

A ‘NOVEL’ WAY TO FORECAST FUTURE URBAN FORMS: WELSH CASE STUDIES VIA THE LITERARY METHOD OF URBAN DESIGN

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Abstract. This paper explores a novel application of the Literary Method of Urban Design to predict and shape the future forms of three new “case study” towns set in Wales: Swansea, Gilfach Goch and Dinas Mawddwy. This method uses literary works to create “design fictions”. These design fictions aim to provoke debate about potential future opportunities for towns and cities and potential future problems for towns and cities. The three novel case studies explored in this paper are variously inspired by Alan Garner’s novel *The Owl Service*, Richard Llewellyn’s novel *How Green Was My Valley* and Dylan Thomas’ poem *The Force*. Each case study invokes a graphic representation - in the form of scenario art - which visually narrates a future shaped by the themes of the respective works: so transforming the town of Dinas Mawddwy into an urban woodland, reimagining the town Gilfach Goch as a post-industrial paradise and harnessing natural forces to create the living city of Swansea. This approach attempts to consider the vagaries of human characters within unpredictable and dynamic ecologies and social structures but which also integrates cultural and aesthetic dimensions into the art and practice of urban design. The emerging scenarios underscore the potential value of considering artistic methods with qualitative narratives and historical insights to achieve a potentially more holistic understanding of future urban developments - at least in the land of legends and stories that is Wales.

Keywords: *urbanism, literature, art, futures, Wales.*

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1. Introduction

Predicting or forecasting the future social structure and architectural layout of towns can be immensely valuable for various reasons. It aids urban planners and policymakers in designing or preparing infrastructure, living space, transportation connections and public services that meet the anticipated needs of the people projected to be living there (Miller, 2018). As well, accurate predictions enable better national resource allocation, ensuring that areas with growing populations or changing demographics receive the necessary investments in schools, healthcare and other essential services (Ryan & Fox, 2023). Furthermore, predicting future social structures and geographical patterns can guide sustainable development practices, helping to mitigate environmental impacts and promote ‘green’ urbanization (Soja, 1996; Thompson, 2003).

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However, there are significant limitations to predicting future urban patterns using quantitative methods. Human behavior is complex, non-rational and influenced by numerous unpredictable factors such as cultural shifts, political changes and economic fluctuations, which quantitative models may not fully capture (Sanders & Stappers, 2014; Urry, 2016). Worthwhile forecasting requires high-quality, comprehensive data, but data can often be incomplete, outdated, devoid of contextual content or biased, leading to inaccuracies in the models. A lot of data is also totally irrelevant for judging whether social change should or should not be pushed and how it is to be managed, since data might merely suggest what is happening but not what ought to change - which relies on social values, cultural patterns and ethical reflection. As well, without people being given civic powers to debate the meaning of data, it might be examined and interpreted only by technocratic planners bent on maintaining the technocratic system of governance they are a part of (Soja, 1996; Gehl, 2010; Sennett, 2013). Thusly, there is a need for data to be debated, opened-up, questioned, critiqued and indeed properly situated - to be used in the service of citizens, townsfolk, neighborhoods and communities. This paper forges ahead with one particular method, the Literary Method of Urban Design, as a way of doing all this, as will be explained below.

As well as the problems outlined above, unforeseen events such as natural disasters, pandemics, political disruption, civic strife and wars and also technological breakthroughs and breakdowns, can drastically alter social patterns in ways that quantitative models cannot really forecast (Wilkinson & Eidinow, 2008; Miller, 2018). Moreover, quantitative methods often rely on historical data to make predictions, but past trends may not always be indicative of future patterns, especially in rapidly changing techno-societies and politically or environmentally precarious regions (Sennet, 2013). Finally, the collection and use of data for predictive purposes can raise ethical and privacy issues, particularly if individuals or communities are unfairly targeted or stigmatized based on predictions (Postman, 1993; Gehl, 2010; Sanders & Stappers, 2014; Miller, 2018).

In summary, while predicting the future social make-up of towns holds significant value for planning and development, the inherent limitations of quantitative methods necessitate their cautious usage and their contrast with complementary approaches, often integrating qualitative insights and social discourse to form narratives that achieve a more holistic or nuanced understandings. While most futurists agree on the importance of probabilistic forecasting and a certain amount of public feedback into examining preferred policy changes, some argue for broader anticipatory tools to include non-probabilistic techniques (Urry, 2016).

The Literary Method of Urban Design may serve as one complimentary approach as it forges nuanced urban narratives by creating “design fictions” based upon well-known literary works (Marshall, 2018; 2019; 2023). Through the Literary Method of Urban Design, students and practitioners generate hypothetical scenarios that remain, for the most part, conceptual. These “design fictions” facilitate the examination of emerging technological and societal possibilities, encouraging innovative thinking and provoking debate beyond current techno-biased limitations (Dunne & Raby, 2013; Sanders & Stappers, 2014; Candy & Dunagan, 2017; Marshall, 2018; Candy & Potter, 2019).

