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Leaping Through the Momentum of Decline, A Small-Town Planning Initiative

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Leaping through the Momentum of Decline, A Small-Town Planning Initiative

by

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Report

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Dedication

This is dedicated to those places, those towns, those dreams that died without fulfillment of the hope that ignited their beginning.

It is also dedicated to the individuals who selflessly work for the betterment of their community, day after day, year after year.

And it is dedicated to the community of Sierra Blanca.

Lastly, it is dedicated it to Kent Butler.

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Also, thanks to my readers, Michael Oden and Katherine Lieberknecht for helping me fit this square peg of an idea into the round hole of academic compliance. Without your help, this report would be a mishmash of speculations and wanderings without a structure and a true understanding of the nature of the small-town decline. Your attention to this caused a transformation in me not unlike the one proposed in this report and it resulted in this report I feel we made together. Our efforts may help many towns. I am proud of the report and I hope you are too. Thank you both.

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Abstract

Leaping through the Momentum of Decline,

A Small-Town Planning Initiative

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The University of Texas at Austin, 2020

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The report addresses the question: "How can a town that has experienced decades of decline stop that momentum through internal actions and activities"? The question is addressed with literature review of causes of rural decline. A discussion is also included on reasons to save declining places. Research on the extent of declining towns in Texas is presented as well as literature review on the extent of rural depopulation within the United States. Best practices and resources available to rural Texas towns are presented. The philosophy of permaculture is submitted as a discipline a town should adopt for town systems, including eight types of capital that may be present within a town. Systems thinking is presented as an organizational development tool for town revival with the idea that personal self-improvement and an internal transformation of community members is how to address the decline. Sierra Blanca,

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Texas is woven through the narrative to provide examples and context. Recommended

practices the town could adopt and a perspective labeled as Leap Town are offered as a lens a town can use to structure their own vision for revival. It is based upon the idea that a town would leapfrog to the 22nd-century in their thinking and actions. Sierra Blanca is also discussed as an example where a recovery center is helping to effect change by bringing manpower, potential future residents, and a presence of hope to the community.

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Chapter 1: Introduction

"For whosoever hath, to him shall be given, and he shall have more abundance: but whosoever hath not, from him shall be taken away even that he hath." The Book of Matthew 13:12, The Bible, King James Version

The above passage came to mind the first time I ventured into Sierra Blanca, Texas to see if it offered an opportunity for a residential land development. In a note to the reader, I am not a practitioner of organized religion, but I attempt to live a spiritual life. I spent most of my life in a search for an answer to why we are here, and an understanding of what our lives are supposed to be about. I find answers in the Bible, in other religion's books, and in fiction writings. I also find answers through just experiencing life. I am still learning, as answers prompt more questions.

That passage and its meaning caused me to begin altering my life 13 years earlier. I was reading *The Lost Teachings of Jesus*, by Mark and Claire Prophet, where they explain that in this New Testament Bible verse, Jesus was referring to the concept of momentum. It explained that we have momentums in our lives and those momentums bring about more of the same. Positive momentums bring more positive results, and negative momentums bring more negative results (Prophet & Prophet, 1986). At the time I read this, it helped me realize I was on a momentum towards death by alcoholism. Even though friends and loved ones told me I should stop, even though I intellectually knew I should stop, the explanation of this passage is what finally reached me.

With 13 years behind me of having stopped that momentum, and reversing it, I found myself driving into Sierra Blanca to fulfill a request from a friend to come visit him and a local community leader to discuss land development and home building possibilities in the town.

That visit was the beginning of this professional report causing the question to be asked: "How can a town that has experienced decades of decline stop that momentum through internal actions and activities?" This is an important question because there are hundreds of towns in Texas, and thousands across the country that find themselves in a state of decline. For some towns, the decline seems perpetual. Some describe these towns as places that were left behind, which establishes the equity issues and needs of small rural towns. They typically have higher rates of poverty, substandard housing, limited access to health care, an aging population, and limited access to broadband communication. In Texas alone, 2.6 million people live in a rural environment.

My friend had checked himself in three months earlier to Ranch on the Rock, a free, faith-based addiction recovery center located in Sierra Blanca.

Sierra Blanca was founded in 1881, as the location where the eastbound and westbound tracks of the country's second transcontinental railroad met. It reached a population of almost 900 in the 1960s and began a slow decline to 553 in 2010 (Kohout, 2010).



Map 1: The location of Sierra Blanca. Source: https://www.idcide.com/citydata/tx/sierra-blanca.htm

I had driven past Sierra Blanca on I-10 many times on trips between El Paso and Austin and had stopped for gas once or twice, but I had never looked at the town from a development perspective. What I saw on this trip was not a place where a homebuilder might want to invest time and money in trying to start a new home operation. The town was grown up in weeds, there were numerous dilapidated structures in various

states of decay, very few businesses in operation, and numerous vacant houses and commercial structures.

I had to explain to the community leader that his community does not give the appearance of a place someone might want to invest in. As we drove around, I could point to numerous examples of why. I had done a little research on the population trends of Sierra Blanca and explained that the town had been in decline for over 50 years. Continual population loss, business closings, declining enrollment in the schools, are all indicators of a town heading in the wrong direction (Wuthnow, 2019).

Even though I knew those things about Sierra Blanca before I went, the real type of development potential I went to see was if the town could revive itself around new, future-oriented economic activities. My friend and I had a common interest in permaculture, and our phone conversations before my visit had surfaced the idea that this dying town could be made into the "Permaculture Capital of North America". This application of permaculture would not only be in food production but the use of the principles and ethics of permaculture in all community operations and activities.

The initial concept was that Sierra Blanca could begin growing food and exporting it to El Paso as a cash crop to bring money into the town. Residents would be trained to grow food for themselves and to sell their excess production to supplement their income. Others would get into the organic food production business, producing meats, poultries, eggs, and dairy products. All of the buildings supporting these activities would be off of the grid using methane generation, solar, and wind for power. People could live there without having to own a car and new street standards would facilitate walking or small electric vehicles. Traffic would be lured from the busy Interstate highway to support locally started businesses. Sierra Blanca would be promoted as a place for people to move to. A place where they could slow down and simplify and could live more affordably and healthier, and where someone on Social Security could

be a middle-class citizen. It could be a place that became an example of an alternative to the intensive consumerism that society is based upon.

As we drove around town with the community leader, we discussed these ideas. He didn't get it. He was still thinking that someone ought to start a new subdivision, even though the town has hundreds of vacant lots. He was thinking they could put a

nice rock wall around the new development like they do in El Paso and people would retire there. While he was still thinking conventionally, I was thinking that yes, this town could be made into an alternative town. It could be a 22nd-century town. And if we could do it there, we could do it in other declining small towns.



Photo 1: El Paso Street in Sierra Blanca. Source: Scott Winton

THE QUESTION

That was the beginning of a visualization of how the momentum of decline in a town is not unlike the momentum of the decline of an addict. Both momentums can lead to death. Sometimes quickly, sometimes slowly, but if that momentum is not stopped, each will not survive. The question then became, if an addict can recover, can a town? Is it possible that a recovery plan for addiction can be applied as a method of recovery for a town? Is it possible a shared program of recovery could be developed that helps the town and the addict? Even though the addict and the town got on the path of decline through completely different, unrelated means, each needs a program tailored specifically to their particular circumstances to maintain a successful recovery. The analogy of recovery for both a town and an addict is made only because they share the same momentum, regardless of what put them there. The ingredients required for a

successful recovery process for both are the same; hope and an internal transformation. I will try to address these issues in this report, but the true question to be answered with this report is "What can a town do to stop their momentum of decline?" The report will discuss systemic methods a town can employ to combat the decades of decline

This involvement with Sierra Blanca helped me realize that a purposeful pursuit of promoting alternatives to many towns could be the way to spend the remaining productive years I may have. It is a worthy pursuit to help towns. There is certainly a need as there are hundreds of dying towns. Offering alternatives that might further social and environmental improvements in ways towns and cities can occupy the land can be a purposeful pursuit. I would be using all of my skills, education, and experiences to help others, which is why I was given them in the first place.

THE PURPOSE

As I became more involved with the Sierra Blanca community, I began to feel as if I was being pulled towards something that was greater than myself and I adopted a sense of purpose towards helping make it real. Maybe I identify with declining momentums as a survivor of one, but the towns I see helping are those that are in a state of hopelessness. They have had decades of decline, and there seems to be no way, and in some instances, no reason, to turn them around. I learned there are many names for what is occurring in rural areas. Some call them shrinking economies, some call the force occurring as depopulation. Others describe the communities as places left behind. I use the term declining places.

This pulling caused me to re-enroll in, at 62 years of age, a master's degree program in community and regional planning I had started decades earlier. I needed to gain credibility with a master's degree in planning, an AICP certification, and a credible report on how a declining town might stop their momentum of decline. The original report envisioned would show how the adoption of a recovery center is a way to

systemically alter that momentum. Quite simply, the recovery center would bring manpower to help with physical work needs in town, a knowledge of permaculture and systems thinking, a consistency that can survive political winds, and a sense of hope. I was short-sighted; I now know the adoption of the recovery center is but one tool of many in the toolbox of practices to help alter the momentum of decline. I also accept that most towns would not want to hear that their problems can be solved by inviting addicts, reformed convicts, or traumatized soldiers into their town. While it might be true that these populations operating under a directed purpose of shared recovery could make dramatic changes in a town, the town needs many more options to explore than just recovery centers as a solution. What towns need is motivation to change their trajectories. They need to first decide that they want to stop dying.

THIS REPORT

If you are reading this report and are not associated with academia, there is a good chance you are connected to a declining town. It is residents of small towns that I see as the most important audience for this work. The lessons in the report will hopefully apply to a number of declining, vulnerable small towns. As part of this effort, I intend to distribute the report to small-town leaders and see what kind of interest there may be for saving their town.

In Chapter 2, reasons to save declining towns are reviewed and analyzed. The idea of permaculture and systems thinking is introduced as a possible solution to the decline. It is important to note that, while permaculture is traditionally viewed as an agricultural activity, for the purposes of this report, it is considered to be a design philosophy, not an agriculture production method. Chapter 2 also offers a literature review of the larger forces that contributed to the decline of towns, highlighting a Brookings Institute article and a book by Stephen Wheeler about sustainability.

Chapter 3 is additional literature review related to small-town decline and it delves into the implications of the decline that occurs in small towns and the best practices that are currently used to combat it. The chapter also introduces a book by Toby Hemenway about permaculture and cities. Chapter 4 is a detailing of the tools available in Texas for rural economic development.

Chapter 5 describes permaculture as a philosophy and design methodology and how it can be used as a tool to help stop the momentum of decline. The Chapter draws from Toby Hemenway and his book *The Permaculture City: Regenerative Design for Urban, Suburban, and Town Resilience* published in 2015. Hemenway describes Bill Mollison and David Holmgren developing the philosophy in 1972 as an articulation of a sustainable food production method (Hemenway, 2015). They recognized the interdependencies within nature and developed what is now a design philosophy. When the term was originally coined, it meant "permanent agriculture", but as it has evolved it has assumed a meaning of "permanent culture" (Hemenway, 2015).

Chapter 6 uses Peter Senge's book, *The Fifth Discipline: The Art and Practice of the Learning Organization* to discuss systems thinking and how the ability for a town to change or achieve a vision is a function of the capacity of the individuals in the town and their ability to work together towards a common vision. Systems thinking is a philosophy included in the discipline of permaculture, where operations are viewed based on their interdependence, with a focus on finding leverage places where one action could positively affect many outcomes. Combining the recovery of a town with the recovery of addicts is an example of leverage as an application of systems thinking. Systems thinking recognizes that the ability of an organization, or town, to adapt to change, is dependent upon the ability of its members to adapt to change.

Chapter 7 provides examples of how a town can apply systems thinking and permaculture practices to various opportunities within the town and uses Sierra Blanca for examples. Chapter 8 discusses in detail the relationship that can exist between a

town and a recovery center in mutually beneficial ways. Chapter 9, the conclusion is a reflection of the previous chapters and offers additional things to consider in small-town economic development.

One of the most fulfilling paths available to humans is community building. If you approach it right, you will make new friends, you will learn a lot, you will grow, and you will see rewarding results in your efforts. You will also have difficulties, failures, and disappointments. But as you grow, you will develop an optimistic resiliency that allows you to react positively, with always the main goal in mind of helping make sure your town lives into the future.

Chapter 2: Learning is the Journey

The planning profession emerged during the early 20th century reform period when cities were unhealthy places to live, morally, and physically. City planning and development has been evolving ever since. A more recent emphasis in planning for the last 20 years has been on sustainable development (Wheeler, 2013).

According to Stephen Wheeler, a professor at the University of California at Davis, and the author of *Planning for Sustainability*, sustainable city programs emerged in the late 1980s and early 1990s in a few pioneering locations. He explains that the term was first coined in 1972 by "Donella Meadows and other authors of *The Limits to Growth*, and by Edward Goldsmith and the other British authors of *Blueprint for Survival* in that same year. Once in use, the term became one of those inevitable expressions that so neatly encapsulates what many people are thinking that it quickly becomes ubiquitous" (Wheeler, 2013, p. 25).

Sustainability deals with the fundamental relationship Western culture has with the environment. Wheeler explains many definitions have surfaced over the years but from his perspective, the one he prefers is "Sustainable development is development that improves the long-term health of human and ecological systems" (Wheeler, 2013, p. 30).

Wheeler further explains that sustainability in the modern world is an ecological view that weaves physics, ecology, psychology, and spirituality together into an awareness that requires ethical actions in this complex, interconnected, and interdependent world. Sustainability is a value of "sustaining and nurturing of life on the planet" (Wheeler, 2013).

Resiliency is another term requiring a definition and contextual reference. A generally accepted definition is the ability to bounce back. Websters defines it as: "an ability to recover from or adjust easily to adversity or change" (Merriam-Webster, n.d.). Resiliency planning in community planning is typically more concerned with

climate change and preparing for the consequences of changing weather patterns and extremes. It also deals with natural and manmade disasters such as earthquakes, hurricanes, wildfires and the ability for communities to respond to those events. Individuals also have resiliency. Some people can deal with change and adversity better than others. There are resiliency training and conditioning exercises that can be used to strengthen resilience in individuals.

Permaculture is a philosophy that encompasses sustainability, resiliency, and human empowerment. The overarching framework in permaculture is systems thinking. The values, or ethics, associated with permaculture that actions can be tested against are care for the earth, care for people, and a commitment to re-invest a surplus back into both (Hemenway, 2015).

Market Failures

A fundamental fact about towns and cities in the United States is that development is driven by the private sector. Cities may regulate the process, but the initiation of projects comes from developers meeting demands from residential, commercial, or industrial activity. Local governments respond to the results and the community needs created as a result of that development. This market-driven, privately initiated, publicly supported system has produced some of the most beautiful and livable cities in the world. But it has also produced some of the worst living conditions for people and destroyed habitat and ecosystems and caused species extinction (Wheeler, 2013). There is decisive evidence that climate change is real and sea levels are rising (Wheeler, 2013). There is no doubt our activities affect planet temperatures (Wheeler, 2013). Planning under the sustainability rubric has been forced to focus on changing our cities and activities to minimize our contribution to climate change. By many estimates, 50% of the energy we consume in the US is in the construction and operation of buildings. It is possible to build net-zero energy buildings using

regenerative design principles, thereby reducing our energy demand (Garrison, 2019). Some predict we have a 35-year window to alter how we capture and use energy before we have irreversibly altered the atmospheric temperatures and the human life support capabilities of the planet (Garrison, 2019).

Addressing wealth disparities and their effects is also a crucial aspect of advancing sustainable development. Washington Equity reports that "Wealth disparities have widened over time. In 1989, the bottom 90 percent of the U.S. population held 33 percent of all wealth. By 2016, the bottom 90 percent of the population held only 23 percent of the wealth" (Leiserson, McGrew, & Kopparam, 2019, para. 4). The authors continue with: "The wealth share of the top 1 percent increased from about 30 percent to about 40 percent over the same period" (Leiserson, McGrew, & Kopparam, 2019, para. 4).

Our society has major issues of wealth allocations which must be addressed to tackle environmental degradation.

The IC^2 Institute, a research organization at the University of Texas, has an initiative that focuses on rural economic development in Texas. They are funding research, sponsoring internships for undergraduates to spend a summer in their home town to see if they could consider returning home after graduation, and conducting a student challenge for an economic development issue in small towns. It was gratifying to see that my focus was shared by others. It was a reminder too that if a person is thinking about something, there is a good chance someone else also is. We are all connected in ways we do not yet fully understand (McTaggart, 2008). But if others are thinking about this issue, then there are opportunities to make a difference.

The request for proposals the institute used to solicit research grant applications explained the importance of understanding the dynamics of rural Texas. There is an economic and opportunity gap between the urban areas and the rural communities. That gap has widened since the 2008-2009 recession, from which many rural areas have

not recovered. Per capita income is \$3,000 less in the 191 rural counties of Texas. Most rural communities support a small cluster of industries and are usually dominated by a single sector, leaving the community vulnerable to individual company decisions, or global actions that could threaten the industry. The new economy of technology innovation will widen the gap and new models are required for rural communities to thrive (Pogue, 2019). ¹

WHAT OTHERS SAY

Clara Hendrickson, Mark Muro, and William A. Galston wrote an article in November of 2018 for the Brookings Institution titled *Strategies for Left Behind Places*, in which they tell us that the 2016 election exposed an economic gap between the urban areas and rural America. When considering what to do to alter the momentum of divergence to reduce that gap, there are a number of choices (Hendrickson, Muro, & Galston, 2018).

