Experience Design Guidelines

mscape beta

www.mscapers.com

mscape Experience Design Guidelines.

These guidelines build on the "Experience Design Guidelines for Situated Mediascapes" which have been updated to reflect our more recent experience using the mscape authoring toolkit.

Get to know the medium.

Before you start developing anything try out as many different mediascapes as you can to get to know the medium. There are two different forms of mediascape

Anchored: These mediascapes are designed for a specific location. You must go to that place for the experience.

Portable: These mediascapes can be played anywhere in the world. Just go outside and load it up. Some need setup.
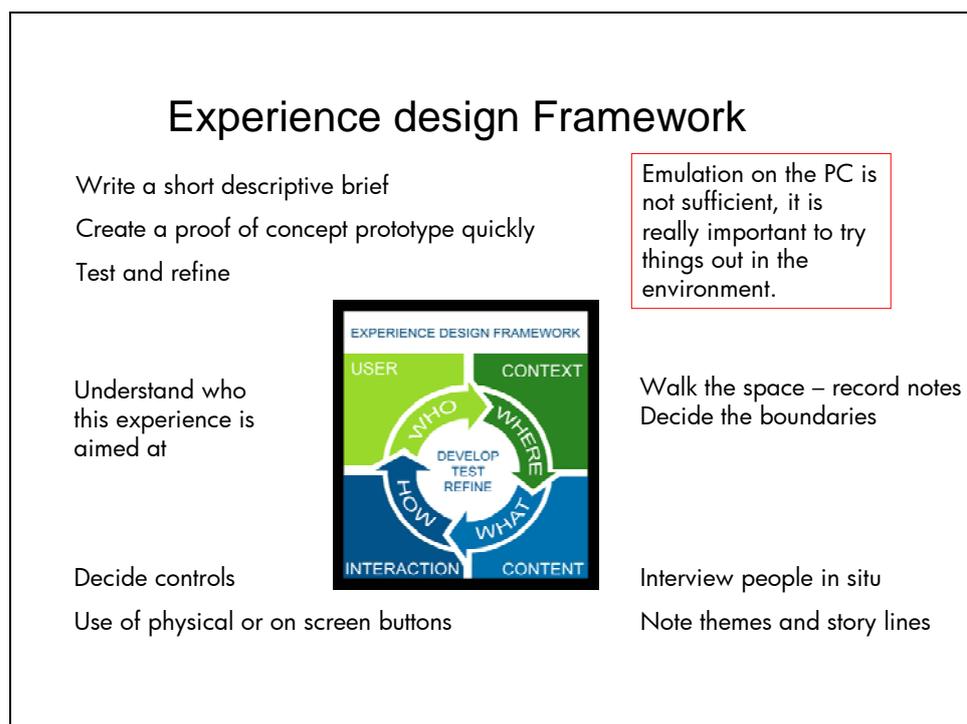
There are also different genres of mediascape like walks, games, independent hotpots and locative theatre
Download lots of portable mediascapes. We recommend :
- always something somewhere else
- timehole
- hidden danger uxb
- stamp the mole

If you are near one of the anchored sites download an anchored mediascape and try it. If you are not near one of the anchored sites then create your own anchored mediascape using the wizards.

Use the experience design Framework.

Experience design Framework

Write a short descriptive brief

Create a proof of concept prototype quickly

Test and refine

Emulation on the PC is not sufficient, it is really important to try things out in the environment.

Understand who this experience is aimed at

Walk the space – record notes
Decide the boundaries

Decide controls
Use of physical or on screen buttons

Interview people in situ
Note themes and story lines

The experience design framework highlights the four most important aspects that you need to think about for your design :

- **Who** are you designing for?
- **Where** will the experience be located?
- **What** is the substance or content of the experience?
- **How** will the user interact with the system?

The framework also advocates the process by which to develop the design -you must continuously develop, test, refine and then develop a bit more. Testing in the environment is essential! Emulation on the PC using the mscape tester will not give you a good enough sense of what the experience will be like in the outdoor space.