Contrasting with traditional design methods that prioritize functionality, the Literary Method of Urban Design fosters imaginative forecasting of future trends

(Dunne & Raby, 2013; Sanders & Stappers, 2014; Urry, 2016; Miller, 2018; Marshall, 2023). By engaging with literary narratives set within urban settings, this technique not only evokes a certain amount of joy in its operation - and provides aesthetically pleasing results -- but also prompts contemplation of the social forces shaping urban life. Given all of this, over the course of this paper, we will enter into the three steps of the Literary Method of Urban Design as laid out by Marshall (2019, 2023). These three steps are as follows:

1. Choose a work of literature,
2. Choose a city,
3. Apply the themes of that chosen piece of literature to outline a scenario for the future of that chosen city.

For this series of case studies, I've selected three different urban settings based upon three different literary works (that latter of which feature the chosen city either in their narrative background or foreground them in the story). This list of three case studies includes:

- 1) a scenario of future Dinas Mawddwy as inspired by Alan Garner's *The Owl Service*,
- 2) a scenario of future Gilfach Goch inspired by Richard Llewellyn's *How Green is My Valley*,
- 3) a scenario of future Swansea inspired by Dylan Thomas' *The Force*.

Incidentally, for the aesthetes, these three steps were also presented by Marshall (2018) in an edutainment movie that screened at a number of film festivals worldwide. And some one-hundred of the graphic future scenarios emerging from the method were also exhibited at the Bauhaus Museum (2023) to celebrate the 100th anniversary of Bauhaus' first architectural product. Now some might think that the link between the Bauhaus and the romantic literary-affected designs emerging below is obscure. As some art history commentators admit (Droste, 1990), Bauhaus' emphasis on functionalism and mass production pushed its architects toward a brand of urban design that some believe is too monotonous, too minimalist, too clean-lined and results in boxy buildings that lack aesthetic warmth - which, when piled together, potentially contribute to the rise of homogeneous, block-like urban landscapes. This view, though, overlooks the way authentic Bauhaus designs were sprinkled within classical cityscapes rather than overpowering them and it ignores the broader theories, architectural complexities and social missions of the Bauhaus movement, which sought to merge accessible art and technology in the service of creating modern beautiful stream-lined designs that were affordable for all classes; not just the elite (Curtis, 1996). Perhaps more significantly, the Bauhaus' pedagogical and artistic moods were innovative, playful, experimental, challenging and egalitarian, promoting anti-authoritarian values and fostering spaces for creative freedom for broad sections of society. Though functionality was a key goal of the Bauhaus in the designs it sought to mass produce, so were the themes of equality, humanity and elegance (Droste, 1990; Prager, 2014). It's with this combination of playfulness plus social progressiveness in mind that the following urban visions are explored and laid out through the Literary Method of Urban Design.

Before going on to present "visions of the future" for the chosen Welsh settings, I best acknowledge that a singular or grand urban vision for any number of towns and cities within a nation (as the following scenarios might be labelled) might -- if implemented in full-scale -- press urban or civic settings toward being totalized (and

perhaps inhumane) dystopias. As a response to grand urban planning, urbanists like Alexander (1977, 2002) and Mehaffy (2015) suggest that cities form better as organic creations through the actions of their human inhabitants and the physical networks they try to forge. This suggests that patterns of urban development emerge naturally from human needs and social behaviors rather than needing to be prescribed from anyone standing above the urban setting. Alexander's work emphasizes that urban forms arise from the repeated use of particular patterns, such as paths of movement, the necessity for proximity between spaces and the instinctive ways in which people use and shape their environments. In his view, cities that grow spontaneously through such self-organizing patterns are human-centered, flexible and adaptive to the lives of their residents. These cities develop in response to forces like daily movement, the need for buildings to be arranged in relation to each other and efficient circulation through grids and pathways that connect vital spaces. Inhabitants shape their city to meet their needs over time, with streets, houses, amenities and public spaces forming as people live out their daily lives, suggesting that true urban growth arises from the bottom up.

Mehaffy (2015) extends this idea by exploring how the design of a city itself is shaped incrementally as a living organism. This form of urbanism is often contrasted with cities that are designed through top-down planning, where strict master plans dictate the placement of buildings, roadways and civic areas. Mehaffy suggests that when cities are allowed to evolve spontaneously, they are inherently more human, as the design naturally accommodates the complexity of social interactions and private movements. In this view, spontaneous cities are sustainable, resilient and reflective of the actual needs and desires of their inhabitants because they avoid the rigidity, value biases, over-management and alienation that often accompany top-down planning.

