

Under the
Microscope
20 Small Towns in
Scotland

Under the Microscope 20 Small Towns in Scotland

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Understanding the form of small towns and identifying common strands in their development is a foundation on which appropriate political, economic and social strategies can be developed. We hope that An Comann* and Under the Microscope, 20 Small Towns in Scotland** can offer such understanding. Their clarity permits meaningful comparative analysis from which positive aspects of each town can be identified and used to form the basis of each town's future survival. Obviously the issues are a lot more complex than differentiating urban morphology and as we move out from the gravitational pull of the central belt, different problems overtake monotheism and lack of diversity as major issues, but extrapolation of our future is a common purpose. This study is a superb bedrock on which to build.

* "An Comann", the Gaelic version of "in society, a collection, group or bringing together", is the title of Joanna Hooi and Laura Hart Masters Dissertation in Urban Design at Urban Design Studies Unit, Department of Architecture at the University of Strathclyde.

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introduction

'An Comann, 50 Small Towns in Scotland,' has illustrated the factors that have influenced the development of Scottish Towns by providing a graphical resource of their evolution over the past 150 years. Showing common patterns amongst our towns it concluded with the promise of a further study on character assessment, which is the focus of this volume.

'Under the Microscope, 20 Small towns in Scotland,' delivers this promise by telling a tale of Scottish Small Towns and more specifically of their fine-grained urban morphology. This means, by and large, that of the many – and possibly innumerable – aspects of Scottish Small Towns that could be approached and investigated with good reasons in order to understand how they work and have developed, this study focuses on just one of them, their form. This is the field of urban morphology, a side-stream in the wider area of urban studies. Despite the fact that cities have always been described and illustrated in terms of how they look like, urban morphology is still surprisingly marginal for those who dig into how cities work and their multifaceted dynamics. For some reasons, getting into the very form of cities has long been considered somehow trivial, super-structural, marginal, compared to studies on their societal forms, economy or policies. Even the relatively recent emphasis on the environment has left urban form mostly untouched, as the term "environment" is here intended as the complex relationships between resources and wastes in the ecological network, something that does not principally include urban form in its popular meaning.

As for urban planning and design, it is only in the last couple of decades that the form of cities has re-gained centre stage, at least at the forefront of research. Following the crisis of rational-comprehensive models in the today's fragmented society, scientists and professionals began turning their eyes back to the simple and tangible streets, sidewalks, corners, blocks, groceries, trees, gardens, bridges, entrances and buildings facades, only to discover that these were not as simple thought. Furthermore, because in Urban Design this resurgence of interest in city form came from the bottom up, as part of the community-based counter-movements against modernism that emerged since the early Sixties of the last Century, what immediately appeared to be not so easy to understand is the relationship between urban form and urban life. This is an ecological relationship, in the sense that it establishes the collective and eminently complex practices through which human beings use and shape and are shaped by their built environment. This new interest into urban form in the field of Urban Design results from the need for a new humanism in the disciplines of the built environment, a radical and profound paradigm shift from the world-as-a-machine. It inaugurates a completely different way of understanding and governing cities.

We should celebrate the importance of studies in urban morphology today, such as the one presented in this publication. Under its seemingly direct and communicative mask, under its easiness and simplicity, it brings the seeds for an entirely new thinking, that speaks of built environment by introducing life.

Look out of your windows, pay attention to what you did this morning on your way to the office, think of what other people that you know have told you about themselves and their daily life in the past two days or so: the ways the form of our cities shapes and affects our personal and collective behaviours are countless and pervasive. These ways, in their complexity, constitute our ecological existence on Earth.

This is why urban morphology is so important, and is the perspective that drives the activity of the Urban Design Studies Unit at the Strathclyde University, one that studies the link between form, life, processes and dynamics.

This study is inevitably reminiscent of the two radical reforms that came to the urban morphology field through the works of M.R.G Conzen in Britain and Saverio Muratori in Italy between the fourth and the seventh decade of the 20th Century, then enhanced by scientists like Jeremy Whitehand, Peter J. Larkham, Gianfranco Caniggia, Gian Luigi Maffei and many others including the great French tradition, best represented by Panerai-Castex-Depaule study on the urban block, probably one of the single most important works in the disciplines of the built environment in the whole last Century. As the reader will appreciate in this publication, urban morphology allows to understand and explain change through the observation of form and its alterations through time. As such, it is a clear, unspoilt insight into the past of a place, a natural, straightforward way to understand its in-depth meaning. Simple progression of figure ground at key time lapses, intertwined with an insight into population changes, major factors of transformation, economic events of significance, explain how the life and form of towns developed. Structures, types – of built or open space- all respond to a special path of events, and they are key to future change.