Dimensions of location based design
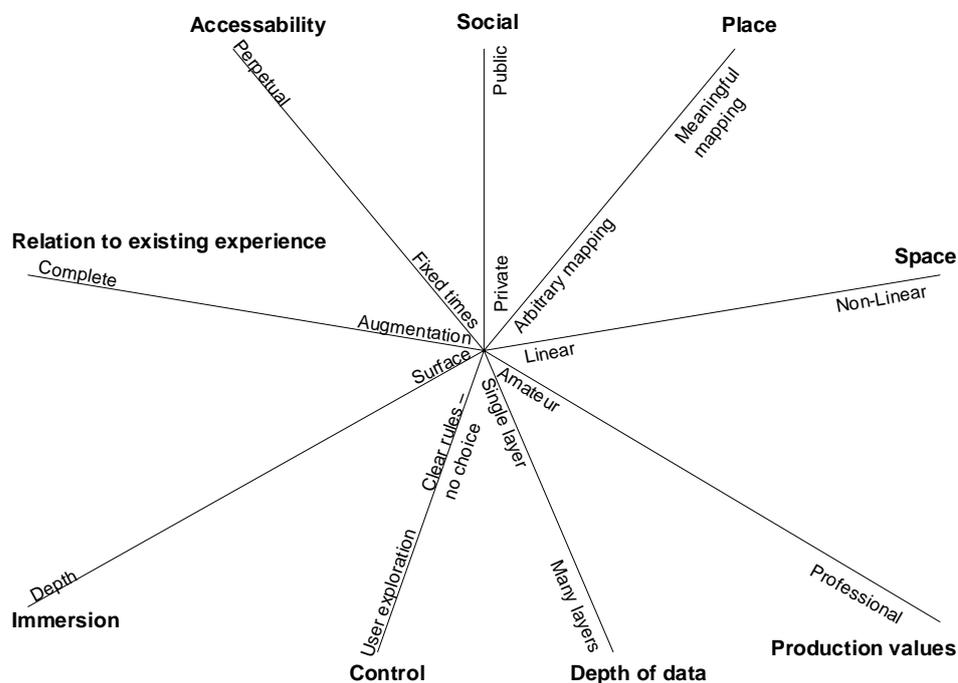
In addition to the experience design framework you can also conceptualise your project using a set of descriptive dimensions. Before you begin your design you can consider each one of the dimensions in turn and ask yourself : "Where on the scale is my project?"

For example on the social dimension is your mediascape primarily a solitary experience for individuals or are you intending it to be for groups of people to participate in?

The place dimension considers how meaningful the mapping is to where you do the mediascape. A portable mediascape may just have an arbitrary mapping to a place, you just need a large space or field. Whereas an anchored mediascape may have location specific stories and have a deep connection with the place. On the space dimension you can consider whether to use the space to design a linear experience or if you intend for people to explore at their own free will?

- Productions values is concerned with the quality of the media assets that get created. Are you intending to spend a lot of time and resource on sound editing

and image creation to get high production values or will "raw" or "You Tube" level content production be good enough?

- On the depth of data in your mediascape, are you going to provide different layers of information or stories so that people can hear more if they want or will there be a single layer which everyone will hear?
- User control is another interesting design dimension. Will the user be given explicit controls and know exactly what they have to do or is the experience intended to challenge the user to explore and become part of the experience?
- Are you hoping to deeply immerse the user in an evocative way or engage them through interest in information?
- Is your mediascape augmenting an existing experience like a tour of the grounds of a stately home or is the experience the end in itself?
- The accessibility dimension should consider how people will access your experience? Can they do it whenever they want to or is it going to be an event or installation where devices are lent out to people who come at fixed times to do it? You should also consider how your mediascape can encompass all levels of physical and mental ability.

General Design Guidelines

Whatever form your mediascape design takes the following general guidelines should apply.

Divide and conquer.

Break the design into small elements, test and iterate.
Don't design the total experience or write and create all of the content without testing pieces of it as you go.

- Design the overall flow
- Break out the different story lines or themes
- Design each one using a common template
  - Structure and scripts
  - Eg. Characters, Interaction steps, Locations, Images
- Implement them as separate "layers"
- Record 'scratch' versions for testing
- Test and refine until happy with structure and scripts
- Produce the final media assets (replace the scratch files in the mediascape)

Content design

The 30 second rule! People are not comfortable standing listening for a very long time – 30 seconds is a good length of time for any single piece of content so try to design your content in thirty second chunks. If you have more than thirty seconds worth of narrative then try to make some of it optional and let the user decide if they want to hear more, perhaps by dwelling longer in the place or pressing a button. With this philosophy in mind the content should be designed so that the essential dialogue, storyline or information can be delivered in thirty second chunks and any additional non essential pieces be added as an optional layer. For example, in the Yosemite Walk to the Falls some of the regions have optional content that the user can choose to listen to if they are interested.

