THE PROPOSITION OF THE CONVERGENCE OF INDIVIDUAL AND COMMUNITY RESILIENCE.

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ABSTRACT

An unexpected result from a study of the Quality of Life (QoL) of 85 households in kampong Tunjungan, an informal settlement located in the CBD of Surabaya, Indonesia was the apparent existance of a resilience "tipping" point. The existance of such point would be significant in the resource allocation and programne prioritising. Moreover, further review and reflection of the data suggested a linear relationship of individual resilience up to that tipping point and then creation of additional community resilience and a non linear relationship beyond. Thus, there was an apparent convergence of individual and community resilience whereby the "whole was more than the sum of the individuals". This paper sets out to put the proposition. Certainly, further research is required but the notion of such a covergemce and the possibility of a tipping point are intriguing.

Keywords: resilience, well being, informal settlements

INTRODUCTION

The understanding of individual resilience is largely based upon studies of trauma exposed people who subsequently developed symptoms and sought treatment (Bonanno, 2004). And it was only later longitudinal studies that pointed to the human capacity for resilience (Bonanno et al, 2004) through studies of young people exposed to often horrific and traumatic events who were able to nonetheless transcend them and lead healthy, productive lives (Garmezy, 1974), (Werner et al, 1989). But what was perhaps even more striking was that the youth involved in these studies had no outside intervention or psychotherapy, and appeared to survive, and even thrive, based on their own inner resources (Pransky, 2005). This brought about a research shift from risk factors to one that considered well being and resilience (Bernard, 1991). That lead to the identification of attributes of resilient people that included having a positive outlook, self-esteem, self effacy, critical thinking and planning skills, an ability to delay gratification and instead focus on long term goals, good social skills and a sense of humor (Resnick, 1993). Subsequent programnes sought to teach or build such competencies using “Learned Optimism”, “Positive Behavioral Support” and “Mindfulness” based interventions from the “outside”. However, some researchers still held that individual resilience was an inherent human capacity that essentially came from “inside” (Masten, 2001). Thus, the human capacity for resilience currently appears to lie somewhere between nature and nurture (Kelly et al, 2013)

A community on the other hand has been defined in different ways depending on the perspective of the discipline. It can be a group of people coming together in physical, environmental, economic, relational, political or social ways (Kumar 2005). People can belong to several different communities that can be characterized in 3 ways as follows (Maguire, 2008):

- Community of Place: defined in physical or environmental terms as a group of people living in the same area (Kelly, 2004).

- Community of Interest: defined as a group of people who have similar characteristics sometimes due to shared values or a shared "fate". (Stenekes et al. 2008), (Norris et al, 2008).
- Emerging Communities where there was previously no cohesive and organized community in response to an issue/s.

All 3 potentially have sub groupings but are motivated to act for the benefit of the whole rather than their own (Eggins et al. 2004) though this can and does change with time and context. Thus, Kelly argues that "modern communities are not fixed, and tend to develop on an ad hoc basis according to the needs, desires and goals of [their] members…".

A resilient community is able to cope with disturbances or changes and to maintain adaptive behaviour for example in the face of environmental change (Folke 2006), (Paton et al, 2006), (Fenton et al. 2007) and to understand issues around resource dependency (Marshall et al. 2007). But it's resilience is not the sum of individual resilience as might be expected (Norris et al, 2008) who commented that "…discussions of community resilience often note that the ''whole is more than the sum of its parts,'' meaning that a collection of resilient individuals does not guarantee a resilient community" but for measuring community resilience they "recommend that community-level adaptation be understood as ''population wellness,'' a high prevalence of wellness in the community, defined as high and non-disparate levels of mental and behavioural health, role functioning, and quality of life in constituent populations." We will come back to wellness as a metric later.

On the other hand, one important aspect of a resilient community (sometimes referred to as social resilience) is the capacity for individuals to learn from their experiences and to then incorporate this into their community interactions so that they are able to shape the 'trajectory of change' (Herreria et al. 2006) and play a central role in the degree and type of impact caused by the change (Maguire et al, 2008). Thus, while individual resilience can influence community resilience; the reverse is apparently not the case.