However, if Alexander and Mehaffy's ideas are held too dogmatically, without recourse to historic explorations the decision-making processes that led to a city's form, they can be criticized as being rather extreme for they might ignore the way urban planners have (at the very least) "co-created" cities in tandem with the desires and needs of those that have lived there. Nearly all cities in history have been subject to some form of planning or top-down regulation, whether in the form of zoning laws, infrastructural needs, highway and roadway funding, the construction of government buildings or political decisions aimed at enabling or controlling their growth and some large percentage of them have ended up being very humane and livable for a majority of inhabitants. Ancient cities such as Rome or Babylon were heavily planned in certain areas, yet they also managed to maintain vibrant, humane aspects in the way citizens interacted with their urban environments. Conversely, some organically grown cities, such as informal settlements, can be inhumane and chaotic due to lack of essential infrastructure and services. Also, as we will see from the second case study presented below, the 'organically' grown South Welsh Valley coal town of Gilfach Goch developed in a non-regulated/unplanned way to produce an urban setting that was demonstrably dour and dangerous for the early 20th century townsfolk that resided there. Thus, the mere fact that a city is planned from the top down does not necessarily make it inhumane. Rather, the humaneness of a city or town may depend more on how planners and inhabitants work together to shape its growth, ensuring that it responds to social, economic and environmental needs, regardless of whether the form is "organic" or heavily regulated.

None of these arguments are really crucial to this set of case studies, though, since the social agents of change are supposed to be a mixture of "organic" bottom-up growth

and organization coupled with top-down planning and regulation -- the latter, I accept, being best achieved via democratic means. And anyway, as stated above, none of the visions presented below are offered as final Utopian designs for the citizens of their respective urban settings, but mere predictions of possible urban futures arrived at - or passed through -- from the action and interaction of thousands of different contingent decisions and events.

2. Dinas Mawddwy as Inspired by *The Owl Service*

The Owl Service by Garner (1967) is a novel set around a remote Welsh valley somewhere near Dinas Mawddwy, a small town on the outskirts of the mountain region known in English as Snowdonia. It follows the tense vacation of a teen girl, Alison, who is with her English family as they over-summer in their modest Welsh estate. The family's Welsh housekeeper and their Welsh gardener were lovers long ago but now regard each other with contempt. The housekeeper spends most of her time trying to hide historic secrets whilst holding grudges against just about every other character in the novel. In turn, the gardener only looks up from tending the plants to talk in riddles about some archaic Welsh legends associated with the area. The most prominent of these legends is the Welsh legend of Blodeuwedd.

In the legend, Blodeuwedd is a woman created from flowers by the magicians Math and Gwydion so as serve as wife to a local nobleman, Lleu Llaw Gyffes. However, she falls in love with another man, Gronw Pebr and the two conspire to kill Lleu so they can freely love each other. However, the magicians punish Blodeuwedd for her betrayal and murderous deed by transforming her into an owl. *The Owl Service* reinterprets this archaic legend in a contemporary setting (Sullivan, 1998), exploring themes of national identity, changing family ties, women's rights, social betrayal, landscape attachments, cyclical patterns of history and the links between humanity and wilderness.

Regarding these last two themes, just as Blodeuwedd is driven nigh-on crazy by her enchanting legacy with flowery meadows and her drive to be with the man she desires, so in Garner's novel, Blodeuwedd's counterpart, Alison, is driven into mystic trances, frantic night-time wanderings and day-time emotional turmoil as she is torn between her family and her desire to be with her new-found summer love, a Welsh boy named Gwyn (Takiuchi, 2017). Allison is triggered into this state of being, it seems, by chancing upon an antique dinner set hidden in the family's loft, which is adorned with ancient owl-like patterns.

This predicted future for Dinas Mawddwy, presented in figure one, takes the tension in *The Owl Service* between owls and flowery meadows and projects it into the town's future urban character (Figure 1). Sometimes within small Welsh towns like Dinas Mawddwy, there is often a long held cultural and economic affiliation with meadows. And usually it is a much stronger and life-affirming attachment than any cultural affiliation with wild woodlands and birdlife, especially owls - which in this specific part of Britain are historically regarded with suspicion. This historical dislike of owls is the reason why Blodeuwedd was transformed into one by her magician makers, since she might then feel unloved forevermore -- and subject to communal suspicion - in punishment for chasing her own desires and destiny.

These owl-like qualms of the Welsh folk living around Snowdonia are often related to the bird's mysterious nocturnal nature. Owls are regarded as rather ominous

creatures linked to darkness and death. They habitually hang around deep in wild forests, hidden all day, before lurking at dusk near the border between the woods and meadows -- only to sweep in and prey upon meadow creatures (typically mice, moles and voles) in the dead of night. In a way, the owl in Snowdonia inhabits the same cultural space as the more historical but equally feared wolf or wild cat (Collins, 2018). The Owl Service tends to project this fear of the wild onto Alison, as though woman might be held somewhat untrustworthy if they mess around with natural things too much. Of course, because of the rise of environmentalism in 1960s Britain, this disdain for the owl had been tempered quite significantly in *The Owl Service* (compared to the centuries before) and the reader is enticed to feel a sort of solidarity with the Alison/Blodeuwedd character.



