# INTEGRATED URBAN PLANNING AND PLANNED COMMUNITIES. THE CASE OF RESTON, VA USA

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## Biographical Notes

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**Roger R. Stough** is a university professor (Emeritus) at the Schar School of Policy and Government, George Mason University, Arlington Virginia USA. He was a faculty member in the School from 1990 to 2017 when he retired from George Mason University. During his time at Mason he served as Associate Director of the Institute of Public Policy, the School of Public Policy where he led the development of the research programme for the School(s) and managed

the academic programmes during a time when these expanded from a Ph.D. programme with new Masters degrees in several areas including public policy, transportation, international Policy and various other areas. In 2008 the School was ranked as one of the top 3 in the U.S. by the U.S. National Science Foundation in sponsored research. Roger Stough also served as Vice President for Research and Economic Development for the University from 2008-2013 and during this period the sponsored research moved from about $72 million to about 3103 million. Later in 2015 the University was promoted to Research One status. Roger Stough published some 40+ books and more than 100 journal articles. Finally, he served as President of the Regional Science Association International from 2006-2008. He has advised university and government agencies in many different countries on their programs in entrepreneurship and innovation with the majority of this occurring in East and South Asia.

**Abstract**

Given the large amount of resources involved, contemporary urban development requires increasingly more integrated plans and actions aiming to relate to one another all components and functions of urban systems, so as to create synergies between all policies, programmes and projects. Integrated urban planning has a special significance in relation to the planned communities, where such an integration and the creation of a so-called "all-inclusive urban environment" are viewed from the inception of the new settlements. Besides the discussion of the theoretical-conceptual framework which provides the foundation for practical actions, this paper proposes a spotlight on Reston, VA, the first modern planned community in the United States after World War II. The examination of the defining features of this community is based on both available literature and the field trips to Reston and interactions with key members of this community, including Robert Simon, its founder.

## 1. Introduction

Contemporary urban development is confronted with a wide range of issues relating to economic prosperity, social justice, natural quality of the environment, cultural heritage preservation and valorization that require coherent, well-articulated responses in an explicitly spatial context. The nature of these complex issues suggests the need for comprehensive vision, a holistic approach in all urban sub-systems and functions, and the careful consideration of the

city-hinterland relationship that involves all social groups – from stakeholders to target groups – in outlining development objectives and their implementation along with financial resources and so on (Nagy et al., 2012). All of these issues and needs make integrated urban planning a suitable instrument for tackling the complexity of the issues raised by the 'new urban world' (Kourtit, Nijkamp and Scholten, 2015).

In various forms, integrated urban planning appears in the documents of important organizations interested in supporting the balanced development of urban systems. For example, the "Millenium Development Goals" of the UN – Habitat (2013), which explicitly states the need to promote "an integrated approach to planning and building sustainable cities" (p.1). Such an approach is suggested for both "developing and developed urban areas"(p.4). The OECD also addresses the question of integrated urban planning in relation to "land use decisions and zoning" (OECD, 2009, p.145) and the efforts to build functional urban areas (OECD, 2013). At the European Union level, "Territorial Agenda 2020" dedicates an entire chapter to "encouraging integrated development in cities, rural and specific regions" (EU, 2011, p.6), including the need for an "integrated, multilevel approach" (p.6) with regard to urban development and regeneration policies and accompanied by integrated impact assessments for "all significant EU policies and programmes" (p.9). Accordingly, various EU territorial cooperation programmes develop these ideas in projects addressing functional urban areas (FUAs) and growing European metropolitan areas (GEMAs) (ESPON programme), integrated urban development and functional territories for better integrated governance aimed at achieving "spatially coordinated development in metropolitan and urban-rural areas" (URBACT, 2015, p.1). An important initiative envisaging joint European support for sustainable investment in city areas (JESSICA) has been built by the European Investment Bank and DG (Directorate General) Regio of the European Commission. Under these auspices, a large networking platform was launched in 2010 in order to elaborate the methodology and define the characteristics of integrated plans for sustainable urban development. Further, the Cities Alliance (a global partnership jointly formed by the World Bank and UN-Habitat) highlights "the institutional strengthening and reorganization" (p.35) necessary for integrating and coordinating urban development, and thus reveals the complexity of such a comprehensive approach (Cities Alliance, 2007). These preoccupations can be found in various forms and proportions in many countries and cities from all continents, with the belief that "a planned environment provides better opportunities for all people to enjoy their community setting" (Simmins, 2011, p.3).

