

Contents

| | | |
|----|---|----|
| 0. | Introduction: Every Employee an Entrepreneur | 2 |
| 1. | Beyond Command and Control | 3 |
| | The Limits of Reductionism | 3 |
| | Business as Work Mechanism or Social Institution? | 3 |
| | Top-Down=Top-Heavy (and Squashed at the Bottom!) | 3 |
| 2. | Autonomy Enables Productivity | 5 |
| | Between Theory and Practice | 5 |
| | People are the Solution ... and Management is the Problem!..... | 5 |
| | An Overview..... | 5 |
| | Encouraging Human Behaviour..... | 6 |
| | The Barriers to Natural Human Behaviour | 6 |
| 3. | The Great Transformation | 7 |
| | Proof in the Numbers..... | 7 |
| | Character or Charisma? | 7 |
| | Designing the Void | 8 |
| | Responsible Autonomy | 8 |
| | The Say-Do-Prove system | 9 |
| | Leadership and Culture | 9 |
| | The Nuances of Culture..... | 10 |
| | Social Design | 10 |
| | Some Matt Black Systems examples | 11 |
| | Strong and Robust..... | 11 |
| | Associative Behaviour | 12 |
| | New to the Business?..... | 12 |
| | Remuneration | 13 |
| | Overall Results | 13 |
| | Failure happens..... | 13 |
| 4. | The Bigger Picture | 15 |
| | The Learning Curve | 15 |
| | Human Agency through Responsible autonomy..... | 15 |
| | Motivation and Purpose | 15 |
| | Autonomy, Mastery and Purpose | 16 |
| | The (re)Integration of Labour..... | 16 |
| | The Limits of Differentiation | 17 |
| | Work as Self-Development | 17 |
| 5. | The 21st Century Company..... | 18 |
| | A New Zeitgeist? | 18 |
| | Design around the Human Being | 18 |

0. Introduction: Every Employee an Entrepreneur

What does the future of work look like?

This piece case-studies a small manufacturing business in Poole (England) and suggests that a radical shift is, or at least could be, underway from 'management-led' command-and-control organizations to a new form of association of individuals working together under the umbrella of a company structure –a kind of collective autonomy. In this new arrangement, workers practice autonomy in pursuit of their commercial goals within the boundaries of the law.

The problems of the traditional over-managed business are addressed in the **first** section, which is entitled **Beyond Command and Control**; indeed this problem (of unnecessarily high management overheads placed on production) is behind the decline in western manufacturing¹.

The **second** Section is entitled **Autonomy Enables Productivity** and gives a broad brushstroke sketch of a solution that has been devised by Matt Black Systems over 10 years of radical experimentation and innovation.

The **third** Section, **The Great Transformation**, offers a more detailed description of some of the salient features and results of self-managed work as evidenced in the Matt Black Systems experience.

Then the **fourth** Section, **The Bigger Picture**, looks behind the organization of work to make explicit what kind of thoughts underpin this way of working. While organizational *design* brings to light the unconscious socio-philosophical paradigm of the society in which it exists, organizational *development* points to how change occurs. This innovative company's approach views business success as wholly reliant upon human **agency**, and its wellspring at the individual level. Whilst not measureable or manipulable directly, it is suggested that human agency can be evoked reliably through the use of a suitably designed environment.

The final Section, **The 21st Century Company** makes mention of other companies that have taken a similar path and highlights what makes the Matt Black Systems model unique.

Over a decade, Matt Black Systems made the transition from a traditionally organised hierarchical business into a radical new form driven by a vision held by its directors Julian Wilson and Andrew Holm. Initially, the business faced grave challenges to its existence; after a year of exploration and the consideration of many alternatives it was only this radical vision that remained, because only it had the potential of properly and sustainably addressing the challenges facing the business. Yet such a radical vision represented uncharted waters and there remained a possibility of hidden flaws. In a 'do or die' moment, the decision was made to set about the task of implementing this pioneering system, both as a means of survival and to test its validity.

To summarise this vision into a simple concept is a challenge-

....to create an economic community where all individuals contribute more than they consume, where everyone is bounded, measured and rewarded under the same explicit rules. The community supports those who are net consumers as long as that individual maintains their journey of growth to become a net producer and beyond to take a valued position within the community.

This essay is a synopsis of the lessons learned by Wilson and Holm on their journey.

1. Beyond Command and Control

The Limits of Reductionism

The philosophy of Taylorism or 'scientific management' still dominates the modern workplace: managers devise, introduce and monitor rational, standardized processes which workers then carry out. Goals are set at the board level and pass down through tiers of management to the front-end staff who carry out the productive transformations and hopefully meet the needs of the customer. Compliance is maintained by audit and supervision; additionally, compliance may be embedded within software, all in the pursuit of *conformity* to repeat yesterday's success. There is very limited scope for any kind of self-determination for the front-end staff. Companies are likely to be functionally divided into departments that take on separate tasks such as finance, human resources, sales etc. Individual staff may only ever see a fraction of the whole process that ultimately serves the needs of the customer. Scientific management employs rationalism and determinism in pursuit of efficiency, but for most people within the system there is no opportunity for self-determination.

Business as Work Mechanism or Social Institution?

On the one hand, this traditional approach is seen as the very pinnacle of efficiency - wherein every operation is pre-meditated and determined according to a unified operating model based on rational scientific management. On the other hand- it represents a mechanistic approach to organization, as if one was dealing with a mechanism - demoting individual members of the organisation to mere cogs of that machine: one thinks of Charlie Chaplin's character in his 1936 film **Modern Times**, a man struggling to survive in a 'modern' world dominated by the tyranny of efficiency in industrialized work. Though this approach persists today, forward-thinking theorists and practitioners are more likely to think of an organization as an organism. It is people that make up an organization, people who have a natural propensity to favour their own agendas, their own ideas and the pursuit of their own development, whether in terms of new technical skills or personal capacities. The mechanistic model of process-flow may work for lifeless machines but neither the messiness of organisational reality nor the human psyche is so predictably tractable. An individual's 'personal agenda' cannot be wiped clean and neatly replaced at the office door with the company 'vision and values', no matter how many carrots and sticks are deployed to achieve this end. Given the tenacious grip workers have on their individuality, and the perturbations of a messy reality, variation from the corporate plan quickly becomes unmanageable. Workers maybe a source of error, but they also offer the only source of innovation to combat the daily difficulties of the business. When it comes to getting work done, the simple question is: *are people the problem or the solution?*

Top-Down=Top-Heavy (and Squashed at the Bottom!)