Figure 1. The future of dinas mawddney by the author - as interpreted through the literary method of urban design via Alan Gardner's *The Owl Service*[†]

[†] For the record, this image was produced via the following process: a pencil sketch created by the author was scanned into the Paint Shop Pro program, then edited and adjusted there. This intermediary image was then processed through many dozens of picture prompt iterations in the OpenArt software program (some under the “retro-future” theme, some under the “futuristic” theme and some under other themes like “architectural” and “fantasy”). A number of the resulting color images were then re-inserted into Paint Shop Pro, combined and mixed, then edited to adjust content and composition and coloring and shading, etc etc to arrive at the final versions you see in this article. Incidentally, the author also experimented with text prompts through a variety of AI art programs; for instance, by inserting a text prompt like “Design a future sustainable small wild city” based upon this or that work of literature. The results were poor and as yet, I would advise students and designers alike they cannot rely on AI “text – to – art” software to process the Literary Method of Urban Design. Perhaps though, after more years’ of “machine learning” and software upgrades, such programs will prove more competent. Till then, I trust in

Unlike the wild woodlands, filled with darksome nighttime killers, the meadows of Snowdonia by contrast are bright open landscapes; with everything generally fully visible to the human eye and regarded as immensely safer and useful for the area's farmers. This is especially so regarding that perennially useful pastoral creature in Wales, the sheep. Thusly, there is a strong social rationale for this preference for meadows which fits perfectly well with the general economic model of Welsh highland living. Sheep farming has been the mainstay type of agriculture practiced in and around Dinas Mawddwy for centuries and fields are usually maintained to keep the sheep happy (Marshall, 2024). Indeed, the owl's natural habitat, the woodlands and forests are not great for sheep farming since sheep need grassy meadows to munch away on, not trees. Thus, farmers usually keep the trees at bay and only let woodlands be free on uneconomic parts of their land.

In the 21st century though, especially after Brexit, sheep farming is losing its economic value, whilst the value of mountains and valleys to provide economically-useful environmental services is emerging resoundingly in the hearts and minds of many Welsh folk; urban and rural. Regenerating woodlands in highland Wales work well to enhance biodiversity, amplify carbon sequestration, create soil stability and improve water filtering and flow. These woodlands also obviously create habitats for diverse flora and fauna, owls included, thereby contributing to the conservation of species and overall ecosystem health. Because they play a significant role in capturing and storing carbon dioxide, they thereby mitigate climate change, tackling the 'climate emergency' declared by both the Welsh and British parliaments (Welsh Senedd, 2023). Additionally, the root systems of woodland trees help prevent ever-increasing soil erosion (caused by increased rainfall brought about by climate change), reducing runoff and enhancing groundwater recharge, which helps in flood control and maintaining water quality. These benefits collectively support sustainable land management and enhance landscape safety and beauty, thereby making Snowdonia more inviting for tourists to come and spend their time and money in small upland towns like Dinas Mawddwy.

Given all these benefits, our future Dinas Mawddwy seeks to put woodland recovery ahead of pastoral farming. The graphic scenario presented in figure one takes the tension between woodland and meadow, between the owl and the creatures of flowery fields and relaxes it to recognize the value of the wilderness - even wilderness very close to the town. The meadows surrounding the town are left to regrow into wild woodlands. This transformation echoes the slow cultural and economic transformation of uplands from sheep farming to wilderness farming. The owl in the 21st century is transformed into a bird worth celebrating, its presence seen as evidence of a vibrant woodland ecosystem.

3. Gilfach Goch inspire by *How Green Was My Valley*

The novel *How Green Was My Valley* was written by Llewellyn (1939). It explores the profound impact of industrialization on a close-knit Welsh mining community in the South Wales Valleys. The novel is narrated by an aged Huw Morgan,

the imagination and skills of human artists and designers much more to deliver better results under the briefs of the Literary Method of Urban Design. If artists and designers want to "surrender culture to technology" (Postman, 1993), now is not yet the time to do so.

who recounts his childhood and the gradual changes in his village; transforming from a green vegetated area of beauty to a place turned black and grey by coal dust and smoke -- and whose contours and waterways are scarred by the machinery of the coal industry. Central themes of the novel include the loss of innocence and the disintegration of traditional ways of life (Evans, 2014). The valley, once lush and green, becomes marred and polluted and the people, once contented with communal farming and rural village life, become enmeshed in grotesque capitalist exploitation and extraction. The novel poignantly addresses the struggles of the developing working class, highlighting the workaday hardships faced by miners and the social injustices their families and friends endure.

Another major theme is the strength of family and community bonds (Peregrine, 2024). Despite the external pressures and the harsh realities of industrial life, the Morgan family and their neighbors display resilience, solidarity and a deep sense of belonging to a place; the small valley town that is called Gilfach Goch. The story celebrates the enduring power of love, community loyalty and mutual support, which help the characters cope with their adversities. It also touches on the conflicts between tradition and progress, as the younger generation grapples with changing values and opportunities. Some may consider the novel a nostalgic reflection on the beauty of the past and a critique of the relentless march of overwhelming and unnecessary industrialization that transforms, indeed malforms, both the landscape and the social fabric of the community.