While "An Comann, 50 Small Towns in Scotland* presented this narrative through the story of 50 small Scottish towns, selected by size and classified by seven type according to their character, "Under the Microscope, 20 Small towns in Scotland" offers an in-depth investigation of 20 towns selected as representative of the seven types in An Comann. Each town is located in its landscape and immediate context, described through demographic and social/usage figures, but most of all its structure, form and performance (accessibility, density and others) are illustrated graphically with legible, telling, unequivocal clarity. Then, each town is meticulously presented through character areas, described through time-snapshots to explain how overall structure, blocks, plots, frontages, setbacks etc are intrinsically linked to dynamics such as usage, type, movement and commercial activity.

Form and performance linked together are an unbeatable narrative, full of insight and, if carefully read, holding many answers for the future of our towns. What makes fascinating and useful these volumes is the clarity and richness that each drawing holds individually, and at the same time the consistency of the overall picture that, when read together, they offer. "An Comann" and "20 Small Towns Under the Microscope" are a kaleidoscope of information: they are an historic document, tracing development over centuries. They are a social and economic barometer, showing life changes as a consequence of key events. They are an urban and social atlas of life traced through our beloved settings. And even more, they are a clear indication for future development.

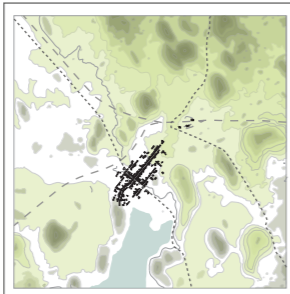
Sergio Porta and Ombretta Romice, UDSU, November 2009.

K

town scale

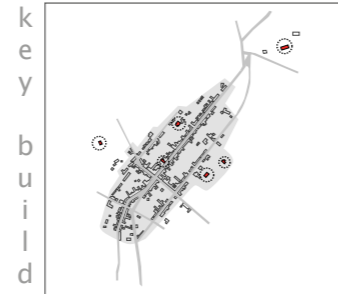
- density: [people per hectare]
- population

setting



[1:30000]

- key road
- rail



[1:20000]

- town centre origin boundary

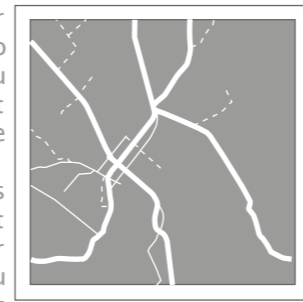
key buildings

- schools
- hospitals
- churches
- halls
- fire/police stations
- leisure facilities
- business park
- community centre
- museum
- library
- council offices
- hotel
- rail station

key

7

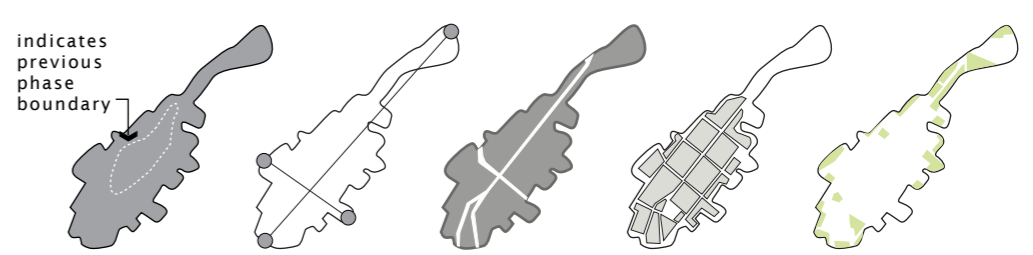
route structure



[1:50000]

- primary route
- secondary route
- tertiary route

form + structure



- perceived town boundary
- width + length
- key routes
- perceived blocks
- green space + water [not to scale]

e

growth

housing typology [%]

- detached
- semi detached
- terraced (including end-terraced)
- purpose-built block of flats or tenement
- part of a converted or shared house (including bed-sits)
- in commercial building

[remainder of 100% reside in caravan or other mobile or temporary structure]

tenure [%]