The vaunted efficiency of the Taylorist approach may be more real in *theory* than in practice: its instrumentalist view of the workforce is cursed by unintended consequences. When workers have no space for their own creative expression, when they are treated like automata not unique individuals, when they become demotivated and surly, when they treat their work as a necessary evil then the effectiveness of the organization will be compromised. Indeed when scientific management itself becomes caught up in its own processes the result is a lot of tail chasing. In *theory* everybody can be instructed and constrained whilst their performance is assessed and monitored, in return for a pay-check; in *practice* a command economy of this kind does not look that different from voluntary slavery or '**wagery**'. The natural, human reaction to this is unionization, withdrawal, defiance and even outright rebellion; to counter this reaction management grows larger and more rigid in pursuit of compliance; organizations become top heavy with staff who do not contribute directly to the process of value creation but wield authority over those who do. In the typical model more and better *leadership* is seen as the problem of over management. In this broken response, the problem of over management is

Designing the Void

addressed by an unending cycle of more management, and with each cycle productivity languishes and costs escalate.

For Matt Black Systems, the practical implications of the situation above, combined with an insidious effect on the culture resulted in a network of interrelated problems manifest in poor quality and delivery, combined with high costs and poor conformance to basic standards.

We must be clear here that tasks do need to be managed, in this sense *management* is essential, however the distinction we make is between intrinsic self-management where an individual is responsible for the planning and administration of their own activities and extrinsic management where the planning and administration activities are centralised and the responsibility of those who take an authoritative and controlling position. Our contention is that this traditional model is intrinsically destructive and costly to operate.

Our vision is an effort to break out of this cycle, our vision is to empower the individuals in the business to confront the interrelated problems of business as a whole, to manage themselves and their activities, simultaneously cutting costs and removing the separate management team.

2. Autonomy Enables Productivity

Between Theory and Practice

So what form would a solution take? What would a 21st century company look like? It should be acknowledged that recognition of the phenomenon described above is neither new nor unique. It has been a persistent issue across the decades. Consultants and business gurus have long wrestled with these problems and advocated different approaches, but a successful approach has yet to be widely adopted. Even when disgruntled employees strike free and start their own businesses, they seem unable to resist the hegemony of the conventional command-and-control approach recreating the very world from which they had escaped. It is one thing to lobby for the replacement of the traditional hierarchical company structure with an empowering flat-management structure, but quite another to implement it. Making the transition involves adherence to a whole new sociology of work with all the challenging social and psychological implications that brings. One cannot, after all, be half-married; most organizations are structurally and psychologically wed to a deterministic, command-and-control approach. Where are the successful alternatives that could act as examples or templates for a new approach?

People are the Solution ... and Management is the Problem!

Here at Matt Black Systems we have pioneered an alternative approach, in a real business and addressed its problems and difficulties in practice. It is radical, but it is a real alternative and has been proven to deliver success. We started with an overriding first principle that *people* in the business have the ability to provide solutions - there is no other source of solutions. Using people (management) to get other people (front-line staff) to follow a process seems a rather short-sighted approach as it assumes front-line staff can't follow process themselves. In the 'theory of constraints' the goal is to align front-line staff into a neat, compact line for maximum efficiency. Surely the most considered approach is to have front-line staff *self-align* in pursuit of their individual goals? This is the basis of our perspective; for it to work successfully, aligning the goals of the business, the customer and the individual is the single greatest challenge to overcome.

An Overview

Jobs that add value directly (for example a production activity) have been retained. Management, administration and 'leadership' jobs - previously assumed to be essential both to maintaining operations and achieving success- are culled. The removal of hierarchy and specialization is key to a massive improvement in both profitability and productivity. In summary: there are no managers in the company, or foremen, or sales staff, or finance departments; the company is not functionally compartmentalized and there is no hierarchy of command. In fact, every member of staff operates as a virtual micro-business with their own Profit & Loss Account and Balance Sheet; they manage their own work and see processes through from beginning to end. The production role is expanded in both depth and breadth to include all support, logistical and administrative functions as well as all the related value-add steps, even embracing design and sales. Formal interaction between colleagues takes place via 'customer and supplier' relationships. It is as if each person is a business within a business. This patchwork of equal and individual 'nodes' in a system is made both powerful and robust by their complex connectivity through the means of social and formal networks. Our system makes much greater demands than those traditionally employed in the production role. The kind of multi-skilled individuals needed to fulfil such roles are seldom available in the labour pool and thus have all been nurtured from within the organization. Initially we were surprised to see the organization's portfolio of products extend into both more simple commoditized products (taking advantage of the system's very low overhead costs) as well as high value, high complexity products (taking advantage of super-functional ad-hoc team collaboration).

Encouraging Human Behaviour

Our philosophy, in brief, is that *autonomy* enables productivity through *mastery* and *purpose*. The logic is simple: if one creates a space in which staff pursue their own goals and are not paid by the hour, they will focus on their activities not the clock; if they are not told what to do, they will need to develop their own initiative; if they are free to develop their own processes, they will discover through their own creative faculties how to work more productively –in pursuit of their goals. We measure our success differently by replacing the traditional system of hourly reward with rewards focussed on the high level measures of Q,D,P and C (Quality, Delivery, Profit and Conformance).

This approach allows the individual more freedom and encourages them to bring something to bear on the difficulties they face, something that is routinely withheld within the conventional command-and-control system. This special ingredient is the source of productivity improvements, yet it is something acutely personal and uniquely human. At Matt Black Systems we summarize this ingredient as '**magic**', but as engineers you can imagine we are very specific about both its value and its attributes.

