

# Instructions Card

A handy guide for architects to learn more about people and their behaviour in particular situations.

## *Pacer Train Addition*

### STEP 1:

Choose location to get on and off the train. I travelled from Radyr to Cathays five times a week for three months. This journey is what I must do to get from my family home in Radyr to Cardiff University via Cathays train station.

### STEP 2:

Decide on how you are going to record your findings. I chose to carry out an Ethnographic study through a diary and scenario sketches. This was the most effective way of recording my findings whilst travelling as well as recording in hindsight. I found that taking photographs was too intrusive and unethical. Many people did not like their photographs being taken when asked. In order to protect identities, I created a cartoon drawing style.

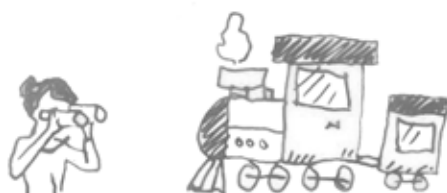
### STEP 3:

Start by observing people and how they behave when they think that nobody is watching. Then, discreetly begin to challenge their personal space and primal behaviour. I carried out the following activities,

1. Sitting next to people when there are plenty of other spare seats.
2. Manspreading when it was done to me.
3. Leaving money on the floor to see how different generations react.
4. Smiling at strangers.
5. Seating in the aisle seat and keeping the window free.
6. Sitting next to people without asking.
7. Sitting next to people and asking to do so.
8. Listening to headphones.
9. Listening to headphones and singing aloud.
10. Listening to music out loud.
11. Waving at people.
12. Positioning my bag so that others can not sit near me.
13. Welcoming others to sit next to me.
14. Took my bike on the train during rush hour.
15. Travelled with friends and family.

### STEP 4:

Section research into (non-stereotypical, non-prejudice) Composite Character Profiles compiled of 10-20 example observations of a certain type of person. Create a rich profile and include scenario sketches, diary entries, personal space realms and an architectural guide based on needs observed on Pacer Trains.





# Pacer Train

The Pacer train is the working name of the British Rail Classes 140, 141, 142, 143 and 144 diesel railbuses, comprised of multiple carriages, built between 1980 and 1987. Railbuses were proposed as short-term solutions to a lack of rolling stock. Pacer trains had a lifespan of no more than 20 years. However, many are still in use in 2018. Pacer trains will all be substituted by the end of 2019 because they do not abide by the Rail Vehicle Accessibility Regulations that, by 2020, require all public passenger trains to be accessible to disabled people. Furthermore, a ministerial directive in 2015 by the Transport Secretary stated that 'continued use of these uncomfortable and low-quality vehicles is not compatible with [the] vision for economic growth and prosperity'. Pacer trains will predominantly be replaced by cascaded diesel trains and this replacement process has already begun in northern England. The interior space of a train carriage is privately owned. However, it is publicly used by those who buy tickets. This is significant as it means that informal guidelines are in place and zones are fashioned to cater for specific people. Some rules include; no shoes on the seats, no alcohol to be consumed during the journey and the fold down seats are reserved for the elderly, wheelchair users and pregnant women. The Pacer train is a semi-public space open to all.

The proximity within a Pacer train carriage is similar to that of a narrow, pedestrianised street, in the sense that they are a series of carriages connected by a single route and there are clearly marked zones. For example, on the platform yellow lines signpost the safest distance to stand from the rails when a train is arriving and departing. This is comparable to a street where 'strategically placed parallel parking shields pedestrians from street traffic'. When in close proximity to others, smell becomes the main sense and warmth from other can physically be felt. However, when the train is not crowded, people spread out and mark their territory with their belongings and limbs.

Author's findings, 2018.

To what extent does Edward T. Hall's theory on personal space apply to commutes within public spaces on Pacer Trains in Cardiff? By Molly Nash, 2018.



Author's photographs  
of Pacer Train Typology,  
Molly Nash, 2018



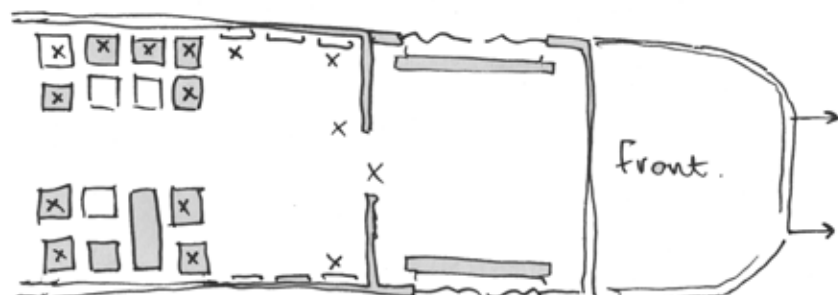
# Passenger Distribution



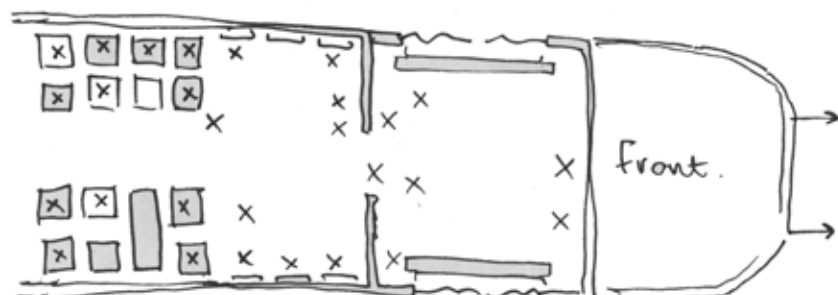
Radyr to Cathays at 08:01, Monday.



Cathays to Radyr at 16:30, Wednesday.



Radyr to Cathays at 13:23, Thursday.



Cardiff Central to Radyr at 19:00, Friday.









# Bibliography

Alan Whitehouse, Long-term safety fears over Yorkshire's Pacer trains (2011)  
<<https://www.bbc.co.uk/news/uk-england-15390172>> [accessed 8 December 2018].

Characteristics of Pedestrian-Friendly Streets (2015)  
<<http://www.ca-ilg.org/pod/characteristics-pedestrian-friendly-streets>>  
[accessed 10 December 2018].

Edward T. Hall, The Hidden Dimension (United States: , 1966), p. 10-13.

Edward T. Hall, The Hidden Dimension (United States: , 1966).

Edward T. Hall, The Silent Language ([n.p.]: , 1959).

Gary W. Evans, Richard E. Wener, 'Crowding and personal space invasion on the train: Please don't make me sit in the middle', Journal of Environmental Psychology, 27.1, (2006), , in  
<<https://www.sciencedirect.com/science/article/pii/S0272494406000636>>  
[accessed 1 December 2018].

Iain M. Butterworth, 'The Relationship Between the Built Environment and Wellbeing: a Literature Review ', Research Gate, , (2000), , in  
<[https://www.researchgate.net/publication/253984800\\_The\\_Relationship\\_Between\\_the\\_Built\\_Environment\\_and\\_Wellbeing\\_a\\_Literature\\_Review](https://www.researchgate.net/publication/253984800_The_Relationship_Between_the_Built_Environment_and_Wellbeing_a_Literature_Review)>  
[accessed 9 December 2018].

Jon Kelly, 'Pacers: The train that the UK has struggled to get rid of', BBC News, 7 March 2016, p..

Kevin Lynch, The Image of the City ([n.p.]: , 1960), p. 149.

Michael Bond, 'The Hidden Ways that Architecture affects how you feel ', BBC Future, 6 June 2017.

Nathan Thompson, 'How to protect your personal space on the Tube ', The Telegraph, 25 July 2014.

'New trains to replace north of England's ageing rolling stock by 2020', The Guardian, 27 February 2015.

Raji Sakiru Olarotimi, 'The Sway of Gender and Anxiety on Perception of Personal Space', Journal of Child & Adolescent Behavior, 2.4, (2014), 4-5.