In order to ensure the ability to respond to local needs and conditions, a two-pronged approach to urban settlements pressures needs to be pragmatically applied, expressing a pre-emptive, integrating vision: on the one hand, efforts should concentrate on solving systemic problems of *new settlements*, based on anticipation and development of "balanced and manageable sites" (p.11) able to provide good and attractive solutions in terms of design and services; on the other hand, the current and ongoing weaknesses observed in *existing urban settlements* have to be addressed as well (Jain, 2014).

This paper focuses on the integrated urban planning approach applied to new settlements, with a particular emphasis on the planned community concept. The example of Reston, VA, the first modern planned community in the US is examined and discussed, pointing out the factors behind its successful results and the challenges ahead. The paper is organized as follows. First, the key features of the integrated urban planning approach are identified, followed by the exploration of the ways of applying them in the case of planned communities. Planned communities are examined from a historic perspective, then current approaches are brought into the discussion. The analysis of the Reston case begins with its inception and how the plan was turned into reality and continues with an examination of the results and raising some questions relevant for the current context and the coming years.

## 2. Integrated urban planning. Key features

JESSICA (2010) has provided a definition for integrated urban planning, as follows:

"An integrated plan for sustainable urban development comprises a system of interlinked actions which seeks to bring about a lasting improvement in the economic, physical, social and environmental conditions of a city, or an area within the city. The key to the process is "integration", meaning that all policies, projects and proposals are considered in relation to one another. In this regard, the synergies between the elements of the plan should be such that an impact of the plan as a whole adds up to more than would the sum of the individual parts if implemented in isolation" (JESSICA, 2010, p.1).

The envisaged activities of an integrated urban plan may refer to strengthening economic growth, physical environment rehabilitation, brownfield redevelopment, entrepreneurship support, natural environment conservation, cultural heritage preservation and development, local employment increasing, community development, the delivery of services of general interest while taking into consideration demographic changes, etc. (European Parliament, 2006).

The incorporation of various urban development projects in an integrated urban plan must respond to a series of requirements which refer to:

- the clear delimitation of the targeted geographical area;
- a diagnosis and justification for public interest and the integrated character of the proposed projects and corresponding investment strategy;
- the land-use elements defining the physical dimension of the plan;
- a response to environmental regulations;
- socio-economic analysis and impacts;
- a statement of  governance structures;
- funding sources (Carbonaro, 2010).

With regard to spatial scale, it should be underlined that the integrated plans are not limited to a localised urban problem (e.g., a highly deprived area); in many cases the plan covers a larger area (even a whole city) that aims to obtain sustainable outcomes in terms of employment, mass transport, energy efficiency, etc. Further, not only deprivation alleviation is considered but also competitiveness objectives associated with high-tech clusters, universities, tourism and other services. Emphasis on the integration of social and cultural infrastructure in the planning and design of the physical environment as well as on the development of mature community based institutions are also important (Carbonaro, 2010; Jain, 2014).

Such an approach is particularly attractive and feasible in the case of new settlements, where the integration of project packages can be applied from the very beginning of the new city creation.

## 3.  Planned communities

According to Mandelker (2010), a planned community is a development that has been approved through a comprehensive review of projects characterized by an integrated and unified design. It may include a variety of project types including infill developments, housing developments, mixed use developments, and master-planned communities" (p.2).

From the perspective of design three categories of planned communities can be identified:

- cluster housing (cluster development) – single family residential developments with housing clustered in one area so as to provide common open space in the areas not used for housing;
- mixed use developments – residential and non-residential uses (commercial, office) are combined;

- master planned communities – a planned community which combines centres for office, employment, retail, entertainment (sometimes of a mixed use) with associated self-contained neighbourhoods (Mandelker, 2010).

Hence, the planned community is different from those settlements which evolve in an *ad-hoc* manner and is characterized by a low frequency of land-use conflicts. Among the above three categories, master planned communities represent the most advanced form, with variety, accessibility, amenities, neighbourhoods, green space, multiple uses and sense of community as important advantages (Kloock, 2018; HHUNT, 2017; NOCATEE, 2016).