The human qualities we have found to be of greatest value to the business are: **curiosity, imagination, creativity, cooperation, self-discipline and realization** (bringing ideas to reality). Whilst these qualities are not directly measurable or manipulable they can be detected in the influence they have on the measures of success (QDP & C). These qualities are the very ones most likely to be withheld by an individual when their work environment is 'wrong'. These are the normal, perhaps even essential, expression of a healthy human psyche and withholding them may seem logical in a dysfunctional environment, but over the longer term is accompanied by a high personal cost.

The Barriers to Natural Human Behaviour

We have learnt that those elements in the business environment that undermine the autonomy and purpose of the individual will tend to lead to the above qualities being withheld. Such elements must be ruthlessly tracked down and removed. High on the list of undermining elements come **power-hierarchy** and **over-specialization**. These elements are traditionally used to divide corporate/contractual responsibility into chunks so that it may be distributed across the organization; however this often results in the corporate/contractual responsibility being left fatally wounded by this division. Where these conventional elements exist, responsibility of the individual is typically formalised, specified and restricted giving rise to the very route through which the responsibility escapes. An improvement to this system is not one where responsibility is distributed more carefully but rather one where there is simply no opportunity for responsibility to be lost (via the gaps between the chunks). Systems must be reorganized so responsibility -the most essential of qualities -is protected and wholly preserved, it is the gaps that need to be eliminated. We believe this can only be done by containing the whole responsibility within an individual, holding them both responsible and giving them 'response-ability' (the ability to respond as they see fit). Individuals can rediscover and proclaim their own response-ability when they work in a suitably crafted environment.

3. The Great Transformation

Proof in the Numbers

Sounds too good to be true? Flies in the face of management philosophy? Fine in theory but wouldn't work in practice? Our experience demonstrates that radical change is possible, that command-and-control line management is not a synonym for leanness and efficiency and that yes, the human spirit needs the space to breathe - the space to express natural, healthy behaviours. For those who need more convincing, the hard numbers tell their own story; since the process of rescuing our failing family firm began, the following has been achieved: productivity is up 300%, the profit margin is up 10%², customer perception has shifted from 'poor' to 'outstanding', product returns are at less than 1%, "on time and in full" delivery is greater than 96% and importantly median pay has more than doubled.

Character or Charisma?

Nor are the soft results to be dismissed either: by becoming masters of their own destiny, staff develop broader and deeper skills and feel greater job security; they get direct feedback from their customers which all go to fuel self-confidence and self-esteem. By learning from their poor decisions they develop the capacity to strike a balance in the midst of conflicting demands. Dramatic corporate turnarounds are often ascribed to charismatic leadership, but in the case of Matt Black Systems you will hardly see the director-owners on site; we don't need to be there: the staff manage themselves. Nor is it the case that behind the company there is an overt culture that staff must adopt - difference and individualism find favourable soil when people are given rein to be themselves.

We believe that leadership is part of the problem not part of the solution. A distinct leadership role automatically demotes all around into a followership role. This could be seen as positive were it not for the common unintended consequences upon the performance issues both in the leader and the led. There is some good evidence³ to support this in the world of neuroscience where the perceived hierarchical position of an individual has an implication in mood affecting neurotransmitters such as serotonin and this brain chemistry in turn effects our perception of the risk/reward balance important in decision making.

The approach we adopt focussing on the individual can be best characterised as self-leadership, and of course it has shortcomings. But within the social dynamic of the organisation as a whole there is usually expertise that can largely overcome the shortcomings of any individual. The result is the combined benefits of self-leadership together with the benefits of mentoring; without either the costs or inherent weakness of a single approach.

The individual approach provides the best opportunity for a direct and full feedback of success allowing individuals to gain from success and realistically deal with failure.

This combination of individual approaches is a further cornerstone of the Matt Black Systems robust model; the variety of approaches provides an arsenal of responses to contend with the variety of perturbations that confronts the business. If every individual has a very personal reaction to a particular problem, then as new problems arise there is a greater likelihood that an appropriate response will be available in our arsenal; in contrast to a traditional uniform "corporate response" which may be applicable to just 80% of eventualities. Clearly the traditional approach predicts failure in 20% of situations- and the failure can be catastrophic because there is no established alternative strategy. This effect is described by **Ashby's Law of Requisite Variety**⁴ which states "only variety can absorb variety"; our individual responses provide a large arsenal of alternative approaches to the new difficulties that present themselves every day. In this way our system gains robustness from its variety.

Designing the Void

What is particular about our story is that behind it is a very consciously crafted design that surrounds the individualism of each person with hard boundaries in the form of the customer, the law and the business requirements. It is these boundaries, rather than the instructive persona of 'the boss', which gives rise to the discipline and containment within which individuals can develop and flourish. Autonomy is not the same as freedom, at least not in the loose sense of 'do as you please'. For us, an autonomous person is a person who has become self-governing, who has developed a capacity for self-regulation: quite a different notion from the absence of boundaries. Indeed, it is with establishing the right boundaries that the business philosophy is most concerned. The company provides the crucible in which the individual can develop self-expression, but the container itself is bounded. We call this "designing the void". This crucible is carefully constructed from an all-encompassing, interconnecting set of boundaries that provide an ultimate limit to behaviours (where they would fall foul of the law or take risks with catastrophic potential). It is an illusion to think, as a director of a company, that you are not engaged in a process of social conditioning; the basis of the culture is both your responsibility and the result of your influence. The trick is to know what needs to be defined and what void needs to be retained. The traditional authoritarian, controlling characters that dominated business in the twentieth century are the antithesis of this in their drive to fill every void with process and instruction. Alternatively, an environment with carefully designed voids can foster enterprise; individuals discover how to be enterprising and self-directing, filling their individual void and expressing their individualism. The design of this environment however is paramount; while autonomy can enable productivity, this does not mean that it will inevitably do so, the differentiating factor is *personal responsibility*. A responsible person will fill their void in a way that satisfies themselves whilst striking a balance between the conflicting demands of the customer, the law and the business. An irresponsible person will distort this compromise by prioritising their personal short term gains in an effort to reduce anxiety.

