9 'Biolime: Mock Rock'

9.1 Overview

This speculative narrative was composed as a teaching tool for Danish high school students (University of Southern Denmark, 2012) to help them reflect on how a community might respond to the presence of lifelike materials and ELT for the ISSP (Initiative for Science, Society and Policy). It was also published in the online design magazine *Organs Everywhere* (Armstrong, 2012f).

9.2 Biolime: Mock Rock

For those that had never been to the city of Hardwich, it was impossible to tell whether the houses in the Mossville suburb had actually come 'alive' or not, for whenever sunlight stroked the mineral-clad buildings their facades seemed to quiver with an energized, metabolic glow. Early-morning joggers took advantage of the freshening air caused by the solar activation of the limestone. Dirt stains faded and curious cellular plant life toyed at the edges of the slowly creeping rock, as if they were deciding whether they had encountered a friend or foe.

The Biolime surface coating on the outside of the Mossville houses had been deemed a 'friend' but the new technology had not been accepted without controversy. Indeed, if it wasn't for the irrefutable fact that climate change was happening even faster than all forecasts had predicted, resulting in increasingly turbulent weather patterns that spoiled summers and brought bitter winters, then Biolime would probably have remained a curiosity of chemical behaviour that was only of interest to an elite group of scientists working in the new field of the origins of life sciences. Unusually, these researchers had collaborated with a group of architects who were interested in harnessing the carbon-fixing qualities of living systems to make environmentally positive, sustainable materials. The collaborators had produced a simple oil in water droplet emulsion likened to 'salad dressing' that used carbon dioxide from the atmosphere to drive a chemical process, which formed a rock-like salt called 'carbonate', commonly known as 'limestone'.

This work had generally been regarded as a fringe research activity, though some years later the renewed interest in finding ways of dealing with the runaway carbon count prompted journalistic investigation into the technology. It led to a prime-time news feature entitled 'Mock Rock'. So, in the wake of endless speculation in spin-off magazine articles such as 'Mock Rock around the Block' and 'Mock Rock da House', this sudden and rather unexpected global coverage of the research prompted the researchers to patent their technology as Biolime.

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Yet, despite the growing interest in the system and the increased recognition that this exterior 'paint' for homes could actually make a real contribution to the health of urban communities, Biolime continued to be regarded with suspicion. A number of outspoken critics conjectured that, even under the current circumstances, the Biolime technology really belonged only in a laboratory setting and that it had no place in the natural world.

Part of the problem was that the technology had been implemented at the national level in the wake of a series of fractious G20 summit meetings. After a series of high-profile public protests leading to widespread outbursts of civil unrest and political humiliation regarding the ineffectiveness of the G20, the politicians were finally forced to take action. Programmes that relied on the good will and environmental responsibility of individuals were simply not making sufficient impact on the issue of soaring greenhouse gases that were responsible for climate change. The embarrassment caused by media-fuelled popular opinion finally spurred the major economic powers to undertake draconian measures. There was unanimous agreement amongst the representatives of the world's nations that it was time to find a creative solution. Of course, they suspected their patriarchal approach to planetary welfare would be resisted, but agreed that it was time the public faced the facts. The old methods and various forms of public bribery were just not good enough and a completely new approach was necessary. Political attention quickly turned to the 'Mock Rock' technology since it had recently become a popular chat show subject, which frequently deteriorated into insulting exchanges about the 'wilful uglification' of modern buildings. Following a number of rather cursory national polls conducted to investigate public attitudes towards the technology, the G20 countries endorsed Biolime as the most immediate and effective way to combat climate change.

The British government decided to pilot Biolime-based solutions in urban areas to demonstrate the benefits of the new technology in the form of community-based public schemes. The Mossville area of the city of Hardwich seemed a prime location for further government-initiated improvement as it had already responded to national sustainability initiatives through exemplary practice. Mossville boasted a well-supported permaculture project that had opened up garden spaces for the public cultivation of fruit trees, which allowed people to exchange fruit as seasonal currency and had adopted a staunch stance against plastic packaging. Shopkeepers either refused goods with wrappers from suppliers, or removed and recycled them at the point of purchase. Mr Grant Soames, who ran a hypermarket chain in several places around Hardwich, further capitalized on this practice when he discovered that there was a thriving market in recycled packaging materials. His stores not only became a focal point for community de-packaging activities, but also served as meeting points for teenagers who used the worthy excuse of recycling duties as a way of escaping their homework responsibilities.