In *How Green Was My Valley*, Gilfach Goch is initially depicted as a picturesque and lush valley, characterized by its verdant hills, rolling landscapes and a serene green beauty. The village is surrounded by meadows and pastures, punctuated with some slopeside-woods, in between which, flocks of sheep graze peacefully, as they have for centuries. The air above, meanwhile, is fresh and clean and the waterways below consist of clear, flowing rivers and streams, all contributing to the idyllic healthy rural setting.

However, as the story progresses, this landscape undergoes significant changes due to the coal mining industry. The once green and fertile valley becomes scarred by the blackened slag heaps and toxin-laden industrial waste, reflecting the environmental degradation caused by mining. The air grows thick with coal dust and the natural beauty of the valley is injured and damaged by the presence of mines and machinery. This transformation of the physical landscape mirrors the social and economic changes affecting the community, highlighting the unfair costs of industrial progress.

Processing *How Green Was My Valley* through the Literary Method of Urban Design, a future can be outlined for Gilfach Goch that both looks back to its pre-industrial past and forward to Wales' continued move into environmental consciousness and eco-friendliness (and concomitant investment in 'Green' energy and sustainable transport). Future Gilfach Goch, see Figure 2, embraces and resurrects the town's historical rural feel whilst transitioning to be a 'sustainable village' (on such villages, Calthorpe, 2011; Greenfield, 2023). The town prioritizes green energy by installing small-scale hydro-power systems, complete with re-chargeable 'water batteries', whose newly created ponds can cover up the unsightly coal pit slag heaps and holes of yesteryear and which capitalize on the area's natural geography to provide tourists and weekenders with new fishing and recreational water zones.

The town's transport and communication infrastructure also undergoes a transformation to include a tramway system that replaces private car use - and which

connects Gilfach Goch with other towns of the South Wales Valleys region. Buildings, too, are retrofitted with green roofs and with woolly insulation, both reducing the need for electric-powered winter heating and summer cooling. Community gardens and urban farms also flourish, turning unused land into productive green spaces that provide fresh produce to the locals. These initiatives not only improve food security but also foster a sense of community and reconnect people with the land.



Figure 2. The future of gilfach goch as envisioned by the author - interpreted through the literary method of urban design via Richard Llewellyn's *How Green Is My Valley*

Incidentally the name of the town -- translated into English -- means something like 'Narrow Red Valley', the color a reference to the red earth still buried amongst some pristine slopes of the hills today. It is from this red clay that bricks can be fashioned in a sustainable way to make up Gilfach Goch's future architecture.

Sometimes, old waste deposits from the industrial era have complicated the ability to keep the waterways near Gilfach Goch clean in post-industrial times. For our future scenario though, water management becomes a key focus in this regard, with woodland trees keeping the precarious slopes intact, whilst rainwater harvesting systems are installed throughout the town to save on the extraction of subterranean water. The local rivers and streams are also cleaned and revitalized by narrow natural waterside wetland systems as well as being subjected to renewed community regulation of the remaining coal-era dump sites.

Education and community involvement play crucial roles in this transformation. Schools integrate environmental education into their curricula, teaching children the importance of sustainability and encouraging them to take an active role in protecting

their environment. Community workshops and events raise awareness and engage residents in sustainable practices, from recycling programs to tree-planting initiatives. Small-time sheepfarming co-ops are also set up and sheep allowed to graze again on those slopes too steep or precarious for tree-planting. The wool is then harvested and much of it is fed into the expanding Welsh trade in insulation materials, as the nation seeks to insulate every single building in the nation for sustainability reasons.

The town's economy also diversifies, moving right away forever from its historical reliance on mining. New industries, such as eco-tourism and renewable energy, create job opportunities and attract visitors to experience the beauty and “naturalness” of Gilfach Goch. Local crafts and products, including communal beer workshops and wool weaving schools, are set up, supporting small businesses and preserving cultural heritage

Overall, the future of Gilfach Goch as an ecofriendly and alternative sustainable growth town (that reflects the themes of *How Green Was My Valley*) emphasizes an attempted harmony between humans and nature, plus the resilience of the community and the importance of creating and preserving a livable built landscape for future generations. This transformation, guided by the principles of the novel unearthed by the Literary Method of Urban Design, showcases a hopeful and prosperous vision for the town's future.

4. Future Swansea as Inspired by “The Force”

In the 1933 Dylan Thomas poem, *The Force*, the opening line reads “The force that through the green fuse drives the flower”. As the poem proceeds, Thomas explores the interplay between time and life, growth and decay and formation and destruction. The poet uses vivid metaphors to convey how all existence is bound by some invisible universal driving force. The exact identity of the “Force” is not named but can be interpreted in multiple ways. For instance, it could be interpreted as:

1. *Time*: The force has often been held to be a poem about time (Tindall, 1962; Gadby, 2013), how this truly magical but very physical feature of the universe allows creatures and landscapes to unfold into vital forms before pressing them into decay and disintegration. Thus, *The Force* highlights the cycle of life and death.