We are often quizzed about the Matt Black Systems approach to offer instructions, interventions and procedures that could be transferred to another organization, but this is to miss the point. The system is not made up of artefacts but rather an elegantly designed environment with voids crafted into it. We prefer to use the metaphor of traffic lights and roundabouts (aka traffic circles). The traffic light is a high-tech command-and-control system for directing the competing traffic flows. High-tech though the lights may be, they suffer from a rather limited repertoire of responses to the vagaries of reality. Have you ever been stuck waiting at a red light in the dead of night when the roads are deserted? Conversely, the roundabout places the responsibility of both traffic flow and safety firmly back in the hands of the drivers. A roundabout can have higher traffic flow with lower accidents (especially fatal ones) without the high tech and expensive control systems. The roundabout takes advantage of the free *brain* that comes along with every driver, however to get the best from a roundabout there is a lot of design that must go into it; any old design just won't do and may even make things worse than a signal controlled junction. With careful crafting of the intersection, traffic flow and safety can be improved and the responsibility for safe progress is left with each individual driver. With good design, traffic flow will be more efficient with fewer accidents and crucially with much lower long-term costs. Our goal is to replace complex command-and-control systems with intelligently crafted habitats that have much lower operating costs whilst being both more efficient and effective. Crafting the "habitat" in this way is what we mean by *designing the void*. Good design has a high payoff which carries on paying over the long term, in contrast to command-and-control which may seem easier to implement but has high on-going costs.

Responsible Autonomy

It is essential that autonomy be combined with responsibility. Far from being responsible for one aspect of the work only, staff typically manage the whole work process from making sales, manufacture, accounts, to dispatch. Responsibility for both success and failure are therefore difficult to avoid. Not only this, but they are also responsible for managing their own

capitalization; a form of virtual ownership develops. Everything they need for their work, from office furniture to high-end machinery will appear on their individual Balance Sheet; or it will need to be bought in from somewhere else in the company on a pay-as-you go or lease basis. All aspects of the capital deployed in their activities must be accounted for and are therefore treated with the respect one accords one's own property. This approach allows the individual to embrace the aspect of 'response-ability'; the ability to respond. The self-leadership role is brought into sharp focus as it allows the individual the freedom to adopt behaviours that leads to their success or failure; they become the author of their results rather than a victim of them. These two aspects of responsibility are inseparable and must be combined in any system that attempts to distribute responsibility in a reasonable way.

Of course in the 20th century management paradigm, responsibility is usually passed down the hierarchy in a compromised way. Responsibility for success or failure of an activity is passed down whilst the opportunity to act autonomously is not. Therefore, responsibility is just a euphemism for *blame*. But it is worse even than this, the rules in the organisation that bounds subordinates are inherently incomplete (they cannot encompass all possible eventualities), the subordinate is doomed to be blamed for both their failure to comply with ambiguous rules and blamed for the ultimate failure of the activity. This fatal wounding of responsibility has a severe unintended consequence: the only recourse available to the subordinate is to "work to rule" and thus they enter into a 'merry dance' with the management to shift this blame back onto the system (via incompleteness of instruction, the limitation of an individual's sphere of influence/access to information or inadequate training provision). This becomes a pointless conflict where the subordinate is fighting to keep their job and the management is fighting to both keep their job and maintain control.

The Say-Do-Prove system

The result is not simply a disparate set of individuals (virtual businesses) doing their own thing under the same roof. They have a common brand, which they jointly represent and together they benefit from an economy of scale (as really they are only one business) as well as their opportunity to combine into teams and tackle large projects; they are an interconnected whole. The key to this is the business management system (the Say-Do-Prove system), consisting not only of system-wide boundaries but also proprietary business management software which helps each take care of the back-end accounting and administrative processing. This software is key in that it allows both the formal separation of individuals and their intimate collaboration, all at a low cost. The effect is a balance between freedom and constraint, individualism and social process. A system where their contribution is recognised and their responsibility rewarded.

Leadership and Culture

Leadership and culture are the current focus of much of management *best practice*. But while a leader gains influence by setting standards and crafting a persuasive message, just how effective is that kind of influence on the sharp-end? After all, rules can be laid down to determine behaviour, but they can also be broken ... and frequently are, in very ingenious ways. It is fashionable to talk about the primary role of the leader as the *shaper of culture*. The assumption goes like this: with the right **rules** and **message** a leader will capture the **hearts** and **minds** of the workforce and they will automatically **do the right thing**. But culture is a much more personal phenomenon than this mechanistic approach, it is naïve to believe it is subject to such simple and direct influence. Certainly people are reactive and adaptive and will explicitly convey the impression that the message from leadership has been loyally embodied. But the truth is more subtle. The situation is analogous to teaching a parrot to 'talk'; when the parrot says "who's a pretty boy?" it is not embodied 'language' that is occurring, the parrot is not making a considered expression of its inner, conscious landscape; there is no embodiment of meaning. The parrot is simply repeating a noise because it is rewarded for doing so.

The Nuances of Culture

Culture must be understood in a more sophisticated way.

Culture is like climate: it does not exist in, and of itself, climate exists within air and clouds and water and heat, it cannot exist in a vacuum; it must exist within a medium. Culture too has a medium, it is to be found in the interaction between people and their environment; culture always exists in this context. There are a huge number of aspects to both people and their work environment, just as there are aspects to the interaction of air, clouds, water and heat in the climate. However, traditional command-and-control management sees culture as influenced mechanistically by just the two main factors of rules and message. **Rules** and **message** are the tools used by management to shape the culture to their own ends relying on the over-simplified premise that constantly repeating a mantra and controlling behaviour via explicit rules will change the culture and lead to the adoption of their target behaviours. Unfortunately the result of this approach is to overlay a culture with further complexity in both language and behaviour; it simply conditions new responses; parrot fashion. These visible changes can be considered a *veneer*; a 'presenting face' if you will, that obscures the true nature of the underlying culture. It is a dangerous illusion because this veneer is based upon mantra and dogma and is both fragile and fickle; vulnerable to sudden U-turns and dislocations. Reversal is brought about by irreconcilable tension between the *responses that the management reward* and the true underlying concealed culture. A single incident or series of trivial incidents makes the culture appear to undergo a dramatic and sudden change. The truth of course, is that when tension builds to a critical level it takes just a small perturbation to *burst the bubble* and the concealed culture reveals itself powered by the considerable pent-up angst.