## 3.1. A historic perspective

Examples of planned communities can be found in all ages, on different continents, where large variations are observed. Among famous planned cities in the first millennium are the Roman Empire's Constantinopole (4th century A.C.) and Japan's Kyoto (794). In the second millennium, before the 20th century, Jaipur in India (1727), Batavia (predecessor of modern Jakarta, 17th century) in Indonesia, Pienza (close to Siena, 1459-1462) in Italy, Helsinki (1812) in Finland, Munich Maxvorstadt (the first planned expansion of Munich, 1805-1810) in Germany are relevant examples and models of planned communities. The United States also experienced numerous cases, from St. Augustine (1565) – the first planned community in the colonial history of the U.S. to Washington D.C. (1790), the capital city. There are many examples for the 20th century too. In Western Europe, the French "new towns" programme in the mid-1960s led to the creation of Cergy-Pontoise, Marne-la-Vallée, Évry near Paris, while in Italy Milano-2, Milano-3 and Milano-Visconti were set up in the vicinity of Milano in the 1970s and 1980s. Further, Eastern Europe experienced the creation of 'working class cities' under the 'socialist realism' (e.g. Zamość, Gdynia, Tychy and Nowa Huta, built between 1944-1956 in Poland). In the U.S., large projects such as "Greenbelt Communities", the "Manhattan Project are good examples for 1930s and WWII periods, respectively, while the history of modern planned cities began in the early 1960s with Reston, VA. In South America, Brasilia, the capital of Brazil was built in just 41 months, between 1956 and 1960 – to mention just one example. In Australia, Canberra is the most important fully planned city.

## 3.2.  Current approaches

At present new cities or new planned communities have been established all over the world. The difference between a planned community and "a bunch of homes in the suburbs" is the keyword "planned" (Management Trust, 2012, p.1). With a master planned community, the aim

is to satisfy the needs of that community in a systematic manner, bringing together – depending on the size of the community – not only homes but also schools, medical centres, parks, shopping centres, etc. Some communities are open for all, while others focus on supporting a particular segment of the population. In the former case the planners focus planning more on general goals and popular trends towards connectivity, modern designs, inspired themes, serenity, sporting facilities. Ecological cities/communities and greenbelt cities are also considered in this context (WiseGeek, 2016). In the latter case, there are planned communities particularly designed as active adult community, youth community, senior living community, retirement community, active retirement community, etc. Besides general purpose facilities, these communities also benefit from special ones – for example, community centres that provide social services and meals for the retirees or medical centers that provide ambulatory and hospital medical services.

As far as the governance and management of planned communities are concerned, the organizational structures vary from country to country. In U.K., for example, local councils and their communities are central in a system concerned with economic, social and environmental sustainable development. The U.K government has simplified the planning system, offering councils the freedom to make decisions which serve the best the interest of their areas (Department for Communities and Local Government, 2016). In Scotland, Wales and Northern Ireland governance and government decision making are similar to those in England, i.e. departments for communities and local development which are responsible for U.K. policy in areas like planning, urban regeneration, community cohesion, housing, building regulations, local government, community resilience, race equality, etc. In Australia, each state government has a department of infrastructure, local government and planning which includes complex functions referring to infrastructure, planning and policy, local government and regional services including recovery and resilience as well as economic development. The keywords in this context are "future–focus planning, smart development, engagement and strong partnerships" (Queensland Government, 2016, p.1). Both local government and planning structures have special responsibilities regarding local government assistance to community organizations as well as master planned areas. In the U.S., within the U.S. Department of Housing and Urban Development, there is an Office of Community Planning and Development that supports the development of viable communities by "promoting integrated approaches that provide decent housing, a suitable living environment, and expand economic opportunities for low and moderate income persons" (HUD, 2016, p.1). The primary means for achieving this objective is "the development of partnerships among all levels of government and private

sector, including for-profit and non-profit organizations" (HUD, 2016, p.1). A characteristic feature of many master planned communities in the U.S. is that they have an elected board of representatives that are required to make sure that the residents' needs are met. The maintenance of the facilities is sometimes contracted to an outside company; in other cases, the maintenance is managed from within the master planned community board.

To conclude, one finds that in some countries (U.K. and other European countries as well, Australia) local government plays a central role in the support of effective functioning of planned communities/planned cities (sometimes through public-private partnerships), while in other countries (e.g. U.S.) the management of these communities is often, a private matter overseen by a non-profit community organization.


## 4. The case of Reston, VA
### 4.1. The inception. Turning the plan into reality
In 1964 the first modern, post-war planned community in the U.S., Reston Virginia, was founded. It is located in the northwest part of the Washington D.C. Metropolitan Area, in Fairfax County, Virginia. Reston has a total area of 15.7 sq mi (40.6 km$^2$), of which 15.3 sq mi (39.7 km$^2$) of land and 0.3 sq mi (0.9 km$^2$) is water (Figure 1). A population of 58,404 people living in Reston was enumerated in the 2010 census.