In their introduction, they explain that old ways of thinking must be discarded. One of the old ways of thinking is the belief that economic development efforts can only be place-based or people-based. That must be discarded in favor of the idea they can be both. The false assumption that place sensitive policies will come at the expense of economic efficiency must also be removed. The idea that the benefits from investment in rural economic development do not justify the costs must be discarded because the community eventually pays through increased health care and disability costs, and drug abuse programs (Hendrickson, Muro, & Galston, 2018).

¹ I was a member of a team that competed in the Student Challenge that was sponsored by the IC^2 Institute. Our team chose Menard, Texas, with 1,400 people as our town to study. We captured second place in the competition even though we were the smallest town entered. The strategy recommended for Menard was based upon existing community conditions and the community responses to a survey that had been prepared by the Institute. The recommendation was a three-pronged approach that recommended the community invest in people, rebuild its infrastructure, and to develop an export industry. The community leaders who were involved felt the recommendation was exactly what the town needed.

They also argue that neglecting the establishment of policies on the assumption that market forces will bring about the proper change is wrong because the forces are so strong the "Great Divergence", what they call the economic gap between rural and urban areas, will continue to limit millions of rural Americans (Hendrickson, Muro, & Galston, 2018).

The authors continue that for most of the 20th century, it was believed that as the nation experienced economic prosperity, the disparities of rural and urban America would dissipate. But globalization and technological change have weakened the dynamics that favored regional convergence. Now prosperity is accumulating in a few select cities (Hendrickson, Muro, & Galston, 2018).

They add that with the '80s came a series of deregulations that negatively impacted the ability for regionalization and its economic prosperity spilling over into the countryside. Globalization and the movement of manufacturing to foreign markets caused factories to close, many in small towns, and limited any new investment in others. Deregulation of transportation, such as airline deregulation causing services to decline to smaller markets. Deregulation of banking hurt small community banks and shifting away from vigorous antitrust enforcement has hurt local employers in competing for labor. Land use regulations have increased housing costs in cities which keeps less-skilled workers from being able to locate there, adding to the divergence (Hendrickson, Muro, & Galston, 2018).

The authors recommend a place-oriented approach to reduce the divide by giving local communities access to the assets and conditions needed to raise themselves. This includes providing training and education, providing access to capital, and improving broadband connectivity to the rural areas. This could allow a rural resident to compete with an urban dweller for those jobs that are not location dependent but can be accessed through the internet. They also recommend a people-oriented approach with policies that encourage greater geographical mobility and

alternative wealth-building opportunities than just homeownership (Hendrickson, Muro, & Galston, 2018).

Those recommendations help justify the basis of what is proposed in this report.

In a journal publication of 2010 for the Agricultural and Applied Economics Association an article titled *A Century of Research on Rural Development and Regional Issues*, Elena G. Irwin, Andrew M. Isserman, Maureen Kilkenny, and Mark D. Partridge provides a history of the changes experienced in rural North America (Irwin, Isserman, Kilkenny, & Partdridge, 2010).

The authors offer a perspective that the shifts of rural population and employment reflect the national economy with a decline in total farm and manufacturing sectors resulting in diverse local economies.

Today, rural areas are exceedingly diverse in terms of economic activity and employment. Farming (6%), mining, forestry, and fishing (<2%), and manufacturing (11%) provide about one-fifth of nonmetropolitan jobs. Two-fifths are typical town functions: retail trade (12%), health care and social services, (9%), accommodation and food services (7%), professional and technical services (3%), finance and insurance (3%), real estate and rental/leasing (3%), and wholesale trade (3%). Local government (10%) and state and federal government (6%) add another sixth. The balance comprises construction (7%), transportation and warehousing (3%), and miscellaneous services (15%) (Irwin, Isserman, Kilkenny, & Partdridge, 2010, p. 524).

The authors offer seven lessons to be learned as a result of the last century of research.

Lesson 1, the rural economy is no longer a farm economy.

Lesson 2, there is a strong interdependence between urban and rural places Lesson 3, Ever since WWII, migration flows are a function of amenities and quality of life differences across regions. Consumption of natural amenities has become one of the primary determinants of rural growth. Lesson 4, Sector-based policies are not efficient or effective rural development policies.

Lesson 5, Rural development is an equilibrium problem that requires equilibrium tools.

Lesson 6, Empirical models of land use and land-use change are useful in examining the outcomes and effects of land conversion policies.

Lesson 7, The local heterogeneity is important to understand in rural to urban land-use transitions (Irwin, Isserman, Kilkenny, & Partdridge, 2010, pp. 524-539).

The take away from the article is that rural areas have a double challenge: how to stay rural and yet how to prosper (Irwin, Isserman, Kilkenny, & Partdridge, 2010).

This article should be an indicator to the rural town of what the future may bring for federal and state policy on rural economic development. One is the Lesson 4, with an admission that sector-based policies do not work, which means policies may change to place-based, which will put towns in the position of proving they are worthy of investment relative to other areas. Small towns can benefit from Lessons 1, 2, and 3. The town economy is no longer a single industry; there is a deeper bond between the cities and rural areas. (It would seem that the bond increases the closer the rural town is to the urban area.) And that amenities and quality of life can be used to attract residents.

Synthesis of learning has been employed to formulate opinions regarding small declining towns. One opinion is that many small towns have not adapted well to economic and technological change and have seen their economic bases erode. Many have outlived their earlier economic functions, in most instances, through no fault of their own. The economy and transportation systems changed and they didn't. As their momentum continues, many small towns more distant from the state's growing MSAs that have experienced decades of decline may not exist 40 years from now. Or if they

do, they will have stabilized to a size that matches their remaining economic functions. Some may just become small retail stops. I also believe that the small towns that do survive into the future will have re-modeled themselves to perform new functions that match the society and economy of the future.

WHY SAVE DECLINING TOWNS?

There are specific justifications for trying to save small rural towns. One of the more important reasons is to improve the general living conditions and opportunities for 2.6 million rural Texas. In the state's rural communities, a significant share of housing is substandard, the poverty rates are above average, and access to healthcare and quality food is limited.

Another reason is the embodied energy contained in the vertical and horizontal infrastructure. Embodied energy is a concept that everything that is produced contains all of the energy it took to produce that item. For a building, we would have the energy required to harvest the timber and form it into usable wood components, the energy required to mine the materials and form the bricks, and even the energy to produce the nails. All are part of the embodied energy contained within the building. So, we would also have the embodied energy in the streets, the asphalt and concrete, and even the pipes under the street, all have an embodied energy. This has a value, and while it may be aged, it has a remaining useful life. With re-modeling and re-adapting, the buildings can be made useful while retaining the value of the embodied energy and preserving the architecture that helps give the town a sense of place.

A third reason is there is a social capital that exists in these places that probably is more resilient than in most places. In his book published in 2018, *The Left Behind, Decline and Rage in Small-Town America,* Robert Wuthnow, a professor of social science at Princeton University, explains that a national survey he conducted in the 1990s showed that residents of small towns and rural areas felt like they could count on their

neighbors for help more than a resident of a city or suburb felt they could. The rural, small-town populations have stronger bonds of community his research showed (Wuthnow, 2019). Also, due to their rural location, they have had to be more

resourceful in solving situations than those living in cities. They don't have access to a Home Depot on the corner. But the important thing is, most residents do not want their town to die (Wuthnow, 2019).

A fourth reason these places should be saved is so an alternative to the urban existence is available to those who do not wish to practice the



Photo 2: The American flag with SB Mountain in the background. Source: Scott Winton

urban lifestyle. Not everyone fits into the urban world and from a marketing perspective, there will always be a demand for a non-urban lifestyle.

The small, rural town can offer a "basket of goods" of sustainable, simpler living that cannot be found in the urban areas. For instance, most of these towns are built as a grid street pattern offering ideal connectivity and the possibility that a household could reduce their car ownership by one. Small towns can be a viable location option by providing a different physical space that has a "village" feel as part of that basket. Alternative street designs could facilitate walking or small electric vehicles. The more distinct the rural town is from the urban areas, the more they have a chance of thriving.

A fifth reason is that these places can be where alternative agriculture practices can be more readily understood and implemented as a practice. Most declining towns are old farm towns and the idea of growing things is not unique. It will be a matter of

changing what they grow, how they grow it, and how they sell it. There is also a better understanding of the cycles and forces of nature in these more rural environments. A rural lifestyle can give experiences that provide an alternative awareness of interdependencies and connections than city dwellers have.

The sixth reason these places should be saved is that for most families living in those towns, their entire net worth is tied up in their house or other real estate. If the town continues to decline, that wealth evaporates. There is also public and private debt that is at risk in these towns in the form of real estate loans and municipal, county, and school district borrowing. A reinvigoration of a local economy would create economic activity and real estate demand, allowing tax revenues to stabilize and household and public debts to be serviced.

A Systems Thinking Perspective

My observations helped develop an opinion that to revive, a town must adapt to a different economic, social, and environmental model. It must fundamentally change its thinking in how it views itself and in how it deals with problems and situations. It must find a way to become relevant in the world as it exists today, and how the world may be 20, 30, or even 80 years from now. So, if the town is going to stop its momentum of decline, it must place its sights on becoming a town of the future, not one that is based upon the old 20th century model of fossil fuel dependence, chemical-intensive agriculture, and mass consumption. A 22nd-century model is suggested here, based upon sustainability, resiliency, and regenerative practices, under the umbrella of permaculture.

The argument here is that rural towns need a systemic change to occur to alter the momentum of decline. Some say job growth is what the town needs. But lack of jobs or job growth is just a symptom of the decline, just as population loss, decreases in property valuations, and decrease in sales tax collected and closing of businesses are

also symptoms. The decline itself must be addressed. The previous narrative explains some of the historical global and national forces that facilitated the decline, but other reasons are specific to each community that facilitated the decline.

That belief developed from a realization that historically, while all of these rural towns were declining, there were also rural towns that were not. There are towns today that did not decline through that same time period even though they were compatible in population and economy and subject to the same forces and opportunities as our declining towns.² So, while there may have been locational or resource advantages, one wonders if there was not something the declining town could have done when the evidence of decline surfaced, and when it continued.

And the same question can be asked if there is not something a town can do today to alter that decline? This is a systemic problem; it requires a systemic way of addressing it. Permaculture is a system thinking application that towns can use to determine what they need to do if they are ready to stop their momentum of decline. The words of Wheeler in the Preface to his book seem appropriate in discussing the need to change can be applied to the perspective of a declining town:

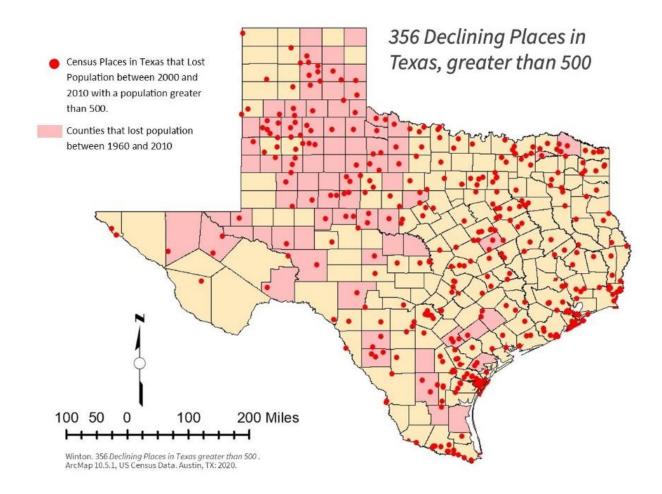
This change arises from my growing conviction that we will need to "think outside the box" to bring about sustainability. Frequently this will mean using tools such as social media, the arts, and the organizations of civil society, as well as creating small-scale demonstrations of different ways of living, building, and working. Traditional methods of social change will still be necessary as well, but they alone do not seem enough. Also, since it is also becoming increasingly clear that green technology alone can't save us from global warming and other crises, I emphasize the need for more fundamental

² Some examples are: Canton, Tx is 59 miles from Dallas and has grown from 1,114 people in 1960 to 3,581 in 2010. Brownwood, Tx is 171 miles from Dallas and 141 miles from Austin and has grown from 16,974 in 1960 to 19,228 in 2010. Lindale, Tx is 88 miles from Dallas and has grown from 1,205 people in 1960 to 4,818 in 2010. Stephenville, Tx is 109 miles from Dallas and has grown from 7,359 people in 1960 to 17,123 in 2010.

changes in social ecology, individual cognition, and lifestyle. Our current situation, in other words, is the result of a crisis of values, spirit, and social organization that reaches its most extreme manifestations in the behavior of Wall Street traders, conservative politicians, and the advertising industry, but is much more widely present within industrial cultures (Wheeler, 2013, p. preface).

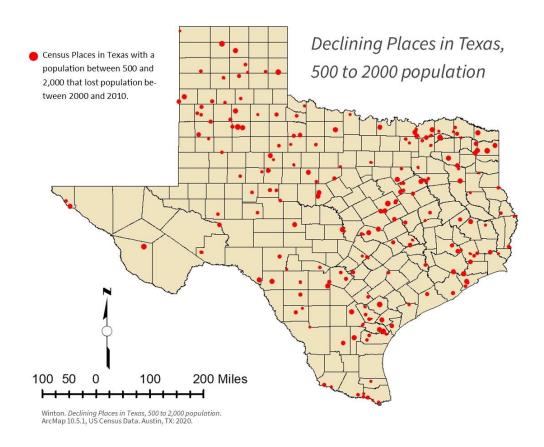
Chapter 3: Town Talk

A Geographical Information Systems (GIS) analysis was carried out and it revealed that 356 census places in Texas with a population greater than 500 lost population between 2000 and 2010. That is a large number, and they are distributed all across the state. Map 1 shows the cities and the seventy-nine counties in Texas that have lost population since 1960.



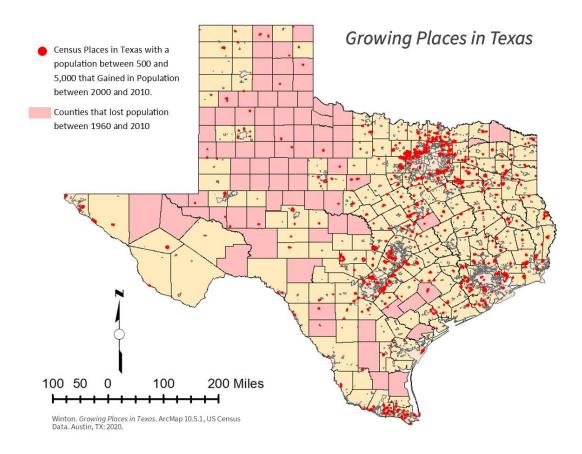
Map 2: 356 Places that lost population between 2000 and 2010 with a population greater than 500.

One hundred and eighty-nine of those places are under 2,000 population. This is an important number because that is the size town that is probably best suited to making the changes that are discussed in this report. They are small enough that they could make changes easily. Also, their size as a declining town places them closer to a bottom. The cities within this group are shown on Map 2.



Map 3: Towns outside of an MSA with a population between 500 and 2000 that lost population between 2000 and 2010.

Conversely, 459 places with a population between 500 and 5,000 gained population. These are primarily concentrated along the edges of the state's MSAs, but there are also a few distributed in rural parts of the state. See Map 3.



Map 4: Places in Texas with a population greater than 500 that grew between 2000 and 2010.

The largest city that lost population in the state was Port Arthur. It lost 3,947 people and had a 2010 population of 53,818. There is no shortage of declining places, nor is there a shortage of places in Texas that are growing.

Kenneth M. Johnson and Daniel T. Lichter wrote a 2019 article for Rural Sociology titled *Rural Depopulation: Growth and Decline Processes over the Past Century* that discloses that depopulation is unevenly distributed with the more rural areas hardest hit. Immigration from Hispanic countries has lessened since the 2008-2009 Recession reducing a source of rural population growth as well. Natural decreases in births over deaths and net outmigration work together towards depopulation. Young

people leave behind an aging population unable to replace itself or support the town in social capacity (Johnson & Lichter, 2019).

The authors' definition of a depopulating county is that it had lost greater than 25% of what its population was in 1950 by 2010. The authors found that 24% of the US counties could be classified as depopulating. Another 25% of the US counties lost population but not enough to qualify under the definition of depopulating, but that means almost 50% of all US counties lost population since 1950. Nonmetropolitan counties grew by 23% and yet the depopulating counties of the country lost 32% of their population. Depopulation is a nonmetropolitan occurrence. Overall population loss in rural America is at an unprecedented rate (Johnson & Lichter, 2019).

These declining areas face a strong headwind and some may be unable to avoid a continuing downward spiral. There are rural regions where population growth has been robust leading to a recommendation that from a policy standpoint, any investment in rural infrastructure should be focused in those places (Johnson & Lichter, 2019).

The authors recommend three policy avenues for addressing rural depopulation. One is to divert investment from local to regional with an expectation that the surrounding area will benefit from the resulting prosperity caused by the investment spilling out to the adjoining areas. A second strategy is to invest in places that have shown an ability to sustain growth. But this goes against the contemporary practice of place-based investment. The third strategy proposed is for rural communities to market themselves as being receptive to immigration, such as Huron, South Dakota where refugee populations from around the world have settled and caused population and economic increases (Johnson & Lichter, 2019).