Social Design

For us, manipulating culture is an example of social design. And we make no apology for the term. Consider again the roundabout metaphor, for safe and efficient traffic flow, the design of the habitat must be just right. In business, the work environment can be considered analogous to this idea of habitat; careful design of the habitat promotes healthy behaviour and it is this interaction between people and their environment that is the basis of a healthy culture. This perspective contrasts with the command-and-control approach which tries to shape culture to influence staff reaction to a broken environment. Specifically, we believe it is only the design of an effective and nurturing work **environment** that provides the opportunity for a healthy culture. A functional environment is one that does not distort the culture in an attempt to overcome its own shortcomings; the starting point must be a benign environment that allows culture to be expressed without censorship. When the culture is fully expressed, for good or bad, there is an opportunity to re-design the work environment and remove the cause of the friction rather than applying a patch to the culture to hide the symptom. In pursuit of this and to make the task possible, we believe the work environment must be reduced to its most simple objective form (measures of Q,D,P & C), subjectivity being kept outside the system. Of course any social institution is full of subjective issues (rudeness for example), but these have no place in the measured business environment, but rather form a big part of the culture. Again, to reiterate, a dysfunctional environment elicits a dysfunctional culture; rudeness will be a result of a dysfunctional environment. If rudeness is present in the culture, go back and redesign the environment rather than telling everyone not to be rude. It was our surprising experience that all of our subjective dysfunctions could be traced back to causes in the way we organised our work environment. As our staff matured in their improved environment they grew strong and robust; we observed them addressing directly the cultural hangovers from our old environment, dealing with attitudes and perspectives they felt no longer reflected their work experience.

This sort of business redesign peels away the trappings of the dysfunctional corporate environment, letting in the fresh air of simplicity, applying it in direct ways to the individuals within the organization. The over-arching, high-level obligations are applied to the individuals in the organization via contractual and legal terms. The application is simple and

straightforward. It is these obligations that the complex traditional corporate model attempts to divide and translate onto its staff introducing such complexity that it cloaks its own intentions. It is the distortions, discontinuities and contradictions inherent in the corporate systems of hierarchy and functionalization that prevent the clear sight of these obligations by the people at the sharp end and therefore distort the culture. Most business books are no more than collections of translation tools for aspects of these high level obligations. There are many tools and many obligations that require translation, but whichever approach is taken, it remains the role of the head of the business to ensure ALL the obligations are translated and that the tools don't overlap, leave gaps, or conflict with each other.

Some Matt Black Systems examples

This is a good opportunity to provide some specific working examples.

Matt Black Systems designs and manufactures hi-tech, low volume aerospace products for its customers.

In pursuit of a simple effective environment and to remove a particular traditional corporate constraint we measure *outcome* not hours; employees are individually rewarded for their contribution to each product. They are not "compensated" for the hours spent at work. If an employee wants to calculate their hourly rate, then they are free to do so however, they are only rewarded for the outcome not the duration of their endeavours.

Another simplification is the application of virtual accounts (P&L Account and Balance Sheet) to each person within the business. The *value* each person adds and the *costs* associated with them are balanced against the capital they employ in their endeavours. It is left to each individual to strike the elusive compromise between quality, delivery and price that is demanded by their customer. The company systems simply provide a mechanism for cheaply measuring the success of each individual's choices. For **quality** the measure is *customer returns*, for **delivery** it is an *on time and in full* metric and **profit** is expressed in terms of both *pounds sterling* and *ROI* (return on investment).

These measures are used as the basic feedback mechanism for each employee to evaluate their own performance, and the use of IT allows us the mechanism to gather this data cheaply and automatically. Employees are focused on their activities and the resulting income, on their compromises and the resultant feedback of top-level measures. The business management system drops out of sight rather than introducing in-the-face and costly tools like clock cards, time sheets, supervisors and managers.

These examples, though only constituting a small portion of the interconnecting boundaries of the void, portray the degree to which some conventions have been overturned to rationalize an otherwise inherently dysfunctional system.

Generally, if the environment is designed carefully (systemic design) then it will elicit a culture that is constrained primarily by objective reality, subjectivity forming part of that culture not part of the environment.

Strong and Robust

We have observed that a culture contained within such a crafted environment is far stronger and more robust in its tolerance of large perturbations. The innumerable direct links back to an external reality, like the fragile ties that bound giant Gulliver, seem much more effective at aligning the *presenting culture* and any underlying *hidden culture*, and in doing so, work to remove tension between them. Those aspects of the hidden culture (vision and values) that are at odds with reality must be directly confronted by the individual otherwise they become explicit obstacles to their success. Returning to the roundabout metaphor, a good design results in drivers using their brain; and thoughtful drivers are far more resilient in the face of

perturbations. I should note here, as a “designer of environments” there is always the inherent problem that you could be shaping an environment to suit one type of driver (thoughtful) at the expense of another (highly anxious) and this may have unintended consequences. As an example in business, it is possible to craft a business environment that is entirely driven by ‘standards and process’ with the aim of reducing human error, however there will also be a corresponding loss of creativity and innovation which is essential to long-term business survival. Whichever way you choose to design your work environment, you will always face its consequences; unintended or otherwise.

With a culture that responds directly to reality, the rules in the environment can be ‘bounding’ rather than ‘binding’, limiting rather than instructive; this way the behaviours of the individuals need not be directed at all. We turn our back on imposed ‘standards and process’ and focus instead on developing peoples’ self-direction.