Raji Sakiru Olarotimi, 'The Sway of Gender and Anxiety on Perception of Personal Space ', Journal of Child & Adolescent Behavior, , (2014), .

The American Heritage® Idioms Dictionary, crowd (2018)  
<<https://www.dictionary.com/browse/crowding>> [accessed 3 December 2018].

All sketches done by author, Molly Nash, 2018.

All text written by author, Molly Nash, 2018.

Ethnographic study, diary and diagrams done by author, Molly Nash, 2018.





## Chris and Joan

### Elderly Retired Couple

Write a message...

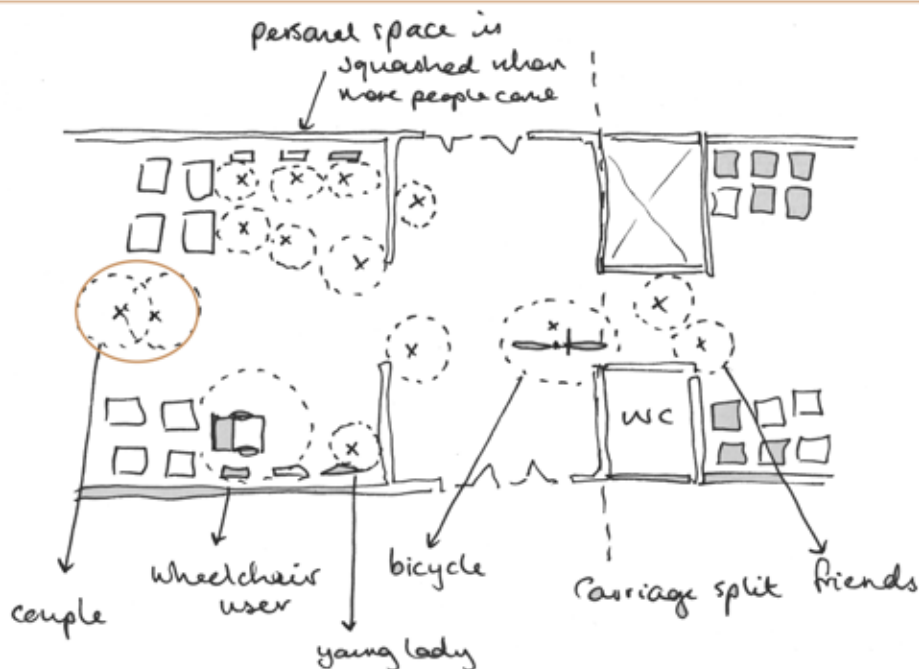


**Age:** 72 and 70  
**Gender:** Male and Female  
**Height:** 5ft 6 - 5ft 3  
**Weight:** Undisclosed  
**Disabilities:** Both use walking sticks  
**Smoker:** No

**Address:** Trefforest  
**Email:** N/A

**Length of  
Journey:** 28 minutes

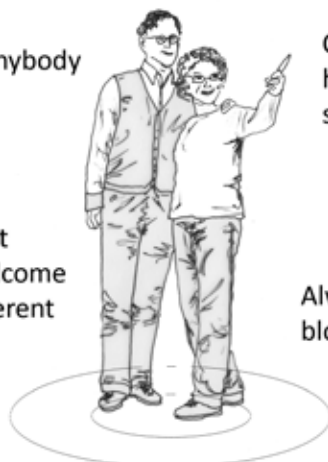
Catch the train from Trefforest to Cardiff Central to visit their grandchildren who go to university in Cardiff. They often bring snacks on th train because Joan has low blood pressure. They like to have a seat as they can not stand for too long. Chris likes to stand and push himself which causes them to bicker. They have a dog at home who they sometimes bring on the train with them to Cardiff because their grandchildren love him.



### Personal Space Realm:

Both speak to anybody

Not too bothered about personal space and welcome company and new/different interactions



Chris always checks Joan has her bag/purse because she often forgets it

Always carry snacks for blood pressure purposes

### Needs:

- Seats
- Interaction with each other and others
- Food and drinks
- Fresh air but also warmth

### Architectural Guide:

Older generations need to sit and take breaks more frequently so seating is essential. It is stimulating for older generations to interact and engage with younger people and children. It is good for both parties as younger people learn a lot from their seniors. Therefore, space where different age groups can communicate could create an interesting environment. Food and beverages keep people going and create a more welcoming environment. Windows and heating can be used to create an ideal personal space.



# Claire and Freddy

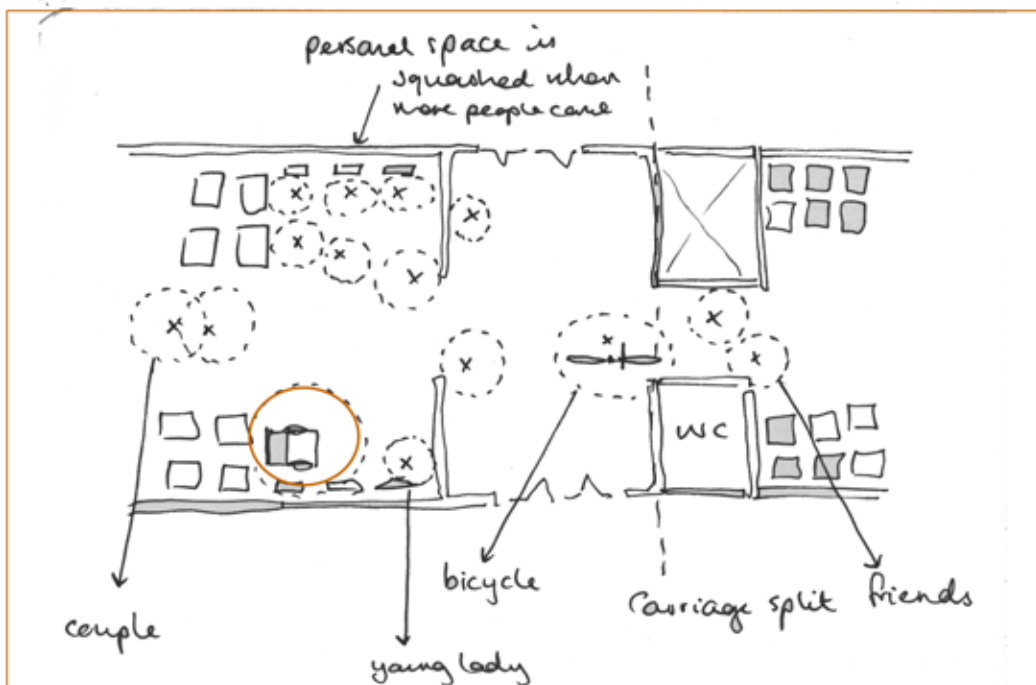
## Mother and Son

Write a message...



<b>Age:</b>	43 and 5
<b>Gender:</b>	Female and Male
<b>Height:</b>	5ft 4 and 3ft
<b>Weight:</b>	69kg and 15kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Radyr
<b>Email:</b>	claz.harris@yahoo.com
<b>Length of Journey:</b>	15 minutes

Catches the train from Radyr to Cardiff Central twice a week to do some shopping with her son and visit Cardiff Bay. Travels alone with Freddy. Often stops for lunch in Cathays at Costa. Finds it very difficult to take the train with the pram. Was once on her way home and could not get off the train in time at Radyr so had to keep going to Taffs Well where she complained because nobody helped her despite seeing her struggling with a pram alone.



