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The Social Architect:
A New Framework for Effective Activism and Social Leadership

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Abstract

Social theories and humanitarian movements, despite their good intentions, have had limited effectiveness. This paper introduces Socio-Systemic science as a conceptual and implementation framework designed for effective high impact systemic action. The science of Socio-Systemic impact is led by the Social Architect who understands how to consciously catalyse key drivers of systemic change. The rise of a systems-based worldview forms the basis of a new way of understanding modern problems, inferring the kind of thinking and leadership required today. The Social Architect is a new entity in this development, working to apply grounded sociological science and understandings of natural systems to improving the human condition. Where traditional activism falls short through structural illiteracy and continually stumbles in engaging mere symptoms of world issues, the Social Architects act as the compassionate analysts addressing the systemic causes of world issues. We can no longer turn a blind eye to structural violence and systemic failure. Inside the dark heart of structural violence are the keys of societal re-architecting that are in fact our only hope out of it. The first part of this paper outlines the science of Socio-Systemic impact. The second part explains how to put the science into practice; reviews current implementation methods being deployed by leading Social Architects; outlines the key skills and roles of the Social Architect working individually as well as strategies for integral systemic action, and, lastly, suggests further action strategies and prospects for the future.

1. Socio-Systemic Impact, Effective Action & the New Social Architecture

> *"Current humanitarian and social change theories arrive generally at only 25% capacity for effective action."*

Social theories and humanitarian movements, despite their good intentions, have had limited effectiveness. Number of stakeholders, partners and even how much money are pumped into an initiative are, in fact, irrelevant if the conceptual base only affords you a limited capacity for effective action. Through Integrative Propositional Analysis[1] (IPA) a

theory's structure and capacity for effective action can be measured. Current humanitarian and social change theories arrive generally at only 25% capacity for effective action. For example, a study on theories for how to alleviate poverty in the US found an average of only 16% capacity for effective action.[2] A recent study on theories of evaluation relating to Africa (reflecting our ability to evaluate and improve our programs and policies) found they had an average level of 15% affordance for effective action.[3] The Socio-Systemic framework, currently on par with best practices, is a framework designed for effective high impact systemic action. The structure of Socio-Systemic science was evaluated by Integrative Propositional Analysis[4] (IPA) and is anticipated to at least double its current capacities with a result of 78% capacity for effective action frameworks and applications.[5] Over three times as likely to produce effective action on world issues, socio-systemic science is now prevailing ahead of current theories of social change. It is now only beginning to be put forward for the planning of projects, policies and initiatives. The current Socio-Systemic science, methods, foundational principles, and action strategies will be outlined in this paper along with the critical roles of Social Architect leadership.

"How you conceptualise a problem greatly determines how you conceptualise its solution."

The Socio-Systemic framework operates through a systems worldview in order to address the interconnected challenges facing humanity, which defy any resolution based on a reductionist worldview and which make modalities of specialised activism inadequate for comprehensive global solutions. How you conceptualise a problem greatly determines how you conceptualise its solution. Social sciences and humanities have lacked a coherent, systemic, causal and epidemiological understanding, which affords the capacities for effective action. One which requires more than just NGO and third sector initiatives for development; one which understands fundamental constructs and forces which underlie all social phenomena; and one which, most importantly, understands the critical importance of the fundamental re-architecting of society as the means for genuine social progress. The science of Socio-Systemic impact is led by the Social Architect who understands how to consciously catalyse key drivers of systemic change. Its Socio-Systemic science is driven by impact effectiveness, and its ambition is the design of a new social architecture. A New Social Architecture[6] seeks a higher aspiration for a better alignment of social and natural systems,[7] creating societal institutions and social conditions in line with natural laws, human wellbeing and planetary boundaries.

The first part of this paper outlines the science of Socio-Systemic impact. The second part explains how to put the science into practice; reviews current implementation methods being deployed by leading Social Architects; outlines the key skills and roles of the Social Architect working individually as well as collectively through a framework for integral systemic action, and, lastly, suggests further action strategies and prospects for the future.

2. Part 1: The Science of Socio-Systemic Impact: Framework for Effective Action

Taking its root from long-standing criticisms of development and aid[8] and key structural criticisms brought forward from global health movements,[9] in combination with contributions from the system sciences,[10] a Socio-Systemic lens enables a cause-based analysis. More importantly, it finally affords us the ability for systemic strategies for effective action not previously available and which remain absent from most activism and humanitarian efforts. We can now understand how to act systemically in order to alter outcomes scientifically. And now more than ever, this level of effective systemic action is critical. Since the Industrial Revolution, we have seen a sharp rise in two highly detrimental realities: ecological decline and socioeconomic inequality. There is no shortage of published studies on these issues, where it is clear that modern industry has done vast harm to the integrity of our ecosystem, with all life support systems now in decline. The solution to this global problem requires not only a new level of regulation and compliance but, more critically, a structural shift for addressing how societal institutions and economies operate, working to remove the source of the problem. The science of Socio-Systemic impact is a critical conceptual and implementation framework which can, finally, give us the means for genuine social progress. The three core integral tenets of its science are: 1. the bio-social epidemiological understanding; 2. systemic causality; and 3. the 'culture codes' are outlined here.

2.1. A Bio-Social Epidemiological Understanding: The Critical Nest of Relationships

Without an epidemiological understanding of the human condition, approaches to social progress will have limited efficacy. By epidemiological we mean the bio-social understanding of health which is at the root of public health science today as well as at the heart of the Global Health Movement.[11] There is an interconnected set of relationships that relate directly to one's cognitive development and interface the biological, psychological, sociological and behavioural attributes that connect a human being to his/her environment. Through this, we can understand the social preconditions that breed addiction and criminal behaviour,[12] as well as the social preconditions that set children up for higher intelligence and life success.[13] Criminality, addiction, intelligence, and life success are not purely social phenomena; they are also biological and directly related to cognitive development, and are neurologically bred through a bio-social interface and social preconditions.

When we understand how criminal behaviours are created through bio-social factors, and how poverty is created through societal structures, then we can start to analyse things systemically and address their root causes rather than only symptoms. Through this bio-social and systemic lens, we gain a crucial understanding of the critical nest of relationships, which give rise to social phenomenon. It then becomes clear that if one alters the critical nest of relationships embedded in societal structures, then one can alter behavioural and societal outcomes at a causal level. This integrated systemic epidemiological understanding is where the majority of activist, humanitarian, altruistic and applied social theories have failed to date.