With clever feedback (self-referencing feedback loops) integrated into the design of an environment that encourages self-direction, the individuals can themselves grow to collectively take charge of the system boundaries, culture and even the environment itself, always mindful of the inherent risks they are balancing, leaving the law of the land as the sole artificial boundary.

In a sense, this is an unapologetic process of social engineering but arguably no more so than the conventional company, which, instead of rewarding *enterprise*, trains *compliance, uniformity and loyalty* by suppressing individual initiative under layer upon layer of translation tools.

Associative Behaviour

Put more positively, when one realizes that a business is primarily a *social institution* one can apply new perspectives. One might imagine that the primary focus of attention on the individual at Matt Black Systems is akin to a “divide and conquer” policy. However it must be remembered that our system is designed only to apply **accountability** to the individual not *command-and-control*. Without the divisive and overbearing management cabal, the natural reaction of humans is to **combine** their efforts; we are after all a social species. Companies that put effort into promoting *teamwork* inadvertently reveal just how little natural, healthy human behaviour is expressed within their culture. They are also usually companies where IT constrains and controls every activity through pre-determined process and that process is very slow to change and react to the pressures of the environment because the cost of IT change is so great.

New to the Business?

Imagine you are a new member of staff at Matt Black Systems. You will already know from the interview process that you are not going into a conventional job. To start with you will have been recruited by another staff member (sponsor) and they will help you learn the basics of the business management system; they will help you *get to know the ropes*.

You will be given a commercial operation by your sponsor. In this way jobs are passed to new staff members and a royalty payment can be established on the work passed over. The job you are initially given will produce a margin but may provide only a modest return. You will also be given a cash float (risk capital), P&L Account, a Balance Sheet and computer software to help you plan and record your activities. Your operation is monitored by your sponsor to see if you improve your Balance Sheet (net financial balance between assets and liabilities) and so establish a sustainable operation. Training and mentoring is provided to support the steep learning curve, without removing your responsibility for producing a return on the sponsor’s risk capital.

If you create a sustainable operation that generates a profit beyond subsistence, some of the profit will provide you with a bonus to supplement your income, yet more of the profit is recycled back to you as additional risk capital so that you can finance investment ideas and

further increase your income. You will, in the meantime be looking to establish some of your own source of work for which you will not have to pay a commission or royalty to your sponsor and this will provide you with more profitable operations so that eventually you might pass back to the sponsor the original operation (as it has become your lowest margin activity). This operation will then find its way to a new employee (along with the associated Balance Sheet risk capital) where the process is repeated by the sponsor.⁵

Remuneration

Remuneration for staff is calibrated in a way that reflects the balance of different forces around 'pay'. For example, the link between remuneration and the Profit & Loss Account is a basic constraint but the actual pay figure is not absolutely determined from this; for one thing there is an obligation upon the company to pay a minimum wage. At the other end of this spectrum (maximum wage), if profits are taken out in full as wages there would not be a cushion of working capital for times when margins are lower or losses are made. There are therefore two aspects of the basic pay structure: one is 'absolute' and reflects the entrepreneurial skill level of the employee according to a simple grading scale⁶ (in most part this is self-determined and has to be supported by evidence). This absolute factor creates a maximum income limit. For example, if this limit is £40,000pa and the margin in the work does not support this figure then the employee can only claim a lower basic pay that reflects the actual margin. If however there is enough margin to provide for both income and a minimum *buffer* profit then they will award themselves the maximum £40,000 basic pay PLUS the bonus portion of the remuneration. The bonus is calculated as 20% of the profit, thus on a monthly profit of £10,000 the bonus would be £2,000 in addition to the basic £3,333 (£40,000pa basic) providing a total monthly pay of £5,333.

A further 20% of the original profit will be paid into their individual *risk capital* account which will be their responsibility to deploy in any productive way as part of their Balance Sheet. Of the three remaining 20% slices of the original profit, one is paid out as corporation tax, another as a dividend to the shareholders and the last retained as collective risk capital on the company's collective Balance Sheet; a war-chest so to speak.

Every employee in the business is subject to these constraints, even the directors/owners have changed their relationship with the other employees. We now sell products/services to staff (such as office space and software) thus have an identical customer/supplier relationship with the employees as they have with each other.

Overall Results

Following the implementation of these changes, staff levels fell while productivity increased dramatically (300%) and it was only when a capacity ceiling was reached was there a need for recruitment. In addition to the productivity increase, the working capital and space occupied by the business was reduced by up to 50%. These were all positive; however the scale of the former productivity increase was unexpected and distorted the balance of the original model forcing us into both a re-examination of the original assumptions and a modification of the model. This is an example of how change program can throw up results that force you to re-evaluate your understanding of your situation. Something that previously seemed fixed and certain turns out not to be. The lesson is that there is always huge scope for improvement, sometimes in ways you presently "know" offers no scope.

Failure happens

Naturally there are some employees who can't generate a profit, even on minimum wage. The sponsor's risk capital will eventually be consumed through the individuals pay. After a process of *rescue and recovery*, where short comings are identified and there is an opportunity to put them right, the individual will either improve or leave; albeit with a sizeable increase in their skills. In this case the sponsor will lose their capital. Most people have been observed to be

Designing the Void

capable of being both multi-skilled and profitable. Successful people bring a level of ingenuity to their work that completely re-writes the previous standards of productivity, thus as they approach their maximum 'capacity' they find new ways of increasing productivity and so benefit in both real and intangible ways.

4. The Bigger Picture

The Learning Curve

The *void* offers a curious form of guidance as new staff appreciate that any change is going to be self-instigated and they are responsible for their success; a bit like the feeling of sitting in front of a blank sheet of paper with only a paint box and your ideas (with the ever present requirement to meet your financial needs). It can provide a daunting feeling of freedom but the responsibility is not so un-bounded as to be paralyzing. Additionally, there is also a more direct form of guidance: in contrast to self-employment there is a gradual process of accustomisation; the void of the new employee is surrounded by others dealing with their particular activities, offering both role models and operations they may wish to relinquish. One step at a time the new employee acquires the skills to become completely self-managing, to increase their margins, to make investments, to find new business, to become a creator of their own success. Ultimately, they learn to be an entrepreneur.