Less than a month before the project began, the local councillors received official electronic notification of the Biolime initiative and organized a public meeting to

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salvage some semblance of a democratic process. Priding themselves as a progressive body, they were keen to head off any 'misconceptions' about the centrally driven imperatives. The response to the public notices was overwhelming, and a swell of banners that read 'Block Mock Rock' or 'Rock Mocking Us' soared above the Mossville crowd that had turned out for the meeting.

Councillor Arthur James, the youngest and most ambitious of the local politicians, brushed down the front of his suit in preparation for conflict with those that had elected him and asked the staff to open the doors. He'd agreed to lead the public meeting, partly because the senior committee members admitted they didn't know what a 'metabolism' was, and partly because he actually believed in the value of the project. Although Arthur had initially been as sceptical as anyone about the hype surrounding the Biolime technology, he had become increasingly charmed by its simplicity and effectiveness. Councillor James reminded the assembly of stony-faced people that limestone occurred naturally in underground caves and formed the scale deposits that resulted from every day processes, like boiling water in a kettle. He then urged the congregation to consider this as a way to build and maintain buildings naturally, albeit unconventionally. He also asked what it might mean to the community if the Biolime technology enabled their homes to do something more important than provide warmth and shelter.

How would they feel if their houses were able to contribute to the health and healing of the planet? After a few moments of stunned contemplation, some audience members raised objection to the technology by drawing analogy with genetic modification, but Councillor James was also quick to point out that the cell-like agents used in the Biolime process did not have any genes and therefore could not self-replicate. Biolime itself was not alive, and although it shared some of the characteristics of living systems, it would die without the continued nurturing of the community. Mrs Angel Darling, who was already considering spending more time outside for health reasons, wondered what the councillor meant by this. Councillor James told her that the Biolime needed to be continually replenished to keep the carbon-fixing process going, as it did not last forever. The fragility of Biolime and its dependence on the active participation of the community was sobering news and appeared to endear the technology to the congregation. They seemed less anxious about an alien paint invasion and began to ask questions about the necessary cultivation methods. On account of his youth, Councillor James found it harder to deal with the more philosophical issues that were raised in objection to the new technology. So, hearing Arthur's voice strain at Mr Henry Norton's recurrent interjections that Biolime was 'an act against God', Councillor Andrew Talbot felt the need to step in and assist his colleague. Mr Norton was not easy to console as he'd just lost his wife and was angry with everyone about everything, but Councillor Talbot reassured him with a rather meaningless but effective platitude, before moving the conversation swiftly onwards. In fact, Councillor Talbot had most difficulty with the permaculturists, who were the most vigorous objectors to the 'unnatural' nature of Biolime and could not accept that

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artificial processes could coexist alongside natural ones. The permaculturists blamed all forms of technology as being responsible for the sorry condition of the planet, and Councillor Talbot responded to these objections with a theatrical and ponderous demeanour. He cast the congregation's attention back to the days of planting orchards and using grafting technology to 'enhance' plants as being inherently unnatural pursuits and a kind of 'technology' that had ultimately benefited humankind and raised the stakes of the meeting. He urged the Mossville citizens to collectively take a lead in making amends to the planet on behalf of the human race by embracing Biolime. An overwhelmed and exhausted audience found themselves applauding the veteran councillor and were invited to cast their votes. Despite the handful of vigorous objections that had been voiced during the meeting, 'Mock Rock' was accepted with an overwhelming majority. Even Mr Norton was overheard muttering to himself on his way out of the town hall that if 'the abomination' meant that he didn't have to spend every Sunday morning sorting rubbish, then he was all for it. Life was too short to sort rubbish.