The name of Reston was coined by its founder, Robert E. Simon. In March 1961 Robert E. Simon purchased, via Simon Enterprises, 6,750 acres of land from Lefcourt Realty Corporation (Gulf Reston, 1970). Then he hired Conklin Rossant Architects as master planners of the community-to-be. The basic idea in the conception of Reston was to conserve as much open space as possible by combining high density housing areas with mixed use areas for education, recreation, industry, business. In a sense, Reston is a predecessor of the "new urbanism" movement (that arose in the early 1980s in the U.S.), whose principles gravitate around two concepts, namely the sense of community and ecological practices.

When Reston was conceived, its founder aimed to provide convincing answers to a series of issues the new suburban communities of the post-war era were confronted with, i.e. income segregation, lack of concern with natural environment preservation, the character or culture of bedroom community dominated by commuters in many suburbs, lack of public space and community in the new settlements. The answers were based on principles formulated by Robert E. Simon in 1962 (see Annex 1), affirming the opportunities for "full use of leisure time", the provision of a wide range of housing styles and prices, making it possible to spend the entire life in a single neighborhood, respect for the dignity of each person, a chance to live

and work in the same community, the provision from the very beginning of the necessary commercial, cultural and recreational facilities, ensuring the structural and natural beauty of the new settlement and the financial success of the whole enterprise (Gulf Reston, 1970). All of these principles were designed and molded together to create and support a high quality of life for the future Reston inhabitants (Dinep and Schwab, 2010).

**Figure 1.** Reston, VA
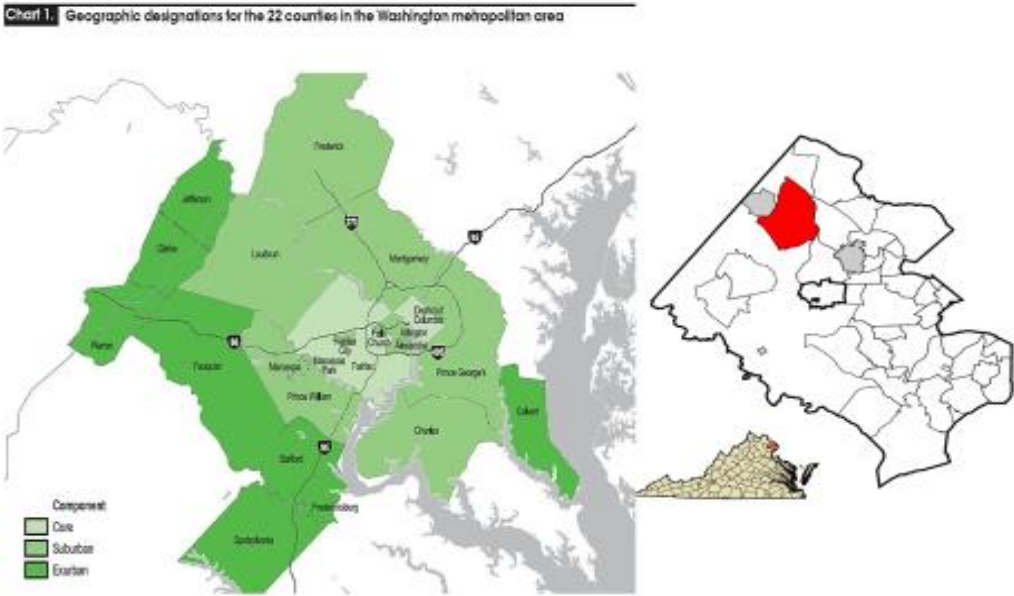
Sources: https://en.wikipedia.org/wiki/Washington_metropolitan_area,
https://en.wikipedia.org/wiki/Reston,_Virginia#/media/File:Fairfax_County_Virginia_Incorporated_and_Uninco
rporated_Areas_Reston_highlighted.svg

The first built section of the new community was Lake Anne Plaza which was inspired by the Italian seaside town of Portofino. The result consisted of a complex of innovative architect–designed clusters of housing which conserved land and promoted a sense of community to the residents (Bloom, 2001). Later, other sections (villages) were added, including Hunter Woods, Tall Oaks, South Lakes and North Point. Each village centre was designed so as to be no more than a half-mile from a housing sector. Besides housing, schools, churches, an art gallery, restaurants, the Reston Historic Trust Museum, shops, supermarkets, senior citizens' fellowship house, swimming pools, tennis courts, a yacht club, woodland paths, industries and businesses were added. The extensive foot pathways, combined with bridges and tunnels, created the

possibility to separate pedestrians from vehicular traffic, thus increasing pedestrian crossing safety (e50plus, 2016).