This research offers insight into what small towns may be facing in the future. If the first recommendation is followed, if a town is not the one that would be received as a regional center, it will be left behind again. Trickle out policies of the past did not cause prosperity to overflow to the countryside. As Hendrickson, Muro, & Galston,

showed, the opposite occurred as other force helped weaken the forces of convergence of this prosperity throughout the region (Hendrickson, Muro, & Galston, 2018). The second recommendation is giving up on those locations that are not perceived to have growth potential. The policy could seal the fate of the towns that are already suffering. The third recommendation has merit for a small town to consider. Immigrants would bring hope, an able-bodied workforce, and a younger age population. But it might require the town residents to re-think their values regarding foreigners. One of the messages of this report is that for a town to survive, the town must change its thinking. This is an example where that opportunity may exist.

WHY CITIES?

Hemenway tells us there are three general functions of cities. They serve as gathering places, they provide security, and they facilitate trade.

Functions of Cities

- 1. Gathering places
- · Celebration and worship
- · Social, commercial, and leisure gathering
- Inspiration from art and culture
- Projection of power via public and government monuments
- 2. Security
- Protection against outsiders
- Security through local rule of law
- Projection of government power to citizens, region, and foreign lands
- 3. Trade
- Markets for produced goods
- Markets for labor, services, and skills
- Markets for rare materials and services
- · Economies of scale
- · Collection and distribution of goods for region
- Reduced transport costs

Table 1: Functions of Cities. Source: Hemenway, Toby. The Permaculture City: Regenerative Design for Urban, Suburban, and Town Resilience (Kindle Locations 418-424). Chelsea Green Publishing. Kindle Edition

Typically, a city would have been founded based on one or two of those basic functions. It would have grown into providing all three functions over time. Even large cities serve those three basic functions. The scale is different relative to the city's size and the economies of scale that are experienced in a city are exponentially greater as city size increases (Hemenway, 2015).

SMALL TEXAS TOWNS

Generalities about small Texas towns are that most likely the town was established as a farming or ranching community between 1880 and 1920. This was the period of the greatest expansion of railroads in Texas, and the development of towns along the lines followed (Werner, 2017). There is a good chance a new rail line came through the area and either the railroad or an individual platted the original townsite in response to the presence of the new railroad at a point of transshipment.

Many such agriculture or resource-based transshipment point towns grew to a few thousand people and peaked between 1950 and 1970. The Farm to Market road network, primarily developed after World War II, also facilitated the growth of the towns. But many have been losing population ever since due to long-run structural changes in the economy. Businesses have closed, school enrollment is down, and many towns have probably changed their football team size at least once.

The town may be situated in an area that has natural beauty, with topographic relief and vistas. It is probably laid out on a grid and not all streets are paved. It likely has a state or federal highway running through it, or around it. It probably has a cool old downtown with one- and two-story architecturally significant brick buildings. Some of these towns are county seats that provide a source of government and related employment and activity and have beautiful and distinct courthouse squares. It may still have a train depot, but it's a museum, or will be. Many buildings are vacant and

there are many vacant lots. There are also vacant houses and most houses are older than 40 years of age. Many church buildings are not used as a church any longer.

The sad truth is that most of the declining towns in Texas are proving to be places that people seem to not want to, or able to live in any longer. The children who grow up there usually leave at adulthood to pursue better opportunities and do not come back, except to visit. There are better opportunities elsewhere. If this were not true, the residents would not have moved to somewhere else. But of course, the issue is how can one make a living when there are no jobs? They have no alternative but to leave unless they can assume a position in a family business, or gain local employment.

There are systemic issues within and outside of the town that have allowed it to experience the decades of decline, with no sign of reversal. The decline began with a change that the town did not adapt to. The town's basic industry went away or shrank. Farming and railroad and other transportation technology changed requiring fewer hands and fewer transshipment points. Or a resource, such as timber or a quarry was used up, or regulations prevented its continuation, or a local factory moved or closed down, or a highway bypassed the town. The fact is, there is no longer a dominant base industry of a size to support the town as it did in the past. Additional changes happened with computers and electronic accounting processes and fewer people were required to operate stores and businesses. The internet and electronic communications reduced the need for the number of people to run banks and telephone and utility companies. Somewhere along the way, a Walmart may have opened in the area and the smaller businesses downtown couldn't compete. The internet made online shopping an additional option for purchases. Some believe that the small towns have become places that those on government subsidence migrate to because it is easier to qualify for benefits in economically depressed areas. Couple those actions with what the Brookings article taught us about the impact globalization of manufacturing and the deregulation of US industries had on rural America and we see many challenges for small towns that have had a history of decline.

Meanwhile, the big cities were growing, they had new restaurants, they had stores and services with things you couldn't get in a small town. There were concerts and other events every weekend, multiple movie theaters, there were opportunities for more hobbies, schools, and youth sports programs were better for the kids, and most importantly, they had jobs in the cities. It made perfect sense to leave the small town or to not come back if one had left for school or the military.

THE SIERRA BLANCA STORY

Sierra Blanca, Texas is about 80 miles southeast of El Paso, Tx on Interstate Highway 10. Sierra Blanca was founded in 1881 as a railroad town. It is the location where the country's second transcontinental railroad was joined when the Southern Pacific Railroad was heading east from California and the Texas and Pacific Railway was building west from Central Texas. They met on December 15, 1881, and transcontinental service began the next day (Kohout, 2010).

The town grew quickly as an important commercial center with a stockyard and as a railhead for local ranchers and as a shipping center for minerals and salt. By the late 1920s, the town had a population estimated at 800, but it had dropped to 500 by the mid-1930s and reached a peak of 900 in the late 1960s. At that time, there were numerous gas stations, multiple motels, one hotel, restaurants, taverns, a movie theater, and general retail stores serving the local population (Kohout, 2010).

The biggest blow to Sierra Blanca was in 1964 when the interstate highway opened and traffic that had normally driven through downtown Sierra Blanca on US Highway 80 bypassed the town. More efficient and reliable automobiles added to the decrease in people needing to stop less often for gas or repairs. Ranching in the area

also declined due to overgrazing and a screwworm epidemic in the 1950s. The train quit stopping in town so the railroad stopped housing personnel in town.

The 2010 Census lists the Sierra Blanca population as 553 residents with 22.5% living below the poverty line. There are two restaurants, two gas stations, two motels, a couple of repair shops, a



Photo 3: One of many abandoned gas stations in Sierra Blanca. Source: Scott Winton

rock shop, and an RV park. Sierra Blanca is the county seat of Hudspeth County, so there is county government employment as well as school district employment. Most county employees live in Ft. Hancock, 30 miles away. There is also a US Border Patrol Station in Sierra Blanca and a private prison, but many of the personnel for both operations live elsewhere. They do help support the local restaurants. There is still limited ranching and some quarry jobs as well. Trucking is also a local industry. Other employment requires commuting.

In the 1990s a private company began disposing sewage sludge from New York, but this stopped due to opposition. Also, in the 90s there was an attempt to store radioactive waste in the area.

I have observed that thousands of acres in the Sierra Blanca area have been divided into 20.01-acre parcels to comply with Colonia Subdivision laws. The developer rough cuts a road but makes no provisions for utilities. The parcels are sold with attractive owner financing and people seem to buy them, sight unseen. I know someone

who gets paid to show people the land they just bought.³ Many of these hardy buyers move to their parcel and practice a truly off-grid lifestyle. They collect rainwater and truck in water, they use solar or wind power, and they attempt to grow food and livestock. They are a resilient population with a strong independence.

Sierra Blanca has been in the news frequently over the last decade as a place where celebrities have been arrested when illegal substances were found in their possession while going through the local US Border Patrol checkpoint. Willie Nelson and Snoop Dog, are among those who were arrested by the Sheriff of Hudspeth County, Arvin West. The notoriety gained through those arrests as well as other activities has made the Sheriff a celebrity himself. Sheriff West was also one of the co-founders of the Ranch on the Rock Recovery Center, because "people who need help and can't afford it, need a place they can get the help", he told me in conversation.

NEW NATURAL RESOURCE ECONOMY

Michael Hibbard and Susan Lauri, both professors at the University of Oregon wrote an article in 2019 for the Journal of Planning Education and Research where they discuss the idea that placed -based economic development practices are being revisited. They report that people want to participate in a community that offers opportunities for interaction and that recognizing this and the web of social and economic ties that exists in rural areas facilitates this. The community can use the local landscape as a common resource that can help overcome the challenges of rural economic development (Hibbard & Lauri, 2019).

Their research shows that many activities have arisen over the last twenty years that suggest new ways to think about natural resources. This includes the basic resources of agriculture development, soil, and water, but also other things like

³ The buyers come from all parts of the United States lured by the idea of cheap land. Some view it as an investment, others as a place they can retire to, some to experience off the grid living, and some from an affordability motivation.

watershed protection and restoration, community forestry, and opportunities for ecotourism. The programs vary from place to place but this idea of conservation-based development is identified as the New Natural Resource Economy (NNRE). These activities help diversify a local economy, but also help enhance the community values (Hibbard & Lauri, 2019).

They explain, based upon research of others, that a sense of place and sense of community play a role in developing entrepreneurship activities. The authors provide a definition of resiliency from Kristen Magis of Oregon State in her paper titled *Community Resilience: An Indicator of Social Sustainability* in the journal for Society and Natural Resource: "Resilience is the adaptive and learning capacity of individuals, groups, and institutions to self-organize in a way that maintains system function in the face of change or in response to a disturbance, to absorb change in ways that preserve or enhance essential functions, structure, and identity (Magis 2010)" (Hibbard & Lauri, 2019, p. 4). They explain that a resilient community will act on its own behalf to advance the community's wellbeing utilizing whatever resources are necessary.

Rural landscapes have become multifunctional and offer more than a place for commodity production. In their study, they found three types of economic activities related to the landscape of an area; production, consumption, and restoration. In their study in Oregon they found the following activities:

Production (a mix of traditional and newer forms of agricultural and forest output)

- Farming/ranching
 - Native plant nurseries, raising plants for habitat restoration
 - Sustainably produced food products—including meat, milk, cheese, eggs, fruits, and vegetables—sold locally and in metropolitan areas, for household, restaurant, and institutional (schools, hospitals, etc.) use
 - Wine grapes and wine production
 - Herbs and seeds sold by catalog and online
 - Suppliers to producers of emerging products (e.g., grape growers and wineries)

Forest products

- Community-owned multiple-use forest
- Post and pole manufacturers utilizing "waste" from thinning and wildfire mitigation activities (e.g., small diameter logs and species such as Western juniper, which have invaded historic rangeland habitats)
- Utilization of slash—biomass—both as hog fuel and by processing it into pellet fuel, to generate heat and electricity for schools, hospitals, and homes
- Alternative energy
 - Utilization of plantation-grown hybrid poplar trees for electricity generation
 - Geothermal heat—for state prison, hospitals, and schools, as well as industrial, business, and residential users
 - Numerous biomass plants under construction
 - Numerous wind farms

Consumption (amenity-based landscape uses)

- Ecotourism
 - River/paddle trails, including maps, haul-outs
 - Kayak companies
 - Mountain bike guides, hunting guides, fishing guides, hiking guides, birding guides, and horseback guides
- Harvesting firewood, mushrooms, berries, and other plant life from the forest for personal use (subsistence)
- Agritourism—farm and ranch stays

Restoration/protection (activities that reflect societal goals concerned with sustainability)

- Watershed restoration
- Wildlife habitat protection and restoration
- Forest restoration
- Environmental education

Types of Oregon NNRE enterprises (Hibbard & Lauri, 2019, p. 6).

The rural areas of Texas could benefit from this research as it shows there are ways to use the natural resources of a location and turn them into opportunities for businesses as well as an expression of the values of the community. Each locale offers its own opportunities.

Chapter 4: Texas Economic Development for Rural Areas

The rural areas of Texas have access to state resources for community development and economic development. The Texas Department of Agriculture is the state entity that manages economic development funding in the state. Some of the funding is state funds, some of the funds are federal dollars that are administered at the state level. There are both loan and grant programs. The following information is a summary of the information contained in a publication of the Texas Municipal League titled *Texas Municipal League Economic Development Handbook* published in 2017 (TML, 2017). Each community will have to filter the items that are appropriate for that town's particular circumstances.

GRANTS

The Texas Capital Fund Infrastructure/Real Estate Programs - is a block grant designed to provide resources to what they call non-entitlement communities. A non-entitlement community is one that is located in rural areas and has less than 50,000 population and are not participating in urban county programs. Funds from the program can be used for public infrastructure to assist a business that commits to create or retain permanent jobs for low to moderate-income persons. The grants are awarded on a point basis and can be between \$100,000 to \$1,000,000.

Downtown Revitalization and Main Street Programs - are grants to help Main Street or a downtown area within the community. These are only available to incorporated, non-entitlement cities and can between \$50,000 to \$500,000 and all of the funds must be spent within public owned property. Typically, a downtown area is expected to meet two of the criteria below:

- 1)The city's historic area of commerce
- 2) May be the area around the courthouse or city square;
- 3) Commercial area for the community

- 4) Buildings of historical significance, but not primarily residential
- 5) Must be areas included in or contiguous to the economic center of the community;
- 6) The retail area for the community that does not include single-family dwellings.

Texas Community Development Block Grants for Rural Texas - The CDBG grants have the purpose of developing viable communities in rural Teas with decent housing and suitable living conditions and to expand economic opportunities to low- and moderate-income people. Eligible applicants are non-entitlement cities and counties.

These grant funds come from the US Department of Housing and Urban Development. Block grants have been around since 1974. The states are expected to ensure compliance with the federal regulations as they administer the program. In Texas, the state administers the program under the following goals: Improve public facilities to meet basic human needs, principally for low- and moderate-income persons. Improve housing conditions, principally for persons of low- and moderate-income. Expand economic opportunities by creating or retaining jobs, principally for low- and moderate-income persons. Provide assistance and public facilities to eliminate conditions hazardous to the public health and of an emergency nature.

The approval process for these grants includes a review by the Council of Governments whose service area the particular town may be within. The COG develops the region priorities and establishes the scoring system. These grants can be between \$275,000 to \$800,000. Most of the funds are used for water, sewer, drainage, and housing projects, but there are other activities it can be used for.

Planning and Capacity Building Fund - This fund is used for local planning needs for public facilities and housing. It can be used for comprehensive planning, including base mapping, land use, housing population, economic development and/or tourism, streets, parks, recreational facilities, utility systems, and ordinance development such as

subdivision and zoning regulations, and capacity development. The maximum awarded is \$55,000. It is a competitive program.

Other Grants

Fire, Ambulance, and Service Truck (FAST) - Max Award: \$500,000 Provides funds for eligible vehicles to provide emergency response and special services to LMI rural communities.

Disaster Relief Fund - Max Award: \$350,000 The Disaster Relief Fund addresses emergencies that have received an official state or federal disaster declaration. Funds can be used to restore infrastructure damaged by natural disasters to a pre-disaster condition in design, function, and capacity. In a drought situation, the DR fund may also be used to install new facilities that resolve a primary drinking water supply shortage.

Colonia Funds - Funds are available to eligible county applicants for projects in severely distressed unincorporated areas. The term "colonia" generally means an identifiable unincorporated community that is within 150 miles of the border between the United States and Mexico.

Colonia Planning Fund - Max Award: \$100,000 Assistance for the completion of planning activities to prepare colonia areas for water, sewer, and housing improvements.

Colonia Construction Fund - Max Award: \$500,000 Assistance to fund water and wastewater improvements, housing rehabilitation, and other improvements in colonia areas.

Colonia Economically Distressed Areas Program - Max Award: \$1,000,000 Assistance to colonia areas to connect to a water and sewer system project funded by other state and federal funds.

SMALL BUSINESS LOAN PROGRAMS

The Capital for Texas Small Business Loan Program – This fund is being developed now and is intended to help the small businesses in rural communities gain access to capital to help create jobs by providing financing options. The loans are anticipated to be between \$5,000 to \$350,000, with the average being \$100,000. The program is supposed to support the goals of empowering rural communities.

Small and Microenterprise Revolving Loan Fund (SMRF) - This loan fund provides capital to rural areas to invest in existing small businesses and microenterprises. It is enacted with the participation of a qualified, nonprofit development organization (NDO), which operates it as a revolving loan fund with funds reinvested into other businesses as payments are received from the original borrowers. The types of NDOs that qualify are:

- -Small Business Investment Companies organized under 15 USC Section 681,
- -SBA Section 504 Certified Development Companies,
- -Community Action Agencies,
- -Community Development Corporations,
- -Local Development Corporations, and
- -Community Housing Development Organizations (CHDOs) under the HOME program

The municipality must be incorporated for the town to qualify. It is a fixed amount award of \$100,000.

AGRICULTURE RELATED PROGRAMS

The TDA also administers programs designed to enhance farming and ranching operations and affiliated businesses in the state of Texas. It does this through the Texas Agricultural Finance Authority. Some of the programs are discussed below:

Agricultural Loan Guarantee Program is a program where a percentage of a borrower's debt is guaranteed against loss. The loan is administered by the lender and is

a relationship between the lender and the borrower. The state only steps in if there is a default and as part of their risk management have established the following criteria for the borrower to meet:

- The applicant must meet the lender's underwriting criteria.
- The lender and borrower determine the loan terms, while TAFA retains the right to alter any loan terms as necessary to provide the guarantee.
- The borrower(s) should have a credit score of 650 or greater
- Equity injection of at least 15% of the loan amount
- Debt to equity of 2:1 or less
- Debt service coverage of 1.25 or better
- TAFA's guarantee shall not exceed a maximum of 10 years or the useful life of the assets being financed

There are two options for the guarantee amount depending upon the terms of the loan: \$250,000 or 90% of the loan amount, whichever is less, or \$500,000 or 80% of the loan amount, whichever is less. The loans can be used for working capital for operating a farm or ranch; Lease of facilities; Purchase of machinery and equipment; and/or purchase of real estate.