Test with sample/scratch content before final production.

Always record your narrative in rough or scratch form using your own voice (or some of your friends) before hiring actors or doing a final production recording. This will allow you to test in the environment so that you can see what the actual timing, flow and interaction is like. It is very likely that you will change your content after testing, so don't waste time getting the quality of the audio exactly right until you are sure it is the final version.

Images.

- you cannot see screens in bright sunlight so try to design high contrast images and limit their use in the experience. If possible use audio to deliver information and stories and then have the images as an addition to the audio.
- Video can be effective in short sequences if the user is in a place where they can see and attend to the screen – like inside a building or sitting on a bench. For example in the Tower of London game we added a video sequence which was viewed inside one of the towers where it was not possible to get GPS.
- Images can also be used to help anchor and queue the user to look out at the world and identify objects.

Narrative design

Write a script of the complete narrative broken down into layers or chapters if appropriate. For example, in the Prisoner Escape from the Tower game there were six different missions which each had their own scripts. A script should be written as a sequence of logical segments, in a similar way that a play is written. Each segment is a set of lines with the character who speaks them, what the trigger mechanism is for that segment and the media items (audio, image or video) The triggers might be a button press, moving into a GPS region or some condition in the logic such as completing another script or a timer finishing. Typically each segment in a script will correspond to an audio file and the name of the audio file can be written next to the segment.

Example script section from the Polar Bear script in the Tower of London game.

1260s (Henry III)
<u>Characters</u>
Polar bear : a gift from the King of Norway to Henry III
Bear's keeper
Sheriffs of London
Keeper of the Wardrobe: in Wardrobe Tower
<u>Interaction</u>
[PB1] Polar bear: *God Dag! Hello! Can you help me get out of here?*
      Triggered by GPS
      Media : audio, image of polar bear
[PB2] Narrator: *Do you want to play the polar bear adventure? Press YES or NO on your screen.*
      Automatic trigger (starts when the previous piece ends)
      Media : YES/NO screen
      If YES go to (3). If NO return to default screen.
[PB3] Polar bear: *Don't look so surprised – yes you're standing in the Bear House. Didn't you know there was a zoo here? I've been imprisoned here for over a year now and boy, am I am feeling fed up. I mean, they do their best for me, (I'm sure I'm costing them a fortune in food) but I'm still starving and I'm really bored. You know what I'd really love to do? Go*

swimming to catch my own supper. I've heard the river Thames is full of lovely salmon…do you think you could help me get out of here?
> *Automatic trigger*
> *Media : audio, image of polar bear*

When writing narrative for a particular place bear these things in mind
- **Create a clear connection** between where you are and what you see. This is simple but effective
- **Ground the narrative.** Narrative which immediately grounds the user as to where to look is popular. Start with what is immediately around the user and then widen out from there eg. "The one armed statue is a portal to the virtual world enveloped around you" rather than "There is a virtual world enveloped around you and the one armed statue is the portal to it".
- **Interview in situ.** If you are going to interview people to get their stories try to interview and record them in the actual location. The frame of reference will then be grounded and there will be a much stronger identity with the place. Quite often being in a place will trigger memories and stories that otherwise would be lost.
- **Design for co-incidences.** Try to work some of the natural occurring events or phenomenon into your narrative so that it maximises the opportunity for coincidences to happen where the real world mirrors, reflects or highlights events unfolding in the virtual world.

Sound effects

Sound effects are great for adding ambience to places. Two useful resources for free sound effects are http://freesound.iua.upf.edu/index.php and http://www.soundsnap.com Both sites allow you to browse a range of different sounds and download them to your PC.

For anchored mediascapes use a 'speaker' and centre it on a particular object or area so that the sound is loudest when you are near that object or place. Typically you set sound effects to loop so remember not to put them on the Playlist!