- owner occupied
- public housing
- private rented

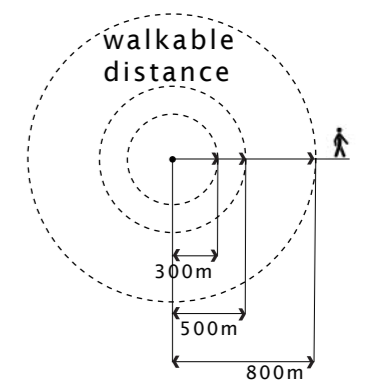
[remainder of 100% includes employer of a household member and relative or friend of a household member and living rent free]

mode of transport for people aged 16-74 to employment or study [%]

- train
- bus
- car
- walk
- cycle
- work/study mainly at home

[remainder of 100% travel to work study using underground, light rail, motorbike, moped, taxi or other]

average distance travelled to work by people aged 16-74 to employment or studying [%]

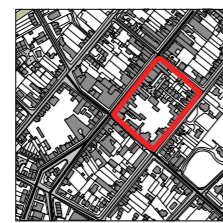


% households with 1+ car

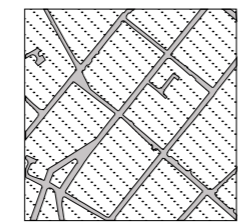
Y

block + plot scale

- indicates location of plot scale diagram
- indicates block cut off as larger than 160000m2



overall 160000m2 area



no. blocks



% built form



% of total possible frontage

1:10000



1:2000

- primary route
- secondary route
- vehicle/pedestrian access through block

- hard landscape
- set backs
- soft landscape
- frontage

- no. of buildings
- no. of plots

NB. scales indicated refer to the scale of the diagrams on the individual pages, they are not to scale here.

Selection of Analysis

Generic Patterns of Development Over Time

'An Comann' revealed episodic periods of growth and expansion that could be related to historical purpose, role of the settlements and policy relating to building and construction relevant to each period of time. This volume of research goes further and investigates the physical personality of the major phases of development for twenty small towns.

Research takes place at town, block and plot scale to reveal the morphological patterns that have attributed to the shapes and form of small towns over time. The case studies remain separated by town type. Each town is then analysed in three chronological time frames.

The following three phases of development were identified;

- Phase 1 - 19th Century industrialisation
- Phase 2 - Pre war to mid 20th Century
- Phase 3 - Mid 20th to Early 21st Century

Digimap was utilised for auto cad and historical maps, google earth further aided the production of clear and accurate graphics showing the structure of these small towns. The graphics broadly demonstrate scale, growth, density and character. Finer detail is achieved in plot scale.

Outward sprawl is consistently prevalent and is not proportionate to a rise in population. Within each developmental phase identical street patterns and building types can be seen across the selected case studies. It reveals a 'one size fits all' approach to building that fails to recognise any element of local history, topography or character supplemented by a lack of clear planning and urban design guidelines to support more sustainable development.

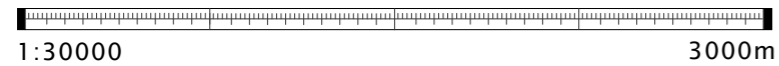
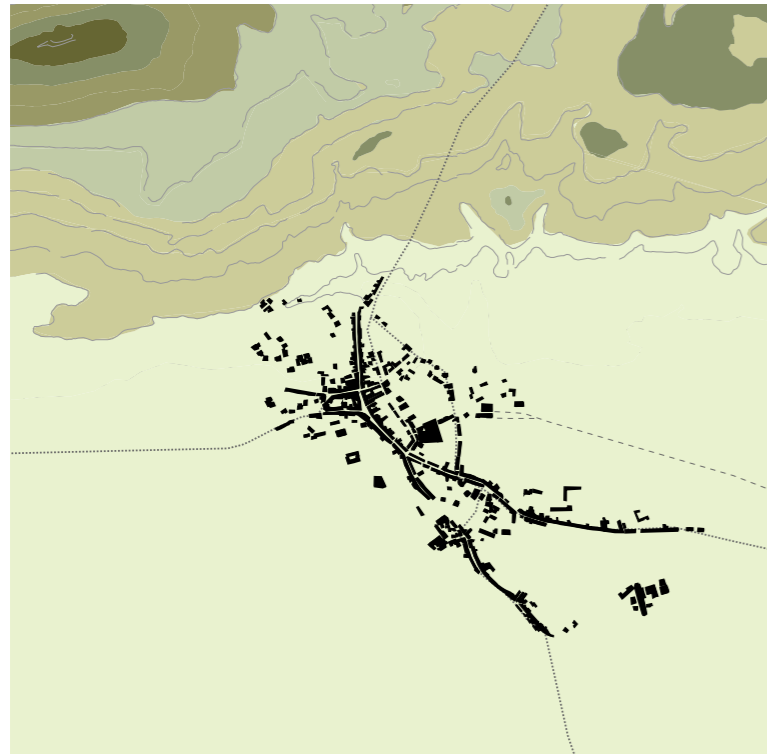