The current thinking therefore is that building resilience requires an integrated approach and a long term commitment to improving three critical capacities: absorptive capacity, adaptive capacity, and transformative capacity (Béné et al., 2012). Absorptive capacity is the ability to minimize exposure to shocks and stresses where possible and to recover quickly when exposed (Frankenberger et al., 2012). Adaptive capacity involves making proactive and informed choices about alternative strategies based on changing conditions and transformative capacity relates to governance mechanisms, policies/regulations, infrastructure, community networks, and formal safety nets that are part of the wider system in which individuals, households and communities are embedded. Transformative capacity refers to system-level changes that enable more lasting resilience and often challenge the status quo in a substantial way (Béné et al., 2012). Each of these capacities is not mutually exclusive and apparently exists at individual, household, community, state, and ecosystem levels.

Nonetheless, operational and programming questions about how to do this and what it might entail remain (Pain et al, 2012). Resilience is seemingly portrayed on one hand as self evident and common sense; but on the other as "conceptually and programmatically elusive". And while a lack of resilience is quite evident in the field; when it is there, is not. Thus, there are questions about what really does constitute resilience, and whether it should be thought of at an individual, community or societal level? What are it's scales and timeframes, is resilience specific to particular risks or more generic and is it the same for a fast onset natural disaster as a slow or protracted one? More importantly, the three critical capacities above focus on the systems rather than the individual (or household) and as such resilience is consequently seen as a property of the system or perhaps community rather than the individual. Those in the field question whether this is correct?

One theme of this conference is that the term 'resilient city' often encompasses physical planning and interventions aimed only at the built environment, the so called "system". However, resilience can only be achieved and sustained through thorough integration of both the built and the social environments. "In this case, we [the conference] ask: how can communities contribute to creating and improving resilience"?

BACKGROUND

Architecture is defined in the Oxford dictionary as "the art or practice of designing and constructing buildings". Yet to practitioners of the art this definition seems to fall short of their experience. For example Khan has described architecture as "the thoughtful making of spaces; It is the creating of spaces that evoke a feeling of appropriate use." (France, 2006) To which Hillier added that "firstly space is about vacancy rather than any physically measurable quantity … Secondly, appreciation of space requires movement between different spaces for it to be experienced and consequently space has "relationality" (Hillier, 2007). Consequently, architecture according to Khan and Hillier is more to be experienced rather than practiced.

Prior to both, Alexander suggested that architecture was about "patterns" or rules of thumb used by practitioners and that "the more living patterns there are in a place – a room, a building, or a town – the more it comes to life as an entirety, the more it glows, the more it has that self maintaining fire which is the quality without a name. And when a building has this fire, then it becomes a part of nature. Like ocean waves, or blades of grass, its parts are governed by the endless play of repetition and variety in the presence of the fact that all things shall pass. This is the quality itself." (Alexander, 1979) At that time he and his associates suggested 253 such patterns which encompassed the ideas of space and transition later proposed by Kahn and Hillier. This was later reduced to 10 essential patterns and they commented that "while it seems to us that the original notion – that good houses are made of deep, traditional patterns, grounded in human experience- is still valid, practice has made us realize that the really crucial patterns are far fewer in number than we had previously thought; and that this smaller group of patterns is more powerful than we had previously imagined". They go on to state that "While there may be many dozens, even hundreds of patterns that go into the making of homes, there is only a handful that we now say are essential…"(Jacobson et al, 2002) These 10 patterns have been used to form the first "tool" used in this research.

But how or even is this architecture described above connected to our well being? Alain de Botton believes there is a connection and his work analyses how one's well being is connected and manifest in their surrounding architecture (de Botton, 2006). He concentrated more on the built environment side of such a relationship but suggested that "architecture isn't medicine. You can disagree with medicine and it will still work. Architecture is different. It is an invitation to a mood, not an order that will force you into a mood. I would compare the effect of architecture to the weather. The weather means a lot to our mood and people move to countries for the weather. But if something terrible has happened, it doesn't matter that it's a beautiful day, you'll be upset whatever happens. Or the other way around. However, most of the time, we're in a middle kind of mood. That's when we can be pulled in one direction or the other by the weather" (ThyssenKrupp Magazine, 2010). How then does one measure such "ubiquitous" well being or in de Botton's terms "happiness"?