The bio-social lens enables us to identify key system axis points. By an axis point we mean a convergence of critical systemic factors institutional (structural) as well as cultural. The more systemic factors which converge, the more powerful the axis becomes as 'system leverage points.'[14] By identifying axis points, we can highlight key areas and forms of action which can leverage systemic change.

"If we really want to solve the problem, we must address the cause."

The value for developing a bio-social epidemiological understanding is the value for a new paradigm of human development[15] and the understanding of the critical importance of developing of more peaceful behaviours through the enabling of healthier social preconditions. Through a bio-social lens we can make clear links to the societal institutions and systemic factors that are preventing healthy human development, breeding violence, increasing rates of illnesses and incentivising social psychologies which are not only adverse to our biological needs, but also the opposite to what we require for sustainability and peaceful social formations.

2.2. Systemic Causality

Ordinarily epidemiology is limited to cover medical and health-related frameworks. Rarely is this approach considered when it comes to the impact of more complex causality, such as outcomes correlated to a social system, its economy, its institutions and so forth. In order to understand systemic causality, the range of epidemiological study must extend to human behaviour and hence to individual and group incentives and practices. Priority, then, moves towards those casual realities that are most powerful in effect. Socially shared ubiquitous influences, such as economic structures as well as the institutions and societal structures we find ourselves inside of, incentivise the limiting or exaggerating of specific aspects of behaviour. Through this lens, we can see how institutions have a profound influence not just on the people working within those organisations but also on key aspects of social organisation that generate our wider societal phenomena.

By combining this extended epidemiological understanding with a systems worldview, we can expand the contributions of the social disciplines and move systemically into the causality of social issues. Utilising a cause-based analysis embedded with a systemic understanding of mechanisms and processes underlying social phenomena, we can engage processes of social re-architecting. A critical understanding must be gained by the human being and his/her institutions that is integrative and causal. The systemic intersection of historical cultural influence, paired with the short and long-term incentives of institutional structures, in particular our most dominant institution, the economic system, along with our evolutionarily-determined biological propensities, gives us critical information about how the causality is ordered. Some forms of causality will be more powerful and influential on the human being while other forms will not. This can be thought out as a kind of hierarchy of importance.

Institutions and societal structures are at the centre of causality. Business cannot be dismissed as 'just business.' Institutions structure relationships. Institutions create the

'norms' of what is acceptable and what is not. They tell us which behaviours are rewarded and which are not. Institutions decide which forms of knowledge are important and which are not. Institutions decide which values are more important through what they focus on institutionalising. Most critically, institutions incentivise group behaviour. Generally, this can be based on given incentives or rewards to act or not, and can become a cultural phenomenon, where long term, overlapping institutional influences generate a common mental schema and, hence, shared cultural worldview. In this light, we can see how institutions create psychologies and behavioural incentives which powerfully shape social norms and have a causal relationship to societal phenomena.

Major scholars such as Thomas Pogge recognise the systemic causality of global institutions in relation to the global crisis. Pogge writes about the causes of world poverty in relation to the institutions of the global economy. By identifying ways in which "global institutions, norms, and business practices prop up regimes that rule against the people they claim to represent,"[16] Pogge finds the global political order rooted in injustice, arguing that "the reigning economic and political systems and global institutional architecture act as a cause of active harm to the poor."[17] He engages a lens of systemic causality to demonstrate the causes of world poverty to be systematically linked to "specific institutional arrangements created and sustained by political choice."[18] Structural, institutional and systemic causes of poverty and inequality are supported now by multiple scholars.[19] By understanding systemic causality of world issues, we then see that solutions, actions and strategies must be systemic in order to be effective.

Another important example of systemic causality has been identified by The Global Health Movement, which has brought forward the 'Social Determinants of Health'[20] now recognized by the World Health Organisation. The social determinants of health utilise a bio-social case base framework to explain how the risk of ill health is structured. The robust research behind this moral movement concludes that the core cause of global health problems can all be traced back to 'Structural Violence'. Paul Farmer, one of the founders of the Global Health Movement, explains: "Structural violence is one way of describing social arrangements that put individuals and populations in harm's way […] The arrangements are structural because they are embedded in the political and economic organisation of our social world; they are violent because they cause injury to people […] Neither culture nor pure individual will is at fault; rather, historically given (and often economically driven) processes and forces conspire to constrain individual agency. Structural violence is visited upon all those whose social status denies them access to the fruits of scientific and social progress."[21] This means that to effectively address global health, we must act structurally to achieve genuine progress.

By understanding systemic causality, it becomes an imperative to act systemically for effective transformative solutions. If we really want to solve the problem, we must address the cause. Current activist and humanitarian efforts, despite their good intentions, have engaged in mere symptomology. To move out of symptomology into effective action; to afford ourselves 'the fixing capacity;' to really become solutionaries, we need to become structurally literate and systematically engaged.

2.3. The Culture Codes

Every systemic dysfunction and mechanism of structural violence has its inner counterpart—the belief, the mindset, the narrative, the culture, that supports it or that is interlocked with it. We institutionalise what we understand. Socio-Systemic science recognises this interlocking nature of beliefs, mindsets and culture in relation to organizational mechanisms, structures and institutions.

> *"From a systems perspective, to reduce caustic socioeconomic inequality means to get to the root of causal dynamics and change the very mechanisms causing it. This would require restructuring of how economics works at the root level."*

Cultures are constructed of language, symbols, and behaviours. They are connected to space, place and historical context, and, as such, interconnected with social preconditions. As previously discussed, social psychologies can emerge connected to the incentives of societal institutions. The 'culture codes' are cultural mechanisms that can be engaged to address the critical nests of relationships that potentially mobilise, facilitate or even transform social organisation to align with and/or catalyse systemic change. They should be implemented according to the context in which the systemic intervention is taking place.

Culture Code 1: Language & Narratives

As a collective of academics and activists astutely points out: "All power rests on the ability to control language. Humans make sense of the world through stories."[22] In order to target the deep logic of narratives that propagate systemic dysfunction, we need narrative interventions that engage a language which is most meaningful to their context. An example of this form of narrative intervention is the Culture Hacking method which seeks narrative and structural change: "The stories we tell shape the way we see the world and guide our responses to the problems we face"* To change a system, it is critical that we change the narrative at the heart of the system. Creating alternative stories and narratives goes hand in hand with the creation of alternative systems.