A background loop is useful for retaining context and assuring users that the device is still working and that they need to walk on to trigger another piece of media. Make sure that the track does not have any obvious elements like dogs barking or bangs and whizzes in it as any accentuated sounds become really irritating when looped continuously.

Region design

Region size depends on the landscape and how accurate your GPS readings are likely to be. We recommend regions to be around 20 meters diameter (10 meters radius) in an average outdoor space. This size ensures that users will not miss the region and can compensate for some issues with GPS drift. GPS will drift at different times of day and in different geographies. The following diagram shows the effect of GPS drift.

The bottom layer of the diagram shows the real world in which there are some tall buildings and a bench. Your mediascape design intends there to be a region over the bench so that a user can sit down to listen or watch your story which gets triggered

automatically when the user is near the bench. If you put a small region on the bench then when you have good GPS conditions the mediascape will work as you intended (depicted in layer two of the diagram). However if you experience poor GPS conditions because there are not many satellites directly overhead and so the tall buildings obscure the lower satellites, then the regions can drift so that the bench area is no longer covered. One way to compensate for this problem is to make the region large enough so that even with drift the bench would still be covered by the region.

GPS DRIFT
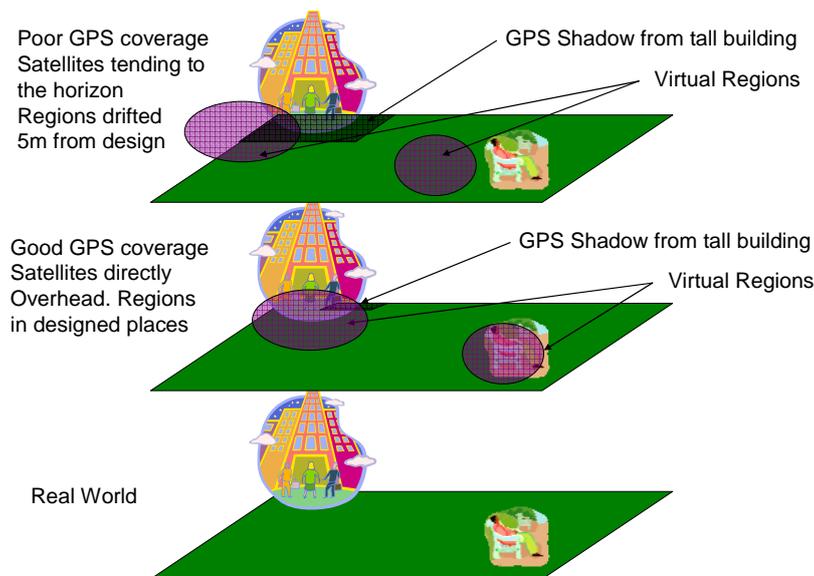
If you do make your regions large it might make your mediascape feel a bit sparse if you have to walk a long way to trigger any sound. One way to avoid this is to allow your regions to overlap and use the playlist to queue items on entry to a region. The playlist is generally a really useful mechanism if you have a lot of narrative and you don't want the user to experience sentences being cut off and flow being interrupted.

We have found that it is quite common for people to stop when they hear a new piece of media starting up. This is often when they have just entered a region and so it is likely that the GPS signal will jitter in and out of the region when the user is near the boundary. Using a playlist helps mitigate the problems of jitter.

How do people know where to go?

Your design must also include a mechanism for letting people know where to walk to trigger your regions. One way to do this with mscape is to create a map or description of the area as a maplib and then you can use the mapdisplayer in mscape and add pins to show where the hotspots are. (See the tutorial section How To Show The Users Position On Screen)

Another common mechanism is to prepare a printed map or overview as an information sheet. Typically the map will indicate the areas that the user should walk and an overview of the experience.

Repeat the last instruction.

A popular feature is to allow the last piece of media to be played again. This is useful if the user has forgotten what the last instruction was or if they want to replay an item so that someone else can hear it. This is easy to do with the playlist (See tutorial section How To Use the Playlist and follow the link to Pause, Resume and Repeat Last Instruction).

Startup and Introduction

When a you first start up mscape it takes a while for a device to get a GPS fix. It is a good idea to add some introduction to your mediascape that people can listen to while they wait. For an example of how to implement this look at the starter mediascape in the mscape maker. You might also want to play a sound to indicate that GPS has got or lost a fix.