The approach adopted in this and previous research was to use a Quality of Life (QoL) or "wellness" tool called the DASS42 (the case for it's selection will be discussed later). There are apparently 38 QoL tools (Sharp et al, 2005) and the usefulness of such tools according to Malcolm is to provide "an approximate measure of the right things [as being] more meaningful than an exact measure of the wrong things" (Malcolm M-J, 2006**)**. Polletti perhaps puts it best with the comment that such approaches "aims for better (as opposed to

perfect) information with which to make a case for plausible (as opposed to proven) associations" (Polletti, 2004). Thus, the role of the DASS42 is not to show absolute quantitative differences in a research sense but rather to suggest reasonable and credible cause and effect linkages. And hence the second tool for this research. The application of both tools should then throw light on aspects of architecture that contribute to the well being (happiness) of people in informal settlements.

TOOLS

For Jacobson the language of this relationship was in the "patterns" that existed in the house. The "Language of Patterns" was developed by Alexander and "in a general sense these patterns are a designer's rules of thumb or intuitive principles that guide them just like it does with our grammatical rules [that] allows us to speak fluently and create well formed sentences". (Alexander et al, 1977). Alexander's position was that "this language [of patterns], like English, can be a medium for prose, or a medium for poetry. The difference between prose and poetry is not that different languages are used, but that the same language is used, differently. …The same is true for pattern languages." He goes on that "it is essential that when you have learned to use the language, that you pay attention to the possibility of compressing the many patterns that you put together into the smallest possible space. You may think of this process of compressing patterns as a way to make the cheapest building which has the necessary patterns in it. It is, also, the only way of using a pattern language to make buildings which are poems". He was later to refer to this as the "Timeless Way of Building" (Alexander, 1979). And as outlined earlier Jacobson et al 25 years later stated that "While there may be many dozens, even hundreds of patterns that go into the making of homes, there is only a handful that we now say are essential…" (Jacobson et al, 2002). The selected 10 Essential Patterns are shown in table 1 below.

Table 1: The 10 Essential Patterns that form the Talk to the Buildings Approach.

Pattern	Definition
1. Inhabiting the site	If the form of the house doesn't begin by responding to the site, house and site may well end up in conflict with each other
2. Creating rooms, outside and in	a lively balance of indoor and outdoor rooms
3. Places in between	Places that allow you to inhabit the edge, that offer enough exposure to make you aware of your surroundings, and that provide just enough protection to make that awareness comfortable
4. Refuge and outlook	At its simplest we are inside looking out
5. Private edges, common core	A good home balances private and communal space throughout
6. The flow through rooms	Movement through a room affects the room itself
7. Composing with materials	Choosing its materials – to support, frame, fill, cover, colour and texture space – is the act of composing the home
8. Sheltering roof	More than any other single element, the form of the roof – as experienced both outside and in – carries the look and meaning of shelter, of home
9. Parts in proportion	A home is a hierarchy of parts in proportion
10. Capturing light	Good homes capture light – filter it, reflect it – in ways that, no matter the season or time of day, delight their inhabitants

These 10 patterns has been beneficially used in several situations and one example has been the mapping of these patterns against the spatial areas of 109 houses provided for those affected by the 2004 Asian Tsunami in Tamil Nadu, India (Russell et al, 2008).

The "Talk to the Buildings" approach has several advantages over other more main stream methods because of the following:

- Buildings don't by necessity tell "lies".

- Such tools could be trans-cultural and therefore usable in other geographic areas.
- There is no direct need for language translators in the field
- It has a certain appeal and seems reasonable to those in the architectural stream
- It fills a gap and allows validation and potential triangulation of research findings
- It enhances discussion within the teams
- Can rapidly produce base conclusions for critical reflection

And hence (as mentioned earlier) the first tool of this work.

QoL is defined by Wikipedia as "…an important concern in economics and political science. There are many components to well-being. A large part is standard of living, the amount of money and access to goods and services that a person has; these numbers are fairly easily measured. Others like freedom, happiness, art, environmental health, and innovation are far harder to measure. This has created an inevitable imbalance as programs and policies are created to fit the easily available economic numbers while ignoring the other measures that are very difficult to plan for or assess." (Wikipedia, 2011).