Culture Code 2: Social Preconditions

A precondition is defined as something that comes before or is necessary to a subsequent result. Medically, the term is used to denote factors that may lead to a statistically probable result, such as smoking tobacco leading to lung cancer. Sociologically, the term is used in the same way. As opposed to individual health, however, the context is public health—health outcomes occurring on a population level. For example, poverty is highly determinant of many negative outcomes, including child abuse and neglect. While society tends to view the parents as the starting point of these problems, as does the legal system, this inclusion

* see https://therules.org/culture-hacking/

of social preconditions extends the chain of causality. For example, researchers at the American Academy of Paediatrics directly linked an increased unemployment rate to child maltreatment.[23] From this view, problem-solving hinges on focusing on the social preconditions in order to stop resulting in negative social outcomes.

"We need leadership that understands deep systemic flaws and how to re-architect them."

Culture Code 3: Symbols, Experience, Place

Culture is lived experience,[24] lived experience which connects symbols, space and place. In order to engage transformative levels of participation, interventions must be meaningful and engage the symbols of experience that are authentic to their place and context of intervention. To engage the mobilising powers of culture, actions should be expressed in a way that has a local cultural force.

Without engaging culture or a process of cultural change, structural changes not only lack meaning but its people and populations may not understand how to engage with the new structure or system and, therefore, revert back to the systems that they know, even if those systems are destructive. It is, therefore, important that initiatives for structural and systemic change engage culture for meaningful participation. This means working to synthesize culture codes and using their knowledge and symbols to reorder and re-experience social phenomena in order to generate new meanings and environments.[25] Through this transformative cultural engagement, initiatives for systemic change can engage authentic participation and social transformation.

Culture Code 4: The Arts

The fact that arts have had a long history with social change is no coincidence. The arts enable us to read what is embodied and embedded in the larger social order.[26] They are the densest information ground for understanding group values, characteristics, communication and social processes. With the right understanding and engagement, the arts can play a huge role in re-inventing social narratives, transforming mindsets, catharsis, healing wounds of societal violence, catalysing systemic change as well as cultivating alternative cultures with values that align to more sustainable systems.[27]

The arts can effectively catalyse social transformation and hold much potential to strengthen systemic interventions. To utilise the arts-based interventions for systemic change, the wider lens of culture can first enable one to see which artistic interventions could be most relevant and have the highest transformative potential for the context of systemic change.[28]

Culture can be said to contain the above mechanisms, 'culture codes' and critical nests of relationships that when altered systemically and integrally can alter behavioural and societal outcomes. By changing our perception and understandings we increase our capacities to support and even give rise to systemic change. New processes of social learning generate

new understandings and new forms of relationships which can enable authentic reordering of social formations for a new social architecture.

Through this three-pillared framework of Socio-Systemic science, we can highlight key axis points to act on and create more effective activism strategies and transformative leadership. Some of these axis points may be bio-social axis, some cultural axis and some socio-systemic axis depending on the context. Through this framework we can create methods of systemic action alongside identifying key axis points to leverage systemic change. We can understand how to develop methods of practice which can alter outcomes scientifically.

3. Part 2: Putting the Science into Practice

Socio-Systemic science of impact can be applied to multiple fields and sectors of society. It can be implemented by industry sector or by local area and through leadership strategies that catalyse key systemic components. We can apply it to the re-architecting of the development sector, to the transforming of health industries, remodelling business practices for sustainability and to the restructuring of our economic system. Or, a 'systems change map' which alters critical nests of relationships and key societal structures can be created for a specific area or region which desires such change. Leadership such as Social Architect leadership can engage and catalyse key systemic axis points and processes. Structural and systemic action is imperative. Resource overshoot, biodiversity loss, topsoil destruction, atmospheric pollution and the emerging water stress are on a rampant path to affect 6 billion by 2050. These are some examples of system-level problems that require system-level solutions. Systemic thinking is critical for addressing our global issues at a causal level, in particular our most fundamental global issues: socioeconomic inequality and ecological decline.

At the root of socioeconomic inequality are the system of commerce and its built-in mechanics. Business and trade, from a systems perspective, constitute a game in function. How profits and losses occur is reflected in the study of game theory. Like the statistical probabilities one would find in a casino, advantages on the part of a given player can increase their odds of winning in the future. Such a framework can explain the exponential rise in wealth of, for example, the richest man alive, Jeff Bezos. With the odds stacked in his favour, the manner by which money is distributed in market-based economics is imbalanced to the degree that once certain advantages are achieved, it becomes a mathematical inevitability that the "rich get richer" and the "poor stay poor." While ideological debate may rage about the moral validity of this reality, the system operates logically, without political loyalty. Hence, if the societal interest is to reduce socioeconomic inequality in a serious way, taxes and regulations will only go so far. With trillions hidden today in tax havens off-shore along with other general gaming through lobbying to avoid taxation on wealth by the upper class, it can be well argued a new approach is needed as global Gini coefficients rise.[29] From a systems perspective, to reduce caustic socioeconomic inequality means to get to the root of causal dynamics and change the very mechanisms causing it. This would require restructuring of how economics works at the root level.

The same manner of thinking applies to the resolution of ecological decline. Our habitat consists of intersecting systems of nature, in a delicate and elegant balance. Before the

Industrial Revolution, humanity had a relatively low impact on the ecosystem. However, the rapid increase in productivity since has caused great strain on all life support systems. Today, we find no shortage of rightfully concerned NGOs and activist groups demanding the degradation stop, with little success. A systems-minded thinker can see that the effort to stop pollution, over-consumption and habitat loss runs against the built-in mechanism of the economic system. That mechanism could best be defined as a push toward "infinite growth" needing the cyclical consumption at all times. The question must be asked as to how humanity can reduce its footprint when the global economic system requires constant sales and turnover to operate. Hence, from a structuralist perspective, in order to harmonize society's economic behaviour with nature, gaining sustainability, those features built-in in our economy that are systemically perpetuating the decline must be recognized and addressed.

Our systems are failing. Beyond failing, they are incentivising social psychologies and behaviours that are the opposite of what we need for sustainability. Our societal systems are designed to ensure a class war rather than social progress.[30] Therefore, without new structures with sustainable incentives and humanising mechanisms to support social change efforts, any and all aspirations will remain nothing but rhetoric and be destined to fail. Standing now at evolutionary cross-roads, we cannot afford to recreate the same systemic issues in a different package. We need leadership that understands deep systemic flaws and how to re-architect them.