What kind of mediascape are you going to build?

In this section we describe useful guidelines for the most common forms of mediascape.

Designing an anchored experience

In an anchored experience the place matters, it is part of the experience. To strengthen the association of what you see and hear with where you are then you should take time to observe the place and take photographs, video or notes of the following

- What kind of thing happens frequently?
    - o Animals, plants, weather!
- Who else uses this space?
    - o Actions, clothes, groups, paths, flow
- What distinctive landmarks or interesting features are there?
    - o Bridges, statues, benches.

If you can weave some of the naturally occurring events into the fabric of your mediascape then it will heighten the likelihood of your user experiencing a "magic moment" for example if a seagull lands in front of you at the very point you hear of the menacing seagull that is after your sandwiches it will heighten the thrill of the experience.

Authenticity is a powerful emotive mechanism. The advantage of a located piece is that it can be situated in the actual place that a historical or significant event happened. The experience should build upon that asset.

There are many different ways that you can design an anchored experience. The most common variants are

- Independent hotspots
- Walks and tours
- Locative Theatre

Independent hotspots.

Independent hotspots are a series of places which the user could visit in any order and get media content. The content for each hotspot are complete media "vignettes" without any inter-dependencies. For example the content could be information about a particular landmark or a complete story about an event that happened in that spot.

If you have a set of interesting places in mind to which you wish to attach content to then you should first prototype the experience using a wizard. Choose the "my favourite places" wizard and enter text for each of your places. The wizard will automatically package up your mediascape with a startup sequence, background music and background themes. Testing the prototype will give you an idea of any problems with GPS coverage in your chosen locations and what it feels like to read the screen, press buttons on the screen and listen to media in location.

If you want more than text to display at each of your hotspots then you will need to design and create the media content for each of your places, typically a piece of audio

(mp3 or wav) and an image (jpeg size 240*320 pixels). You could use the "upload my own sounds and images" wizard to test the first five places. Whilst the wizards are a great way to prototype the end experience we do not recommend that you try to modify mediascape that the wizard generates because it is quite complex. The wizards use a store file to hold position information which you do not need to do if you are making a simple anchored mediascape. You should download the mscape maker and make your own mediascape from scratch.

If your hotspots are well spread out and it is unlikely that the content will overlap then you can simply create a region for each hotspot and play content using 'on enter' for each region. Watch the screencast in the Pirates in San Francisco mediascape to see how to build this kind of mediascape. (In the Browse section on the mscapers web site search for Tutorials and look at Pirates in San Francisco).

Designing a walk or a tour.

If you want to create the equivalent of a guided walk then you need to design the instructions and flow for how you want people to move through the walk. Prototype the walk first using the "my favourite journey" wizard. This will give you a feel for any problems with GPS coverage in your chosen locations and what it feels like to read the screen, press buttons on the screen and listen to media in location.

The main difference between a walk and discrete elements like independent hotspots is the design of the information that leads you around the walk and possibly the denseness of the regions along the walk. You may well choose to have more regions with smaller amounts of content distributed along the walk rather than a few regions with a lot of content. If you are designing a linear walk then you might also use the path to build up a story as you can make assumptions about other content that the user will have heard. You can also do this in a non-linear design if you can design the logic to track what pieces have been heard and what should play next.

One of the problems that you can run into when regions are near to each other is that the media may not have completed and you have already entered the next region. If the region plays media on entering then you will have two media files playing at the same time. If you program the region so that it stops playing media on exit or on enter of another region then the media will cut off abruptly and cause a jarring experience – or worse, essential elements of the story may be missed altogether! To avoid these kinds of problems you should design your walk to use a Playlist. The playlist allows you to queue media items so that they automatically play in the order that they have been added to the list. Clearing the playlist will empty all media items that are queued but will not stop and clear an item that is currently playing. To make sure that you don't stack up too many media items that might then get heard in the wrong place on entry to a region, you can clear the playlist and then add the media items for that region.

Provide directions.