brechin

- → dundee 26.4 miles
- → forfar 12.5 miles
- → west muir 2.3 miles

origin: 1856

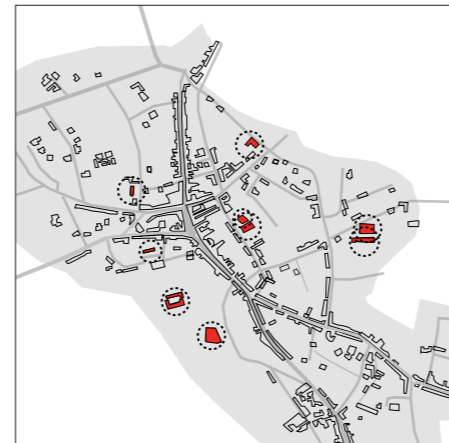


8210

154 p/ha



1:50000

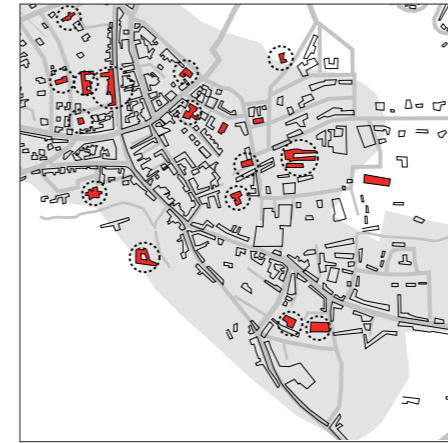


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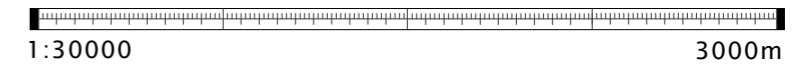
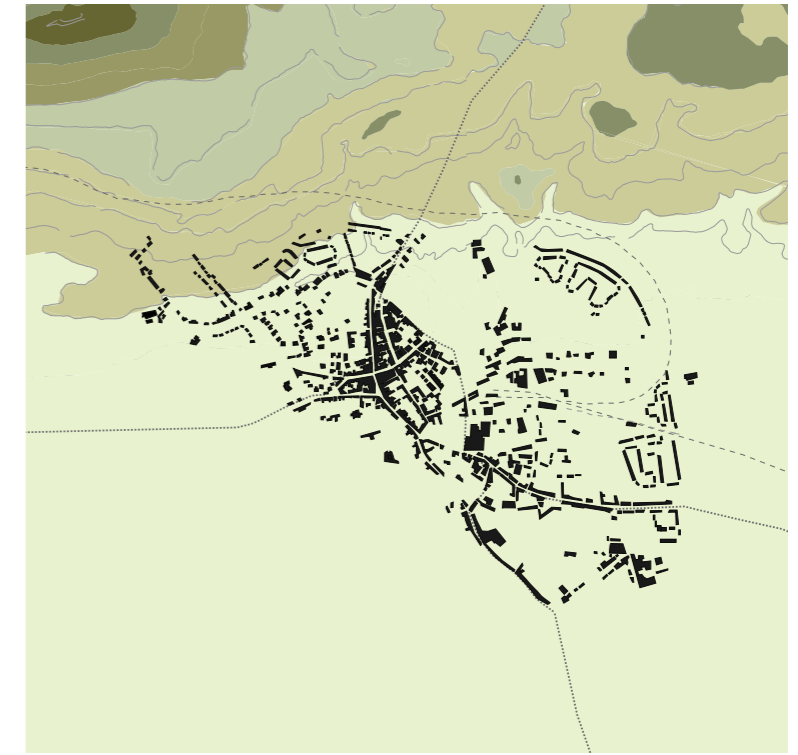
transition: 1959



1:50000



1:20000



8203

41 p/ha