4. Social Architect Leadership

Social Architects are competent in a systems worldview and deeply value both human and planetary wellbeing. They are literate in structural mechanisms and profoundly aware of our current state of bio-social conflict. They make it a priority to engage in a cause-based analysis and systemic action for the re-architecting of our current conditions. Where traditional activism falls short through structural illiteracy and continually stumbles in engaging mere symptoms of world issues, the Social Architects act as the compassionate analysts addressing the systemic causes of world issues. The understanding of structural violence and our current state of bio-social conflict motivates their dedication to societal re-architecting.

From their inter-relational, systems-science based perspective, Social Architects see the oppressiveness and reductionism of our man-made structures and processes. The fruits of scientific discovery have no doubt benefited many aspects of our lives, from health to transport and so on. Yet, rarely have we seen the same thinking applied to how we organize society as a whole. Social Architects must stand away from context-bound ideological debates on capitalism, communism, right wing and left wing etc. A systemic analysis seeks only to identify the key drivers and mechanisms of a system and culture in order to engage a process of social re-architecting for (re)designing institutions in line with natural laws, human development and planetary wellbeing.

5. Social Architect Leadership in Practice: Roles, Methods and Impact

This leadership hosts a number of unique roles and skill sets which are for the most part absent from our current models of leadership. Social Architect leadership, also, already hosts

a number of methods brought forward from Structuralist and Systemic Movements. These include: Systemic Innovation,[31] Systems Change,[32] Systems Acupuncture,[33] Critical Cultural Action[34] and frameworks for systemic activism. We will briefly outline these methods, their impact, the role that the Social Architects play in them, as well as suggest ways forward.

5.1. Systemic Innovation: The Social Architect as an Innovator

Through systemic innovation the Social Architect leads the way to more sustainable industries. Systemic innovation aims to address key systemic flaws through a) innovating on system leverage points,[35] b) identifying new system nurturance points,[36] c) the redesigning of key systemic components, and d) modelling or working towards the modelling of more sustainable systems. It seeks the development of models and systems supporting the integral wellbeing of humans and the environment. It is a successful and growing area. Understanding key places to intervene in a system enables us to understand where to act to have the strongest possibility of fundamentally changing that system. Hence strategic innovations can be made for systemic impact. An example of this is 'Disruptive – Sustainable innovation' which has gained much momentum and now has major platforms such as Katerva, the so-called Nobel Prize in Sustainability (katerva.net).

A key method for disruptive-sustainable innovation is the CIRR framework[37] (Critique, Insight, Redefine, Restructure). CIRR addresses flaws in systemic design of industries and organisations, as well as weaknesses inherent in their logic. It engages a process of re-thinking, drawing insight from culture and lived realities through which the meaningful redefining of core systemic elements can be made. It, then, engages key aspects of design science for the redesigning of a system's architecture.

Other major syllabi have also been created such as the Doctoral Program in Systemic Innovation at Buenos Aires Institute of Technology.* This Doctoral level program looks at how socio-technical solutions can dissolve VUCA challenges (i.e. challenges that are volatile, uncertain, complex and ambiguous) by looking at both system leverage points and system nurturance spaces. Alexander Laszlo expounds: "Results include the generation of socio-technical solutions that are synergistic with each other (thereby forming collective incubators or innovation greenhouses based on the application of collective intelligence)."[38]

Systemic Innovation is high impact innovation which can fundamentally address flaws in how our current industries operate. An example of this is FormWelt media.† As opposed to current media which plays out narratives against each other; and as opposed to current technology which can have a detrimental effect on a person's cognition when used in excess, FormWelt media is designed to make information more and more coherent, and to make communications clearer and clearer. It creates a dynamic information system through which a propagandic model cannot exist. Furthermore, it is designed to increase and develop the cognition and cognitive faculties of those using it. Addressing the systemic flaws which enable media to perpetuate propaganda and the dumbing down of populations, FormWelt is designed for continual increase in informatic clarity which disables propaganda and works

* https://www.itba.edu.ar/doctorado-en-direccion-de-la-innovacion-sistemica/?lang=en

† https://formwelt.info/

for the development of individual cognitive faculties and generation of collective intelligence and superintelligence.

5.2. Role of The Social Architects: The Innovators

This is an entrepreneurial form of Social Architect Leadership where the Social Architect identifies existing flaws within industries and engages in a deep design process for innovations which fundamentally alters the nature of that industry. They are the game changers.

Suggestions for ways forward:

Training in Systemic Innovation can be harnessed to scale out global social leadership for systemic action on global issues. We suggest that 'Systemic Innovation Labs' be created where current methods for systemic innovation could be trained and further expanded.

5.3. Systemic Acupuncture: Social Architects as Leaders in Systems Change

Another method engaged by leading Social Architects is Systemic Acupuncture. Validated by scientific evidence in Deep Design methodology invented by Hames and Oka, Systems Acupuncture deliberates "precisely calibrated change, in complex situations, with the least amount of resources and effort."[39] It engages a process of 'Transformational Narrative' transforming the 'being, thinking and doing' of the people involved in the system/organisation through a deep inquiry process which, in effect, transforms the culture and behaviour of those involved. Alongside this the most relevant 'acupuncture points'[40] in the system are identified. Then new alternatives are highlighted, while the restraints on these alternatives are lifted. The result is the design of a new system for purposeful change.

An example of systems acupuncture is efforts to understand how to reinvent democracy in ways that would not just eliminate flaws and the possibility of corruption, but also provide a compelling UX for citizens. An AI enabled systemic acupuncture analysis revealed the best places to start. This then became the MiVote initiative,* where the re-engagement of the community takes place with public policy decisions that would directly affect them, as the intervention point, instead of the more traditional political party reform.

The impact of Systemic Acupuncture has been that impossibly complex problems have been resolved in ways that are enduring, for considerably less cost and effort than originally thought. Alternative options for intervening in any complex system have been identified that are far less intrusive to (and therefore far more acceptable to people working in) routine operations. Leaders working to effect change begin to appreciate the dynamic nature of shaping whole-system patterns, rather than the more linear, mechanistic, problem solving ways of thinking they are used to.

5.4. Role of The Social Architects: Providing Systems Change Services

In this case, the Social Architect offers a service of systemic change to organisations that are struggling with complex challenges. Enabling them to understand how to alter their operating system from the inside out, through the rewiring of whole-system patterns.