Other Programs

- Interest Rate Reduction
- Young Farmer Grant
- Young Farmer Interest Rate Reduction Program

Another agriculture-related resource for agricultural development is the Agriculture Development District. This special district type was created by the 2001 Legislature but no districts have been created in Texas yet.⁴ According to the enabling legislation:

⁴ A possible opportunity for use of this district could be in establishing urban or small-town greenhouse growing operations.

A district may encourage the economic development of the area in which the district is located by:

- (1) fostering the growth of agricultural enterprises;
- (2) stimulating innovation in agricultural enterprises;
- (3) seeking to eliminate unemployment or underemployment in the state; and
- (4) developing or expanding transportation resources for agricultural purposes.

 The powers also include that a district may:
 - (1) promote all agricultural enterprises, facilities, and services of the district;
 - (2) encourage the maintenance and conservation of soil and water in the district;
 - (3) acquire, design, construct, and operate an agricultural enterprise; and
 - (4) expand, develop, and diversify production, processing, marketing, and export of Texas agricultural products.

A district may acquire property as necessary, including vehicles, farm equipment, and other machinery and related facilities for the harvesting, processing, storage, packaging, distribution, and transportation of agricultural products or by-products. (TML, 2017)

The district created would essentially be a Tax Increment Finance district that receives revenues from the increased property values that result from the activities of the district.⁵ The district has the right to enter into debt and also the right of eminent domain.

The TDA has divided the state into regions. Each region has a field representative that every town should have a relationship with. This representative is a

⁵ In a small town that has limited, if any increase in property valuations, this could be a challenge. Perhaps a way that a small town can take advantage of this type of financing is to utilize bond anticipation notes with local financial institutions. The notes would be paid when the district's valuations have increased to the point of justifying the issuance of bonds. Organizational costs can also be a challenge for small towns using TIF financing due to the small size of the issuance. This can be overcome with collaboration with other cities and state agencies to create templates for small TIF district creation and financing.

specialist in the programs the state has to offer and can help sculpt a section of programs that are appropriate for the particular town to pursue.

OPPORTUNITIES THROUGH STATE ENABLING LAWS

Rural towns and counties also have state laws that can be used to generate funding for economic development purposes. The Texas Municipal League produced a comprehensive report detailing ways local government can use special districts and sales tax initiatives to facilitate economic development.

County Economic Development Powers

Counties are authorized to facilitate economic development through a couple of methods:

County Industrial Commissions - The county may create a County Industrial Commission with at least a seven-member board appointed by the County Judge with the purpose of promoting economic development and assisting in the location, development, and expansion of business enterprises.

County Boards of Development - A county may create county boards of development to promote the growth and development of the county if the voters authorize a portion of the property tax, up to five cents per \$100 valuation, to be devoted to advertising and promotion of growth and development in the county.

Direct County Economic Development Efforts - Counties are authorized to contract with other entities to stimulate business and commercial activity. The county can develop and administer programs that encourage:

- state or local economic development
- small or disadvantaged business development
- development of business locations within the county
- promotion or advertisement of the county and its vicinity to attract conventions, visitors and businesses

- encouragement of county contract awards to businesses owned by women and minorities
- support comprehensive literacy programs for the benefit of county residents
- encouragement and promotion of the arts

County Development District - Counties with a population of less than 400,000 may create a County Development District for economic development and tourism-related projects. To create the district the county must be petitioned by landowners to do so. The district has broad powers and duties related to economic development that include; collect and spend a sales and use tax, to pay bonds issued by the district, the power to adopt a Hotel Occupancy Tax up to 7% and to spend the proceeds, ability to pursue Type B economic development projects that promote tourism, such as facility ownership and operations, ability to exercise the powers of a Municipal Management District, a limited power of eminent domain if it is located outside of the municipality, the ability to sue and be sued, the ability to borrow and issue debt.

Alternative Tax Initiatives for Local Development - Cities and counties may, with voter approval of the project and the revenue sources for repayment, develop sports and community venues. Possible revenues include a venue project tax, a sales tax, a hotel occupancy tax, a short-term motor vehicle rental tax, an event parking tax, an event admissions tax, and a venue facility use tax.

Permissible projects include

- An arena, coliseum, stadium or other types of area or facility
- A convention center, convention center facility, or related improvement
- A tourist development area;
- A municipal parks and recreation system,
- An economic development project authorized by Section 4A or Section 4B of the

- Development Corporation
- A watershed protection and preservation project; a recharge, recharge area, or
- recharge feature protection project; a conservation easement; or an open-space
- preservation program intended to protect water
- An airport facility in a city located on the international border.

Local Property Tax Incentives

Property Tax Abatement - Cities, counties, and special districts are authorized to enter into tax abatement agreements depending upon the location of the property that will be subject to the agreement. If it is within the city's boundaries, the city will be the lead entity. If it is in an ETJ of a city, either the city or county could be the lead party. If it is not within the jurisdiction of a city, the county would be the lead party. There is a six-step process the project must go through for the agreement to be finalized.

Step One: Each taxing unit that wants to consider tax abatement proposals must adopt a resolution indicating its intent to participate in tax abatement.

Step Two: Each taxing unit must adopt tax abatement guidelines and criteria.

Step Three: After holding a public hearing and providing notice, the taxing unit that is the lead party in the tax abatement must designate an area as a "reinvestment zone."

Step Four: At least seven days before the lead taxing unit grants a tax abatement, it must deliver written notice of its intent to enter into the agreement to the presiding officer of each of the other taxing units in which the property is located. The notice must include a copy of the proposed tax abatement agreement.

Step Five: To adopt the tax abatement agreement, the taxing unit must approve the agreement by a majority vote of its governing body at its regularly scheduled meeting

Step Six: The other taxing units may enter into an abatement agreement or choose not to provide an abatement. There is no penalty for choosing not to abate.

Tax Increment Financing

Tax increment financing is a tool for local governments to finance public improvements in an area to attract new business. The cost of improvements is repaid with future incremental tax revenues. The entities must determine which portion of those future revenues will be devoted to paying for the improvements. Tax increment financing may be initiated only by a city or county and must begin with the establishment of a tax increment financing reinvestment zone. There is an eight-step process for creating a reinvestment zone. If an area qualifies for tax increment financing, the process involves the eight steps as follows:

Step One: The governing body must prepare a preliminary reinvestment zone financing plan.

Step Two: The governing body must publish notice of a public hearing at least seven days before the hearing on the creation of the reinvestment zone.

Step Three: The governing body must hold a public hearing on the creation of the reinvestment zone.

Step Four: After the public hearing, the governing body of the city or county may, by ordinance or order, designate a contiguous area as a reinvestment zone for tax increment financing purposes and create the board of directors for the reinvestment zone. The board make-up is determined by how the zone was initiated, whether by private petition or not.

Step Five: After the city or county has adopted the ordinance or order creating the zone, the board of directors of the zone must prepare both a "project plan" and a reinvestment zone financing plan.

Step Six: After the project plan and the reinvestment zone financing plan are approved by the board of directors and by the city or county's governing body, the other taxing units with property within the zone must collect the percentage of their increased tax revenues that will be dedicated to the tax increment fund.

Economic Development Through Tourism⁶

Local Hotel Occupancy Tax may be collected by cities, counties, and some special districts. A city may adopt a tax by ordinance without voter approval in an amount not to exceed 7% and the tax can be applied to its ETJ. Some counties have received legislative authorization to charge a tax of up to 7% for facilities outside of a city limits and up to 2% for facilities within a city limit. The state also charges a 6% tax and the total tax collected from state and local entities cannot exceed 15%.

The tax is charged at hotels, motels, tourist homes, tourist court, lodging house, inn, rooming house, or bed and breakfast.

There are limitations to how the money can be spent. For instance, there is a minimum collected that must be spent on advertising and promotion and there are maximums that can be spent on art activities. Revenue collected may be spent within the following categories:

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⁶ A town needs to do an assessment of its potential for tourism. Some places are blessed with a natural beauty that attracts visitors. Some places offer seasonal tourism, such as hunting, or summer water recreation. Other places have to cultivate a reason for someone to want to come visit. Some towns do it with festivals and other events. Towns use art as way to attract visitors with galleries and shops and art related events. Some towns exploit the architecture of their old buildings and the sense of place their town has that visitors like to experience.

1. Funding the establishment, improvement, or maintenance of a convention center or

visitor information center.

- 2. Paying the administrative costs for facilitating convention registration.
- 3. Paying for tourism-related advertising and promotion of the city or its vicinity.
- 4. Funding programs that enhance the arts.
- 5. Funding historical restoration or preservation programs.
- 6. Funding costs to hold sporting events in certain municipalities.
- 7. Enhancing and upgrading existing sport facilities or fields for certain municipalities.

Incorporation

Incorporation - Many rural towns in Texas are unincorporated. 16 county seats are unincorporated. What being unincorporated means in Texas is that the town is not fully empowered with tools that can be used for managing its finances, its land use, and the services it can provide its residents. From a community development perspective land use is unregulated, as there is no zoning in unincorporated areas of Texas, and there are no local building regulations or codes. It is a laissez-faire environment for items being built in town. It also means the town is not accessing the opportunity to collect sales tax within its boundaries and other forms of revenue. We saw that the town is not eligible for certain grants available through the state. But it also means fire, EMS, and security services, street maintenance, and public park maintenance are provided by the county. It also means there is no city property tax.

Sales Tax Alternatives - Incorporated municipalities have an opportunity to choose if they want to collect additional sales tax to be used to fund economic development activities. There are two types of economic development sales tax and are often referred to as a 4a or 4b type of tax. Both require voter approval for enactment

but the 4b tax allows the ownership and operation of special event facilities like stadiums and arenas. When a city chooses to enact an economic development sales tax, it is usually administered by an Economic Development Corporation with a governing board appointed by the city council.

Special Districts

Special Districts are allowed within the state for many purposes and functions. Districts are a way improvement can be funded that helps spur development in specific locations. Most are based upon a tax increment method of revenue creation where the new district receives the portion of taxes that are generated from the incremental increase of property valuations that occur within the district as a result of the improvement made by the district. The city may create most of these districts, or in the absence of incorporation, the county is the governing body. In many instances, the body that creates the district also acts as the board of directors for the district. A list of special districts available in Texas was extracted from the TML Manual are listed below:

- Public Improvement Districts
- Municipal Management Districts
- Municipal Development Districts
- Improvement Districts in Certain Counties
- Other districts such as emergency services, library, utilities, soil conservation, water conservation, (TML, 2017)

THE REAL PROBLEM

The fundamental issue for small declining towns is considered to be economic development and the need for job creation. Jobs will increase population, which will increase available services. The Rural Development Initiatives, a non-profit founded in 1991 and based out of Eugene, Oregon provides seven best practices for rural economic development:

 Creating Networks to Support Entrepreneurs and Micro Business Development

- Thinking Local Supporting Local Businesses First
- Retaining and Growing Local Businesses
- Helping Start New Businesses in Your Community
- Implementing a Downtown Revitalization Program
- Organizing Farmers Markets and Community Supported Agriculture (CSA)
- Developing Visitor Amenities Rural and Geo-tourism (Rural Development Initiative, 2014)

The State of Texas, as discussed earlier, provides opportunities for towns to do what is recommended as best practices. The programs available through the state mirror the best practices detailed above but also include loan guarantees for business development. Many towns in Texas have tried a variety of best practices. Some of those best practices have been best practices for years, particularly making downtown improvements. There are many towns with nicely rebuilt downtown streets and landscaping but still have vacant buildings lining the sidewalks. The result of most of those strategies is not a reversal of the momentum of decline.

The problem is one of perspective. Most declining towns feel they need new jobs and they develop their strategies based upon that perceived need. But what the town needs is to develop strategies based on needing to survive. That is the true issue. The motives and associated actions are completely different for a town that views their problem as just needing new jobs, versus a town that wants to stop its decline towards non-existence. While job growth may lengthen the life of a town, if they're truly systemic issues related to the town's ability to grow, those new jobs will only be a medicine treating the symptom and not the disease. And in most instances, the town makes no advancement. It is not unlike the unemployed alcoholic who thinks they just need a job and their problems will go away. The reality is, the alcoholic's drinking prevents them from keeping a job, and the true need is to quit drinking. From the perspective of a declining town, it is not a matter of stopping drinking, but a matter of changing what they are doing and how they are doing it. That is the only way they will get different results.

A SOLUTION

Collectively speaking, small towns have been wrestling with population loss and decline for decades, some places in Texas have been declining for more than 50 years. The revitalization measures outlined above have not produced the results desired in many towns. So, they must do something different. This requires new ways of thinking. It requires an alternative way of looking at their town and an alternative way of looking at the world. One future-oriented physical and social design philosophy is permaculture. If the town truly applies permaculture principles to developing the solutions, sustainable ways will surface that match the town's capacities. The permaculture philosophy and its associated design processes will not only affect the desired results of stopping the momentum of decline but also increase the overall quality of life for the community and the individuals who participate.

Chapter 5: Permaculture

PERMACULTURE

Toby Hemenway, in his book *The Permaculture City: Regenerative Design for Urban, Suburban, and Town Resilience* describes permaculture, the history and nature of towns and cities, and how permaculture principles can be applied in community development. He tells us that urban permaculture is much more than about gardening or feeding a population. It is also about the human ecosystem and how we provide for our shelter, transportation, energy, safety. It's about how we use our water, how we deal with our waste, and how we solve our problems. It's about how we live together. It's about how we sustain ourselves (Hemenway, 2015, pp. 125-128).

Permaculture is an alternative we can choose as a way for us to better occupy the Earth, and more specifically as a way to address the decline of small towns. What is permaculture? We have heard the term. Isn't it associated with gardening? The answer to that is yes. Permaculture was originally developed as a model for gardening. Permaculture is a phrase first developed by David Holmgren and Bill Mollison in 1978. Originally it meant "permanent agriculture", but has since become known as "permanent culture" (Hemenway, 2015).

It can best be described as a philosophy of working with, rather than against nature. It is a systems way of thinking that uses natural forces to facilitate an easier way to live. Systems thinking allows the creation of leverage points where a certain action can cause a desired result in multiple functions, thereby gaining a benefit with the least effort.⁷

⁷ One opportunity of leverage is the example of bridge design. The State of Texas has built some bridges that appear to be conducive to attracting bats to live under them. Bats eat mosquitos and mosquitos are a nuisance and carry viruses. If that bridge design was adopted as a standard for urban highways, the action would result in creating bat habitat, which results in a natural method of mosquito control, reducing the need for chemical pesticides and increasing the comfort of the urban area.

Permaculture is now applied in many disciplines including, ecological design, ecological engineering, regenerative design, environmental design, and construction. Permaculture also includes integrated water resources management, sustainable architecture, and regenerative and self-maintained habitat and agricultural systems modeled from natural ecosystems (Hemenway, 2015).

PERMACULTURE ETHICS

Foundations of permaculture design are permaculture principles and permaculture methods, but those start with the ethics of permaculture. The ethics of permaculture help set this design discipline apart from all others. Hemenway tells us that Bill Mollison set out the ethics of permaculture design in his book *Introduction to Permaculture*. These ethics are:

- Care for the earth
- Care for people
- Return of surplus time, money, and material toward those ends
 (Hemenway, 2015, pp. Kindle Locations 807-808)

Those three ethics are what all social and physical improvement actions should be tested against. If a community is contemplating a public improvement, it should ask itself, does this improvement respect the earth and the ecosystem the improvement will be built in? Will the construction itself minimize disturbances, could the design be modified to accommodate other things going on at the site, both for nature and for man? Does the improvement reflect a care for people, is it designed on a human scale, can secondary benefits be gained with a modification of the plan? Can the design produce a return or a yield, will it save time for other functions? Can it be made to increase connections between other community elements (Hemenway, 2015)?

Those questions are in addition to the cost-benefit analysis and other conventional project evaluation and design processes a public improvement project

goes through. This is one of the things that sets permaculture apart from conventional design processes (Hemenway, 2015). That added layer of testing against the ethics is why permaculture and variations of such are the design tools of the future. We are now seeing the fallacy of designing for the short run and designing in a vacuum, without considering all interrelated aspects of the project's processes and outcomes. The ethics recognize that if we test our actions against the impact they may have on the earth and people, then we will naturally cause less harm and possibly more good.