2. *Nature and Vital Energy*: The force can be seen as the vital energy of nature, the life force that drives growth and change in the natural world (Gadby, 2013). This is suggested by images of flowers blooming and trees growing.

3. *Creative Power*: Another interpretation is the creative power inherent in all living things (Lahey, 1993), a force that drives creation and transformation.

4. *Internal Passion*: It might also represent an internal drive within individuals, whether human or non-human (Gadby, 2013); an unstoppable energy that shapes our lives and actions, about which we are perhaps only half-aware.

Dylan Thomas doesn't name a geographical setting in *The Force*, but he wrote it whilst a young man who'd spent his whole life till then in Swansea. Therefore, we will use *The Force* to look into the future of Thomas' own town. In envisioning the future of Swansea via the themes in *The Force*, we might emphasize the elemental power of natural energies and the supposed profound connection there is between humanity and the natural world, particularly in that both nature and humanity can rejoice in the rewards that the passage of time might offer, but also the profound losses and challenges each creature must endure as well.

In this scenario of a future, created through the Literary Method of Urban Design via Thomas' *The Force*, Swansea embraces a variety of natural forces; most notably botanical electricity (that is, the electricity made by living plants) and also the physical energies of river flow and the nightly sea breeze blowing in from the Bristol Channel. About the former, like most lifeforms, plants produce electricity as they grow. Though quite tiny, this electricity can still be harvested and used if Swansea's citizens can adjust their energy consumption by converting every single electrically powered device to run on super-low voltage. If this can be achieved, then some significant part of the Swansea cityscape can be transformed - the current brownfield zones near the river Neath around the Swansea Golf Club for example.

This transformation will utilize the benevolent force of time, as well, gradually and slowly turning the River Neath parts of Swansea into a zone of supreme eco-friendliness and urban biodiversity as the woodlands grow to produce both energy and also produce through-ways like wood footbridges, elevated cycleways and low-energy ferries (Figure 3). Green corridors along these living bridges, grown from the electricity-making trees, are created throughout east Swansea, too, connecting public parks, private gardens and regional nature reserves, encouraging wildlife to thrive even within the urban environment.



Figure 3. The future of swansea as envisioned by the author - interpreted through the literary method of urban design via Dylan Thomas' *The Force*

The inhabitants of the wider city and its peri-urban surrounds also set about harnessing wind energy through strategically placed wind catchments along its coastline and hills, while tidal energy systems are installed in the bay to capture the rhythmic power of the sea. These renewable energy sources provide clean, sustainable power to the city, reducing reliance on fossil fuels and lowering carbon emissions (Thompson, 2003).

In reality, this suburban Neath River area of Swansea is currently at risk of being bought-up and transformed into an industrial park combined with luxury residential land. Perhaps the industrial park can house clean technology factories and perhaps the luxury housing can be sustainably managed, but more likely both or either will develop along lines not so green and be something quite environmentally sinister, where pollutants are released into the atmosphere and the land is paved over with impervious concrete so water washes off as a polluted floodwater every time it rains. However, here, inspired by *The Force*, future Swansea takes another path at the behest of its vocal residents.

Indeed, people energy and community involvement is a key aspect of Swansea's biodiverse energy efforts. Educational programs in schools and local organizations focus on teaching the arboricultural skills needed to harness electricity from trees and by educating residents about the value of living in an attempted harmony with nature. Community arboretums also flourish, providing local produce and fostering a sense of community and shared responsibility for the energy production and the environment.

In this eco-friendly future, Swansea embodies the themes of *The Force* by channeling the natural world's raw power into sustainable progress. The city's transformation showcases a harmonious balance between human ingenuity and the relentless energies of nature, creating a resilient and vibrant urban environment that thrives in harmony with the planet.

Inspired by Dylan Thomas' poem, *The Force*, Swansea's urban planners and architects might adopt a design philosophy that mirrors the poem's themes of nature's relentless power and human creativity. The suspension bridge in the image evokes the dynamic tension between natural forces and human engineering. The bridge then could be a literal and symbolic link between different parts of the city, spanning over natural waterways and forested areas while incorporating sustainable materials and renewable energy sources to power its illumination and facilities. Architects could design this future Swansea with a nod to tree-like verticality, bringing nature into urban settings through elevated gardens, forested towers and green bridges, allowing nature to shape the city as much as human hands.

5. Summary and Discussion

Above, it has been shown that a set of futuristic case studies can, via scenario art, emerge by applying Welsh literature (through the Literary Method of Urban Design) to three Welsh urban settings. This involved a future Dinas Mawddwy inspired by Alan Garner's *The Owl Service*, a future Gilfach Goch inspired by Richard Llewellyn's *How Green Was My Valley* and a future Swansea inspired by Dylan Thomas' *The Force*.

