“Beep-Scape” – Using Applications for Mobile Devices to Communicate the Landscape

Fernando BUJAIDAR, Diana SANTA CRUZ and Gabriel SEAH

1 Introduction

Modern technologies and innovations have propelled us into unprecedented ways of travelling. We are able to reach our destination at speed that we could never have imagined some 50 years ago. The breakthrough undisputedly can be considered as one of the greatest human interventions; however, reaching our goal at such a speed also has its pitfall. One of the most significant areas of concern shall be mentioned as the missing experience in between the destinations, the loss of landscape perception, if we may call it. Our natural ability to perceive the landscape has simply failed to catch up with the speed of technology advancement. In most cases, elements in between destinations are only blurry images that one can hardly remember.

To quote an example, we can place train travelling as the focus. As a mass rapid transport, rail lines transect many landscapes kinds. Many of which are of amazing cultural, historical and natural landscapes, but if asked, how many people do actually remembered and are able to appreciate these beauty? In respond to the issue, another form of technology might be able to reduce the impact of such phenomena. GPS features in smart phones have given us the ability to locate our position, providing us with critical navigation information, combined with the application (Apps) feature; they are of multiple possibilities, hence, opportunities.

The new technology has opened up the possibility of a new realm, a chance to use technology to aid and enhance the experience of perceiving the landscape. Looking at the current situation, most people today own and operate a smart phone; on the other hand, landscape communication strategies is a rising area with new challenges for the landscape architecture requiring interdisciplinary cooperation and fresh ideas to broaden the field of action. Putting these elements together a landscape tool in the form of an app can therefore
reach and provide mass communication services to inform people of a prominent landscape while travelling in trains or automobiles

This paper goes into the first steps of a normal landscape architecture task that came out with a design approach which results in the need of outputting a draft design of such tool.

2 Background and Method

The framework of this idea in first instance came from a previous project carried out in the Rems valley region of Stuttgart, as a 3rd trimester main project of the IMLA program of the HfWU Nürtingen. The task given by the Supervisors (Prof. Dipl.-Ing., Sigurd Henne and Prof. Dr. Christian Küpfer) came as an approach for “Enhancing Linear Landscapes along Mayor Traffic Routes in the Urban Region of Stuttgart”, where the aim of the project was to ponder the point of view of landscape architecture towards an area, communicate it to the general public and at the same time add a value to the region. From there, the answer for the task as group took shape as an analysis of the visual perception from the train line.

The method developed for the analysis through train window was approached the same a picture or panting can be perceived and composed; where the elements are located in the perspective are arranged according to a hierarchy. This approach basically divides the composition in three different grounds where main objects tend to be in the mid distance, while some detail elements are found in the foreground and the complement for the composition is in the background while the whole is always contained in a frame.

From this perspective the situation is not different when we look at the window of a train, as it is framing the landscape outside we are looking at. The difference stands in the fact that we are looking into a dynamic picture and the speed factor changes the rules for the observer: meanwhile in a static picture the foreground shows the details, in the train we don’t have time for distinguish anything but colours and changes in rhythms, the middle ground is easier to understand because the changes are happening in a slower pace so some details can be perceived; and finally the background is more steady and helps to get a fix point of reference.

On that ground, the analysis went on in two parts: the first phase was a study made from the point of view of the landscape architect, going to the area and studding the landscape from the train line applying the method of the moving landscape for identifying the elements composing the picture. The output was an analysis video, a catalogue of elements and a summary of the trip in a travel storyboard that shows an overview of the complete trip and how the vistas are working together whit a list of opportunities and constraints. The second phase of the analysis was a survey conducted among the train passenger to see what views and what elements in its different combinations are the most liked or recalled.

Afterwards, an improvement proposal was carried out based on a visual value map created with the help of GIS, output of the analysis phase as base for the further design criteria and for a master plan to enhance the visibility from the train. All together with a scenario simulation showing the variations in the landscape and a 3d visualization of the trip after the application of the master plan.
Finally, the communication concept to transmit the character of the region and the implementation of the ideas was developed. Improve the perception of the users towards a better experience of the train travel in the Remstal is the base of the proposal. The idea took shape after a presentation and discussion of ideas with Dipl.-Ing. (FH) Werner Rolf; who supervised the GIS analysis for the project. The result was a theoretical design of an application for mobile devices that could work in real time highlighting the main features of the landscape as people travels on the train.

3 Design and Operation

The essence of the application is to make people aware of the landscape outside the train, so they can get to know about it and learn from what they see. The program should be able to tell about environmental features, historical places, famous or important characteristics of the area, relevant sites, etc. and give further explanations and directions on how to get to the points of interest of the user if necessary. It can be also used as a planning tool to underline certain changes that have been possible thanks to planning and design of the landscape.

This app will be programmed with data and information of a train journey taking mainly the transected landscapes into account. The data will highlight important and prominent landscapes as critical information. In order to set up the base data, the analysis method survey method explained before, will be used as base to obtain information of the perception of the landscape. The main goal is to determine the aesthetic quality of a landscape and to communicate it. Analysis and evaluation will be carried out leading to the highlighted landscapes in the app.

The combination of the GPS function from the mobile device will work in real time recognizing the location of the user in relation to the significant landscapes and informing when a particular interesting feature is about to come along the rail lines. The app will act like a alerting and information device, releasing a beep as well as providing information and further details of the landscape feature. A second function will be to ask the program what is special about certain feature that is visible at the moment and the system will give the information.

In summary, the app will aim not only in the enhancement of train journey experience but also at raising appreciation for cultural, historical and natural landscapes, through a fast moving perspective.

The target group for this application is any person that is making a new route in the country for a holyday and has several hours of train ahead, so instead of watching a movie in the mobile device looks out the window.

Another possible approach for the use of the app would be that some billboards are built in the train stations and in some cases, in the actual features, so the person can also gather this information outside the train and be able to see it at any time.
The functioning of the application is sketched in the following steps:

1. A person with a smart phone, computer or tablet gets inside the train.
2. Once the route is logged in or recognised, his/her mobile device will beep if: a) There is a code system already installed in that line from which the user can retrieve all the information about interesting features in that specific route. b) There are some features that might be interesting for the subject according to his pre-established user preferences, for example, if he sets his phone to beep when there are historical castles nearby, etc.
3. During the journey, the phone will beep to alert the user that he is near his element of interest, as well as provide general and specific information about its features and information on how to get there, starting with the right stop to leave the train.

4  Outlook

The present paper outlines the base idea that can become a bigger scale project because combines up to date tools and topics from both, global information systems and landscape architecture, and combines them into an common use feature for the general public, bringing closer the planners and the stakeholders giving a media to communicate the landscape in a very simple to understand and fun way.

It is an opportunity to develop technology, research, planning projects and even participatory processes and tourism. It can also help to the development of small regions from the fact that when the traveller learns something about a place he is going through it might as well want to get closer or stay.
Another potential of this idea are the possible parties interested in investing in this development are, like for example any governmental planning offices, due to the possibility of use this application for communicating people about their work in the regions and therefore attracting people and also the railway companies are can draw the attention in the idea since they have many leisure travel offers so this can be a plus for them.

The strength of the idea is that is virtually applicable in every place where a railway can be found. The starting process will need collection and processing of many sorts of data and along with the assistance of GIS systems. Nevertheless, once a prototype is running in a small scale the repetition of the method will make the implementation in other places easier. Mainly it can change the leisure train travelling, from the current situation of using the train merely to get to the place, to an ideal state where a trip is about the enjoyment of the journey and not only about the destination point.

References

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