PERMACULTURE PRINCIPLES

Permaculture designers use a set of permaculture principles in their design process. David Holmgren lists 12 principles in *Permaculture: Principles and Pathways Beyond Sustainability* Different designers and teachers use variations of these 12. Hemenway offers 14 permaculture design principles. The 12 principles of Holmgren presented here are with a brief interpretation from me;

- 1) Relative location In the instance of towns this means where does it sit geographically, economically, socially, futuristically? Where is it in its food supply chain, and Its energy and water sources? Essentially it is an asking of where my town is relative to the universe and all the things that could and do affect it. And it means having an objective understanding of those placements.
- 2) Each element performs multiple functions When a town is considering an improvement, they need to ask can it be designed to accommodate more than its intended function. A simple example is when there is a need to resolve an erosion issue. One option is to make the improvement so that it can be skateable and offer a recreational function as well.
- 3) Each function is supported by many elements An example of this could be the generation of sales tax receipts within the community. A diversified

- economy will have multiple business sectors from multiple locations including local, regional, and national sources contributing to that income stream.
- 4) Energy-efficient planning Building codes can be adopted addressing energy efficient building design. Renewable energy sources can be adopted. Respecting embodied energy contained in physical improvements should be a part of facility retrofitting.
- 5) *Using biological resources* A simple example of this is using a constructed wetlands as a method of wastewater treatment.
- 6) *Energy cycling* Everything contains an energy. When it is converted, or put to use, any excess should be captured in other ways. A ground water heat pump could be an example.
- 7) *Small-scale intensive systems* Do not rely on large scale systems for basic needs, it leaves you vulnerable. This includes items like electricity systems, and your food supply chain.
- 8) Natural plant succession and stacking This can be applied to a growing operation, but it can also be applied to our social organizations and government with a recognition that participants will cycle in and out of participation. The community needs to maintain a continuous flow of new participants to replace those leaving.
- 9) Polyculture and diversity of species Diversity is a natural condition in nature and should be encouraged in our structures and organizations. This can be looked at in a number of ways. When applied to the population within a town, this principle recommends a diversity of people in age, race, education, and experiences. The diversity adds to the resiliency and sustainability.

- 10) Increasing "edge" within a system This is important because in nature, the edge or interface is where things happen. An example is where land and fresh water join. Animals come to drink and others come seeking prey. It is part of the natural cycle. In society the edges can be the interface between different social classes. Or in urban design it can be the boundary between public and private property. The point is there needs to be an awareness of those edges and the opportunities for conflict or enhancement they hold.
- 11) Observe and replicate natural patterns Patterns are everywhere. There are cycles, frequencies, waves, and forces. Respect the patterns of succession, for people, organizations, towns. Cycles can me extended with conscious action, such as small-town revival, or they can be allowed to continue with no intervention. How can a solution applied to one pattern be applied to a similar pattern, such as the same momentum of decline in addicts and in dying towns?
- 12) Pay attention to scale, Attitude Do incremental actions and make them scalable for when they work. Attitude is how we approach things. (Holmgren, 2002)

Permaculture design is easily applied to most human endeavors. Humans and human activities are considered to be Complex Adaptive Systems. These types of systems include not just ecosystems but brains and nervous systems, "businesses and economic networks, communities and neighborhoods, legal and social systems, and a host of other multi-component, interconnected, flexible, and responsive systems that all follow a similar set of governing principles and have many general properties in common" (Hemenway, 2015, pp. Kindle Locations 159-160).

Hemenway shares a concept called the permaculture flower to portray the needs of a human, a family, a community, and a region. Those needs are Water, Shelter, Energy, Food, Waste, Livelihood, Health, Justice, Spirit, and Community. Each human need is represented in the graphic depiction as a petal, with the individual self at the center. At the center of the permaculture flower, a spiral uncoils, which symbolizes the ways we can travel around the circle of needs that the flower represents. In one sense the spiral reminds us that we are constantly cycling through our list of needs (Hemenway, 2015, pp. Kindle Locations 5793-5795).

The spiral also tells us that meeting our needs doesn't stop at the individual. In many cases, it makes sense to focus first on solving our needs at a personal level. The

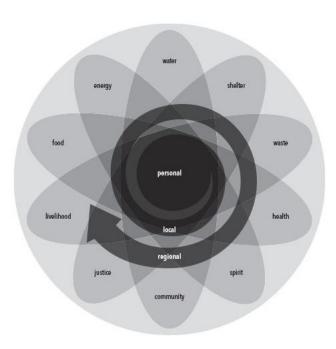


FIGURE I-1. The permaculture flower, modified from David Holmgren. Each petal is a basic human need. Adapted from artwork by Jonathan Woolson of www.ThinkPlayDesign.com.

Figure 1: The Permaculture Flower. Source Hemenway, 2015 Kindle Location 5793-5795.

individual can decide how it resolves their needs that are depicted as petals on the flower. Each need has its own demand, and each need can impact other needs positively or negatively. For instance, the energy needs of an individual are determined by their transportation choices, their choices on the sources of their food and water, and the energy efficiency of the shelter they occupy. So, individually we make conscious choices and some subconscious choices on how we acquire our needs.

As we spiral on, we see how the individual needs are met through their local activities. We also see that the local perspective has needs that match those of the individual. So, the individual can match their need fulfillment with the needs provided by the local community. And the spiral continues with how the local might fit into the regional. It continues, with each larger entities having the same needs that must be fulfilled (Hemenway, 2015).

WATER

The community should have a plan that addresses each of those needs on the permaculture flower. Water is one of those basic needs that require careful attention from the community. The community should look at water from a stormwater perspective, water production for consumption, water use and conservation, and wastewater.

For stormwater, the place to intervene is to reduce the rain runoff. This can be done with minimizing impermeable surfaces and landscape and street design elements that allow rain gardens, curb cuts, living roofs, and bioswales. These solutions can reduce stormwater runoff and create attractive areas with biodiversity. Progressive cities are installing bioswales into parking strips, and along roadways that have an added benefit of being locations for trees that create a shaded street environment as well as narrowing the road, resulting in traffic calming. The town can also encourage the use of capturing rain off roofs and storing the rainwater in cisterns or rain gardens on people's

private property. A rainwater garden can be nothing more than a depression on the surface of the ground that holds rain runoff during a rain. With drought-tolerant plants placed to benefit from that collection, we can have self-sustaining shade as well at very little cost (Hemenway, 2015).

Hemenway tells us that as much as 29% of our domestic water use is for watering landscaping, 19% flushing toilets, 15% washing clothes, 13% for bathing and showering, 11% sink use, 10% leaks, and 3% for washing dishes and other uses (Hemenway, 2015).

A town can regulate that water consumption by requiring low water use landscaping, low -flow toilets, faucets, and showerheads. The town can also require, or at least allow, a dual drain system in any new buildings that may get built that allows the gray water to be collected and used in landscaping, and allows the black water to go to the sewage collection system.

The individual can do things to reduce their consumption by also investing in a low water use washing machine. They could go further towards reducing consumption with self-composting toilets, which require no water use. They can also adapt their landscaping so that the yard areas can collect and store rainwater by contouring the land to capture the water and hold it in a rain gardens. The use of mulch and adding organic matter to the soil can minimize evaporation and allow the soil to hold water longer. A drip irrigation system can match the water needs of plants with the amount delivered by the system, preventing wasting water (Hemenway, 2015).

For wastewater concerns and in addition to allowing gray water systems, the town can reduce its energy consumption for treating sewage by converting to a natural system of treatment. Constructed wetlands can purify wastewater to a point that it can be reused for landscape purposes.

ENERGY

Hemenway offers five tools to use when thinking about energy sources and its uses.

- 1) Efficiency, as related to how much energy is lost when using a product or process.
- 2) Emergy, embodied energy, or the total amount of energy used to make a product or service
- 3) Life-cycle assessment, how much energy is used by something over its entire life, including the energy required to dispose of, or recycle the item
- 4) Transformity, is a measure of the quality of the energy used. Energy return on (energy) investment
- (EROI or EROEI), a ratio of the energy put out to the energy put in. In other words, how much energy was produced compared to the amount of energy required to produce it (Hemenway, 2015, pp. Kindle Locations 4042-4050).

The key is to match the energy resource with the energy needs of the community. Four questions which must be asked are:

- 1) What energy sources are most abundant in your region?
- 2) What renewable energy sources make sense to use where you live?
- 3) How can you best match energy sources to their intended use?
- 4) How can you prepare for energy shortages and outages? (Hemenway, 2015, pp. Kindle Locations 4507-4510)

EIGHT FORMS OF CAPITAL

Hemenway tells us there are eight forms of capital that individuals can have and utilize (Hemenway, 2015). Towns too have these forms of capital.

Social capital, as described by Hemenway, is the goodwill the individual receives from the services they provide the community and the interactions they are involved in within the community (Hemenway, 2015). From a community perspective, Encyclopedia Britannica describes social capital as having three dimensions. One is the network of relationships of individuals. Two, the levels of trust that within those ties, and three, the resources of benefits that are gained as a result of those ties and activities (Poteyeva, 2018).

Material Capital is the items a person may own. It could be raw materials, or it could be their tools, their vehicles, even their residence. It could be related to a savings account, but rather than it being money, it may be lumber, or brick, or another asset that could be put to use, or sold when needed. For a declining town, it could be the inventory of buildings, the infrastructure of streets and pipes, and utility systems (Hemenway, 2015).

Living Capital is the elements that make up the environment the individual lives in. It can even be the health of the individual. For a community, it is the collective health of the individuals, it is the plants and animals that make up their ecosystem (Hemenway, 2015).

Intellectual Capital is the knowledge and ideas one has. Knowledge reduces mistakes and causes better decisions. Acquiring knowledge helps us grasp concepts easier and helps us generate ideas for problem-solving or advancement. In a community, intellectual capital is the cumulative education and knowledge within the town. The smarter a town is the better it is at dealing with its issues (Hemenway, 2015).

Experiential Capital is the things we learned through living. It develops as wisdom and allows us to anticipate, to predict, and to spot opportunities. A community that has been around for a long time is usually rich with experiential capital (Hemenway, 2015).

Spiritual Capital is about the connection one has with a higher order. It is developed by acquiring knowledge and through the practice of mediation, prayer, and yoga. A town has spiritual capital in the form of the combined spirituality of the residents. This is not to say that a church on every corner makes a town spiritual, it might make it religious, but the spirituality is determined by the deeper connection each person may have in their relationship with the universe and their ability to see the oneness of all (Hemenway, 2015).

Cultural Capital is the art, music, myths, stories, and ideas of a community. It can even be the mores of the community based upon foundational beliefs. Cultural capital is what holds the community together and can add depth and meaning to living (Hemenway, 2015).

Financial Capital is the money and financial assets one has accumulated. It can be used to get through a rainy day, it can be used to start businesses, and it can be used to create more financial capital (Hemenway, 2015).

All of these forms of capital represent assets of the community. Even though parts will be under private ownership, a strong sense of community and a desire to see the community continue can be convincing for the individuals to invest their capital to benefit the community.

The practice of permaculture must first become a way of thought.

Before and during every design project, permaculture designers ask, "Is what we are doing caring for the earth? Does it care for people? Are we reinvesting a portion of the design's products to support the earth and the people that make it all possible? This is how permaculture keeps us in tune with the new paradigm of meeting human needs while preserving ecological and social health (Hemenway, 2015, pp. Kindle Locations 809-812).

Chapter 6: Systems Thinking

Peter Senge published *The Fifth Discipline: The Art and Practice of the Learning Organization* in 1990. Senge is a senior lecturer at MIT focusing on group problem solving using systems thinking as a method to convert companies into learning organizations. *The Fifth Discipline* has been identified by the Harvard Review as one of the seminal management books written in the last 75 years. The tools in the book are for:

destroying the illusion that the world is created of separate, unrelated forces. When we give up this illusion—we can then build "learning organizations," organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together (Senge, 1990, pp. 3-4).

Senge tells us that the ability of an organization to adapt is dependent upon its ability to be a learning organization. A learning organization is one that is constantly aware of what it is going on internally, and externally so that it can adapt as changes occur. Its ability to adapt is dependent upon the individuals within the organization to be learning individuals (Senge, 1990). These organizations can be families, clubs, businesses, and towns and cities.

The above description almost sounds like a description of resiliency. Resiliency coupled with sustainability can be the new frontier of the planning profession in planning theory and methodology and can be collectively referred to as permaculture. Our social structures, our methods of survival, and production are based upon our activities that get created from the materials and the spaces we carve out of nature. It seems simple to see that everything is part of a greater whole. Everything is connected

in some way to everything else. We can use these connections and apply systems thinking as a practice of permaculture to the problem of decline in small towns.

Senge tells us it is our fundamental nature to be learners. From the time of infancy, we are constantly learning. The Latin word for learning is *disciplina*, and when used in this book, it is meant as a body of theory and technique that can be studied and mastered. Each discipline should stand on its own as a body, but the true power of the five disciplines is when they are used in conjunction with each other to further the purposes of the organization. For our discussion, the organization is the town (Senge, 1990).

PERSONAL MASTERY

Personal mastery is the phrase used to describe the discipline of personal growth and learning. It is an approach to life from a creative viewpoint, rather than a reactive viewpoint. It is more than competency and skills; it is a continuous attempt to see reality objectively and how that matches what is important to them (Senge, 1990).

Senge says; "People with a high level of personal mastery share several basic characteristics. They have a special sense of purpose that lies behind their visions and goals. For such a person, a vision is a calling rather than simply a good idea" (Senge, 1990, p. 132). They have learned how to be aware of forces of change and recognize how they apply to a larger picture. Reality and change are their ally, as they realize change is opportunity and can be used to their advantage. They are deeply inquisitively committed to seeing reality accurately and objectively. They feel connected to their surroundings and have a sense of a larger purpose in managing those surroundings. They are always learning and never "arrive" as the journey is never ending. Sometimes, language, such as the term "personal mastery," creates a misleading sense of definiteness, of black and white. But personal mastery is not something you possess. It is a process and a lifelong discipline (Senge, 1990). "People

with a high level of personal mastery are acutely aware of their ignorance, their incompetence, and their growth areas" (Senge, 1990, p. 132). They are deeply self-confident. The person practicing personal mastery recognizes the journey is the reward. (Senge, 1990).

Principles and practices of personal mastery include an inner personal vision, maintaining a creative tension, a commitment to the truth, integrating reason and tuition, seeing our connectedness to the world, compassion, and a commitment to the whole (Senge, 1990).

MENTAL MODELS

Seeing reality objectively requires us to practice the second discipline, mental models. This is where one questions their deeply ingrained beliefs and assumptions. Those beliefs and assumptions may not be accurate, and yet they influence how we understand the world and the actions we take (Senge, 1990). The problem with mental models is not necessarily if they are right or wrong, but when they become implicit. When they exist below our level of awareness and cause actions that on the surface may have no match to reality (Senge, 1990). Mental models can impede learning when they freeze the town in doing things the way we always have done them. Senge suggests we pay attention to our "Left Hand Column", it is the things we were thinking and feeling when engaged in conversation but are not saying (Senge, 1990). The mental models can surface in our left-hand column. Integrating systems thinking and mental models can improve what we think but also how we think. We will gain a better understanding of interrelationships and more aware of patterns of change (Senge, 1990).

SHARED VISION

The third discipline the town must develop is a building of a shared vision. It is not an idea, but a force in people's hearts. It may have been inspired by an idea but the

idea gestates into a picture of what the future can be. Individuals may have their own vision of the future but the shared vision draws its power from the fact that it is a common vision (Senge, 1990). Many people see it, believe in it, and work towards its fulfillment. It is especially important because it is what will make the difference between someone who just lives in town, versus someone who engages with working with others to alter the town. The town cannot change without a shared vision. It is what gets one to commit to the long-term. The shared vision can be developed by encouraging a personal vision in the participants. The personal visions can be melded into a shared vision (Senge, 1990). The shared vision as it relates to systems thinking shows us that the vision paints the picture of what we want and systems thinking explains how we have what we have (Senge, 1990). But people have to believe that they can shape their future. The Leap Town can be a starting point for a community to develop their own shared vision. As they grow through the process of building a shared vision, they will find the path and its destination that is appropriate for them.

TEAM LEARNING

The fourth discipline is team learning. There are three critical dimensions to team learning in the town. One, the town needs to think deeply into complex issues and use the assets available, including the participant's minds and experiences to understand the complexity. Secondly, there needs to be innovative and coordinated action, much like a basketball team and each player having a role and expected actions in fulfilling that role. The discipline of team learning requires mastering the skills of dialogue and discussion (Senge, 1990). Dialogue requires the conditions, 1) all participants suspend their assumptions 2) all participants regard each other as equals, 3) there must be a facilitator who maintains the air of dialogue (Senge, 1990). In a discussion, different views are represented and defended without necessarily the structure and rules of dialogue. This is where the work with mental models surfaces as

well because the town members need to be able to think together and work together towards the common goal of their town's revitalization (Senge, 1990).

Systems Thinking

Systems thinking is the fifth discipline, it is the element that binds the other four disciplines (Senge, 1990). It is also what allows a person or an organization to enter the practice of systems thinking in any one of the disciplines because they will all lead to the other. What all of that means is the town has a better chance of stopping the momentum of decline if the individuals in the town work on themselves, and can learn to work together on a shared vision. The town members need to learn to communicate and need to learn how to learn together. This may be more difficult than it sounds. But what it requires is applying all 5 disciplines together and benefiting from the applications of the learning developed through the practice of those disciplines (Senge, 1990).

Chapter 7: Systemic Change

So, how would a rural community use permaculture and systems thinking to reverse its fortunes? In the following discussion when the town is referred to, it does not necessarily mean Sierra Blanca. The problems with declining towns are so similar, that it is possible to generalize and be accurate. When Sierra Blanca is mentioned, it also does not exclude other places from identifying with it as well.