Despite there being 38 QoL tools the one used for this study called the DASS42 had the following significant advantages over the others (Potangaroa, 2006):

- The DASS42 does not need a before and after survey to draw relative comparisons. Most/all of the other QoL models have this requirement which means that any results, trends or tendencies are not known till after the "intervention". This is a crucial aspect for operational settings where identifying vulnerability, targeting assistance, informing programnes, comparison across programnes and early metrics for aid, and development situations are desired. The WHO QoL is a good example.
- It has been designed for use by non psycho-social professionals (such as architects and engineers). This is also crucial particularly where there is other psycho-social work underway. Moreover, it allows a more direct connection between the potential outcomes of the work rather than the outputs as identified as an issue earlier by Wikipedia.
- It deals with the ubiquitous non clinical context of QoL which is where de Botton was suggesting that "architectural happiness" exists.
- The questions are phenomena-logically based and are largely trans cultural. The questions are almost mundane and feel like the sort of questions friends might ask of each other. Some QoL tools are not so accessible.
- But more importantly do not generate expectations amongst the surveyed population. This particularly important in operational programmes where surveys can generate other unintended problems. For example questions aimed to identify whether vulnerabilities can convey the idea that if one were "vulnerable" that they could get more and potentially get it quicker.

The DASS42 questions are in appendix 1. It was developed at the University of New South Wales, in Sydney Australia (Lovibond, 1995). And is a "set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress" and was "constructed not merely as another set of scales to measure conventionally defined emotional states, but to further the process of defining, understanding, and measuring the ubiquitous and clinically significant emotional states usually described as depression, anxiety and stress" (DASS, 2006). The characteristics of high scorers on each DASS scale are as follows:

- Depression scale: self-disparaging, dispirited, gloomy, blue, convinced that life has no meaning or value, pessimistic about the future, unable to experience enjoyment or satisfaction, unable to become interested or involved, slow, lacking in initiative.

- Anxiety scale: apprehensive, panicky, trembly, shaky, aware of dryness of the mouth, breathing difficulties, pounding of the heart, sweatiness of the palms, worried about performance and possible loss of control.
- Stress scale: over-aroused, tense, unable to relax, touchy, easily upset, irritable, easily startled, nervy, jumpy, fidgety, and intolerant of interruption or delay.

The ability to characterize results and therefore not need a before and after study is because of the "severity" table feature of the DASS42 (refer to table 2 below). Consequently, results can be classified as normal, mild, moderate, severe and extremely severe that then allows both an individual and an aggregated classification. This aggregation means that comparison between different types of programnes such as health, housing and employment and also between different geographical zones is possible. This was not required for this study. This provided the second tool for this work.

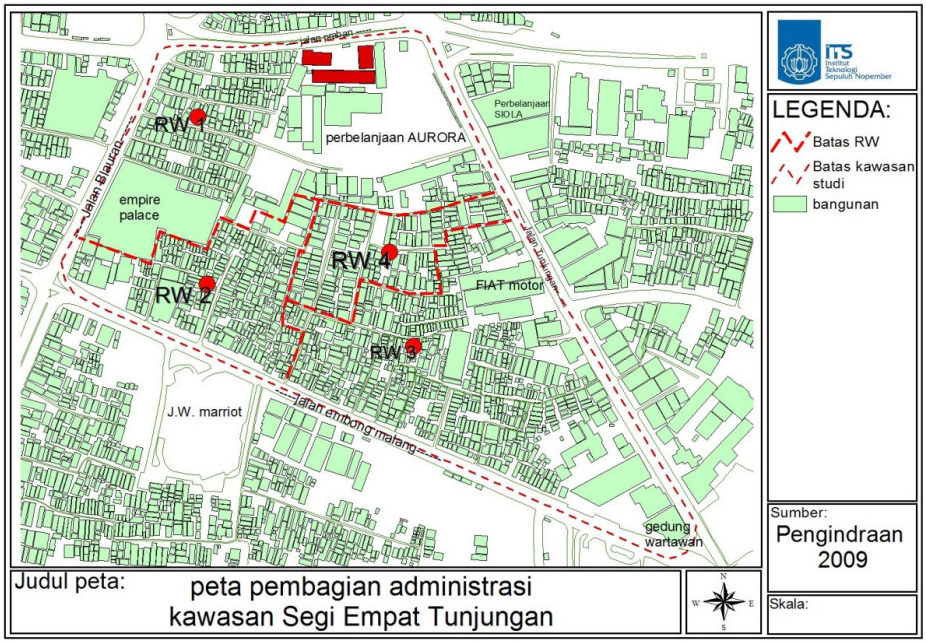
Table 2: The DASS42 Severity Index Table (Devilly, 2005)

	Depression	Anxiety	Stress
Normal	0 – 9	0 – 7	0 – 14
Mild	10 – 13	8 – 9	15 – 18
Moderate	14 – 20	10 – 14	19 – 25
Severe	21 – 27	15 – 19	26 – 33
Extremely Severe	28+	20+	34 +

SITE

The site selected for this study was Kampung Tunjungan Pada (see figure 2 below). It is an informal settlement located in the CBD of Surabaya, Indonesia and is bounded by major roads and buildings. Its location means that residents have been able to find employment in these offices or by operating small businesses (often home based) such ready made food, barbers or tailors. The site was selected because of the previous contacts and work that ITS University had completed in the Kampung.