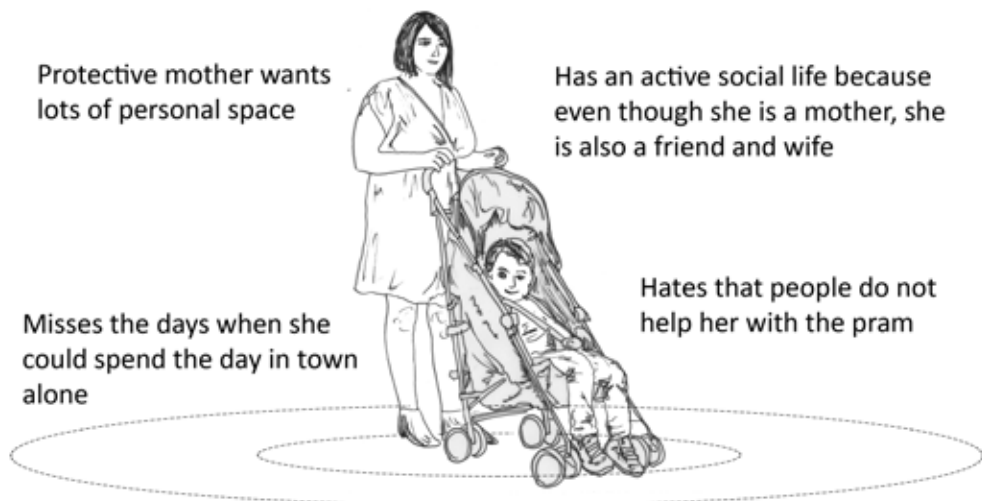
### Personal Space Realm:

Protective mother wants lots of personal space

Has an active social life because even though she is a mother, she is also a friend and wife

Misses the days when she could spend the day in town alone

Hates that people do not help her with the pram



### Needs:

- A seat
- Window open/fresh air
- Food and drink
- Toilet
- Space (can not be cramped)

### Architectural Guide:

Pushing a pram around can be exhausting so somewhere to sit is ideal and a welcomed break.

Windows should be able to be opened. Often people do not open the windows because others complain- separate compartments/zones could be a solution.

Always need a space to buy food, coffee, tea etc. People can get too hot and feel faint so an area to buy food and drink is vital. Children get grumpy when they are hungry.

Toilets are also vital and must be spacious for a mother and baby. They must be cleaned and sanitary.



# Dan

## University Lecturer

Write a message...



<b>Age:</b>	48
<b>Gender:</b>	Male
<b>Height:</b>	5ft 10
<b>Weight:</b>	80kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Trefforest Estate
<b>Email:</b>	dantheman@ilovescience.com
<b>Length of Journey:</b>	24 minutes

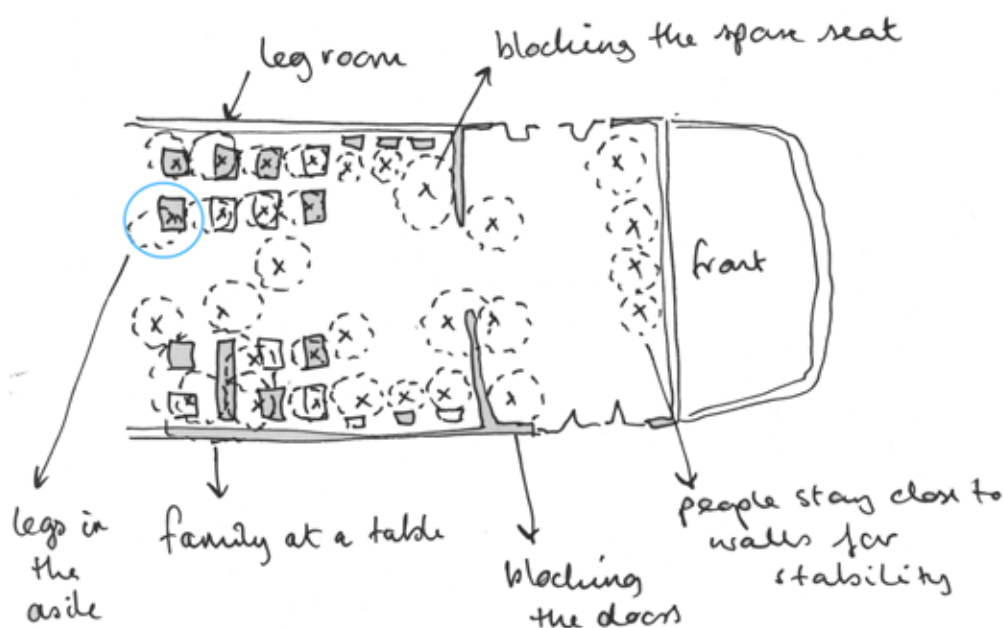
Catches the train from Trefforest Estate to Cathays to get to university five times a week. Spends a lot of time in the library tutoring students one-to-one. Has a young family in Trefforest Estate. His wife works in Bristol, so they share the car and he uses the train everyday. Chats to lots of different people on the train that he has gotten to know over the years commuting. Typically uses the train at 9am and again at 5pm.



## Manspreading:



Men get uncomfortable when someone encroaches on their personal space with their legs.



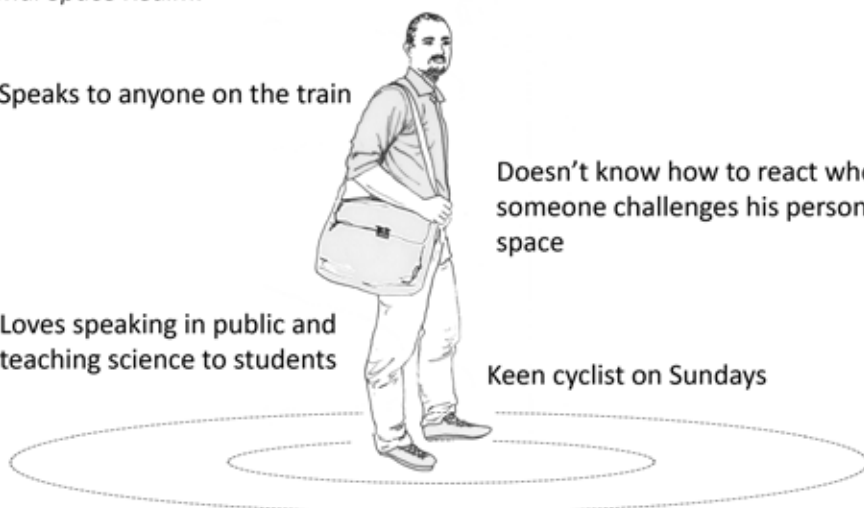
## Personal Space Realm:

Speaks to anyone on the train

Doesn't know how to react when someone challenges his personal space

Loves speaking in public and teaching science to students

Keen cyclist on Sundays



### Needs:

- Lots of personal space
- Quiet time
- Room to manspread
- Interraction/company

### Architectural Guide:

Men need more personal space than women due to their nature. Women feel more comfortable around male friends and any female. Whereas, men only feel comfortable letting women into their personal space. Middle-aged married men do not feel as comfortable around women as younger males seem to.

Manspreading is a way that males express their territory instinctively. Men like to appear larger than they are. The option of company gives people a choice in their interactions and makes them feel more in control. Spaital zoning helps this to happen.