On a walk or a tour users appreciate knowing where they need to go next. Use the obvious navigational structures in the environment to help guide people and lead them through. Try to avoid relative orientation terms like "on your left" because you can never be sure which way people are facing (unless they are in a vehicle with forward

facing seats and you know the direction of travel). Even if you expect people to walk along a path they may have turned to talk to a friend or to look at something nearby.
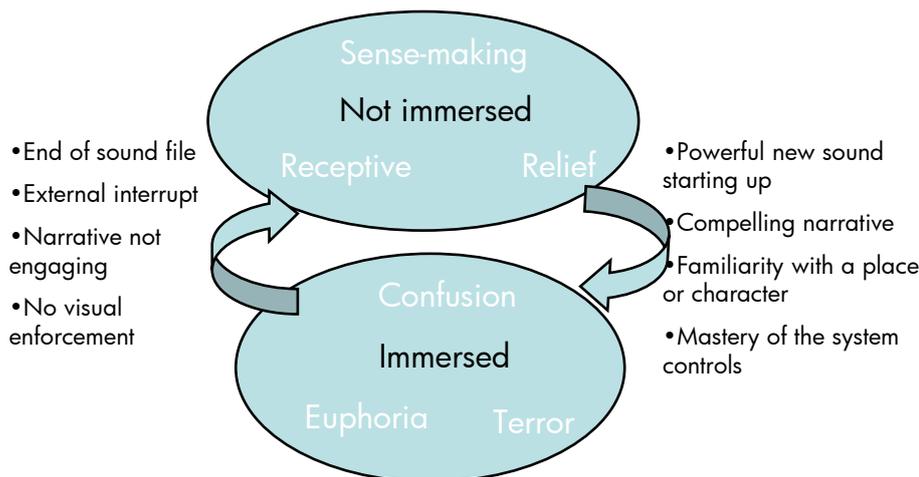
Designing a Locative Theatre Experience

If you are designing an experience that people will attend and use loaned devices rather than their own then there are a number of logistical and site specific aspects that also need to be designed.

If the site is "safe" for example not accessible by the general public and free of cars then it is possible to create more immersive experiences. Immersion in a locative experience, where the user is moving around a physical place, is different to a film or theatre experience where the user is seated and focussed exclusively on the screen. A locative experience should be designed to have short, deeply immersive moments which flow into smooth transitions whereby the user can take stock, reflect and be conscious of where they need to move to next. This model of immersion as a transient state is illustrated in the following diagram.

Design for immersive flow

- End of sound file
- External interrupt
- Narrative not engaging
- No visual enforcement

Sense-making
Not immersed
Receptive   Relief

Confusion
Immersed
Euphoria   Terror

- Powerful new sound starting up
- Compelling narrative
- Familiarity with a place or character
- Mastery of the system controls

The immersive moments may be terrifying, confusing or euphoric. All are equally compelling as long as they are accompanied by the necessary moment of relief, sense making or reflection. A smooth flow between conscious and immersive states will provide the best overall experience. Things that break up the flow are abrupt ending of sounds caused by jitter, a need to attend too much to the device or equipment because the interface is not intuitive or losing interest in the dialogue. Things that keep the flow are compelling dialogue which identifies with the place or characters that you find interesting, being comfortable with the interface and system interaction and powerful media automatically starting up.

If the user has never used a device before or had experience of GPS triggered media then it can take several minutes for them to become familiar with the phenomenon and be comfortable with the interaction styles. In a play there is traditionally a prologue or first scene which is intended to settle the audience in. It is a good idea to

design the equivalent for a locative piece so that people can become familiar with the medium.

Identification of fellow participants can also be appealing. Users can tell who else is participating in the mediascape experience if they have some form of identification like a specialised sash to hold the device.

In a staged setting it is also possible to include props, live actors and other additional equipment as part of the experience. The mediascape then becomes one aspect of a much larger experience.

mscape ++
The version of mscape on the mscapers site is designed for a device that is carried by the user that works with GPS. Research versions of the software will soon be available to extend the capability so that you can add more sensors than GPS. For example in the Tower of London trial the Yeomen Warders carried Active RF pingers so that if your mediascape detected a Warder you would be caught and sentenced to 10 years in the tower!

In a staged setting it would also be possible to design the mediascape so that it is effectively embedded in the environment and people could trigger events by carrying or wearing actuators or other sensors.