Figure 2: The Map of Kampung Tunjungan Pada



There are no parks or open public areas within the Kampung though residents often grow potted plants and flowers; lanes are narrow (typically 2.5 metres overall); and children by necessity play in the lanes. Houses built in the 1930'so seem to be better quality than those

built later in the 1970's and the pressure to build has resulted in some houses not actually facing a lane. Some houses have a city supply water system, most do not and hence water purchase from shops or cartage from nearby wells is a constant requirement. Drainage is by gutters built in response to annual flooding of the Kampung and is usually maintained by each resident. Waste water is via these drains. House plots vary from 2.5x5 to 10x20 metres and some residents have constructed 2 storey homes. It is made up of 4 separate areas as shown in the map above.

METHODS

Training with both tools was given to the members of the 4 survey teams prior to their work in the field (one team for RW1 through 4). It consisted of PowerPoint presentations covering examples of the "10 Essential Patterns" taken from a visit 2 days prior to the training (and hence current). This was followed up by a walk through the Kampung where the Patterns procedure was used and discussed. Spatial areas associated with the houses were identified to standardize the survey approach and data collection. For example, the area immediately outside the house would need to be the start point for all teams. That is then connected to the porch or entry (where we were expecting a higher density of patterns), the lounge corridor and rooms and rear kitchen/bathroom areas which would be subsequently examined. It was emphasized that several patterns could exist in one spatial area and in one architectural feature; and for example figure 3 below of a porch contains patterns 2, 3, 4, 5, 6, 7, 8, 9 and 10.

Figure 3: A high density of patterns in this porch

The other DASS42 survey tool had previously been translated into Bahasa by the Legal Department of Sykat Kuala University in Banda Aceh and checked by the Jesuit Brothers in Yojarkarta and used in over 10 different locations in Indonesia. Nonetheless, the version was review by the ITS team and some minor modifications made. The teams were then taken through the survey to ensure there was an agreement on what the questions meant and the process to be used.

Approximately 20 families were survey from each of the 4 districts (17 from RW1, 20 from RW2, 25 from RW3, 23 from RW4 hence 85 in total) during May 2011 and the results for the Patterns and the DASS42 were compiled using EXCEL spreadsheets. Those that had the higher QoL and the lower QoL were separated out and their patterns reviewed as the basis for the following results.

FINDINGS

The DASS42 QoL results showed the following

- RW1: 4 reduced QoL factors involving 2 households
- RW2: 13 reduced QoL factors involving 7 households
- RW3: 0 reduced QoL factors
- RW4: 24 reduced QoL factors involving 16 households

25 households in all.

Hence, RW3 would seem to have the best QoL followed by RW1, RW2 and finally RW4. The least QoL ranking for RW4 was consistent with the feeling within the survey teams and while it was not unexpected it was somehow still surprising.

The overall results from the Talk to the Buildings approach are shown below in table 3. The top half of those results suggest that the most commonly seen patterns were Pattern 1: Inhabiting site, Pattern 7: Composing with materials and Pattern 8: Sheltering roof. All areas, except RW3 (which had Pattern 5: Private edges common core and Pattern 6: The flow through rooms instead of 7 and 8) were essentially in agreement.

Table 3: Overall results from the Patterns Tool.