# Duke

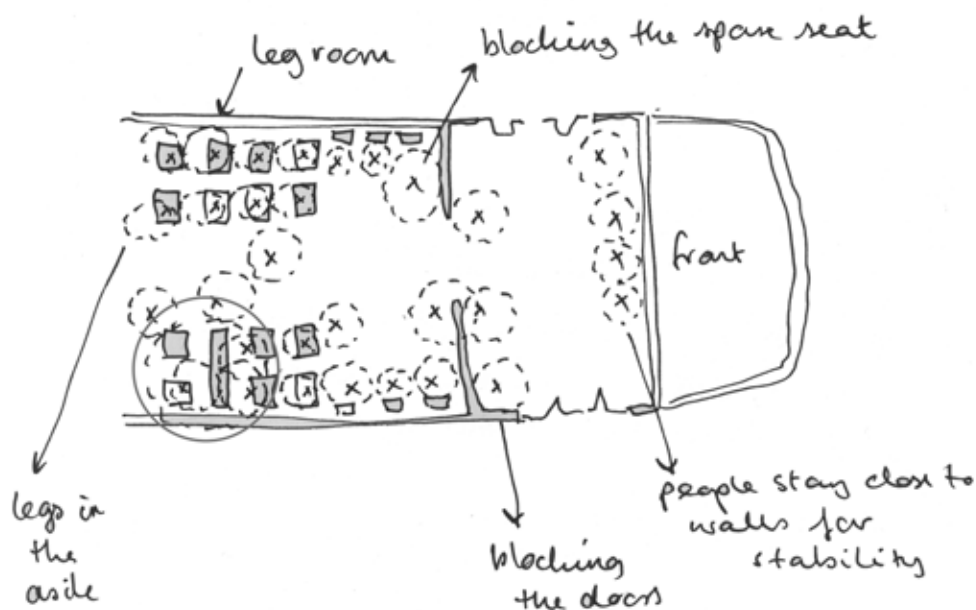
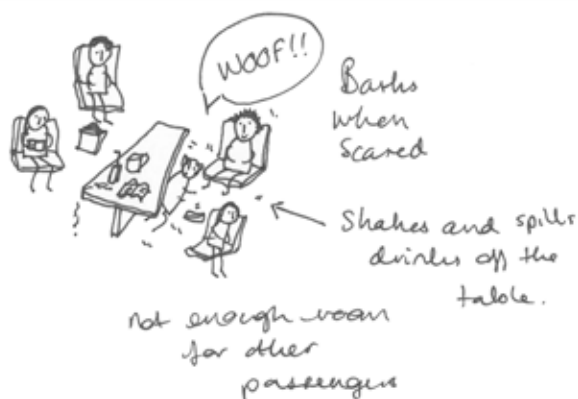
## Dog

Write a message...



<b>Age:</b>	4
<b>Gender:</b>	Male
<b>Height:</b>	3ft
<b>Weight:</b>	30kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Aberdare
<b>Email:</b>	N/A
<b>Length of Journey:</b>	62 minutes

Catches the train from Aberdare to Cardiff Queen Street once a week for his owner to visit frineds in Cardif Bay. Absolutly terrified of the train despite using it once a week. Shakes for the duration of the journey and hides under seats and tables. Owner always brings water for Duke and treats. Other passengers shake their heads when they see him because they think it is cruel and they think that Duke takes up to much room. Duke is scared of the other passengers but loves seeing his friend LooLoo in Cardiff Bay.



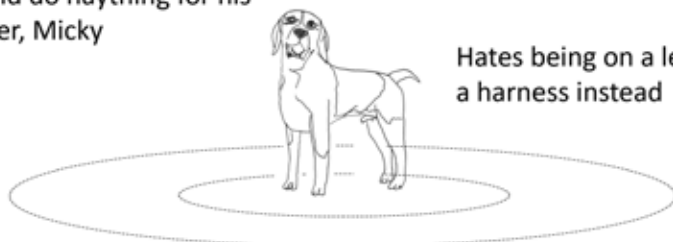
### Personal Space Realm:

Loves to play fetch

Would do anything for his owner, Micky

Sits, lies down and rolls over on command

Hates being on a leas so wears a harness instead



### Needs:

- Lots of space
- Food and water
- Somewhere to play games
- Toilet
- Respect/space consideration

### Architectural Guide:

Dogs are very territorial and need their own space otherwise they may get protective and defensive if not adequately trained.

Dogs become dehydrated very quickly so need water very often throughout the day, especially in a hot, cramped environment.

Space to stretch his legs and run is important as a means of energy release, otherwise they can become overly playful and aggressive.

Somewhere to go to the toilet/wipeable floors/dog poo bins are essential in any public space with dogs/animals.



# Emily

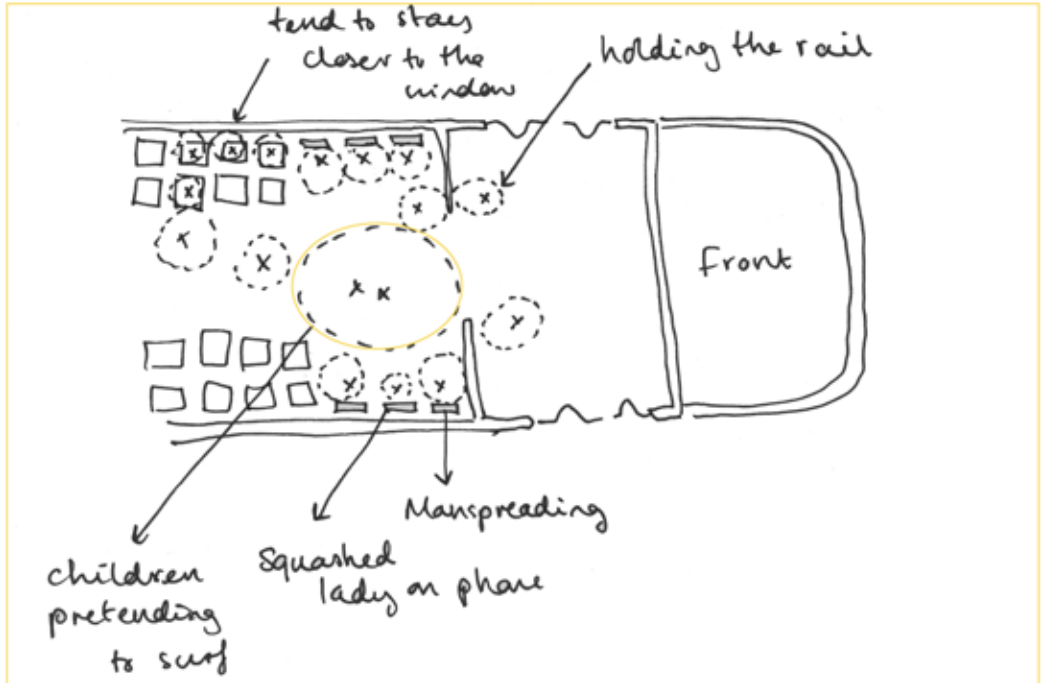
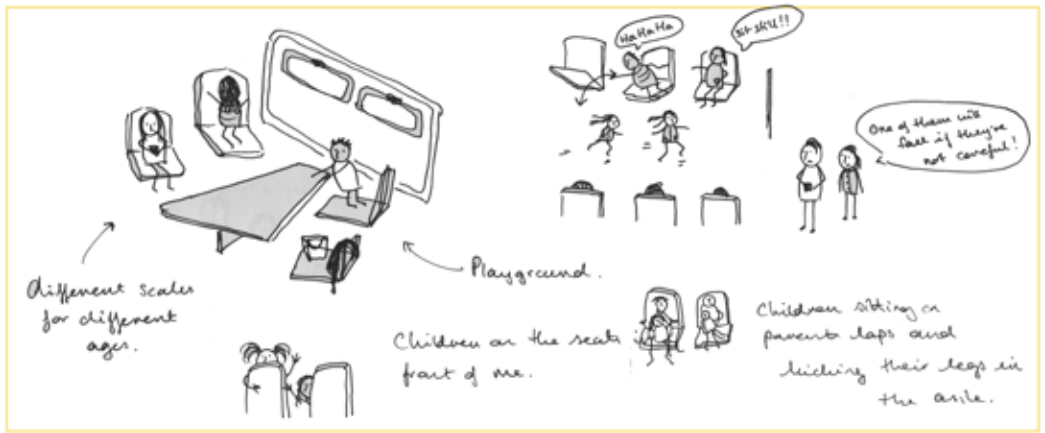
## Energetic Toddler

Write a message...