Designing a Game

Mediascape games can be conceptually simple like "tag" or "hide and seek" or they can be complex quests such as the kind illustrated in the video Roku's reward. Whatever the game, the process of mediascape game design is to translate the game idea into a form which the current medium supports and one that will work within the current constraints of the toolkit.

All games have a hierarchy of rule systems: there are the rules of the game itself, the local rules and the wider rules of the culture and society in which the game will be played. If we take the game of soccer as an example

- The rules of the game are specified in the "rule book" and taught to each player. Game props such as goal posts, corner flags and chalk lines are used to help enforce the rules.
- The local rules take into account the local circumstances such as the size of the area you have to play in whether there enough players for a full team of 11, how long should the game last etc. These local rules are usually enforced by a referee.
- The wider rules take into account local laws and social rules. For example in a non professional game are ball games allowed in this area? In the professional game of soccer there is a governing body FIFA who enforce the integrity of the game across the world.

The point of highlighting this rule hierarchy is to show that much of game play depends on human and social mechanics not just the in-built game mechanics. And so whilst the current mscape platform does not currently support capabilities for devices

to talk to one another or for devices to talk to a game server, it is still possible to design compelling and social games that rely on human and social protocols rather than system protocols.

To take a very simple example you could easily turn the Stamp The Mole mediascape game into a children's party game just by telling the children where they need to place the mole holes and see who can do it quickest. You could also add obstacles or make them further apart to make it more challenging.

To design and create a mediascape game follow these seven steps.

1. Identify the core game mechanic that you want to use and implement and test that before you design the detail of the game.

Whenever you design a game there will be at least one main game mechanism that underpins it. For example hitting a ball with a racquet, moving a piece on a board or shooting at targets with a weapon. Mediascape games will typically involve movement around an outdoor space and maybe some interaction with the screen.

Mechanics based on GPS and movement.

You should think of your GPS as being like a balloon attached to a long piece of elastic which you hold. As you walk the balloon will more or less track where you are, though it will very rarely be directly overhead and it will also be prone to gusts of wind blowing it about. If you want a game to be based on your physical movement you should let it account for the fact that the GPS will not move as quickly as you can – just like the balloon it will jump and then follow depending if you turn or go in a straight line. If you are basing the game on movement and relying on GPS there are many things to bear in mind.

- GPS needs open spaces to work reliably – and built up areas will interfere with the readings
- Even in an open space GPS can drift. It is dangerous to rely on region sizes of less than ten metres if you need to associate regions with specific landmarks.
- GPS catches up quite slowly. If you run fast it can take a while for GPS to catch up with you.

So if you want to use the simple mechanic of moving between regions to trigger events, build and test a prototype first. (Stamp the mole and Doubloons are good mediascapes to try out as they use this mechanic).

Mechanics based on screen interaction.

There are several different ways to create screen interaction. (See the tutorial section How to let the user press buttons).

You can create simple buttons by adding hotspots to images. They are reliable and effective. However if you want to display dynamic information like your score, number of things collected etc then you will need to use HTML. Be warned that if you

use HTML buttons the action the user needs to make is a quick tap rather than a press. This is because HTML is designed to ignore presses of the screen when the point at which you press on the screen is more than a few pixels away from the point at which you release the press. (Danger UXB uses HTML for screen interaction in the mini games – you should try it out to get an idea of this issue).

Flash interaction.

If you are going to use flash as the front end interface to your game you should try out some simple tests to decide how much of the game logic you want to implement in flash and how much should be done in the maker. (See the tutorial section How to use Flash)

2. Sketch out the game as a storyboard

Once you are happy with your core mechanic and you have tested that it works you should sketch out the rest of the game design. On paper sketch the series of stages that the game will go through and thus the number of different images that you need to create. You should also think about the overall structure – if the game is complex make sure that the design can break down into discrete chunks or game segments. Map out the overall design interaction – how people will move from one game segment to the next.

Rich narrative games. If it is a plot and narrative based game you should write the key elements down. You should also try to break up the narrative into plots and sub plots. These may be levels of the game or different missions. For example in the Tower of London game there were a series of missions and each mission could be designed separately. You should then write the scripts for the main dialogue. It is helpful to write the scripts in a similar style to that of a stage play. Try to keep each piece of dialogue to 30 seconds or less in duration. If you have to stay in the same place for too long people get self conscious. For each piece of dialogue identify the character who is speaking and how their piece of dialogue gets triggered. It may get triggered automatically after the end of the previous piece of dialogue or it may get triggered by walking into a new or pressing a button. Specify any conditional logic that might be associated with the piece.