Human Agency through Responsible autonomy

Here at Matt Black Systems we make reference to *responsible autonomy* as an alternative to traditional hierarchy. Sociologist Andrew Friedman contrasts responsible autonomy with direct control: the former allows employees more discretion and greater variety in their work hence eliciting *commitment*; the latter involves closely supervising the work of employees, who are allowed to undertake only a narrow range of tasks using methods suggested by scientific management. At Matt Black Systems we take this idea one step further; it is not simply *commitment* that we target, rather we aim for specific valuable human qualities that commitment engenders; those of curiosity, imagination, creativity, cooperation, self-discipline and realization (bringing ideas to reality). This is the *magic* that only people can bring to an activity.

This magic appears when a person, by fulfilling their individual purpose, flourishes, expresses themselves, and grows. It is then that these qualities find free rein. To put this term *magic* within a philosophical and sociological context, it can be considered synonymous with the term **human agency**: *the ability of social actors to make independent choice and impose those choices on the world in achieving their objectives*. We shall restrict ourselves to the more informal term *magic* to encompass this idea.

Responsible autonomy is more likely to enlist this magic from employees, but does not guarantee compliance with management wishes; in contrast direct control is more likely to ensure compliance but does not create or encourage magic. In this sense, traditional business management is grounded in a particular social philosophy, more often implicit than explicit. The way one decides to organise business will be influenced by one's paradigmatic orientation as well as personality type. In his book, *The Three Ways of Getting Things Done*, Gerard Fairtlough⁷ describes hierarchy, heterarchy and responsible autonomy as the three approaches to collaboration, pointing out that hierarchy is the predominant form and there are a few practical examples of heterarchy, responsible autonomy by contrast remains a *theoretical* approach.

Motivation and Purpose

Traditional management theories depend on the idea that employees are aligned both explicitly and implicitly behind the company plans and goals (either by incentives or controls) and in this way staff are expected to direct their behaviour in pursuit of these greater corporate goals. The company will put in place standards and procedures to adhere to, and provide management to oversee and motivate the employees. But how realistic is this in terms of what we know about the human being? Should we, even if we could, set aside our own sense of purpose in order to adopt one that is given to us from outside? At Matt Black Systems we are sceptical about whether this is realistic long term approach. To be effective it relies upon the employee being able to put their role in context to the greater plan (to see how they fit in), and to have a full

appreciation of the company's standards (to avoid unintended consequences). However, of greatest issue is the question of motivation: motivation is derived from our *motives*, these being entirely personal; can we really expect motivation to be provided by a manager? Instead, we prefer to encourage the individual to explore and resolve their purpose, to identify common ground and the motives they share with others in the business. It is by setting aside the corporate plans and goals, and allowing the individual's inner motives to come to the fore that an honest comparison can be made between the demands of the customer and the motives of the individual. After all, growth in pursuit of our inner drive is a natural behaviour for human beings to express. It is a bit more than just any old growth (career progression or promotion), rather, a particular path of growth, the direction of which resonates with our inner purpose, resonates with who we know ourselves to be, something that we may not even be able to articulate but is something that both motivates and fulfils us.

Autonomy, Mastery and Purpose

We greatly admire Dan Pink's work⁸ on motivation, which reveals that –“for all but the most rudimentary of tasks- **autonomy, mastery** and **purpose** have the greatest influence upon both personal satisfaction and performance”. We also draw on the educational thinking of Sir Ken Robinson who says⁹ that to be successful in the traditional educational model may require you to “marginalize the things that you think are most important about yourself”. Dan Pink's research on the source of motivation at work is in stark contrast to the common experience of the conventional employee, and Sir Ken Robinson's reflection on the education system resonates with the lot of the worker within the division-of-labour so often practiced in the conventional workplace.

In the 20th century workplace, increase in human productivity was achieved through uniformity, obedience and loyalty, but to support our western lifestyle in the 21st century we need further step changes in productivity and they are not going to be achieved using those 20th century techniques that have been exploited to the full. Today we must find a way to create a new wave of innovation, to embrace and manage risk: and this means an engaged, motivated and entrepreneurial workforce.

Autonomy, mastery and purpose provide a powerful prerequisite for individual motivation; in addition, through our experience at Matt Black Systems we have identified the behavioural traits of a motivated worker (curiosity, imagination, creativity, cooperation, self-discipline and realization as mentioned previously). The expression of these talents by an individual is our 'litmus' test of motivation and essential to create the step changes in productivity we are looking for. Additionally we have found that for a healthy and powerful (risk managing) approach individuals must balance these traits rather than the conventional one-sided focus on personal strengths leading to an unhealthy over-specialization with its inherent weaknesses (high risk). The challenge is to combine curiosity, imagination and creativity (the engines of improvement) with self-discipline, cooperation and realization (the engines of value-add¹⁰) such that an individual's contribution can be quantified (these are after all, individual qualities).

The (re)Integration of Labour

At this point many will say... “hold on a moment - this is contrary to the *division-of-labour*, a tried and tested concept that has been around since Adam Smith, some 230 years”. It's not that we suggest removing the division of labour, but rather toning down its current extreme application. After 230 years, it has become over applied. We believe there is an optimum division that has been exceeded and that some integration of roles now produces a significant benefit. There is some academic justification for this position; the work of *Bernard Lievegoed* (1969) identifies three phases of organizational evolution, these being the **pioneering phase, differentiation phase, and integration phase**. Each phase ends as its mechanisms are over-applied and become dysfunctional, for which new solutions are searched. The **differentiation phase** can be described as the application of the division-of-labour leading then to its over

application, whilst the **integration phase** is something much less divided, more holistic; something more akin to the example of Matt Black Systems.