<b>Age:</b>	4
<b>Gender:</b>	Fermale
<b>Height:</b>	3ft 5
<b>Weight:</b>	17kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Pontypridd
<b>Email:</b>	N/A
<b>Length of Journey:</b>	35 minutes

Catches the train from Pontypridd to Cardiff Central for days out with family. Travels with mum. Loves to run and play with a skipping rope. Mum always carries snacks, e.g. chocolate coins and carrot sticks. Carries a Harry the Hippo everywhere. Hates wearing shoes. Doesn't sit still. Anywhere.



### Personal Space Realm:

Plays with other people's hair on the train

Chews her hair

Loves muddy puddles

Talks to anyone

Really wants a little brother



### Needs:

- Space to run around
- Food and drink
- Things to play with/occupy themselves
- Interaction
- Quiet space to sleep

### Architectural Guide:

A designating play area will suit young children and ensure their happiness.

Ensure there is always a place to buy food nearby. Water fountains are vital for all ages.

Leaning corners make people feel a lot more comfortable while allowing open space for children to run.

Public spaces to interact as well as private, for example reading nooks, are vital.

Different scaled furniture creates an interesting typology for the children to climb and play but also serve adults.



# Jacob and Seb

## School Children

Write a message...

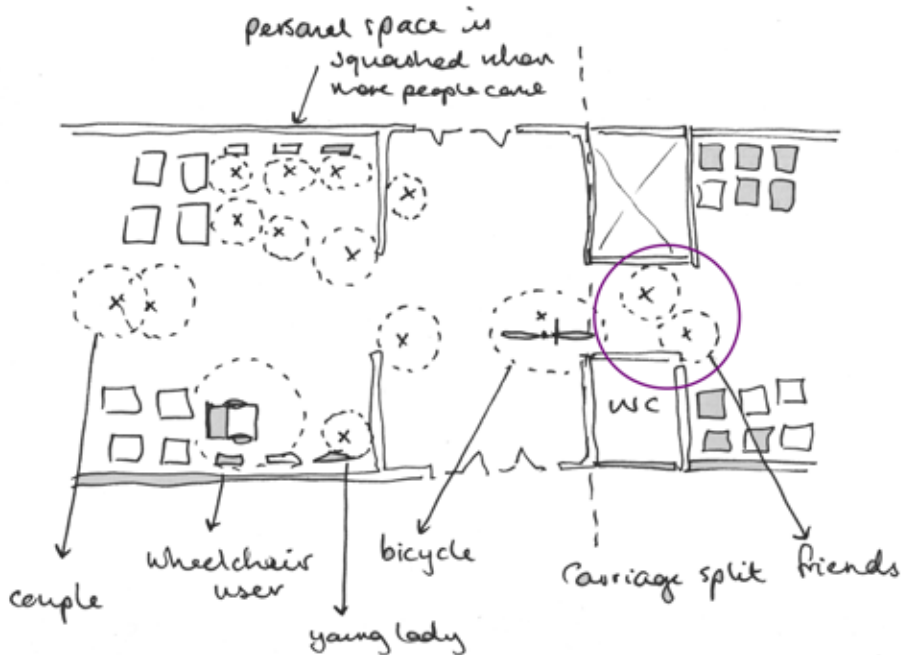


**Age:** 14  
**Gender:** Male  
**Height:** 5ft 4 and 5ft 5  
**Weight:** 58kg and 55kg  
**Disabilities:** No  
**Smoker:** No  
  
**Address:** Troed-y-rhiw  
**Email:** bestfriendsJnS@Cathayshigh.com  
  
**Length of Journey:** 54 minutes

Catches the train from Troed-y-rhiw to Cathays to get to school five days a week. Have been best friends since primary school and know everything about one another. Argue over girls but also remain buddies. Can't wait to grow up and have their own 'crib'. Spend their lunch hours in SubWay with their other friends. Push each other around on the train and try to act intimidating.



pushing each other on the wobbly train and taking up too much space (inconsiderate).



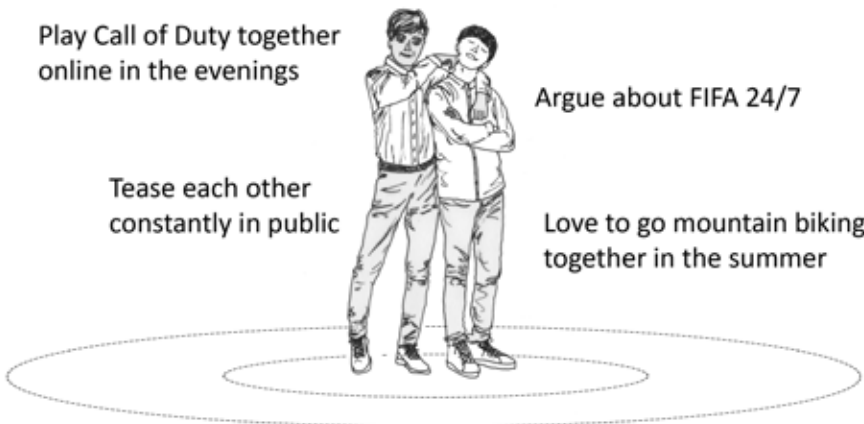
### Personal Space Realm:

Play Call of Duty together online in the evenings

Argue about FIFA 24/7

Tease each other constantly in public

Love to go mountain biking together in the summer



#### Needs:

- Lots of personal space
- Room to mess around
- Somewhere to play games
- Safe/secure environment

#### Architectural Guide:

Young boys are just finding their confidence and personal space allowances. It is important that they have enough room to explore their comfort zones through spatial zoning and curtains.

A possibly area to play video games or watch films means that they are occupied and not causing havoc with other passengers.

It is important for young people to feel safe and secure and away from danger. Crime rates are higher during the night and when there is less light. Ergo, good indoor and outdoor lighting is essential especially in secluded areas.



# Martin

## Accountant

Write a message...



<b>Age:</b>	50
<b>Gender:</b>	Male
<b>Height:</b>	5ft 11
<b>Weight:</b>	82kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Penrhiwceiber
<b>Email:</b>	<a href="mailto:martinaccounts@numbersrule.org">martinaccounts@numbersrule.org</a>
<b>Length of Journey:</b>	47 minutes

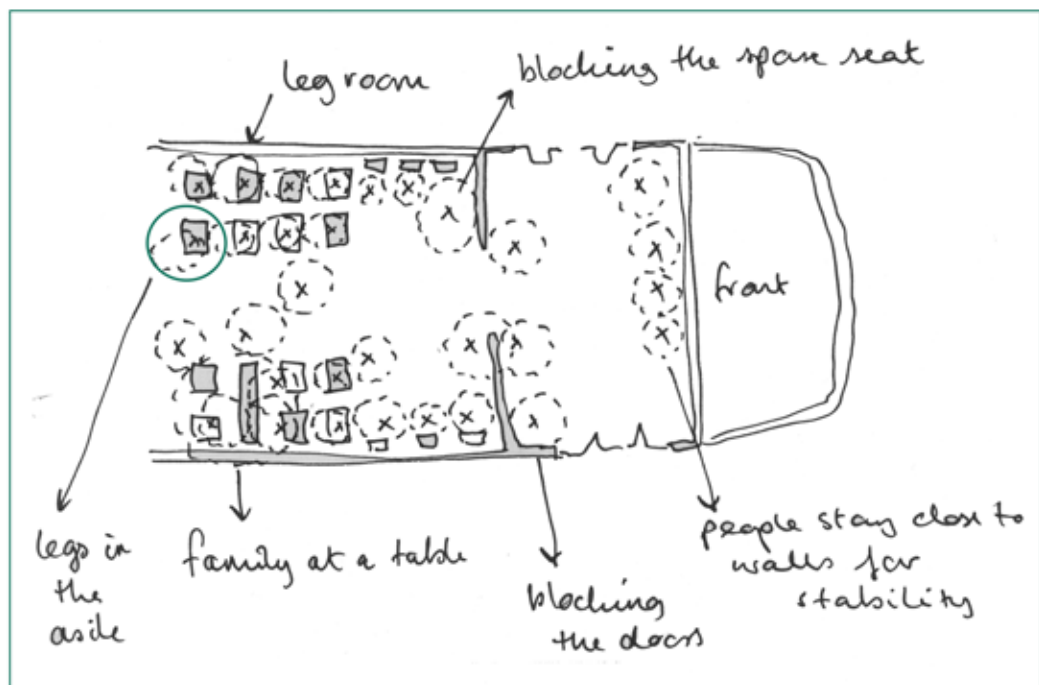
Catches the train from Penrhiwceiber to Cardiff Central to get to work five days a week. Is divorced and sees his two children once a fortnight. Has a new family now. Is one of the top dogs at his company and has a large 5 bed house. Enjoys drinking with friends on a Friday night and playing football with his son. Supports Manchester United and if they lose a match, it ruins his mood for the day.