* https://www.studioalto.com/work/mivote/

Suggestions for ways forward:

Alongside activist and humanitarian efforts for climate change and sustainability, the current modus operandi of businesses needs to have sustainability and human-centred design embedded into it. Businesses should be required to address our complex world issues not just through charitable donations, but also through evaluating and addressing how their business systemically contributes to and/or generates world issues. Therefore, Social Architect leadership for the further development of systems change services and systems acupuncture services, which enable companies and organisations to transform their practice, is vital.

"The Social Architect embodies a brave new train of thought, with an activist approach that is integrative, not reductionist. This train of thought commands a public health, epidemiological approach to problem resolution, focusing on the most core structures of our society, posing the proposition: True, needed social improvement will not come about if the current socioeconomic structures remain unaltered."

5.5. Social Architects as the Leaders of Effective Activism

When we understand that systems have inherent natures and cannot be merely reduced to the actions of their participants, but rather, only understood through the functions and related incentives the system has, we begin to understand why contemporary activism fails. The prevailing community is attempting to regulate forces that have a very low probability of being regulated. For example, ecological sustainability and a return to climate stability must involve far more sustainable commercial practices. Unfortunately, when the central mechanics of today's economic system are understood, we realize that the structure itself does not support ecologically sustainable practices by default. Hence, the existence of metrics like Gross Domestic Product and the perpetual push for economic growth across the world. Our current system of economy has no vocabulary for what it means to be environmentally sustainable. It is not built into the system itself.

The Social Architect embodies this brave new train of thought, with an activist approach that is integrative, not reductionist. This train of thought commands a public health, epidemiological approach to problem resolution, focusing on the most core structures of our society, posing the proposition: True, needed social improvement will not come about if the current socioeconomic structures remain unaltered. This is no small task. It will take Social Architects acting as innovators, and as leaders of systems change, as outlined above, but it will also require us to upgrade our current modes of activism and humanitarian efforts.

The vast majority of activist efforts remain structurally illiterate[41] and studies also show that the majority of organisations working in philanthropy and aid remain highly ineffective.[42]

Socio-Systemic science as a framework for high impact systemic action could provide skills, know-how and tools, as well as build frameworks for more effective action. It can highlight key system axis to act upon to leverage systems change, but also provide activism and humanitarian efforts with new and needed skills such as structural literacy.

Social Architects as leaders of effective activism and humanitarian efforts would be structurally literate and would have the capacity to increase structural literacy[43] in their communities, and hence accelerate more effective systemic action. One of the emerging frameworks for structurally literate activism is Critical Cultural Action,[44] which works with principles of collective intelligence to develop the capacity of communities to engage in critical thinking to gain structural awareness in their context of how oppressive mechanisms operate and are affecting their everyday lives. By gaining structural awareness of their societal systems connected to their daily struggles, they then develop methods for critical systemic action in their local environment. Major movements such as Popular Education and Culture Hacking* are examples of structurally literate practices which are growing. Methods such as 'Critical Community Development'[45] have now developed ways to develop structural literacy and scale out critical cultural action from the local level to the global level.

Critical cultural action engages local everyday experience, language and symbols for the development of critical thinking which can challenge taken-for-granted assumptions and reveal mechanisms of dominance, oppression and injustice. It therefore holds the potential for social transformation by enabling populations to become 'structurally literate' in their societal systems and hence holds the potential to generate Social Architect leadership. Through this, populations become equipped to take more systemic action in their daily lives, and also create initiatives for systemic action. It also holds the potential for the utilising of collective intelligence for the building of, and transitioning to more sustainable systems.

5.6. Role of The Social Architects: Leading Effective Activism

As leaders in effective activism they can exemplify methods and models for systemic action. Their leadership acts to increase structural awareness and identify systemic causes, thereby understanding how to act on these locally in ways which are culturally relevant and which engage meaningful community participation. Through frameworks such as Critical Cultural Action,[46] rather than activism being allocated strictly to organisations working on world issues, it can be allocated to everyday people everywhere. Localised forms of Social Architect leadership can be generated and developed through critical collective intelligence.

Suggestions for ways forward:

Current methods such as Critical Cultural Action can be developed and scaled out through network alliances which spread the skills and practices of critical community building. Furthermore, Socio-Systemic science and Social Architect skills, literacies and capacities such as structural literacy could be given to NGOs, third sector organisations and activist groups to scale up and scale out our capacities for more effective action.

* https://therules.org/culture-hacking/

A further step would be the developing of Social Architect leadership which can redesign flaws in our very institutions of Aid and Development which are working against the realisation of systemic solutions. A current example of this is the Tao of Finance[47] Initiative, which is re-architecting the economic system. By addressing the flaws in the financial mechanisms behind the Sustainable Development Goals, and reorienting its financial structures to be focused on human wellbeing, they are working towards the creation of a system which is incentivised towards sustainable values and hence is better designed to enable more effective action on the SDGs.

If all are trained in Socio-Systemic science, the Social Architects can map out key systemic axis points for leveraging systems change, and provide the 3rd sector, private organisations and local communities with frameworks for integral, powerful, meaningful collaborations for effective systemic action.

The above demonstrated methods of Social Architect Leadership and systemic action are just the beginning of what is possible. There remains a great need and profound opportunity to develop more dynamically creative methods for culturally-based systems change through the systemic engagement of the arts.[48] Socio-Systemic science can be harnessed to develop further applications for specific regions and societal sectors. It can also be further developed to create new activism frameworks and more effective humanitarian models. For our prevailing world issues, it can offer the means to address issues individually, and also provide a means to develop methods which address the interconnected nature of world issues through more integral systemic action.

6. Social Architects in Integral Systemic Action

Integral systemic action means a framework through which Social Architects from diverse sectors and levels of society can work to integrate their efforts for the continual development of a more coherent integral and viable system. A new system will not happen overnight. It will take multiple Social Architects in combination with their collaborators and communities. What would the new system look like? Ross Ashby is notable for coining the phrase “Requisite Variety”. It proposes that in order for a system to handle the diversity of problems that can arise or evolve, the system needs to have a repertoire of responses which are as nuanced as the problems. In other words, the system has to be able to adapt to new conditions. If a manmade system does not have Requisite Variety, it means more governance or regulation is required. From the standpoint of what defines a “Viable System” in its most realized form, Requisite Variety would be exactly what is needed and hence the system would not need external management. This means the integral collaboration of multiple Social Architects aligning their efforts for the continual development of a system that becomes so coherent that it takes on its own self-organising capacity.