The Limits of Differentiation

Lievegoed suggested that the differentiation phase (“division-of-labour” and “command-and-control management”) is characterized by standardized products and processes leading to the systemization of the entire operation. Hierarchical structures are separated into functions and departments, competences, tasks, policies and procedures.

These are rationally documented and can be seen explicitly in job descriptions, formulas, hierarchical organizational charts, rules, regulations, planning and budgeting.

The typical crisis symptoms are: inflexibility, the inability to handle rapid changes within the system's environment, coordination problems and problems of the internal vertical communication (paths are too long). The requirements of the organization are not made explicit to the front-line from the top and, vice versa, market information is poorly passed from the front-line to the top. The command-and-control formula becomes highly dysfunctional without accurate information. Further, the intersections of processes do not match and nobody within the organization feels responsible; decreasing motivation is closely linked with the specialized and formalized work. A decreasing knowledge of the interconnectivity of the system fosters a loss of meaning of the work and promotes dysfunctional (unethical) behaviour due to fixed and predefined targets.

Work as Self-Development

In the **integration** phase the entrepreneurial qualities of the first phase (pioneering) are applied by everyone, in all places within the organization. Through emergent structures and systems the organization becomes horizontally focused, functionally integrated with employees facing either internal or external customers. All aspects of the operation become transparent allowing individuals to make intelligent decisions and strike compromise in the moment. People find fulfilment within their jobs as they exercise self-initiative and self-control in pursuit of both their personal motives and customer orientated goals, they become the steering organs of the business. They are responsible for the application of the organizations resources and share in the benefits that result. They are both autonomous and responsible.

As our economy evolves, organisations find themselves in a world that demands the benefits associated with this integration phase. Here at Matt Black Systems we believe that our approach demonstrates a practical working model for this integration phase and therefore a blueprint for the 21st century organization.

5. The 21st Century Company

A New Zeitgeist?

There are other examples of business owners deciding to relinquish the *command-and-control* model of management. Semco in Brazil¹¹ is often cited and more recently Felix Leuschner of Stylistpick.com stated “We really want to empower people and give them independence, so we give people a lot of responsibility and the opportunity to drive and own projects. I support them, but how they get there is their own responsibility.”

Is this the new Zeitgeist? The examples above more accurately reflect **Fairtlough's**¹² *heterarchical* form which refers to ‘multiple rule’ a balance of powers rather than the single rule of hierarchy (e.g. top management delegate decision making to democratic worker groups and remove middle management). Matt Black Systems by contrast reflects Fairtlough's definition of *responsible autonomy* in which individual choice and accountability is the dominant structure. It is interesting as an example of how a company structure can be creatively extended and developed to incorporate new forms of working that strike the balance between freedom and constraint. By relating the constraints to the nuts and bolts of business decision making in the Balance Sheet and P&L account, we have identified exactly the instrument that employees need to monitor (but not determine) their own ‘performance’, and one that neatly balances the liabilities and the assets of the business.

It's hard to imagine how else employees can become self-determined or autonomously responsible other than by having an accurate mirror (financial statements) in which personal individual decisions and their consequences are reflected.

Design around the Human Being

We believe Matt Black Systems offers a convincing vision of an industrial conglomerate of individuals operating within a company structure in that marries elements of independence and interdependence. The numbers are impressive, and it must be acknowledged that ‘bottom line’ logic can be attention grabbing. But perhaps what is more interesting, and may ultimately determine whether this way of working can establish a foothold in the corporate culture of the day, is the ‘top line’ idea of the “responsible and autonomous individual”. When a business is viewed as a social institution it is one's image of what it means to be human and the contribution of each individual which conditions what one sees of an organisation, in contrast to the limited view afforded by the conventional perspective; a commercial process employing human resource. What gets even less attention is the extent to which a **business is a reflection of its design**. Could a change in business model design change the way people function within it? Is what we have achieved at Matt Black Systems a bizarre one-off or part of an evolutionary shift in the way we get things done?

Only time will tell.

¹ Pressures in the highly competitive manufacturing sector continue to rise and form a deadly pincer movement of falling demand and increasing costs, this means that many suppliers face a very uncertain future.

The drive for lower costs and a technical edge are vital for survival, and the biggest burden of the cost cutting has targeted unit labour cost. The real income of manufacturing workers has remained stagnant whilst their costs have increased, leading to a loss of their disposable incomes. This is not only unsustainable but will neither encourage a technical edge nor promote demand.

² Expressed in terms of the Boston matrix, the business was transitioning from the cash cow phase to dog. We were entering into the failure phase. The numbers show we narrowly avoided failure (or at least having to borrow money to survive), we have revitalized the business and now have a healthy mix of stars, question marks, dogs and cash-

cows (healthy levels of re-investment), whilst now delivering a sustainable net profit (after reinvestment has been deducted) not seen since the peak during our cash-cow only phase.

³Modulators of decision making. *Nature Neuroscience* 11, 410 - 416 (2008)
Published online: 26 March 2008 | doi:10.1038/nn2077

⁴ The Law of requisite variety. <http://pespmc1.vub.ac.be/REQVAR.html>

⁵ The long term gain by the sponsor is that they retain a 5% equity stake in the individual and enjoy a dividend relating to their profitability.

⁶ The grading is through a self-assessment accompanied by evidence- the categories are; pre-follower, follower, changer and creator. These categories refer to an individuals' level of responsibility in regard to process; are they available to follow process thru to can they create and operate functional process.

⁷ Friedman and Fairtlough's ideas remained at the level of theory.

⁸ Drive: The Surprising Truth About What Motivates Us, by Daniel H Pink. (2009) ISBN 978-1-59448-884-9

⁹ The Element: How Finding Your Passion Changes Everything (Ken Robinson with Lour Aronica).(2009) Viking. ISBN 978-0670020478

¹⁰ Value-add: for this definition is *Selling price* minus the *cost of ingredients* (not including direct labour).

¹¹ Maverick : The Success Story Behind the World's Most Unusual Workplace by Ricardo Semler (1993 : Warner Books)

¹² The Three Ways of Getting Things Done. Gerard Fairtlough, Triarchy Press, may 2005