Pattern	1	2	3	4	5	6	7	8	9	10
RW1	45	40	36	38	37	42	45	43	37	34
RW2	52	50	47	48	46	46	56	54	46	42
RW3	66	63	62	65	69	68	65	60	64	61
RW4	65	61	54	65	65	54	72	73	57	58
TOTAL	228	214	199	216	217	210	238	230	204	195

Highest	**RW1**	38	**Lowest**	**RW1**	13	**Average**	**RW1**	25.4
	RW2	44		**RW2**	11		**RW2**	26.4
	RW3	44		**RW3**	17		**RW3**	28.4
	RW4	41		**RW4**	19		**RW4**	29.1
	Overall	44		**Overall**	11			

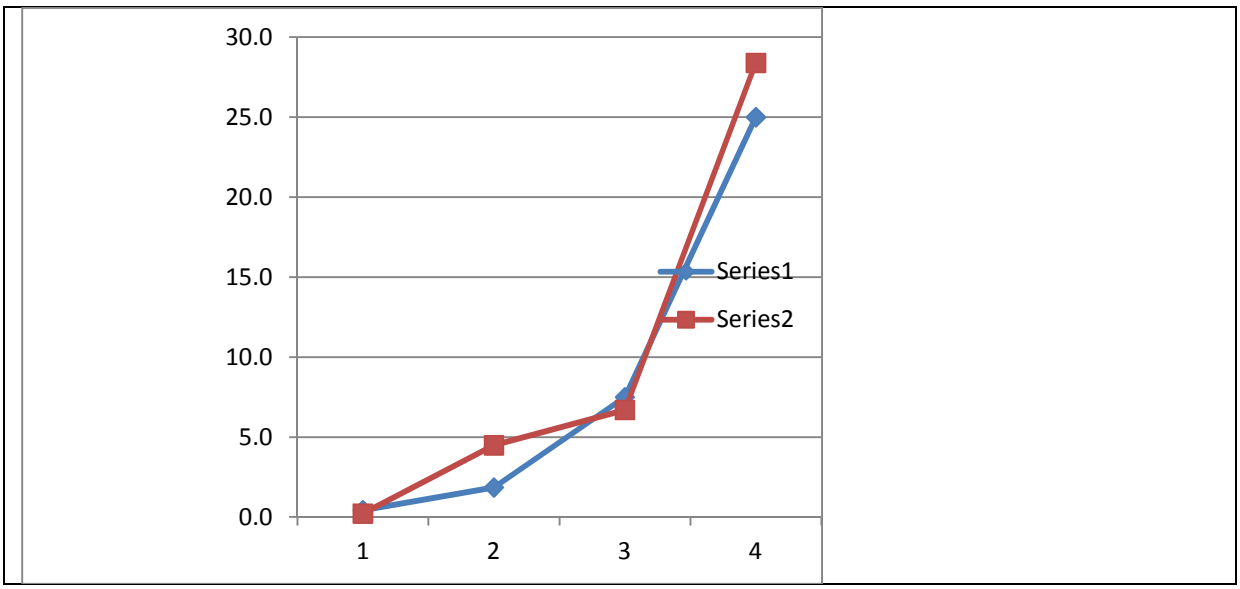
What then happens when these two tools are connected? Those with a “normal” classification for all 3 scales based on the Severity Table of the DASS42 were counted as “Happy” (following de Botton’s terminology); those that anything else were treated as “Unhappy” and hence two data sets were created; one of “happy” people and another of “unhappy”. For the 4 areas of RW1 to 4 there were 25 “Unhappy” households and 60 “Happy” ones. It should be again noted that all of RW3 were “Happy” and that RW4 had the lowest QoL and the most “Unhappy” households. The patterns data for these two groups were separated, analysed and any differences noted.

Firstly, it should be noted that the differences were numerically small. Nonetheless, it seems that more patterns were associated with a higher QoL (by 1.1 pattern differences based on average counts). This increases to 1.8 when the “Unhappy” data is compared to RW3 (where all households are “Happy”). Moreover, when one looks closely it seems that the ratio of Happy/Unhappy households equals the pattern difference. Consequently, an increasing ratio results in an increasing QoL which is notable firstly because it is not seemingly mentioned in the literature and secondly it has operational implications in that the addressing the next persons QoL greatly enhances the community response because of the

non linear nature of the relationship (see table 4 and resulting graph below). Hence, "Happiness" seemingly breeds "Happiness" and more importantly that there does appear to be a connection between individual and community resilience given that the DASS42 is as suggested earlier (Pain et al, 2012). This was the unexpected result mentioned in the first line of the abstract which is now discussed further.

Table 4: Scale effects

	Ratio of Happy to Unhappy	Difference in Patterns
RW4	0.4	0.2
RW2	1.9	4.5
RW1	7.5	6.7
RW3	25.0	28.4
	(series 1 below)	(series 2 below)



DISCUSSIONS

Certainly, the results from each tool were extremely useful and provided insights that would have otherwise not been realised.