Within the current developments of Socio-Systemic science, to engage integral cooperation would mean that: 1. the *priority domains* for re-architecting are established, 2. *primary axis points* for critical systemic collaborations must be identified, 3. we need to increase tools and frameworks for *integral acceleration and cultural cooperation*.

The *priority domains* for re-architecting would be the addressing of systemic causality. Although many methods of social re-architecting can be developed, the priority must go to the Social Architects acting most strongly on systemic causality. This means the addressing of systemic incentives and the social preconditions which fundamentally give rise to the variety of social issues that we face.

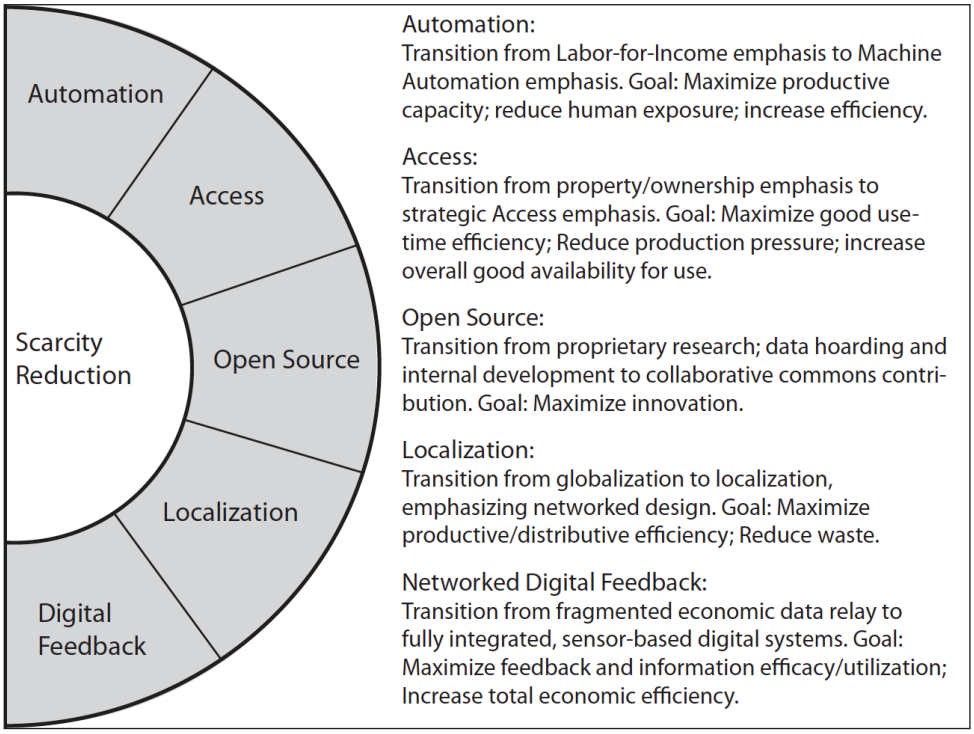
From a Socio-Systemic perspective, an axis point is an area where key systemic influences overlap. An example of a 'bio-social axis' is trauma where one can identify both mechanisms of societal violence and oppression which create the trauma, hence the ability to highlight the harmful effects of our societal systems biologically, as well as counter these with modalities of healing and re-invention. An example of a 'systemic axis' point would be addressing the ownership and decision-making processes of societal institutions which decide how the subsequent relationships are structured. *Primary axis points* for critical systemic[49] collaborations can be developed through identifying overlapping matrices in system change maps. Maps of key Socio-Systemic factors can be made and the primary axis points which can best leverage systems change can be identified. Identifying priorities and mapping critical axis points can become a strategy of action through which multiple Social Architects can combine and organise their efforts for meaningful and powerful forms of integral systemic action.

Integral acceleration and cultural cooperation must be continually supported and developed to enable all efforts to work towards a new system which becomes more and more coherent. Integral acceleration could include a) key information flows locally within organisations as well as between systemic collaborations, b) tools such as 'Collaboration Literacy' which enable organisations whose efforts are isolated or societal sectors not used to working together to generate the personal and professional skills required to understand how to collaborate on a daily basis in more effective ways. Further skills for integral acceleration could include the development of new roles such as 'weavers'.[50] Finally, cultural cooperation enables us to combine our efforts through the conscious cultivation of new values and new norms.[51] We need Social Architects in integral systemic action in order to comprehensively address complex system failure. We outline now a 5-step framework for integral systemic action to address the complex failures of our economic system. Providing an in-depth example of systemic re-wiring, we hope to demonstrate how it could be possible for the systemic forces currently perpetuating socioeconomic inequality and ecological decline, to be restructured in order to support equality and sustainability.

6.1. Altering Systemic Forces to Increase Equality and Sustainability: The Social Architects in Integral Action for Systemic Change in Economics.

Figure 1[52] below shows five economic adjustments that, if achieved to a relevant degree, would act systemically to improve social preconditions and sustainable trajectories. They include **(1)** Automation, **(2)** Access, **(3)** Open Source, **(4)** Localization, and **(5)** Networked Digital Feedback (also generally referred to in popular literature as "the Internet of Things" or IoT). Each of these represents a more efficient mechanism to achieve productivity, reduce waste and environmental impact, while reducing the caustic socioeconomic gap.

Figure 1: Conceptual Graphic representing five shifts to increase economic efficiency and reduce the scarcity pressure. These adjustments will decrease socio-economic inequality and the spectrum of disorder and oppression consequential



These five adjustments are integral, meaning they work interdependently with each other. They can be implemented by local area according to regional requirements/needs. Or, they could also be implemented by industry sector, in which case a 'systems change map'[53] could be made for that industry to understand the key areas of action and adjustment to transition that particular industry or sector.

The first attribute is the deliberate application of **(1) labour automation**. In contradiction to the market's traditional framework, human employment is now inverse to productivity in the sectors where automation has been applied.[54] This means human labour is becoming obsolete and human employment is actually economically inefficient when the automation option is available.