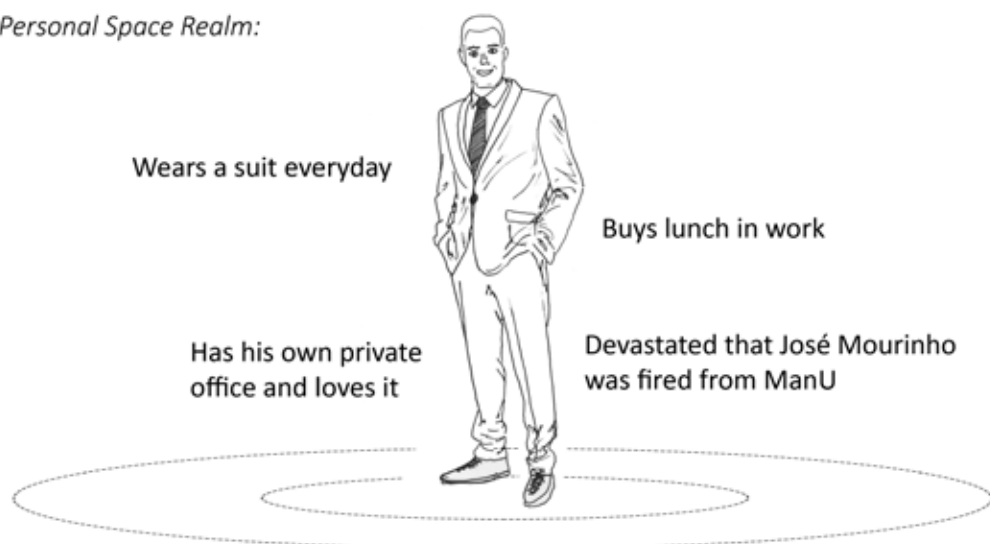
Manspreading:



Men get uncomfortable when someone encroaches on their personal space with their legs.



Personal Space Realm:



Needs:

- Lots of personal space
- Quiet time
- Room to manspread
- Interraction/company

Architectural Guide:

Men need more personal space than women due to their nature. Women feel more comfortable around male friends and any female. Whereas, men only feel comfortable letting women into their personal space, especially confident men. Manspreading is a way that males express their territory instinctively. Men like to appear larger than they are. Spaital zoning allows me to decide who they want to interact with, if anyone. It allows them to establish their territory comfortably.





# Max

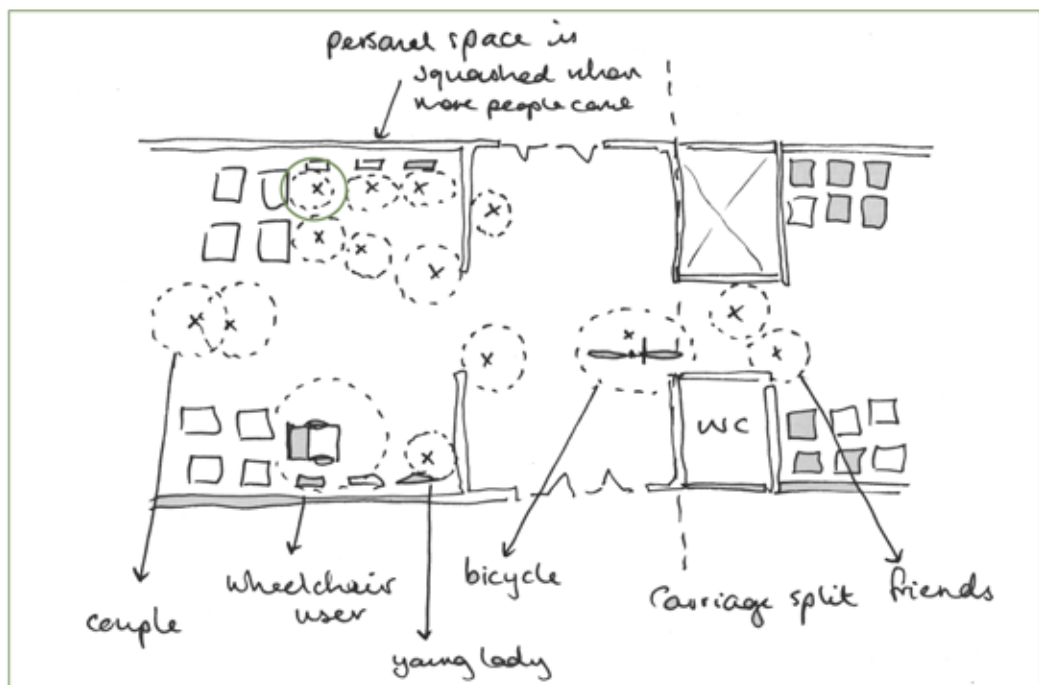
## Criminology Student

Write a message...



<b>Age:</b>	22
<b>Gender:</b>	Male
<b>Height:</b>	5ft 9
<b>Weight:</b>	70kg
<b>Disabilities:</b>	Dyslexia
<b>Smoker:</b>	No
<b>Address:</b>	Quakers Yard
<b>Email:</b>	maxamillion@crim.co
<b>Length of Journey:</b>	44 minutes

Catches the train from Quakers Yard to Cathays to get to university four times a week. Spends a lot of time in the library because he finds it hard to work at home with his family. Is saving for a flat in Cardiff Bay. Spends most of his evenings in the pub with his mates which often progresses to a night in Live Lounge singing Mr Bright Side on the stage. Loves going to Swansea with the lads. Loves walking his dog at home with his little sister.



### Personal Space Realm:

Takes his laptop everywhere

Likes his uni independence

Drink of choice: Orange VK

Doesn't speak to anyone on the train and moves away if you sit by him



#### Needs:

- Lots of personal space
- Quiet time
- Room to manspread
- Music
- Phone charger

#### Architectural Guide:

Men need more personal space than women due to their nature. Women feel more comfortable around male friends and any female. Whereas, men only feel comfortable letting women into their personal space.

An area to have some alone time and quiet time is ideal for hungover lads in their 20s as this is when they are at their least sociable.

Manspreading is a way that males express their territory instinctively. Men like to appear larger than they are.

People use music to create their own personal bubble and escape from any situation.



# Meg

## Student

Write a message...