The artistic vision-based architecture of Lake Anne was followed at the end of 1960 and beginning of 1970s by high and medium density corridors, with more "typical suburban garden-apartment complexes and town-house clusters" (Bloom, 2001, p. 26). It reflected the view of Gulf Oil's subsidiary, created to manage the project. In 1978 the project was sold to Reston Land Corporation, which "abandoned the idea of village centers built around thematic leisure activities and switched from sophisticated architectural types pioneered at Lake Anne to more conventional designs for garden apartments and town houses" (Bloom, 2001, p.26). However, the master plan was followed in most other aspects relating to the creation of town house clusters, apartments, single family areas, roads and pedestrian paths, village centres of mixed use, recreational facilities, plenty of open spaces as well as industrial and commercial developments.

## 4.2. Current results

In accordance with the data provided by the U.S. Census Bureau the largest economic activity in Reston is represented by "professional, scientific and technical services". It consisted of 757 companies and 21,575 employees in 2007. These industry sectors were followed in size by the information sector, with 150 companies and 9876 employees. As Reston benefits from an excellent position within the Dulles Technology Corridor[1] important technology firms have chosen their home in Reston, such as ComScore, Leids, Maximus, NVR, Learning Tree International. Headquarters of several Fortune 500 corporations in the Washington region are located in Reston including N II and Sallie Mae. Reston is also home to the US Geological Survey, the National Wildlife Federation and CNRI (Corporation for National Research Initiatives). Five of the 20 largest venture capital (VC) firms in Washington region are located in Reston with their capital (USD 9.6 billion) represents 53% of the capital of the top 20 VC firms (e50plus, 2016). Further, the population of college-educated adults is high (66.7%). The per capita income for the CDP[2] was $54,195 in 2009 (e50plus, 2016).

Reston is a 10-mile drive from Tysons Corridor and Capital Beltway to the east and 6 miles from Dulles International Airport to the west. The Metro's Silver line links Reston to

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[1] The Dulles Technology Corridor extends from Dulles Airport 16 miles to the east until it reaches Tyson's corner which is the other end anchor of the Corridor. Reston is located 10 miles from the Capital Beltway which along with Tysons Corner anchors the Corridor to the east.
[2] Census designated place.

Washington D.C., the Wiehle-Reston east station being opened in July 2014. Twelve percent of Reston's citizens commute to work using a method other than car. Reston has 55 miles of pathways, many of them being built for pedestrian and bicycle traffic only.

Highlights of the cultural, wildlife and environment strengths include Wolf Trap National Park for the Performing Arts which is the summer home of the National Symphony Orchestra, the Greater Reston Arts Center or the Lake Anne Gallery. Reston is one of the small number of communities in the U.S. which have received the status of backyard wildlife community, usually conferred to single family houses.

These are just some of the facts that have constantly placed Reston in top 10 best places to live in the U.S. – small city category – in the yearly rankings. For example, in its edition of 21 August 2012 Money Magazine mentioned: "Reston comes in at No. 7 on the list. The criteria? This terrific small city offers strong job opportunities, great schools, low crime, and a true sense of community" (CBSDC, 2012). In addition, "5 reasons to love Reston, VA" have been revealed: "diverse housing options; extensive recreational opportunities: nature, parks, shopping; generous job opportunities; strong transportation infrastructure; good public schools" (Brito, 2012).


### 4.3. Challenges ahead

Reston is a Census-Designated Place (CDP) in Fairfax County. In Virginia CDPs are unincorporated places. It receives services from Fairfax county and from the Reston Association, which is supported by a per-household fee for all residential properties. Even when incorporation as a municipality was proposed in 1980, a referendum of Reston voters did not support it (the margin was 2-1 against). The covenants at Reston stipulate that the fees paid to Reston Association are in proportion to the property value, as assessed by Fairfax County. Some have seen this as an attempt to imitate Reston's governance as if it was a local government, pointing to arguments for assessing all property owners the same amount reasoning that the public goods enjoyed by the residents (recreational facilities, pathways, common grounds, etc.) do not depend on the value of the property and that payments on the assessed value diminish the incentive to improve the property value (Boudreaux and Holcombe, 2003; Beito et al., 2002). Reston internally has federated system of government, in which the Reston Association incorporates cluster associations that are responsible for maintaining the common areas and, based on this, are empowered for taxing the residents in their clusters.