Machine automation has greatly helped facilitate increases in productive efficiency and resulting standard-of-living increases experienced by much of the globe.[55] While many speak of the power of markets as helping increase standard of living over generations, the true technical source is actually applied technology,[56] not markets. As such, it becomes

a matter of social responsibility and prudence to maximize this potential. The growth of information technology, applied robotics, and artificial intelligence are projected to move faster than society is able to create new jobs to replace the ones being automated.[57] Because the costs to produce these machines are increasingly inverse to their productivity, they will also continue to become cheaper than human labour in most sectors over time. Statisticians tracking this rapid rise find no reason to assume any sector will be off-limits from automation in the future.[58] Not only will this structural shift to labour automation dramatically create a more equitable standard of living due to increased efficiency but also free humanity from dehumanizing, monotonous labour roles. This freedom opens the door to a new world of incentives, shifting motivation into creative, collaborative, and exploratory fields. As a natural course, the first areas that automation becomes applicable in are generally the most monotonous since they are the easiest to mechanize. This means the path of adjusting society to an automated economy first removes the type of work people do not wish to do, refocusing on areas that provide greater fulfilment.

The second attribute noted in Figure 1 is **(2) access over property.** This means tilting the balance toward access and away from ownership**.** From the standpoint of technical efficiency, the general idea of everyone owning everything is irrational for a species sharing a finite planet. This ethic of individual ownership has also been a large contributor to resource overshoot, environmental destruction, pollution, and waste. It promulgates a materialist conception of reality that further fuels detrimental consumption. A true access-based approach to distribution means good use is spread across the population, just as a thousand people over a generation may check out a single book from a library. "The rise of the sharing economy" or "collaborative consumption" demonstrates the trend of people gravitating away from ownership, relying rather on access to sharing networks.

Access is really at the heart of economic necessity, while ownership is a creation of the market system's need to store value and protect property from theft in a world based on the assumption of universal scarcity. Most property crime is generally driven by want and a lack of access. The creation of an "access abundance," seeking to give everyone equal opportunity to use, means property crime would drop as abundance is achieved, while also helping close the economic inequality gap. This is not to argue for an abstraction where property no longer exists and no material rights of any kind are enforced. The efficiency logic here is simply to shift the focus from property to access, supporting access rights more than property rights. The result would be the cultivation of a kind of shared commons that would be not only more sustainable and less wasteful but also able to extend goods and services to those who once were not able to afford them.

The third attribute is the full incorporation of **(3) open-source contribution**, making all industrial and scientific information freely available. This could be deemed the cultivation of a "collaborative commons." The market economy treats ideas as property to be owned and sold, and hence the term "intellectual property," about which a host of laws exist. The market incentivizes the proprietary hoarding of information and closed internal development rather than open, collaborative development.

For years, competitive and privatised arrangements have been interpreted as the driver of innovation in the commercial arena. While this may have been true to a certain degree, today it has become clear that technical innovation is actually occurring more quickly and efficiently through open-source collaborative contribution than through proprietary, closed development.[59] While there is plenty of empirical evidence to support this truth, basic common sense also prevails. If we understand that technological progress is an inherently social process, with parties constantly building upon and improving existing ideas over time, then logic recognizes that more minds thinking about a given problem or proposal will always be better than a few, if organized properly.[60] While in its infancy, as numerous pro-open-source organizations now plead with industry to open their intellectual vaults, the emerging reality is that the efficacy of proprietary development is losing steam as an optimized means of innovation.

The ideal next stage of this trend is to apply the method to major industrial design projects. Through CAD (computer-aided design) and CAE (computer-aided engineering) projects, linked online, it is now possible for economic creation to be engaged by anyone who has the skills and interest to contribute. Today, demand is assessed, created and manipulated by advertising, market research, and guesswork. In essence, product developers are testing the waters of what people may or may not seek. The intent is not to help but to sell. A system of open-source participatory economics reverses the process, using a democratic means to decide what should or should not be produced. Other positives would be the elimination of wasteful, duplicate proprietary components that otherwise perform the same function, and movement toward universal standardization across as many categories of goods as possible, also reducing waste.[61]

The fourth attribute is **(4) localization.** In stark contrast to globalization, localization is about regaining efficiency and reducing waste by locally producing as much as possible, streamlining the supply chain. Extraction, production, distribution, and recycling should be subject to design itself, organized in the closest proximity to the population group in need. This may seem like common sense, but mostly because the competitive pursuit of lower labour costs, commodities and goods are moved all over the world unnecessarily. This pattern has become increasingly wasteful in light of new production means that are highly versatile and effective, such as advanced 3D fabrication (additive manufacturing) or soilless indoor agriculture. Modern productive potentials are changing rapidly, further supporting the interest to end globalization in its current highly wasteful form, focusing on regional production through advanced means.

With the advent of automation, we now see labour power, once deemed a core, human-performed economic factor of production, collapsing into the context of capital goods. In effect, labour power, capital goods, and consumer goods are now blending together. Taking this trend to its logical conclusion, it is not difficult to envision advanced fabrication systems capable of producing, through mostly automated means, virtually every material a region needs, locally. The only imports perhaps required would be raw materials the machines used for producing the goods. While there are current limitations of course, this is what the future suggests as we continue doing “more with less” economically.

This brings us now to the fifth and final attribute to address, **(5) Networked Digital Feedback.** This has been popularly embraced by what is often called the "Internet of Things" (IoT). While the IoT has no exact definition, it is about networking technology and sensors to optimize information flows. Using the Internet and instruments to measure and track feedback information, this process, in the ideal, can unify numerous disparate elements and systems, greatly advancing awareness and efficiency potentials. Some ambitious ideas are "smart cities" where various components of the urban infrastructure become networked for rapid response, from personal health sensors that link to hospitals, to lights that dim when no one is detected in order to save energy. The imagination can run wild with possibilities. If properly incorporated, this ability could allow for a powerful integration, unifying and simplifying the once extremely complex technical processes of society.

In an economic context, the IoT approach could relay and connect data regarding how best to manage resources, production processes, distribution, consumption, recycling, waste disposal behaviour, organize consumer demand, and so on. It may seem abstract, but such a process of networked economic feedback would work on the same principle as modern systems of inventory and distribution found in major commercial warehouses. Many companies today use a range of sensors and sophisticated tracking means to understand rates of demands, exactly what they have, where it is or where it may be moving, and when it is gone. It is ultimately an issue of detail and scalability to extend this kind of awareness to all sectors of the economy, macro and micro.

Mechanisms related to the IoT make it possible to efficiently monitor shifting consumer preference, demand, supply, and labour value, virtually in real-time. Moreover, IoT can also be used to observe other technical processes price cannot, such as shifts in production protocols, allocation, recycling means, and so on. A true system of economic feedback and management is about understanding the total interaction of economic components on all levels, in a unified way, not just supply and demand or what people are buying and selling. It is now possible to track trillions of economic interactions related to the supply chain and consumer behaviour by way of sensors and digital relay, far surpassing what we are doing today.