FIND OUT WHEN AND WHERE YOU ARE

The town would observe. It would watch, and look at, study, and investigate its world. It would look at what is happening in cities and what is happening in the town. It would look at technology, social forces, transportation, past and present economic conditions, communication, population trends, energy trends, waste disposal, food production, employment, security, history. It would get a picture, based upon facts, of the world. It would also do an honest self-reflection of itself. It would look at its assets, its liabilities, and its capacities. What does the town have to offer? What is it missing? It would get a good understanding of the history of itself and how it got to the condition that it is in. It would also get a picture of how the town fits into the world. From that observation, awareness will surface and ideas may begin to formulate.



Photo 4: Ellison Place in Sierra Blanca before a parade. Source: Arvin West

In the instance of Sierra Blanca, it is 80 miles east of a 2,000,000-population urban area, El Paso, TX/Juarez, MX. It is located on a freeway that has 5.8 million vehicles a year going by. There are three exits for Sierra Blanca for westbound travelers and two for eastbound travelers. It is the first major settlement coming out of El Paso if you are heading east, and the last major settlement heading into El Paso coming from the west. It is a natural place for people to exit for fuel, food, and lodging.

It is close to Big Bend and other natural areas that draw people from all over the world to experience this part of Texas. Another draw to the area will be when Blue Origin, which is 70 miles by road from Sierra Blanca, becomes operational. Most passengers will fly into El Paso and pass through Sierra Blanca to get to the spaceport. There is a nearby mountain identified as possibly the largest concentration of rare earth minerals in the world. Its extraction is being studied now.

Sierra Blanca is the county seat but is unincorporated. It has an inventory of vacant buildings and vacant lots. Many parcels have absentee landowners. The streets are in poor condition and many lots have dilapidated structures. The town has a friendly, caring, resilient population. The town has water supply issues that need addressing.

A town should become aware of its allies in town. Those are the individuals and organizations that can help promote the vision of the new town. They are the ones who can provide resources to advance the cause.

In Sierra Blanca, a property owner surfaced as an ally. He shares the vision in this report of what Sierra Blanca can be. He grew up in Sierra Blanca and experienced the town when it was at its peak. He and his sister were recently bequeathed their father's property with 2.1 acres containing about 12,000 square feet of buildings. They are allowing a group, of which I am a part of, an opportunity to get the property back into service in a way that can perhaps catalyze change in the town. The property has been in the family for about 100 years and is located in the center of town, near the

historical marker that commemorates the completion of the transcontinental rail route.

The project is being called Ellison Place.

A rendering of the master site plan is Figure 2. It provides for a small placita formed by existing and future buildings. The placita will serve as a sculpture garden as well as a place for small festivals and concerts. When complete, Ellison Place will have



Figure 2: Ellison Place Bird's Eye Aerial. Image provided by Braden Haley, Mission Architecture. 2019

11 cottages, an artist colony with a gallery and residence, a restored 1920s era Texas adobe home, an existing building used as a place for business incubation and community meeting space, a cantina, a restaurant, a beer garden, demonstration grow areas showing aquaponic agriculture, two retail buildings, and electric vehicle charging stations.

Additional observations would reveal that these towns need to find ways to bring in outside investment. That is why it has shrunk. The dominant industry the town was founded on no longer supports the number of people it used to. The town needs to find new or multiple dominant industries. This is fundamental town economics. There must be activities that bring in money from the outside. It would look at what needs the humans outside of the town have, and ask if the town could help fulfill that need?

Sierra Blanca has a huge market that it could export products to, El Paso. That market is also an audience to attract to Sierra Blanca events and festivals, and a source of future residents.

Grow Food

One basic need of all humans is food. When a town looks at where most people are living, in the cities, it would make sense for the town to investigate the possibility of growing food and selling it to the cities. This is a low hanging fruit opportunity to bring in outside revenue. Most export crops of farming communities are commodities, not food for direct human consumption. It would be a diversification of any agriculture economy that currently exists in the community. If permaculture design was followed, the town would invest in greenhouses and use aquaponic techniques to grow a variety of food products. Aquaponics is suggested because it allows reuse of water. As we saw in the permaculture chapter, water will continue to become more important.

In Sierra Blanca, the water situation needs to be resolved before the community can expect to fully invest in an export agricultural activity. The town needs its own dependable source of water to be able to serve a potential population growth as well.

Growing food is an activity that can serve multiple functions. Exporting food can be an output that brings money into the town. It increases the quality and availability of food for the residents. It makes the town more resilient since it is not dependent upon a national supply chain for its food. Growing food can be practiced by anyone in the community, thereby bringing in additional revenue and resiliency to the households who choose to participate. A Farmer's Market can be created, providing for local commerce, as well as a potential tourist draw. Quality food prepared in a farm to table setting can further a tourism potential that would not exist if not for growing food locally. Regular shipments of food to the cities create a logistics opportunity to bring products back from the city, thereby minimizing personal trips of residents to the city

and creating opportunities for commerce to occur in the town. The town will find through trial and error the best ways to capitalize on food production and its development into a multi-layered economy.

Ellison Place, in Sierra Blanca, will be a place where a farm to table restaurant will be established as well as farmer's market. There will also be a demonstration garden and other demonstration grow operations. There will be a store that sells tools and supplies for growing, and items related to self-sustaining living.

Department The United States of Agriculture (USDA) has some reports about aguaponics and hydroponics. They have also developed a community toolkit that can be used to evaluate the likelihood of success as well as giving pointers for community-based agricultural systems.

The Southern Regional Aquaculture Center also has publications where we learn the differences between aquaponic production and hydroponic production methods. We also learn that aquaponic farming can be more costly than hydroponic farming and that the initial investment is higher. We also learn there is a lag Photo 6: The tubes are placed in the water in ramping up production with aquaponics due to water. Source: Scott Winton



Photo 5: A tube that holds the rooting medium for the plant. Source: Scott Winton



supply pipes for the source of nutrient rich

the need to balance the fish environment. Also, the fish typically sell below their production cost. We will have to make a value-based decision here because while the total cost of production is 3% to 5% higher than hydroponic production costs (Engel, 2015), aquaponics with fish as the plant nutrient source offers a sustainability and resiliency factor we would not have with hydroponics. The main concern is the need for chemicals and the distribution chain required to get them to Sierra Blanca. If that chain was disrupted, we would lose food production, whereas an aquaponic system could survive this loss. Aquaponics mimics one of nature's natural systems, making it more compatible with permaculture thinking.

Edenworks, an aquaponic grower, and aquaponic consultant has an extensive blog where the economics of aquaponics is discussed. We learn that the aquaponic farmer can expect a 15% return on sales (Bowman, 2017).

In Sierra Blanca, a community organization is working on getting a grow operation going this year. The private property owners of Ellison Place are also working on growing food this season. They have an intention of establishing a farm to table dining experience on the property. The market in El Paso has been explored and we have found customers to be culinary schools, restaurants, and produce sellers.

DEVELOP TOURISM

Another potential activity to bring outside money into the town that justifies evaluation is tourism. That investigation includes asking if there is a special history of the place that could be promoted. Is there an attractive downtown? Is the town close to a major highway? Is there a state or national park, or other natural or historic areas nearby that can be promoted? What can the town be made famous for? Are there local events or festivals that could be expanded? How many vehicles travel through, or near the town now? What percentage could you get to stop and spend money? If you can draw people to your town, can you give them entertainment? Perhaps art galleries or music venues that showcase local talent can be developed. A variety of lodging options should be developed including restoration of any old motor courts, motels, and hotels. Bed and breakfasts and boarding houses can be developed, RV spaces created, and

possibly even camping sites. The town will work those things out as they begin attracting people who want to stay in town.

Sierra Blanca has almost 6 million vehicles per year on the expressway. It should be able to draw some of that traffic off the highway. As mentioned earlier, it is the first major settlement coming out of El Paso, if you are heading east, and the last major settlement heading into El Paso coming from the west. It is a natural place for people to exit for fuel, food, and lodging. A formal advertising plan has not been developed, but one audience of travelers we will attempt to reach are those with electric vehicles. Those who own electric vehicles are already environmentally conscious. Those owners also plan out their charging stops when on a road trip, the places they will stop for the 45 minutes to one hour that it takes to re-charge their vehicle. We will get placement on

all of the available websites that offer charging station information. We will also Geofence charging stations along, I-10, I-20, and I-25. Geofencing is a way to have advertising show up on the devices of people accessing the internet within the boundary of the "fence". The geographical area can be defined by the advertiser. The advertisement will promote Sierra Blanca and the art and agriculture activities at Ellison Place. Maybe Sierra Blanca would be promoted as the "Permaculture Capital of North America".

The old Burma Shave roadside sign method would also be attempted with a

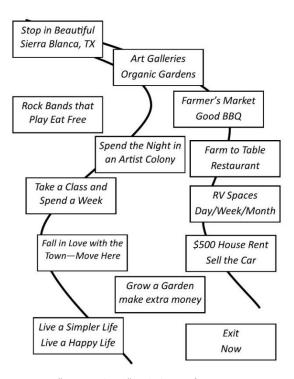


Figure 3: "Burma Shave" styled signs for entry into Sierra Blanca. Source: Scott Winton

series of signs beginning 10 to15 miles outside of town. This was an advertising concept

practiced by Burma Shave with a series of small signs that built a message as the traveler advanced through the series. Figure 3 shows some of the messages promoting Sierra Blanca that have been considered.

Sheriff Arvin West has also agreed to be a part of the tourism efforts by agreeing to allow the use of his image and signature for items to be sold in town, including the traditional striped prison uniforms used by Hudspeth County. Ellison Place will soon have a *Republic of Arvin West Coffee Bar and Emporium* that will advertise a free cup of coffee to those who successfully passed through the Border Patrol checkpoint.

We are looking for other unique ways to get traffic to pull off the expressway. One idea is to promote Ellison Place as a place musicians traveling I-10 would stop at. Even though many performers take a more northern route to avoid meeting Sheriff West at the Border Patrol checkpoint, many also take the I-10 route. We think a program called "Rock Bands Eat Free" will get some to stop. If they will play a few songs, they can get a free meal. We will let the community know when someone is in town, to draw an audience, and we will create novelty items from the events for sale. We think the musicians will share their experience with other traveling bands. If they are not a rock band, they can still eat.

Hudspeth County recently enacted a Hotel Occupancy Tax. The county should establish policies on how those funds will be spent.

Observations would reveal that most communities have assets that cannot be found in the cities. Included are cleaner air, a tremendous night sky, a greater sense of security, a friendlier population, a more distinct sense of place. The town can be promoted as a place where people might move to from the cities, or possibly get a second home. Some people just do not fit into the city lifestyle. Some cannot afford to live in the cities, others have had enough of the city life, and others feel the need to simplify and reduce their carbon footprint. Small towns can be an alternative to the city, but it must be a distinct alternative if it is to truly be an alternative. It cannot be a

miniature version of the city, with automobile dominated transportation and national retail and food chains on the corners. It must possess a village feel, where walking, or bicycles, or electric scooters are the predominant transportation choice. The businesses are operated by local people with shared values for the earth and for people. And it must be regenerative in its building structures, energy usage, waste management, and social services.

CLEAN UP THE TOWN

The town needs to find ways to get the vacant lots mowed and the debris piles around town removed. Just simple cleaning can change the attitude of the town and of people who visit the town. Make it look like someone cares about the place. It is hard to expect outsiders to have an appreciation of the place if the image they receive is one of neglect.

Find ways to get the delipidated buildings removed. They are doing no one any good while left to deteriorate and they can foster more neglect as properties next door adopt the same methods of maintenance. Perhaps once all legal paths have been followed, the town can sponsor a harvest day and enter the property with the purpose of harvesting as many usable materials as they can from the structure.

BECOME DISTINCTIVE

The town would pass ordinances allowing small electric vehicles. The city of Abernathy, Texas passed one such ordinance in 2013. When the town considers street improvements, the improvements would be done on a pedestrian scale. For instance, a local neighborhood street that needs to be rebuilt might have had an original pavement width of 40 feet. It could be rebuilt to a width of 18 feet. That width is sufficiently wide enough for two cars to pass and still meet the needs of emergency vehicles. That is a 55% reduction in pavement costs and a 55% reduction in future maintenance costs. The 22 additional feet of right of way now not paved is available for rain gardens and other

water capture features that can support a tree canopy over the street. The result is a street that is more like a lane than a street, it still allows cars, but also pedestrians, bicyclists, and electric vehicles. It is a more appropriately scaled street that furthers providing a village feel. These changes could be done incrementally or within the scope of a public improvement project. Most of the streets in most of these older towns are already substandard, and in some instances in need of complete rebuilding.

Sierra Blanca is no exception. Most of the local streets are either old asphalt, caliche, or just rough cut with no base. Since Sierra Blanca is unincorporated, the responsibility of these streets is Hudspeth County. The county will have to identify equitable ways to make street improvements. Not only for those improvements within Sierra Blanca but in the other cities within the county that are unincorporated. In the absence of incorporation, special districts are perhaps the way to make the necessary improvement without the entire county bearing the burden. This is worthy of exploring.

The rural towns most likely have a grid street network, just like the walkable villages of the past. If the town will focus any new construction within the grid, and avoid building new things on the edge of town along the highway, it can further the village feel and keep improvements in a compact arrangement, just like the town was originally laid out. The key is to remember that the town needs to be noticeably distinctive from the cities. Fully utilizing the compact grid is a way to do that. Fully utilizing the existing infrastructure of the town just makes sense. To get that village feel, the town should use a form-based code for managing land use improvements along with the New Urbanist Transect to determine appropriately sized roads, parks, buildings, and setbacks. It is possible to have development on the highway on the edge of town, but if it is done in the context of the transect, it can still achieve the village feel.

Many towns have vacant parcels within the grid that are tied up with estate issues, or title issues, or delinquent taxes. Those properties with delinquent taxes should be transferred to a land bank with the directive to get them productively back on

the tax rolls. Often those lots get sold at a public auction to someone who does nothing with them. Vacant parcels need to be made available for use. By selling them through a land bank, the ideals of the community can be conditions to the new owner as to the type, quality, energy efficiency, architecture, and placement of the new buildings.

Sierra Blanca has an abundance of vacant parcels that should be put into service. Some have title issues, but some can be redeveloped. The parcels that could be developed need to be identified and a relationship needs to be established with the owner. A development plan can be developed that would address the methods of getting the public infrastructure brought up to a standard and the increased value in the properties could help pay for those improvements.

CREATE A RE-USE/RECYCLE YARD

One man's trash can be another man's treasure, so make a place in town where people can drop off stuff they no longer want. Find a person who will manage the yard with their salary funded by the revenue on the resale of the dropped off items. It will save on landfill expenses, will extend the use of items and their embodied energy, and could be a source of less expensive things for the person re-using the items.



Photo 7: A volunteer tree in downtown Sierra Blanca. Imagine how effective a rain garden can be. Source: Scott Winton

BUILD RAIN GARDENS

Rain gardens can be a cost-effective way to improve the appearance of the town. Find strategic locations where these can be installed to enhance appearances, provide

shade and inform people. Decide to build a certain number each year and incrementally change the town over time.

INITIATE INDIVIDUAL SELF IMPROVEMENT PROGRAMS

If the town does an honest self-reflection, it will recognize it has liabilities, things that could possibly keep it from being able to reverse its momentum of decline. The major liability most declining towns have is themselves. This is not meant to be a harsh judgment, but it is usually ourselves who keep us from being able to advance. Like the cartoon, Pogo said, "We have met the enemy and they are us." This is one of the systemic elements a town will have to address, how to effectively work together to effect the change they desire.

Sometimes our methods, our motivations, and our personalities can get in the way. Sometimes we pursue our selfish interests, and people know it and don't want to work with us. Sometimes we attempt to dominate, and people resist our efforts. We must put those attributes, desires, and actions to the side because this is about being part of a greater whole. This is about serving the community while forsaking our self-interest. It is also an opportunity to practice the "Golden Rule" of treating people the way we would want to be treated.

I know from my own perspective; I have personality traits that work against me. As part of working on myself, to be a better person, to be an effective change agent, I know I have to actively work on the removal of those defects. I also need to be willing to openly listen to criticism of myself and self-reflect on the validity of the feedback. When it is valid, I can add it to things I need to improve on. One attribute I have is procrastination. It is easy for me to find distractions that keep me from completing items at times. When I am working with groups, that can be an issue when I may not be getting something done when someone thinks it is supposed to be done. I daily ask for this character defect to be removed. I do find I am making progress.

A willingness to change is vital because as mentioned at the beginning of this chapter, the ability of the town to change, to adapt to the current world is based upon the ability of the individuals within the town to be learning individuals. This means they observe, they question, they reach conclusions, and they adapt with new actions.

Self-improvement programs for individuals is the leverage point a town can use to break the momentum of decline. An educated population can better deal with adaptation. These programs can include, adult literacy, personal finance management, parenting classes, communication and interpersonal skill development, business practice skills, technology skill development, trade skill development, etc. The list could go on and on, but the point is the community must begin some form of personal development for its citizenry. Exactly what forms this would be will depend upon how effective the community is at identifying the needs, the likely participants, and the resources necessary to implement the programs. There are state and federal grant programs for developing capacity and there are foundations who invest in community capacity development. A lot of the education and training could be conducted by individuals or groups already within the town, such as churches.

Self-improvement is something we should use to become better town leaders. If we believe in investing in people, then some of that investment should be made in ourselves to become a better council member, or school board members, or Emergency Service District board member. Whatever capacity we may currently be serving the community in, we can always find ways to get better. We can take advantage of the associations our organizations are members of. They offer numerous ways we can learn to become better at what we do. They also will sponsor speakers and other training for free for the town.