The emergent scenario for Dinas Mawddwy is influenced by the tension in *The Owl Service* between forests and meadows. The future vision transforms the meadows surrounding the town into wild woodlands, reflecting the cultural and economic shift from sheep farming to wilderness farming. Owls, once regarded with suspicion, become celebrated as symbols of a vibrant woodland ecosystem.

For Gilfach Goch, inspired by *How Green Was My Valley*, the future scenario envisions the town as an eco-friendly and sustainable community. The novel's themes of industrialization, environmental degradation and community resilience guide the transformation. The town prioritizes green energy, retrofits buildings with woolly insulation for energy efficiency and fosters community gardens and urban farms. Water

management systems and educational programs emphasize sustainability, while the economy shifts towards green industries and eco-tourism.

The future vision for Swansea, inspired by Dylan Thomas' *The Force*, centers on harnessing natural forces to create a sustainable urban environment. The city integrates renewable energy sources like bio-electricity, wind, tidal and solar power, to revitalize old green spaces, whilst adopting eco-friendly infrastructure.

At this point we can also reiterate that if one is a follower of the urban form theories of Alexander (1977) or Mehaffy (2015), one is free to imagine that these versions of future Welsh urban settings will form organically through bottom-up processes as Alexander or Mehaffy suggest. However, equally, if one is of the opinion that urban developments (in the past, nowadays or in the future) necessarily follow certain visions, plans or regulations laid out by various experts and authorities for various reasons (though in some form of partnership with the actual citizens) then it is equally possible to imagine these literary-inspired urban futures as emerging in this manner. What this means is that for those readers worried that the graphic visions presented above are exercises in stodgy top-down Utopian planning, I have to point out that these worries are probably misplaced. If cities -- as supposedly organic forms -- develop primarily via spontaneous assemblage and growth or a mix of spontaneous growth and structured oversight, then these Welsh urban Visions presented above might come about by either of these processes.

Moreover, as 'design fictions' the scenarios artworks presented above offer potential forecasts of urban life, not hard-and-fast' design manifestos. These projections reflect possibilities rather than prescriptions, acknowledging that the urban form will emerge from a complex interplay of a million various factors, both planned and unplanned.

However, the use of the Literary Method in these three case studies might well prompt questions about the efficacy of fiction (and design fictions) in shaping real-world scenarios. While design fictions offer valuable perspectives, their speculative nature may limit their applicability in practical planning. Balancing imaginative foresight with empirical data and grounded strategies might be the way forward to ensure that the envisioned futures are either feasible, desirable and/or effective. Additionally, the ethical implications of using literary narratives in urban design merit further exploration, particularly concerning whose stories are told and whose perspectives are prioritized and how citizen stakeholders around the world might reference their own local literature as they seek to forecast the future of their own city. In light of this, we might question -- in a general/global manner -- the current stories and narratives of various towns and cities around the world, including their branding efforts and see if the Literary Method of Urban Design might be a good way to both deconstruct and compete with these. This perhaps positions the Literary Method of Urban Design less as a process of urban design and more of an artistic intervention to provide provocative social commentary on the futures that are being proffered and projected by differing actors.

Those readers hoping the Literary Method of Urban Design might offer more than provocation, though, are liable to ask 'how does the method instruct urbanists about how to create the city's it imagines?'. As well as the pathways outlined above, let me provide a few more hints for each urban setting displayed above. For example, with regard to Dinas Mawddwy, reviewing it via *The Owl Service* offers urban designers the chance to devote themselves to working out the 'social infrastructure' of the future

town. For instance, by using literature to tap into the embodied memories and cultural narratives of a place, urbanists might think of ways to foster a sense of community cohesion and belonging. In Dinas Mawddwy, this could involve creating spaces where local stories and traditions are physically integrated into the landscape - through public art or via new civic gathering spaces that reflect local myths or through events that celebrate local Welsh mountain heritage. As well, the ancient Legend that runs through the novel -- especially as re-imagined in late 1960s Wales -- suggests that the issues of equality between the genders must be addressed to enable a more equitable use of the landscape. The novel does not really offer up a moral reflection of the inequality between the sexes so much as making a warning that these issues are only going to get stronger in the future and anyone involved in urban design who ignores them does so at their town's peril. Thusly, even if technocratic patriarchs' try to slow down the fair sharing of the urban landscape - and its associated infrastructure -- in and around the town as the rest of the 21st century unfolds, they will eventually be pushed by feminists to distribute it toward more fair and open usage. Such would probably promote more pronounced shared experiences and build strong community ties, helping to reinforce living standards for all by creating public areas that are deeply connected to the needs and desires of everybody concerned; including the town's women, girls, mothers, caretakers, guardians and families.

The Dinas Mawddwy case study also emphasizes the importance of 'ecological infrastructure' by intertwining it with historical memory. For Dinas Mawddwy, this could mean urbanists look to reconnecting the town to its natural environment by promoting rewilding projects and designing green spaces that reference the region's past relationship with the land. For example, restoring woodlands and reviving traditional agricultural methods would not only improve local biodiversity but also preserve the landscape's historical role in the community's livelihood. In doing so, urban designers ensure that the natural environment remains a living element of the town's identity, providing both ecological benefits and a continuous link to the past. This dual focus on ecological health and cultural memory forms the backbone of a sustainable, resilient future for Dinas Mawddwy.