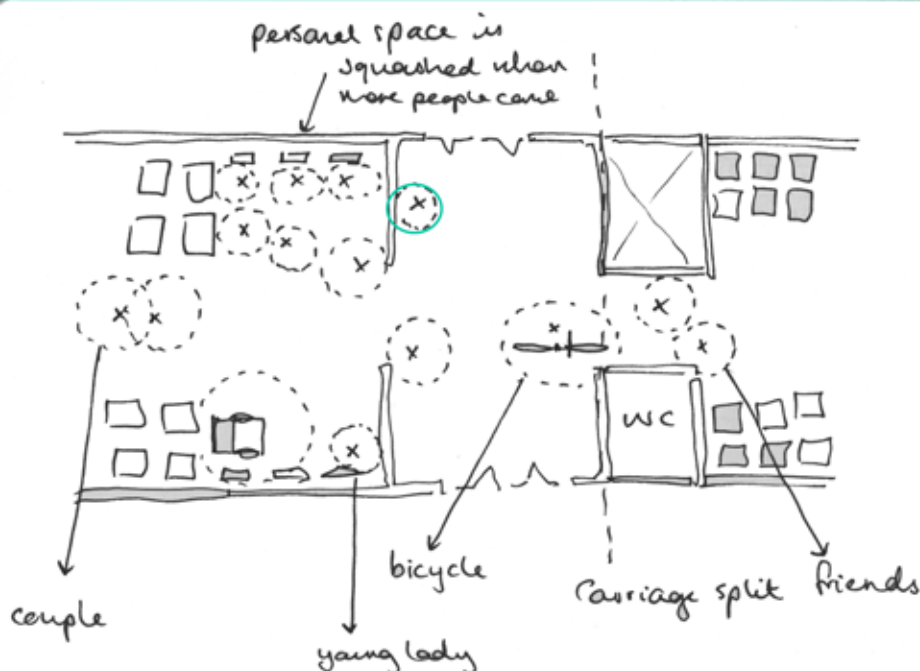


<b>Age:</b>	19
<b>Gender:</b>	Female
<b>Height:</b>	5ft 5
<b>Weight:</b>	58kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	Yes
<b>Address:</b>	Llandaff
<b>Email:</b>	meganUni@cardiff.ac.uk
<b>Length of Journey:</b>	10 minutes

Catches the train from Llandaff to Cathays five times a week in order to get to university. Travels alone. Often stops for a seasonal coffee in Cathays at Costa (Christmas Latte lately). Hates the rain because her headphones get wet while she is walking and they do not fit inside her coat hood. Always has a heavy backpack containing her laptop and lunch. Takes the train twice a day, five times a week so pays for a single ticket every month to save money.



Standing by the doors.



### Personal Space Realm:

Confident with music on

Has an older brother  
in Swansea Uni

Personal space does to really cross  
her mind due to confidence and  
only a short journey

Glued to her phone/iPod



#### Needs:

- Small amount of space to stand comfortably
- Charging station/plug socket
- Somewhere to rest her heavy bag
- Space for a wet umbrella

#### Architectural Guide:

In order to feel comfortable, a number of young students simply need around 1m X 1m of personal space. Charging sockets are important as many people listen to music, use a laptop and/or a phone. Somewhere to charge these items make people feel a lot more comfortable as we release dopamine when using phones and other devices. Many people have heavy bags, full of everyday items that are needed, when travelling between destinations. Therefore, space to store these items safely is a must. Storage for wet items means that furniture etc is not damaged and there is more space for other people.



# Mel and Darren

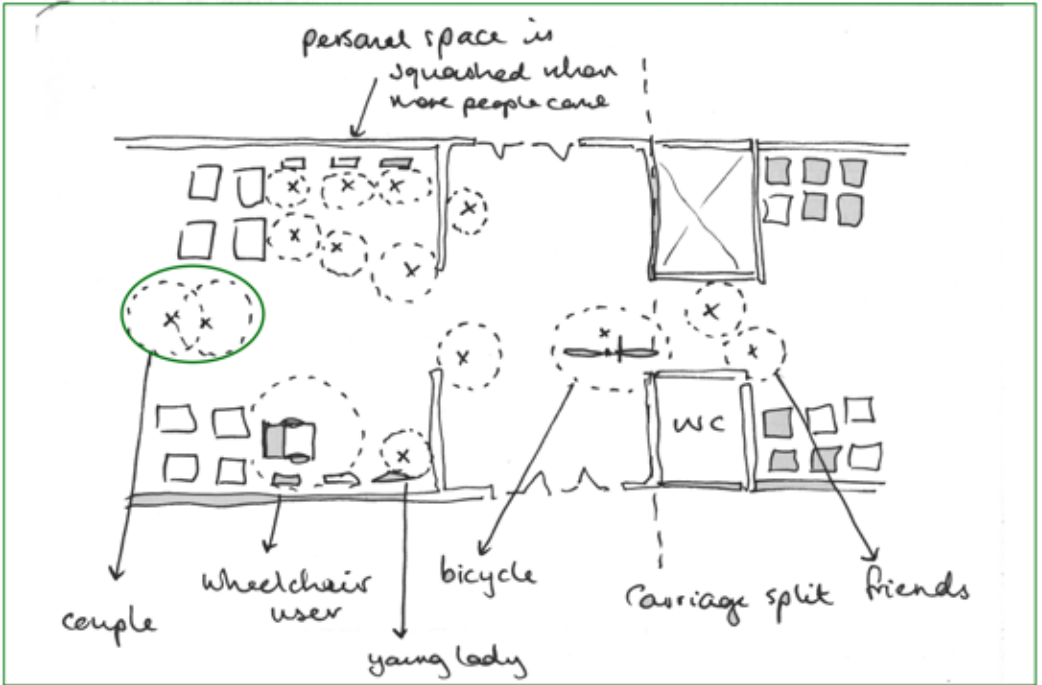
## Young Couple

Write a message...



**Age:** 32 and 31  
**Gender:** Male and Female  
**Height:** 5ft 9 and 5ft 6  
**Weight:** 70kg and 58kg  
**Disabilities:** No  
**Smoker:** No  
  
**Address:** Fernhill  
**Email:** younglove@willdie.com  
  
**Length of Journey:** 56 minutes

Catches the train from Fernhill to Cardiff Queen Street five times a week because they both have office jobs in Cardiff. Travels together to and from work Monday to Friday. Wears work clothing. Both carry bags containing their lunch. Stick together on the train and have private conversations that everyone can overhear. Often like to sit at a table so that they are opposite each other, which makes it awkward for others.



*Personal Space Realm:*

Like to stick close together

Not too bothered about personal space because they have each other



Often hold hands/show lots of physical contact

Have loud conversation and like PDA

**Needs:**

- Seats together
- Space for a private conversation
- Space for drinks and food
- Plug sockets for their shared music/headphone splitters

**Architectural Guide:**

Seats in pairs mean that couples can sit together without someone feeling isolated around them. Sets of double seats also mean that private conversations can be held. Curtains (shower curtains - weatherproof) could also be used as a means of creating zones within a tight space. Tables to eat together when in one place for a long period of time can create social spaces. People gather around power sources for their phones and laptops so this can create a main social space within architecture.





# Michael

## Cyclist

Write a message...