But it was the results tabulated in table 4 (when the two tools were connected) that were perhaps stunning. What it demonstrated was that breaking data into those that are happy and not happy across other data opens up even further new findings. Secondly, it suggests that architecture (measured in terms of pattern density) has a direct correlation with the happiness/well being of an individual and a community. And that it is seemingly linear up to some threshold or "tipping point". That tipping point was a around a ratio of 7-8 of Happy to Unhappy. Below this ratio architectural inputs resulted in proportional happiness outputs, however when one is above the tipping point any further increase of architectural inputs results in significantly greater happiness outputs. Effectively, the community is resilient and self reliant and sustainable.

What does this mean for those field questions raised by Adam Pain and Simon Levine? (Pain et al, 2012). Firstly, the process can be readily used in the field and hence the resilience of affected populations regardless of whether it is a fast or slow onset can be identified. The word resilience is deliberately selected over capacity as resilience happens after the event while capacity is essentially established before. The well being process of the DASS42 does not tell you "why" but does tell you "who" and to "what degree"; previous work has also shown that bolting the DASS42 to other data bases can greatly assist in finding the "why" (Santosa et al, 2011), (Potangaroa et al, 2008). Thus, while we don't know exactly

what to do we do have a way to measure whether we are heading in the right direction and moreover to compare the resilience gains for communities and individuals against a strategy of reaching the tipping point.

Moreover, this work suggests, and this is the proposition; that initially communities survive as individuals with individual resilience and it is only once the tipping point is reached that community resilience kicks in. The researchers would like to do further work in this area but are aware that this may be prevented by funding and hence this paper.

CONCLUSIONS

Thus, we agree with the conference theme that resilience can only be achieved and sustained through thorough integration of both the built and the social environments. Planning a resilient city is a challenge to urban planning and all disciplines involved in general but strategic use of potential tipping points and the convergence of individual and community resilience that seemingly occur offers significant opportunities.

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APPENDIX 1: DASS42 IN ENGLISH

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There is no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1 I found myself getting upset by quite trivial things	0	1	2	3
2 I was aware of dryness of my mouth	0	1	2	3
3 I couldn't seem to experience any positive feeling at all	0	1	2	3
4 I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 I just couldn't seem to get going	0	1	2	3
6 I tended to over-react to situations	0	1	2	3
7 I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8 I found it difficult to relax	0	1	2	3
9 I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10 I felt that I had nothing to look forward to	0	1	2	3
11 I found myself getting upset rather easily	0	1	2	3
12 I felt that I was using a lot of nervous energy	0	1	2	3
13 I felt sad and depressed	0	1	2	3
14 I found myself getting impatient when I was delayed in any way (eg, lifts, traffic lights, being kept waiting)	0	1	2	3
15 I had a feeling of faintness	0	1	2	3
16 I felt that I had lost interest in just about everything	0	1	2	3
17 I felt I wasn't worth much as a person	0	1	2	3
18 I felt that I was rather touchy	0	1	2	3
19 I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20 I felt scared without any good reason	0	1	2	3
21 I felt that life wasn't worthwhile	0	1	2	3
22 I found it hard to wind down	0	1	2	3
23 I had difficulty in swallowing	0	1	2	3
24 I couldn't seem to get any enjoyment out of the things I did	0	1	2	3

25 I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat) 0 1 2 3
26 I felt down-hearted and blue 0 1 2 3
27 I found that I was very irritable 0 1 2 3
28 I felt I was close to panic 0 1 2 3
29 I found it hard to calm down after something upset me 0 1 2 3
30 I feared that I would be "thrown" by some trivial but unfamiliar task 0 1 2 3
31 I was unable to become enthusiastic about anything 0 1 2 3
32 I found it difficult to tolerate interruptions to what I was doing 0 1 2 3
33 I was in a state of nervous tension 0 1 2 3
34 I felt I was pretty worthless 0 1 2 3
35 I was intolerant of anything that kept me from getting on with what I was doing 0 1 2 3
36 I felt terrified 0 1 2 3
37 I could see nothing in the future to be hopeful about 0 1 2 3
38 I felt that life was meaningless 0 1 2 3
39 I found myself getting agitated 0 1 2 3
40 I was worried about situations in which I might panic and make a fool of myself 0 1 2 3
41 I experienced trembling (eg, in the hands) 0 1 2 3
42 I found it difficult to work up the initiative to do things 0 1 2 3

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