Apart from the governance issues, Reston has become an "edge city" which is defined as a concentration of business, shopping and entertainment outside the traditional downtown (or CBD[3]) in a previous residential or even rural area, with all entailed characteristics after Joel Garreau (1991). However, it still has tightly controlled design standards, which determine various negative facts, such as hostile pedestrian situations and a lack of mass transit (Lovas, 2007). However, in 2014 the Washington Metro system was extended to Reston and later beyond which does connect Reston by transit to the rest of the region.

There are also problems with the expansion of the residential areas themselves. A recent controversial proposal is about the construction of two large new complexes and rental town houses at St. Johns Wood Community, near North Point Village center. Despite the commitment of both Fairfax County and the Reston Association to move forward with the project, the residents opposed this project invoking considerations that pertain to the non-compliance with mass development and architecture standards of the neighbourhood in the revised master plan, additional traffic what would exist, parking management on the streets outside the cluster boundaries, tree preservation, visibility from adjacent properties and roads, the duration of redevelopment project, etc. (Taylor, 2016).

Even individual building projects make Reston citizens very sensitive. For example, in 2012 the Fairfax County Board of Supervisors approved a USD 2 million project to construct Reston's tallest building, a tower aimed to replace an ageing five-story office tower at Reston parkway. The critics of the project – including the Reston Association and the Fairfax County Planning Commission staff – raised questions about the large scale of the building as being "incompatible with Reston" and also the additional traffic, the building containing a parking garage near the RTC metro station, scheduled to open only in late 2018. Nevertheless, contrary to the staff report, a building was approved by the supervisors based on the lack of height restrictions in the Planned Residential Community in 1978 and the proposed density of floor/area ratio, which in this case was lower than several surrounding buildings (Goff, 2015).

## 5. Concluding remarks

Integrated urban planning is a fashionable concept for the contemporary urban development, with special significance in the case of new settlements, where the integration of the

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[3] Central Business District

components and functions can be supported from the inception phase. Planned communities are the best example of the master plan satisfying the community needs in a systematic manner, by bringing together through integrated planning and design all the facilities required.

The case of Reston, VA is a very successful model, as the first post-World War II community in the U.S. based on clustered townhouse development which ensured the preservation of open space along with higher density. It is also the first U.S. community in the 20th century which incorporated natural preservation in its planning. The presence of Reston in the top 10 best places to live in the U.S., small city category, made its founder, Robert E. Simon declare "It's pretty close to what I hoped it would be" (Jackman, 2014).

At present, under the pressure of the new trends in urban development and urban architectures, Reston faces a series of challenges regarding the expansion of the residential areas following the "edge city" model or the construction of tall buildings incompatible with the initial community master plan. There are also questions focused on the governance model and whether Reston will remain unincorporated area.

To conclude, in the context of the growing interest in integrated urban planning, Reston case study can serve as a relevant example that discusses the strengths and weaknesses of this concept in practice.

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**Annex 1**

**The Genesys of Reston – Seven Goals set down by Robert E. Simon in 1962**

"In the creation of Reston, Virginia, these are the major goals:

1. That the widest choice of opportunities be made available for the full use of leisure time. This means that the New Town should provide a wide range of cultural and recreational facilities as well as an environment for privacy.

2. That it be possible for anyone to remain in a single neighborhood throughout his life, uprooting being neither inevitable nor always desirable. By providing the fullest range of housing styles and prices – from high-rise efficiencies to 6-bedroom townhouses and detached houses – housing needs can be met at a variety of income levels and at different stages of family life. This kind of mixture permits residents to remain rooted

in the community if they so choose – as their particular housing needs change. As a by-product, this also results in the heterogeneity that spells a lively and varied community.

3. That the importance and dignity of each individual be the focal point for all planning, and take precedence for large-scale concepts.

4. That the people be able to live and work in the same community.

5. That commercial, cultural and recreational facilities be made available to the residents from the outset of the development – not years later.

6. That beauty – structural and natural – is a necessity of the good life and should be fostered.

7. Since Reston is being developed from private enterprise, in order to be completed as conceived it must also, of course, be a financial success".

**Source:** Gulf Reston Inc., 1970. *A brief history of Reston, Virginia.* [pdf] Reston: Gulf Reston Inc., pp. 9-10. Available at:
<http://www.fairfaxcounty.gov/dpz/projects/reston/documents_reference/historyreston.pdf>
[Accessed 10 October 2016].