3. Record temporary audio and image files

It is a good idea to record all of your scripts in "scratch" form so that you can see how well they play out in the mediascape. You should also create rough images for any of the dialogue screens. You should test out this scratch content in both the tester and by walking outside. If you are creating an anchored game then ideally you would want to test it in the real setting. However if you are creating the game a long way away from its real setting you should still test the game in an outside area. To move regions from one area to another see "How to Move an Anchored Mediascape" in the tutorial section.

4. Develop, test and iterate.

If it is a large game you should develop it in stages and test it as you go. Continue to implement the mediascape in the maker, test it in the tester and copy it to your PDA to test it outside.

5. Create final audio, image and video assets.

Once you are happy with the overall flow of the dialog you should create your polished audio, images and video. This can simple mean re-recording your scripts with your friends and editing them to cut out any background noise, mistakes, umms and ahhs. In mediascapes such as Hidden Danger UXB this involved bringing actors into a recording studio to record the dialog and introduction. A graphic artist created the images.

6. Add final content to the mediascape

The process for swapping out the scratch content for the final content is very easy. Simply right click on the mediascape object and replace the file, this will delete the old file from your current directory and replace it with your new file. It is best if the old and new files have slightly different names for example your old file might be called introductionScratch.mp3 and your new file would be called introduction.mp3.

7. Upload the finished game to the website

Once all the final content is in place you should be finished. Upload your new game to the website

PORTABLE MEDIASCAPES

Designing a portable mediascape. The technique for making a portable mediascape is to design it so that it can be experienced anywhere in the world and to include in the design a means by which the user can define the "stage" on which the mediascape is played. For example in the game Doubloons the user first of all places five islands by walking around a space and indicating where the islands should be. Once the islands are laid out then the game commences. The design needs to try to make the act of "laying out" the stage as short or as fun as possible. For example finding suitable places can be made part of the experience.

Technically the technique for making a mediascape portable is to set the position of regions programmatically. The easiest region shape to use is a circle as you simply need to set the co-ordinates for the center point. Have a look at the "Region move to me" mediascape in the mscape maker to see how this is done and to reuse the code in your own mediascape. You should also look at Stamp the Mole and the accompanying "How to make a portable game" in the tutorial section. [To find the mediascapes search for "Region move to me" and "Stamp the Mole" in the Browse window].

Portable Games

 Simple games lend themselves very well to becoming Portable mediascapes. If you think of all of the classic playground favourites such as 'Tag', 'Hop Scotch' or 'Whats the Time Mr. Wolf?' you can easily imagine how to convert them into a mediascape version.

The best way to start the design is to first of all design the game as if it was anchored and develop and test it that way, but bear in mind that eventually all of the regions that you use will need to be programmatically set as part of the game set up. So try to keep the number of regions you need as small as possible and also try to use circles. Once the game works in anchored form it is relatively easy to make it portable.

Three common techniques are
1. asking the user to place regions (as in Stamp the Mole and Timehole)
2. asking the user to define the playing area (as in Hidden Danger UXB)
3. asking the user to mark the center and then automatically laying out the regions around them (see Portable Scubascape for example code to do this).

In a game that requires movement especially running then it is nice if the user does not need to wear headphones. If you make the audio, rules and screen feedback quite simple this is possible.

Designing a Placed narrative

Whilst the most evocative and immersive mediascapes are anchored narratives which relate strongly to the landscape and objects around them a portable mediascape can be experienced by anyone in the world who has the right device. This is a very strong motivation for designing a portable experience even though you lose the powerful association with place. One technique that can be used to make the place more meaningful to the experience is to try to incorporate real world objects, trees, water, rock etc into the story so that the user can identify with places that they have chosen. Duncan Speakman has used this technique to great effect in his mediascape "Always something somewhere else".

Getting the user to find meaningful places which are then used within the story line is a form of user customisation. We know that customisation is very popular in online web services, we also know that engaging the user to look out at the world and looking for elements in the environment is also compelling and so designs that build on these two ideas seem like a promising way to progress portable narrative experiences.