6.2. Integral Systemic Action & Cultural Engagement

Achieving the above 5 steps by regional area or by industry sector is more than doable from a technical standpoint. Our main challenge is not technical, it is cultural. Social Architect leadership in combination with collaborators who understand how to utilise the 'systemic engagement of the arts'[62] and 'culture codes' for the reinventing of mindsets and the cultivation of new cultures for processes of systems change will be key. Systemic action is integral, collaborative as well as critical. This deep holistic systemic rewiring could also require complementary Social Architect initiatives to act on key axis to engage system leverage points whilst industries and regions move in transition with these 5 steps.

Solutions cannot be imposed. For true social transformation participation must be motivated and authentic. Furthermore, changing the stories and narratives at the heart of a system is critical for changing systems. Therefore, engaging culture codes is critical for meaningful participation and catalysing social processes for systemic change. Culture

also provides a lens to identify critical nests of relationships and hence critical axes where meaningful and powerful integral cooperation and collaborations can take place.

Our current social systems are dualizing and polarising. We do not have integral systems. By integral we mean designed to highlight connections between societal phenomena and have embedded systemic processes which continually increase the coherence of that system. A system's level of coherence relates directly to the health of that system. Communication and information flows must be created which enable multiple forms of participation and which facilitate collective intelligence. The Social Architect is a key player of a larger systems change process. They should work towards integral cultural engagement with weavers, innovators, industry specialists, cultural cultivators, catalysts and new story tellers, artists and world builders for integral cooperation for embedding social transformation as part of the building of new systems.

7. An Imperative for the Future

The Social Architects and the Socio-Systemic science of impact represent a critical shift in how we approach activism and humanitarian efforts. They redefine the very notion of sustainability emphasising that it cannot be practiced as anything else but an art of systems change. Humanitarian and sustainability efforts although good intentioned, have for the most part engaged in mere symptomology. Now, standing at critical evolutionary cross-roads we must move out of the realm of effects and into the realm of causes. We are faced with hard questions about the conditions conspiring to promote human suffering, and why in 2020 we still endure inequalities of disturbing proportions and other major systemic failures which now threaten humanity's very future. As Farmer forewarns, "The task at hand, if this silence is to be broken, is to identify the forces conspiring to promote suffering […] If we do this, we stand a chance of discerning the causes of extreme suffering and also the forces that put some at risk of human rights abuses, while others are shielded from risk. No honest assessment of the current state of human rights can omit an analysis of structural violence."[63] We can no longer turn a blind eye to structural violence and systemic failure. Inside the dark heart of structural violence are the keys of societal re-architecting that are in fact our only hope out of it.

Should we really commit to human rights, to a more humane, more just, and more sustainable world, we need to create systems which have those values embedded into them and cultivate cultures which embody those values. The methods outlined in this paper are just the beginning of what is possible. Should we really commit to resolving our global crisis, developing Social Architect leadership and systemic activism must then come into central focus as an imperative and priority.

Alongside previous suggestions posed for ways forward, we can also outline further prospects for developing this new form of leadership and activism which could be explored through the following. Although not exhaustive, they provide a start for how to move forward:

1. Incentivised and structured collaborations of Social Architects working with specialists in sectors so that re-architecting can be applied to different societal sectors such as Development/Aid, Economics, Health, Education, Arts and so on

2. Further development of systemic axis points and system leverage points alongside the development of tools for integral acceleration in order to enable powerful systemic collaborations and integral action.
3. Applied research & action hubs to explore the advancement of Socio-Systemic science of impact.
4. Integral systemic action through a Transformative Ecosystem.[64]

Great changes in science and hence our understanding of the world have occurred over the past century. Advances in technology, new revelations about the universe, nature, public health and other emerging realizations remind us that what we think we know and what we think we are doing is forever going to be challenged by new information. The rise of a systems-based worldview forms the basis of a new way of understanding modern problems, inferring the kind of thinking and leadership required today. The Social Architect is a new entity in this development, working to finally apply grounded sociological science and understandings of natural systems to improving the human condition. Objectively speaking, most of all social trends are now negative from a public health and habitat sustainability standpoint. The gains we have enjoyed since the dawn of the industrial revolution have not come without a cost—a cost that is now growing faster than solutions, in the form of vast systemic problems. From this perspective, it is concluded that not only would such a "structuralist" approach be an improvement to existing methods of leadership and activism—today it is a requirement to meet the challenge.

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59. The development of the Linux operating system is a classic example. Started in 1991 by students as an experiment, the global, mass-contribution project was completed in just three years, with little monetary involvement. For more see Glyn Moody, Rebel Code (Cambridge, Mass.: Perseus Publishers, 2001).

60. An example of collective problems solving is in 2009, when famous mathematician Tim Gowers decided to start the Polymath Project. This is today an ongoing, networked collaborative project to solve complex math problems. Since inception, it has solved numerous problems through public interaction. For more see Michael A. Nielsen, Reinventing Discovery (Princeton, NJ: Princeton University Press, 2012), 39.

61. Regarding component standardization and its importance, in 1801 Eli Whitney was the first to apply standardization in a high-impact way. He produced muskets, and during his time there was no way to interchange the parts of different muskets, even though they were of the same overall design. If a musket part broke, the whole gun was useless. Whitney developed tools for interchangeability and after 1801, all musket parts were fully interchangeable. While most would assume this common-sense idea to be prolific across the global industrial community today, the perpetuation of proprietary components by companies that want the consumer to repurchase any such needed component from them directly, ignoring the possibility of compatibility with other producers, creates not only great waste but also great inconvenience.

62. M. Popovich and J. Siddique, *Systemic Engagement of the Arts and Culture: A New Framework for Integral Transformative Strategies*. (*Cadmus Journal*, Volume 4, Issue 3, November 2020)

63. Paul Farmer, *Pathologies of Power: Health, Human Rights and the New War on the Poor* (Berkeley and Los Angeles: University of California Press, 2005), 50

64. "Transformative Ecosystem" in M. Popovich and J. Siddique, *Systemic Engagement of the Arts and Culture: A New Framework for Integral Transformative Strategies*. (*Cadmus Journal*, Volume 4, Issue 3, November 2020), 90-91