COMMUNICATE

Take advantage of the internet and start a community social page or a YouTube channel. Post videos of the local game, or the school program. Post local meetings. Post training videos. Use the internet as a way to make available all the information on what is going on in town. The technology will allow you a way to further the shared vision of the community. It also is a way that more people can participate in the formulation of that vision.

Many towns have limited broadband access, but there is basic service that would allow the creation and maintenance of social media pages related to the town. There is also a movement in Texas to bring better broadband access to rural areas. Join that effort. Increased broadband services in your town will remove the objection of limited internet as a reason why telecommuters would not move to town.

Sierra Blanca should consider creating a library district. It is funded by sales tax and could be the central source of information, learning, and growth. Some libraries also have tools and equipment for check out. This is certainly worthy of study.

LEAP TOWN

One framing of permaculture action, as proposed in this report, is for the town to "leapfrog" into the 22nd-century by becoming a 22nd-century town today. This does not mean that with a click of their fingers they are "poof", a 22nd-century town. But it can mean that with a click of the fingers, "poof", the town begins to use 22nd-century thinking and actions in the decisions and improvements it makes and in the way those decisions are made. While there are many ways to frame a possible future, the one proposed here assumes we will make our decisions differently 80 years from now. How a town may get to that frame of thinking in the present, will be dependent upon the town itself. The future it frames for itself is solely dependent upon that town. But just the adoption of a permaculture philosophy will put the town on the path of becoming a "Leap Town" by re-adapting itself to be relevant in the future. Framing of permaculture

in the form of a "Leap Town" is a way to simplify the concepts so a town can have a description of what they could become.

What will ultimately happen to each town is in large part dependent upon that town. It will not be a function of changing times; it will not be a function of economics or transportation. It will be based upon how the town changes its thinking and the actions it takes to reflect that changed thinking as it addresses the global, national, and local forces that impact it.

The Leap Town is a planning strategy for declining communities based upon the idea that the town decides to "leapfrog" into becoming a place of the future today. What that means is the town begins to make its processes, decisions, and actions as if they are making them in the 22nd-century. It is a leap of the community mind in how the town will move to the future.

What makes this different from most planning models is that it is based upon permaculture and the ethics associated with it. It is more interested in systemic changes intended to address the issue of decline through the use of systems thinking. If the members of the community can change their thinking, then the following is a description of the kind of town they could have.

A Leap Town is a place where the environment is respected. Development is compact, facilitating walking, bicycles, or small electric vehicles for transportation. Buildings are off the grid and housing is diverse and integrated. There are diverse private and public open space types and a boundary of open space around the town.

The economy is built around creativity, education, crafts, trades, and sciences being rewarded. Healthy food is grown as an export product and for local consumption. The town fosters an environment of opportunity, prosperity, and growth through the economic forces of productivity, entrepreneurship, innovation, private and public capital aggregation (not necessarily money), and philanthropy.

In a Leap Town, everyone has the right to own real property. Everyone has the opportunity and responsibility to pursue a healthy, honest, and sufficient livelihood. Regenerative permaculture principles are used in daily activities and community systems. Governance is inclusive and active.

In a Leap Town, everyone is fed and has housing and access to basic hygiene facilities. Healthcare, recovery, and mental health programs are philanthropic and available to all.

The Leap Town is an ideal on a spectrum of choices that towns have in how they approach their future. Maybe a town does not make the full leap, but any advances that it may make can be steps towards a more sustainable future, particularly if they adopt permaculture practices to help solve their problem of decline.

One way to look at the Leap Town concept is that it is a destination. If the Leap Town were a physical destination, a set distance away, we would decide how we are going to get there with the resources we have. We know we could walk and it might take a year to get there. If we owned a bike we could ride, it might take us 6 months. If we owned a car, it might take us 4 days, and if we could buy a ticket on a jet airplane, we could be there in 4 hours. One day, we may have matter transmission capabilities or all be like the illusionist, David Copperfield, with the ability to materialize somewhere within nano-seconds.

But the Leap Town is a destination in time and has its own modes of transport to get there. A town could make no efforts to affect its future, do nothing, allow the momentum to follow its natural course and in 80 years, the 22nd-century would arrive. The town might not exist by then, or the collective mind of the town could decide that the town does want to survive by adopting a complete permaculture, systems thinking basis of action. It could be at the complete destination in 15 years, but residents would see physical changes in the town in less than a year. They would see the town spirit

change within weeks if the proper activities were enacted. The Leap Town is also a mental state, and it is possible to instantaneously get there with a psychic change.

Others agree on the need to re-frame a future. Gisela Williams, in an April 2020 article in Bloomberg titled *This Could be Your Neighborhood* tells about an intentional community being developed in Georgia called Serenbe. The guiding principles of the development are sustainability, wellness, and land conservation. It is one of an increasing number of intentional communities devoted to improving human and environmental well-being. Some call them eco-villages (Williams, 2020). The article tells of The Foundation for Intentional Communities who says there are about 1,200 intentional communities worldwide and 753 in the United States. Cynthia Tina, the executive director of the organization says "Many of these communities are self-contained and self-reliant. They grow their own food, produce their own renewable energy". James Ehlrich, who is developing ReGen Villages, a prototype development, says that the growing population and climate change has spurred the need to create self-sufficient communities. Joanna Frank, of the Center for Active Design, says "There is market demand for walkable, sustainable developments that are designed [to maximize] quality of life" (Williams, 2020).

Those developments are in a greenfield setting, the program suggested in this report is to take an existing community and re-model it. The important point is, and as a practice of permaculture, the community needs to share the responsibility of deciding what happens to it. It is not just a decision for elected officials, department heads, or business leaders. As many members of the community as possible need to be involved in the dialogue. The environment needs to be one of effective listening with each participant having the space to express their views, or ask questions.

Each participant needs to be open-minded to their own personal growth. They need to be prepared to transform themselves because that is what will happen as they join together in altering the momentum of their town. A decision to not change, to

keep things the same is a decision to keep declining because that is the only constant the town has experienced.

PASSION DAY

Systems thinking dictates that individual human development is the most critical component of making systemic changes to alter the momentum of decline in small towns. It is the element that determines the quality of anything we as humans do. The towns that can see this, and incorporate it into its social fiber, are the ones who will advance. That community will find ways to identify the passions of individuals and help them develop the passion and turn into a livelihood.

The process of identifying the passions of individuals within the community can be a tremendously effective exercise in community development and team learning. One idea is to have a Passion Day at a local venue. Invite the community to share what they enjoy doing the most. If it is cooking, bring the dish you think you do the best. If it is making furniture, bring your most recent piece. Whatever it is, bring that thing you like doing best and come share it with others. The community would be amazed at the talent and skills within the community. With those passions identified, the community can develop ways that someone could make money performing that passion. Maybe the community discovered the best apple pie they have ever had is made by their neighbor. So, the local restaurant will certainly want to buy those pies to sell by the slice as a desert. Maybe the baker of those pies doesn't want to be making pies all day, so perhaps someone else in town can take on the business of baking and selling the pies. Of course, that could work with any other product or service that might surface from holding a Passion Day event. Systems thinking would also ask how else the town could benefit from holding an event such as this. Perhaps it promotes the event outside of town to turn it into a Passion Festival, with also sorts of activities of people doing what they love. The town can figure out ways to make something like this happen and to benefit fully from it.

We held some art events in Sierra Blanca and it was surprising the number of local artists who participated and the quality of their work. Many are renowned in their medium. We have also discussed having competitions, such as finding out who does make the best apple pie in town, or the best chicken fried steak, or even the best refried beans. We would then find a way to produce and package the winning products and add them to the list of high-quality foods "Made with Love in Sierra Blanca" that can be distributed to El Paso and beyond.

SERVICE INDUSTRY TRAINING

The community can also provide fundamental training on a topic that is relevant right now and that could show an immediate return with higher sales tax receipts, higher tips in restaurants, and an increase in community spirit. The activity is an example of a practice in systems thinking.

The complete experience that a visitor may have while they are in that town will determine how long the visitor stays in the town, how much money they spend while in the town, if they will ever come back to that town, and if they will tell others about the town. The town must manage that experience. Naturally, the town would want the experience for the visitor to be positive. The community should organize training for the people employed in restaurants, lodging, and retail to help manage that experience.

Dale Carnegie published *How to Win Friends and Influence People* in 1936 and an updated version was published in 1981. It is the basis of all modern sales training programs today and has been credited with creating the self-help genre of literature. It has been listed as one of the 100 most influential books in our modern history.

Carnegie tells us that people want to be made to feel important, they want to be appreciated, and they want to be liked. So those in the lodging, restaurant, and retail

businesses can do three things to cause a positive experience. 1) Make the person feel welcome and appreciated. Happily, greet the visitor when they enter the establishment, make eye contact. Tell them you are glad they stopped in. Encourage them to come back. 2) Make the person feel important by introducing yourself and then using their name often. Carnegie says a person's name is the sweetest word they know. Also, genuinely compliment them on something. Show them you admire something about them. 3) Give the person a chance to talk about their favorite subject, themselves. You do that by asking questions and being genuinely interested in learning all about them (Carnegie, 1936).

A town that offered training of this sort could make a noticeable difference in the visitor's experience in the town. This would seem to be a practice already in place, and it might be for national and regional chains that serve a small town, but rarely is this training formally practiced in mom and pop outlets, or from the perspective of promoting the town. If all of the town's residents participated in training such as this, each person would be an ambassador of goodwill to all they meet. Every person who stops in the town is a potential new resident or business owner. They should be convinced that this town is worthy of moving to and investing in. If they are made to feel welcome, they might just do that.

That training could be extended to include making the populace more informed about the city, its operations, its infrastructure, and its plans. So, when the visitor has questions, the resident knows the correct answer and where to point the visitor if they need more detailed information.

SCHOOL CURRICULUM

Other systemic training and education the town can implement are in the public-school system. There should be a segment devoted to studying community development in grades K-12, so that a high school graduate has a strong understanding

of the physical and social nature of their town and why the town has chosen to be a Leap Town. In Sierra Blanca this would mean teaching 114 kids, or 22% of the population about the new ways to look at their town. They become the messengers and ambassadors of change to their family.

With that education of community development and the fostering of talents and passions the student had through school, the town would help the graduate stay and make a living, or to re-locate where they can hone that passion in the outside world. The graduate would hopefully return with a greater appreciation of their hometown and help to further its cause. If they do not, it is okay too. They would become a success story as a product of the town, and success stories would attract other families with children desiring success and happiness for their children to replace the ones who do not return.

The training opportunities for the town to engage in are unlimited. The objective is to gain a knowledgeable, open-minded, resilient population. People need the opportunity to grow and learn to become what they are capable of becoming. The library can help by adding titles related to personal development. The local media could add a column related to self-improvement. Have businesses that provide services to the local governments sponsor monthly motivational speakers so the residents can get a regular dose of "anything is possible". There are many other methods the town could identify that would help the residents get access to materials that awaken within them a life of possibilities.

CREATE BOARDS AND COMMITTEES

The decisions the community make need to involve many. When people express an interest in the future of the town, they need to have opportunities to participate, and the town needs to foster an attitude of welcome participation. Boards and committees are a way to do this. There are so many things that need attention in town. Let the

citizens be a part of the solution. Committees to consider creating on items requiring a focus include youth activities, elderly activities, ordinance development, streets and utilities, police and fire, library, parks, beautification, housing, public finance, land use, overgrown lots, building standards, economic development, governance. Other opportunities will surface.

As people participate on boards and committees, they strengthen their bonds to the community, they learn about the local government, and they prepare themselves for possible future service as a potential elected official.

WE BECOME WHAT WE THINK ABOUT

There is a philosophy that the individual holds the key to their future by what they think and how they act. There are many self-help programs available built around that philosophy. My father began utilizing a program in the 1960s called *Lead the Field*, developed by Earl Nightingale. The disciplined practice of daily goal setting prescribed by the program completely changed our family's circumstances from poverty to prosperity in a short period of time.

Napoleon Hill's, *Think and Grow Rich*. He realized that he had been reading the same truth over and over again, from the New Testament; "As ye sow, so shall ye reap", to the works of Emerson. Nightingale formulated that truth into the statement: "We become what we think about." He produced the first spoken-word recording to reach Gold Record status called *The Strangest Secret*, with that message (Top Results, n.d.).

The idea is not unique. It goes back to the Bible. In Proverbs, we are told that "For as he thinketh in his heart, so is he". Edgar Cayce, the sleeping prophet, phrased it as "Mind is the builder, physical is the result" (Puryear, 1982). Some call it the Law of Attraction. There are many self-help gurus like Tony Robbins, Deepak Chopra, Wayne

Dyer, Eckhardt Tolle, Joe Vitale, and Rhonda Byrne that all preach the same basic idea: Our thoughts create our reality.

The philosophy of Imago Dei teaches that as part of our nature of being created in God's image, we have the same attributes and qualities as God, and as some believe, including the power of creation. Edgar Cayce readings tell us God made us to be companions and co-creators (Puryear, 1982). We create our life every day, whether we are aware of it or not. The life we live today was created by us, by our thoughts and our actions. The universe is designed to respond to our creation qualities, and it does.

Some might say those are wild assertions. Things happen to us that are completely outside of our control such as earthquakes, wildfires, hurricanes, recessions, health issues, and the death of loved ones. All of these are life-changing events, but we can control how we react to those things that happen to us. Isn't it possible that the way we have reacted to previous situations, may have contributed to the creation of the situations we find ourselves in today? What if you had reacted differently to a past challenge, opportunity, or conflict than the way you did. Would you be where you are now? I believe one of life's lessons we came here to learn is to understand that our bodies do not have to die for us to go to a heaven or a hell. That we can live in either, right now, by choosing how we react to whatever may be happening to us. It is the cumulative effect of those reactions that make happy or unhappy lives.

People and towns work the same way. They have inherent qualities that make them able to become something when conditions are met, and they become something else when conditions are not met. Just like the acorn that may not get the water it needs or have the proper soil conditions and it doesn't turn into an oak, but becomes food for an organism and ultimately returns to the soil. These declining towns could do the same and eventually go away.

The town can develop the conditions it needs to sustain itself by consciously deciding where it wants to go. They can practice a form of the same program Earl

Nightingale recommends, decide where you are going, and work every day to get there and, twice a day, remind yourself where you are going and how you are going to get there. Working it every day sustains the creation forces. How does a town do that? It must have an elected body that has effectively articulated those goals. The goals are the shared vision that Senge speaks of. The elected body must hire a staff that will do the daily work of progressing to accomplish those goals. If the town cannot afford the staff, then the elected officials and the boards and committees they formed need to step up and do the work.⁸

That daily attention to where the town is going is how it will get to where it wants to go. Deciding where the town wants to go will activate the creation forces of the universe. Daily work on activities that advance the town towards its goals sustain the creation forces. A successful life, for a person or a town, is accomplished by putting together a continuous series of successful days. Successful days are created by the daily actions we take to advance us to our goal, the shared vision.

Senge says:

Real learning gets to the heart of what it means to be human. Through learning we re-create ourselves. Through learning we become able to do something we never were able to do. Through learning we reperceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life. There is within each of us a deep hunger for this type of learning (Senge, 1990, pp. 13-14).

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⁸ That's how we created many ordinances in Pflugerville when it was very small. The boards and commissions and city council put them together by finding the ordinances of other cities and tailoring those ordinances into one that met our needs. It saved on attorney time and resulted in an ordinance specific to the things that were important to us. That was before the internet and an ability to find things online.

Chapter 8: An Easier, Softer way

Chapter 7 explained how a town can be revitalized. The town can begin growing food as an export industry to bring outside money into the town. It can attempt to develop a tourist industry, and it can re-model itself as a place that is an alternative to city living. It can also cultivate new ways of thinking and acting so it can be more adaptable to changes that affect it. It can grow the capacity of its residents with training and education because human development is the most critical component that determines the quality of anything we do. It can develop communication outlets to build a community spirit, to further the vision of the town, and to help train people.

Some towns can do these things on their own, with little outside help. The words will resonate with some in the town and they will begin working on saving their town. They may already be working on it. They will research, and learn, and engage others in their community. They will bring professionals in when they need them. An infectious energy will get created and the town will work towards systemic changes.

Other towns may hire professionals to help guide it through each step of a systemic change process. They will need an organizational structure, a plan, and someone to direct them through the steps of change. They will ebb and flow in and out of the Leap Town mindset with every municipal election. They will experience two steps forward and sometimes one, two, or even three steps back.

And some towns will not seem to be able to pull it all together. It may be that the residents are just tired, they do not have the energy. It may be that the residents have too much history with each other and the expectation of them working together is unreasonable. It could be that there is no organizational capacity that can be developed. But most likely the missing ingredient will be that a leader or leaders did not surface to lead the charge. For whatever reason, their efforts will continually seem to not produce the desired results, even with professional help.

Perhaps that town needs a direct injection of hope, not unlike a heart patient may be given an injection of adrenalin when in cardiac arrest. Hope can be directly injected into the community with a simple act of bringing people into the community who have an abundance of hope. Sponsoring an addiction recovery center can do that as hope is usually all the addict in recovery has.

