set of interesting insight as to why it is that some issues are commonly explored while others are not so. This 'meta-analysis' of RPs could be very powerful indeed, and be undertaken with fairly standard methods commonly applied in content analysis, yet has been completely ignored by the RP community. This is truly astonishing but why should that be? Is it because

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[1] To Educe is to draw forth. To interpret is to explain meaning and therefore to do both is to draw forth and explain.

we like to encourage isolation in working between groups? That we value the integrity of the group and do not wish to interfere with that in any way – even by a post hoc analysis? What does that say about us?

## 4. Discussion - The problem of Interpretation

RP interpretation has not received much systemic attention in academia. There are lots of reasons for this; complexity of icons, ambiguity of meaning, subjectivity of the interpreter, cultural perceptions and erroneousness levels of accuracy. High level guidelines to aid interpretation could be too general and imprecise whereas low level guidelines are too ad hoc, numerous and incompatible to serve every situation being depicted in a RP. Haramundanis would argue that icons cannot stand alone and must have written descriptions; "icons alone are not enough. Icons are objects, and objects alone are poor substitutes for written descriptions of objects" (6). Horans' (7) life work showing examples of icons used across the world does seem to suggest there is little universality in graphic perceptions. The RP derives meaning, apart from those who were involved in the drawing, from the viewer. A viewer can interpret what they see in many different ways. The RP tool is a language platform for intercommunication beyond the spoken or the text based. Meaning is derived from pictures and the occasional words but such meaning is often disputable. Contradiction within the conveyance of complex phenomena is seen in many disciplines; for example, in Art; Albers definition of the paradoxical quality in painting's and Eliot's analysis of 'difficult' poetry. In maths there is Godel's inconsistency or incompleteness in mathematics as well as in architecture; Venturi's 'contradiction in architecture'. In system design and problem structuring there is a special requirement to convey the whole in its totality or at least a consensus upon totality. It is far easier to exclude tricky concepts accepting simplicity rather than embody the difficult unity of inclusion but to do so yields a fascinating insight of the whole. Renowned architect Mies van Rohe would say that, "*God is in the details*" (8). Excess complication can however clutter and confuse upon the essential components. As Paul Valéry famously said "*Everything simple is false. Everything which is complex is unusable*" (9). This is clever but does not really help with the interpretative process – in the end rules and guidelines are needed but much is still dependent on the craft skills of the interpreter.

The RP has an excellent multifaceted communicative ability. The RP does not tell a single story but instead tells lots of stories going on simultaneously. They can reveal ideas people didn't consciously build into them. To draw a RP is to indulge in a willingness to think big thoughts and wide concepts. To go beyond the comfort zone using visuals, perhaps hiding behind metaphor for thinking dangerous concepts. Understanding or reading a RP does not take high level training, anyone can read a RP. The language of pictures is universal and thus breaks down barriers of education, language and above all culture.

Reading direction can be culturally defined; Europeans read from left to right, Arabian from right to left and Chinese from top to bottom. RPs are unusual in their comprehension, many are drawn by multiple hands and from many angles and thus need to be rotated 360 degrees for better understanding. Text is perhaps more precise in explanation but there are other meanings, such as implied thought, subtle nuance of meaning, personification as well as complexity of relationships that are better presented using visuals.

We suggest that the RP can provide enough context of domain and boundary to allow certain visual stories to be understood with universal acceptance. Context will come from the adjacent icons, boundary and sub-boundaries and other supplementary stimuli such as colour, size, text and even facial expression and body language. Other RP interpretation enablers which are not directly associated with a single image can be background space, lines and arrows demarcating direction, consistent style and size of neighbouring icons.

## 5. Conclusions - Rich Pictures and the tipping point

Let us think about the tipping point. For almost all of us attending to this conference it has negative connotations. The tipping point means manmade and natural disasters, incurable diseases and bizarre human decisions causing immense devastation. Some mathematicians refer to it as the greedy algorithm. But it does not have to be a corrupting damaging power it can, at least in the world of visuals, become a mirror of truth and a truth which can be explored in a hopeful and proactive manner. Too often a tipping point is presented almost as a finale to the story. A 'don't get out of jail card'. We argue that this mindset is both unhelpful to problem structuring and exhausting to those challenged by the opportunity to 'do

something about it'. The mindset it engenders is fatalistic and can lead to what Martin Seligman referred to as "learned helplessness". In a mindset of helplessness many forces and issues may be misconstrued as 'final' and 'apocalyptic' but are they? In other words, is there a 'real' and objective tipping point in society that can be experienced by all or are there many perceptions of 'tipping points' depending on peoples' views as to what is being tipped from what to what, according to the specific question asked and the specific data presented? After all, one person's tipping point may be someone else's elevation point (the tipping point which saw the end of the use of leaded petrol was the elevation of lead-free, the tipping point which resulted in the end of CFC propellants in aerosols was the elevation point for alternative technologies which had previously been deemed too expensive). Indeed some may not even perceive that something has been tipped and may not even care if told (climate change deniers might be included in this most obvious case). Perspective, as so often in the social sciences, is critical here and this is precisely where participatory approaches designed to elicit the variety of perspective have value. RPs give us freedom to envisage, share and agree on contentious issues and this can include engaging with the forces in this world which created the environmental tipping point, the means to set in train the necessary conditions which may help us to avoid this tipping point and to create the conditions which allow us to imagine a better world beyond this point. We can dare to imagine the unimaginable, have an autonomy of drawing that can allow group thinking to challenge the individual perception and bias and come to see the wider 'wisdom of crowds' (10) evident in many RPs. In short, RPs represent the shared truth of a group and the imagination of a community. How we accept or respond to such truth and such imagination is important.

Resilient and sustainable communities are those that embrace their image and understanding of the truth and thus they are powerful. The RP is a platform or permissive environment for a collaborative voice to challenge the rules, deny Occams simplicity, and delve into a visual world of limitless imagery and of creative innovation. Visuals are less emotive than words and response to such pictures thus becomes individual insight. If such insight is shared then a community become educated in difference of opinion. Thus understanding and tolerance exists. The tipping point must be explored. The danger must be examined. We must picture beyond the tipping point!

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