A public holiday was held in Mossville the day that the Biolime was delivered and became a community event. Large containers of locally prepared Biolime solution were assembled on a cordoned-off section of the road where people helped each other in filling up portable spray containers and coating the outside of their homes fully clad in overalls, goggles and masks. Mrs Kathleen Gately, who looked oddly alien in goggles that were too large for her sunken features, had problems using the hand pump with her rheumatoid hands. James Chesney, who had just come from next door to complain about the persistent yapping of her toy dog that was upset by the old woman's appearance in protective clothing, decided to help out. Kathleen hovered while the young man worked and repeatedly asked him why they were spraying a liquid on to the buildings in Mossville when they'd been promised some rocks? Jimmy mumbled from behind his mask that the rock was grown from the solution and nipped over the fence to finish off his own place. Kathleen took off her overalls, which settled the little dog and sat on her front wall looking back at her house in disbelief. How it could be true that water could turn into rock? She shook her head. In her view, this was something that would 'beggar Jesus' to figure out, so help her God.

Since everyone was fully occupied with diligently applying Biolime to their homes, the usual neighbourly vigilance had slackened, as people were concentrating on the job in hand rather than wondering what their neighbours were up to. The community was later astonished to find that an unpopular modern statue had been drenched in so much Biolime solution that it now resembled a spacecraft. Nor were they able to explain how the local skateboarders had managed to acquire a Biolime 'ramp' that gave them enough air to be clearly visible from Mr Norton's back yard. Otherwise, the day came and went uneventfully and after the initial flurry of activity and excitement, Mossville settled down again to its frugal routines.

A few weeks later, those areas that had been sprayed with the Biolime solution began to transform and produce a moist, heavily patterned, whitish rock. Delicate

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crustings of this material appeared in gutterways and grew into stalactite fingers where water had accumulated. Small children picked at oddly shaped protrusions that were sometimes used by wildlife and the Biolime could also be found in places where it had not been deliberately applied. Playground drains became unnaturally frosted and Biolime trails squeezed like toothpaste through gaps in the pavements. Where the Biolime had died it became laced with white ribbons that were prone to fracturing. On a dry day, these brittle splinters of rock could be heard cracking and falling like old plaster from the walls. Rain tasted clearer, fires burned brighter and even algal blooms in the waterways were more vigorous than before Mossville embraced Biolime. While many subtle differences were noted in the environment, the community continued with their usual, well-meaning business in their own peculiar ways.

Gradually, Biolime became part of the everyday community tensions. Jimmy grew tired of Mrs Gately's moaning that he hadn't done the front of her house properly and refused to stop by. As a result, Kathleen's façade looked scarred and provoked snide comment when she queued at Mr Soames's checkout. Kathleen expressed her defiance against her neighbours by allowing her little dog to urinate on the corner of Mr Norton's house. This act of wilful vandalism was quite a spectacle, as the acidic urine caused the Biolime to fizz like freshly shaken lemonade. A vigilant Mrs Darling, who had finally found her excuse to spend more time outside by taking up smoking, witnessed the sabotage and swore at Kathleen through her nicotine-licked lips – it was people like *her* that were responsible for global warming in the first place! Without so much as casting a backwards glance Kathleen flipped two rheumatoid fingers at her critic and patted the little dog on the head. Affronted, but in greater need of a cigarette fix than altercation, Mrs Darling resumed her smoking and cursed through her breath right to the end of the butt.

In his government report about the Biolime pilot scheme, Councillor James commended the community for intensifying their permaculture and recycling efforts. He commented that the only real difference to Mossville was the remarkable snow-like coating of the buildings. Councillor Talbot, on the other hand, was more perceptive, remarking that the presence of Biolime helped the community feel that their individual efforts in combating global warming were significant. In his opinion, Mossville had realized that if something as small as the chemical fragments of technology that constituted Biolime could contribute to tackling the inconstant challenges of climate change, then the efforts of each individual, no matter how trivial, would contribute immensely to their collective quest.

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