HOPE

What is hope, this essential ingredient to growth and change? Hope has built nations, communities, and individuals. Hope is a highly researched topic, particularly in the fields of psychology. Hope therapy is used to treat mental illnesses. Studies have even shown that endorphins are released when one is experiencing the sensations of hope.

Volumes could be written on the topic of hope and what it does for people. Volumes could also be written about the opposite of hope, despair, and the lives, communities, and even nations it has destroyed.

Charles R. Snyder, a specialist in positive psychology, linked hope to the existence of a goal, combined with a determined plan for reaching that goal. He helped develop the idea of Hope Theory through his study of how hope and forgiveness can impact several aspects of life such as health, work, education, and personal meaning (Snyder & Lopez, 2001). They postulated that three main things make up hopeful thinking:

- Goals Approaching life in a goal-oriented way.
- Pathways Finding different ways to achieve your goals.
- Agency Believing that you can instigate change and achieve these goals (Snyder & Lopez, 2001).

Using Snyder's theory, the three components of hope represent a faith, a direction, and a belief in oneself. They have the belief that the person has the ability to

achieve their goals and a faith that directions will surface with ways to accomplish the goals. Most people have degrees of hope that drive their actions. The collective hope of the individuals in a town will drive any advances, just like the ability of the town's residents to be learning individuals will determine the town's ability to adapt.

Living things and towns have similar characteristics. They have inherent qualities that make them able to become something when conditions are met, and they become something else when conditions are not met. Just like un-germinated seed that lacks the water and proper soil conditions becomes food for an organism and ultimately returns to the soil. A town without the proper nutrients decays as well.

But if the town can bring in the nutrients of growth, a sense of hope, it can stop the decline. When it is filled with optimism and hope, with a clear direction in what the residents want it to become, the universe will make it happen. People start doing things. Activity creates activity.

When the town is filled with dread and despair, the universe will make more of that happen too. It just works that way. A town in the momentum of decline is a lot like the acorn that fell in a place without the proper nutrients. It needs to be nurtured, its environment needs to be changed, it needs to be fed so that it can become what it is programmed to potentially become.

So, for those towns that cannot muster their own internal hope, they can find it in others, by bringing in a recovery center. The word recovery would seem to be naturally used as part of the language of permaculture, but it does not occur in Toby Hemenway's book. The word recycle occurs 14 times, reuse 14 times, restore 11 times, and redevelop twice. Regardless, the idea of a person taking something that could be discardable and adapting it, modifying it, restoring it, and putting it back into use is certainly a regenerative, permaculture act. In this instance, the item being put back in use is a human, who through a series of bad decisions, finds themselves in addiction treatment and recovery. The irony of addiction is that the only cure is within the addict

themselves. When one enters recovery, they are making a decision to change, to get better, to leave the life of bad decisions behind and start anew, with a tremendous sense of hope.

HOPE IS CONTAGIOUS

The addicts in recovery exhibit hope as they go through their day serving the town. The town residents know the circumstances the addict agrees to serve under. They realize the addict must have been at a terrible bottom in their life to be willing to commit to a yearlong recovery program. They know the addict has nothing, no home, most likely no income, usually owning only the clothes on their back, and is trying to start afresh. They see this person with nothing, trying to help others, trying to help their town, and they see the positive changes that recovery brings in the individuals.

This inspires the town residents into thinking maybe the town can make changes too. Maybe it truly could be a 22nd-century town. It could become an alternative to the metropolis. Maybe food could be grown locally and buildings could be off the grid. It could be a place where one could live without having to own a car, and jobs could be in micro-businesses, cottage industries, food growing, and the arts. They see that maybe the town could again be a place that people want to move to. Through that, the town develops a sense of hope.

RANCH ON THE ROCK AND SIERRA BLANCA

Observing the community of Sierra Blanca and the Ranch on the Rock Recovery Center shows that connecting the two in a shared recovery program forms a symbiotic relationship between the recovery center and the community. Each entity has things the other can use, and the sharing of those things benefits both. In Sierra Blanca, the following is occurring:

- The recovery center gives the town a steady supply of able-bodied people who
 are devoted to improving their circumstances. Some of the graduates stay. They
 are a walking embodiment of hope.
- The recovery center provides a workforce for services to the residents.
- The recovery center brings the knowledge of the Leap Town and the expertise of permaculture to the community. The staff at Ranch on the Rock is actively learning about permaculture practices.
- The recovery center provides training to the community in permaculture and food production.
- The recovery center starts new businesses to fill service voids and to kick start food production.
- The recovery center is like the compost added to gardens to replenish soils and brings the essential ingredients of energy and the spirit of hope to the town.
 Hope is contagious.
- The recovery center costs the community nothing, other than a place to call home.
- The recovery center provides no-cost recovery service.
- The recovery center can be the intake point for those who come to the community seeking food and shelter.
- The staff of the recovery center, along with some graduates have taken a leadership role in the community by forming a community coalition. They are in the process of obtaining a 501 (c) 3 designation. They have already hosted an Agri-Extension workshop for growing food.

The community offers to the recovery center an environment that increases the chances of successful recovery for the addict.

 The town is isolated, giving the addict distance from the geography of their problems.

- There is a deficiency of services and a workforce shortage, giving the addict a chance to make their new future and get a job or start a business.
- The community provides an old 1930s motor court for them to occupy to run their program.
- The town residents have things needing to be done at their home or business and they hire the recovery center to perform those services. This provides income to the center to supports the operations.
- The town gives the recovery center a place to practice permaculture and to advance the Leap Town concepts.

The treatment center we have discussed has been one for addiction, but it can be a recovery center for any type of population including ex-convicts, traumatized veterans, battered women, and many other groups that benefit from an inpatient treatment program. The treatment would be at no charge to the patient.

Chapter 9: Conclusion

This report has taken a much different path than the one contemplated when it was first started. It was going to show that a declining town can benefit from the presence of a recovery center and that combining recovery programs was a practice of permaculture. It was going to promote the idea that it was critical for all declining towns to adopt a recovery center. I still believe this is a valid combination because a synergy will be achieved combining the two and it maximizes the benefits to each by sharing a recovery program. The presence of the recovery center and its staff and patients gives the town a consistency of purpose allowing continuous progress to be made on the town's redevelopment.

The report was also going to provide a case study of Sierra Blanca, Tx, where a recovery center is in place with residents and staff who are actively involved in community improvement activities, including starting a food growing operation. But the focus of the report changed with the awareness that a recovery center is only one tool. While the recovery center in Sierra Blanca is fulfilling its potential as a catalyst for change in the community, and a true case study could be presented, the outbreak of the coronavirus of 2020 prevented a return to Sierra Blanca to effectively complete the research. I was not willing to risk possibly being the person who brought the virus to Hudspeth County.

But the resultant report is probably more meaningful than the one originally envisioned. It is more appropriate for an audience of individuals wanting to save their town. Most towns will want to try many other things before they resort to inviting a group of addicts to live in their town. It is not unlike the practicing alcoholic who thinks they can quit on their own. Some do, some do not. But just as recovery programs are available to the addict who finds they cannot quit on their own, so is establishing a recovery center an option for a town that finds it needs an injection of hope.

Hope is a systemic ingredient that is vital to stopping the decline of a town. At one time, at the beginning of the town, this ingredient was abundant. It fueled a growth and vibrancy in the community that has not been seen since. Before any investment was made, before any physical improvement was made, before any building was built in the town, there was a hope, in someone, of what might take place there. It was a place where someone hoped to build a life. It was the collective hope of many individuals causing each to come together at that place, in a period of time, and creating the town. And the town grew off that hope, and its families grew. Businesses opened, schools and churches were built and the town became home to many. Hope thrived, but as the decline occurred, the hope shrank with the economy. People took their hope and left to invest it in building a life elsewhere, or they stayed, and eventually, their hope died with them. Those who are still there, have a hope that deserves to be kindled.

Hope is an ingredient that drives people forward. It fuels their motivation to improve their circumstances. It is what causes a striving for education, improvement in work skills to earn a promotion at work, and sending your kids to college, or working on improving your town.

The report originally was not going to include Senge and *The Fifth Discipline*, which I studied in 1999 during a previous stint at school. The Senge work, however, completes the perspective required for a town to alter its momentum of decline. Looking at Senge gives us a deeper look at systems thinking than general permaculture, and it accurately addresses the personal development required to be an individual working on saving their town.

Senge provides the language and structure for the behavioral and social aspects of systems thinking in community development. He gets to the core of the importance of the capacity of individuals and how that affects the community's ability to adapt. He expresses why it is so important to have people be learners and he shows us how to develop learning. Communities need people who can observe, not only the external

world but their internal world, and they need people who can adjust and change based upon those observations. Senge shows us too how we can learn to learn together and build a shared vision that can keep us engaged in working towards altering the momentum of our town.

It will be a collective group of individuals in a town that will decide if the town is going to save itself. They may already be involved in the operations of the community, or they may not have yet moved to the town, but it will be their collective actions that will determine if that town advances or not. They will choose to invest time and money and they will invest hope, just like the original town founders did.

These individuals must surface. These are the builders of the town's future. People who love the town, people who want to work together, people who want to learn as much as they can so they can be an effective leader and implementer. People that recognize that the more participants, the better, and they want to help build all people because it makes sense for the town and because it is the right thing to do. They must be people willing to build people.

These leaders also need to become a part of the dialogue at the regional, state, and national levels. Others are currently contemplating what should happen with our declining rural towns. Those decisions should not be made without the involvement of the leaders of towns that are trying to save themselves. We saw in the literature review there are recommendations that the federal and state investments in rural towns be changed from investing in trying to help populations, to investing in places that have a greater chance of success. This will again be leaving many towns behind still. If leaders of any town think their town should be saved, then they should have access to the resources to help save it.

We have also seen that forces outside of the control of the town can affect what happens to the town. It can be global economic forces, national policies, or changing market conditions, but outside forces will always cause an impact on rural towns. The

key is for the town to position themselves to be able to successfully deal with any outside forces that can affect their future.

The report was also not going to include the Leap Town Planning Initiative. It was added because it is a reflection of the learning I have experienced in pursuit of this degree and it incorporates the 45 years of experience I have had in my varied roles as a participant in community development and in producing the built environment. The idea of the Leap Town developed while studying planning theory and New Urbanism. I became aware of New Urbanism relatively early in its development and did not realize it had progressed to becoming a part of the body of planning theory until we studied it in the planning theory class. Having watched its development from a small group of architects and planners with an idea of a better way to build neighborhoods, towns, and cities, made me realize a planning perspective could be developed for declining towns, just as New Urbanism was an alternative to sprawl development. Recognizing that declining towns must re-frame themselves to be relevant in the world today and tomorrow, inspired the idea of leapfrogging to a future. In my opinion, since the new model of planning will be permaculture, the planning window needed to be much greater than the typical 20-year horizon. It also needed to be far enough out that we truly will be capable of holding a mindset of equity, justice, and equal opportunity. Plus, the words "22nd-century" have a resonance that feels right.

I hope I have given the reader from the small declining town an idea of how they can alter that decline. It truly is systemic, not just a need for jobs. Please also know that I want to help you address those systemic changes. The goal is to create a town building and remodeling company that uses permaculture and systems thinking principles. The company would focus on declining towns and have the ability to provide planning, grant acquisition, community development, and personal development services. We will also have investment groups interested in aquaponic agriculture development, real estate development, and micro-business start-ups for towns that meet certain criteria. We will

also have the ability to help a town set up a recovery center if that is a route the town feels they need to pursue. The purpose of the company is to provide a social good by empowering your town, and many more towns, while making a reasonable profit. That profit opportunity will be available for everyone who invests in re-modeling your town. The greater good is also for these towns to become examples of resiliency and self-sustaining. As more of society becomes aware of the limitations of our current economic structures, they will look to our small towns to learn from.

This report is about internal transformations within people and towns. Just as it is an internal transformation that initiates a path of sobriety for a recovering alcoholic, so it is for a town that enters a path of sustaining itself. It requires the internal transformation of individuals causing the inner transformation of the town.

Consider this short narrative: In the wildest imaginations, a town would start growing food and selling it to the cities. A restauranteur becomes familiar with the town and its quality food production. He visits the town and is made to feel welcome. He likes the place and likes that the town is taking initiative and rebuilding themselves. He also likes the ideals of the remodel with its permaculture ethics of care for the earth, care for people, and reinvestment back into the earth and people. He buys a weekend home here and then he buys a building and starts a farm to table restaurant that brings people out of the city. Artists start moving into town and opening galleries. More restaurants open. Old houses are converted to bed and breakfasts. Buildings get remodeled. Maybe a culinary school gets founded. Maybe an aquaponics school gets founded. Maybe a sustainability school gets founded. Teachers and students move to the town to learn how to do the things that this once declining town does. New buildings get built and more people move to the remodeled town where they don't have to own a car, and they can eat locally grown food, and the buildings are off the grid. The new residents can make some spending money, if they need to, by working for themselves or at a local business. Community services are expanded. The growth

maintains and enhances the village feel of the place. The town is truly part of a greater whole because they are advancing the alternative to the city with a model of sustainability and resiliency and are sharing it with others. The town has a higher quality of life. And it offers opportunities for everyone who moves there. Maybe growing food would be the catalyst for a story such as this to develop in a small town. One would hope it could be so easy.

Ease is a perception. It will be as easy, or as hard, as the town makes it, but it is possible.

Works Cited

- Bowman, J. (2017, November 26). *Tradeoffs in aquaponic vs hydroponics, by the numbers*. Retrieved from Edenworks: https://medium.com/edenworks/tradeoffs-in-aquaponics-vs-hydroponics-by-the-numbers-6d12b0ecd0af
- Carnegie, D. (1936). How to Win Freinds and Influence People. Simon and Schuster.
- Engel, C. R. (2015, July). *Economics of Aquaponics*. Retrieved from Southern Rural Aquaculture Center: https://srac.msstate.edu/index.html
- Garrison, M. (2019, Sept). Lecture on Climate Change. Austin.
- Hemenway, T. (2015). *The Permaculture City Regenerative Design for Urban, Suburban, and Town Resilience*. White River Junction: Chelsea Green Publishing.
- Hendrickson, C., Muro, M., & Galston, W. (2018). Strategies for Left-Behind Places. *Brookings Rural Development*.
- Hibbard, M., & Lauri, S. (2019). If Your Rural Community Is Failing, Just Leave? The Revival of Place Prosperity in Rural Development Planning. *Journal of Planning Education and Research*.
- Holmgren, D. (2002). *Permaculture: Principles and Pathways beyond Sustainability.* Holmgren Design Services.
- Irwin, E., Isserman, A., Kilkenny, M., & Partdridge, M. (2010). A Century of Research on Rural Development and Regional Issues. *Agricuture and Applied Economics*.
- Johnson, K. M., & Lichter, D. T. (2019). Rural Depopulation: Growth and Decline Processes over the Past Century. *Rural Sociology*.
- Kohout, D. M. (2010, June 15). *Sierra Blanca, TX*. Retrieved from Handbook of Texa Online: http://www.tshaonline.org/handbook/online/articles/HLS47
- Leiserson, G., McGrew, W., & Kopparam, R. (2019, March 21). *The Distribution of Wealth in the United States and Implications for a Net Worth Tax*. Retrieved 2019, from Washington Center for Equitable Growth: https://equitablegrowth.org/the-distribution-of-wealth-in-the-united-states-and-implications-for-a-net-worth-tax
- McTaggart, L. (2008). *The Field: The Quest for the Secret Force of the Universe.* New York: Harper Collins Publishing.

- Merriam-Webster. (n.d.). Resiliency. *Merriam-Webster.com dictionary*. Retrieved from https://www.merriam-webster.com/dictionary/resiliency
- Pogue, G. (2019, March). *IC2 RFP 2019*. Retrieved from IC2 Institute: https://ic2.utexas.edu/news/rfp2019/
- Poteyeva, M. (2018, December 17). *Social Capital*. Retrieved from Encyclopedia Brittanica: https://www.britannica.com/topic/social-capital
- Prophet, M. L., & Prophet, E. C. (1986). *The Lost Teachings of Jesus*. Livingston, Montana: Summit University Press.
- Puryear, H. (1982). *The Edgar Cayce Primer: Discovering the Path to Self Transformation.*Bantam.
- Rural Development Initiative. (2014). Seven Best Practices for Rural Economic Development.

 Retrieved from Rural Development Initiative: https://www.rdiinc.org/newsletters/2014-02/seven_best_practices_creating_rural_economic_vitality
- Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Random House.
- Snyder, C. R., & Lopez, S. J. (2001). *Handbook of Positive Psychology*. Oxford University Press.
- TML. (2017). Texas Municipal League Economic Development Handbook. Austin: Texas Municipal League.
- Top Results. (n.d.). *Earl Nightingale Biography*. Retrieved from Top Results Academy: https://topresultsacademy.com/authors/earl-nightingale/biography/
- Werner, G. C. (2017, November 2). *Railroads*. Retrieved April 27, 2020, from Handbook of Texas Online,: http://www.tshaonline.org/handbook/online/articles/eqr01.
- Wheeler, S. M. (2013). Planning For Sustainability. New York: Taylor and Francis.
- Williams, G. (2020, April 1). This Could be Your Neighborhood. Bloomberg News.
- Wuthnow, R. (2019). *The Left Behind, Decline and Rage in Small-Town America*. Princeton: Princeton University Press.

Vita

Gregory "Scott" Winton grew up in Clovis, New Mexico, and graduated from

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Planning and Zoning Commission, Chairman of the Parks Commission, and 3 terms as

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