In the second case study, this vision for future of Gilfach Goch -- as inspired by *How Green is My Valley* -- suggests a number of ways to develop the town involving landscape restoration, de-pollution, planting native trees and restoring rivers to a pristine condition. The introduction of public transport systems, such as electric trams, serves not only as a practical solution for reducing future atmospheric pollution but also as a symbol of sustainable progress, ensuring that modern infrastructure complements the transport needs, natural beauty and ecological health of the valley.

Socially, the future of Gilfach Goch can be shaped by fostering a renewed sense of community and place, values central within *How Green Was My Valley*. The novel's depiction of tightly-knit communities, where individuals work together via mutual aid to improve their shared environment, offers a model for increasing the self-organization of social care and civic amenities. By the end of the century, Gilfach Goch could be a place where community spaces, cooperative shops and local crafts thrive alongside sustainable industries. The preservation of historical memory - both in architecture and in community gatherings - ensures that the town's industrial past is honored while moving toward a greener, socially inclusive future. The buildings in this vision reflect a blend of historical character with modern sustainability, creating a living narrative that bridges the old and the new, much like the novel's themes of change and resilience.

Whilst the ideas of mutual aid and self-organization mentioned just above seem to concur with those of Alexander (2002) and Mehaffy (2015) mentioned previously, it is also important to point out that the (very realistic) portrayal of an ecologically-polluted, socially-fragmented, dystopian Gilfach Goch in *How Green Is My Valley* emerged from a real world town that can also be classed as having grown ‘organically’ (by the interplay of innate social forces without much oversight by top-down regulation). The private coal-mine owners of yesteryear in Gilfach Goch and many South Wales coal towns like it, were the enterprises that plotted out where they needed their mines and how and to where the coal had to be transported. The locals and domestic immigrant workers then just had to adjust to whatever the coalmine owners decided, with little power to resist. Even so, the workers tried to self-fund community and civic operations as best they could on their collective low salaries. This rather undermines the value of self-organization as an inherently useful or humane way to interpret and pursue urban forms. Added to this, history points out that it was only when the South Wales Valley workers and their unions were able to transform their community organizations into political power - and elect Britain’s first Labour government - were the citizens of Gilfach Goch able to stand on a par with the unregulated coal entrepreneurs as they strove to improve their standard of living, their town’s infrastructure and their urban environment.

Regarding the third case study, the vision for the future of Swansea, inspired by Dylan Thomas' poem *The Force*, can be achieved by embracing natural energies and fostering a deep connection between the city and riverways and riverway vegetation. Urban planners and architects can start by reimagining Swansea’s energy infrastructure to harness botanical electricity, river flow and sea breezes. By converting the city’s energy consumption to run on low voltage from plant-generated electricity, significant areas, such as the brownfield zones near the River Neath, can be transformed into eco-friendly, biodiverse urban spaces. This would include integrating woodlands into the city to create living footbridges, elevated cycleways and low-energy ferries, offering green corridors that connect parks, gardens and nature reserves. This eco-friendly approach will allow urban wildlife to thrive within a cityscape that respects and works in harmony with natural forces.

Architects can further ensure the city aligns with the themes of Thomas’ poem by embedding wind and tidal energy systems into the coastal and peri-urban regions. Strategically placed wind catchments and tidal power installations in Swansea Bay can provide clean energy while reducing carbon emissions. The vision also calls for strong community involvement, with educational programs teaching residents how to harness plant-based electricity and foster sustainable living. By prioritizing green energy, community spaces like arboretums and the careful integration of nature into urban design, Swansea will embody the unstoppable energy of nature-just as Thomas’ poem reflects-creating a city that thrives on the balance between human innovation and the natural world’s vitality.

In summary, then, maybe the case studies presented in this article demonstrate the versatility of the Literary Method of Urban Design, applying it to diverse contexts and themes. Each scenario reflects a deep engagement with an -- as yet -- untapped source of wisdom regarding their urban futures. This approach not only provides practical insights for sustainable development but also enriches the cultural and aesthetic aspects of urban life. From the above-listed scenarios, we can conclude the Literary Method of Urban Design presents a creative, reflective view of the future and one which serves

either as inspiration for individuals pressing forward to Green their urban environs or as a potential urban planning tool. As well - and most potently, it may serve as an educational tool which, by blending art and design with literature, futurity and social issues, can formulate scenarios that provoke concern and debate for the ongoing evolution of our cities in the advancing Anthropocene. By drawing on literary narratives, this method captures the complexity of human behavior and the (mostly hidden or ignored) dynamic interactions and agents of change that shape urban social structures. It encourages planners to think beyond functional design, fostering imaginative, playful, joyous and innovative solutions that consider cultural and social dimensions.

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