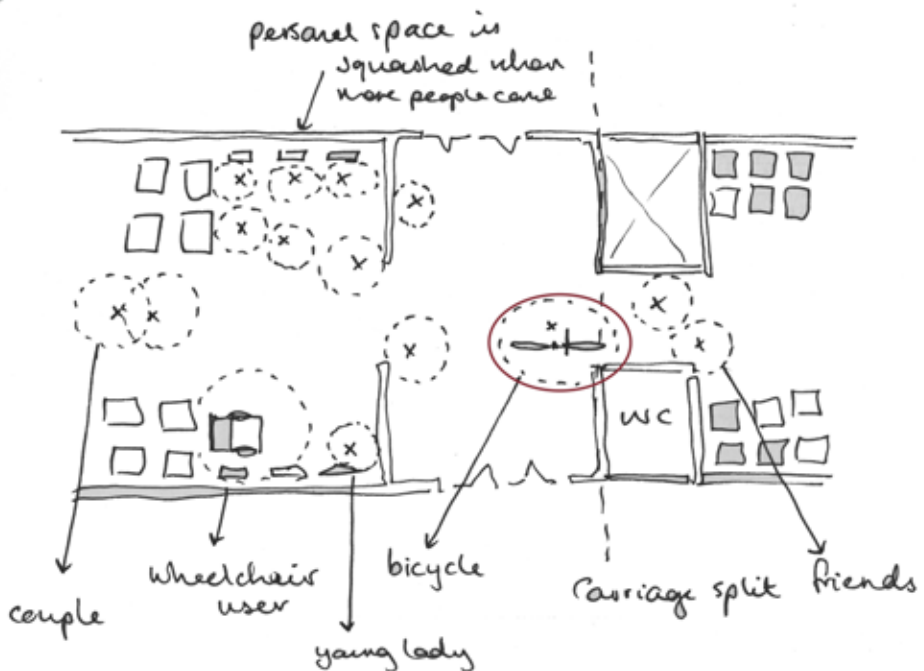


**Age:** 26  
**Gender:** Male  
**Height:** 5ft 9  
**Weight:** 72kg  
**Disabilities:** No  
**Smoker:** No

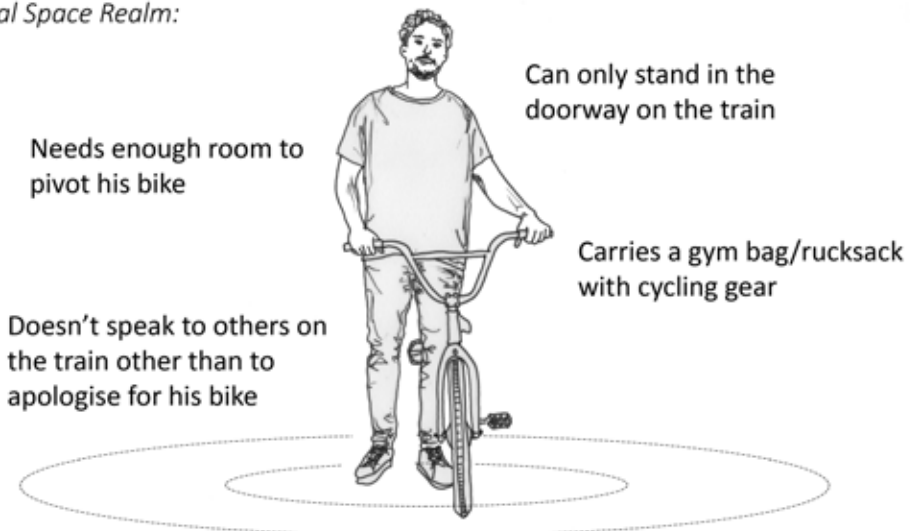
**Address:** Cwmbach  
**Email:** MichaelBoom@cycling4ever.net

**Length of  
Journey:** 59 minutes

Catches the train from Cwmbach to Cathays four times a week to cycle with his club in Maindy Leisure Centre, Cardiff. Travels alone and take his bike on the train. Wears sports clothing. Carries a rucksack and water bottle. Finds it really difficult to manoeuvre his bike on and off the carriage. Tries to avoid rush hour because he bike will not fit on the train when there are too many people standing.



### Personal Space Realm:



#### Needs:

- Enough room to pivot his bike
- Stability
- Storage
- Wipeable surfaces due to muddy tyres
- Ramp to get on/off the train

#### Architectural Guide:

Bike storage is vital as there has been a massive increase in the number of people cycling as a hobby and as a means of commuting. Safe, stable storage for bikes can create a lot of space in a small area, for example mounting bikes to walls frees up floor space. Carpet and soft furnishings should be avoided in order to avoid damage from mud and water (wheels). Stairs and steps make it very difficult and deter cyclists. In order to encourage and allow cycling, ensure ramps are in place/readily available.





# Paula

## Pregnant Lady

Write a message...

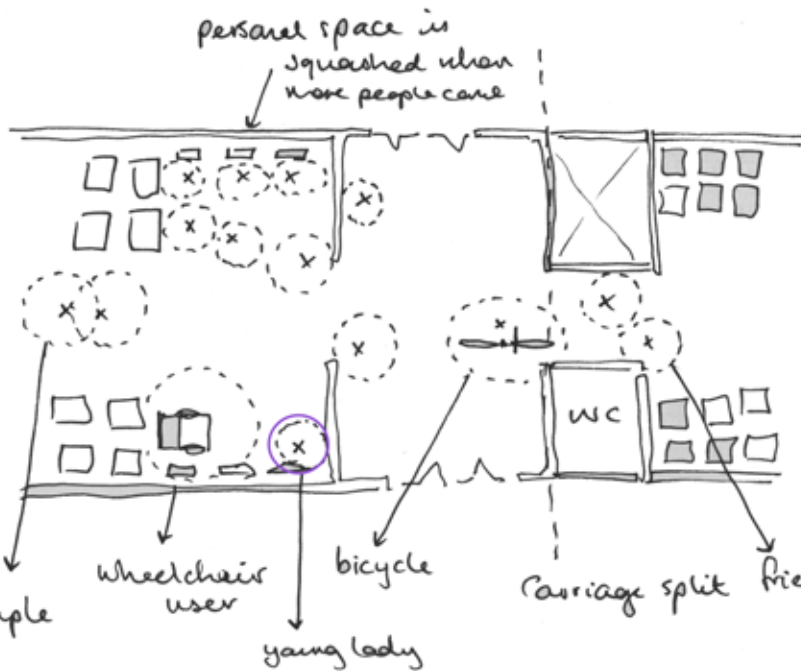


<b>Age:</b>	36
<b>Gender:</b>	Female
<b>Height:</b>	5ft 4
<b>Weight:</b>	66kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Abercynon
<b>Email:</b>	pregnantpaula@babiesRus.co.uk
<b>Length of Journey:</b>	42 minutes

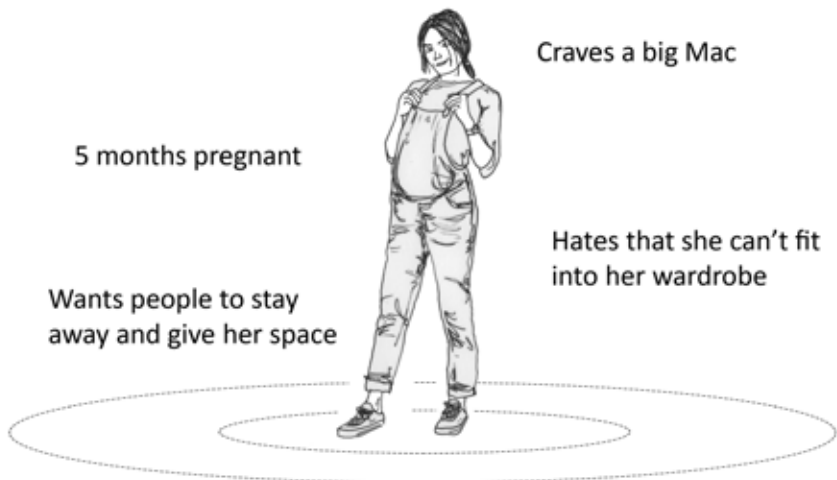
Catches the train from Abercynon to Cardiff Central once a week to do some shopping with her sister. Travels alone or with her partner. She still likes to keep her independence when travelling but also worries as it is her first child. Now that she is showing, people often offer her a seat if they have noticed that she is with child. She gets tired quickly and thinks that cyclists should not be allowed to use the small trains during rush hour.



wobbling between seats  
in the aisle  
because the seats  
are just too far  
from one another  
to hold both.



### Personal Space Realm:



#### Needs:

- A seat
- Window open/fresh air
- Food and drink
- Toilet
- Space (can not be cramped)

#### Architectural Guide:

Reclining seat or space to sit/lie comfortably. Mobile manicurist to treat yourself while travelling/waiting/sitting/relaxing.

Windows should be able to be opened. Often people do not open the windows because others complain- separate compartments/zones could be a solution.

Always need a space to buy food, coffee, tea etc. People can get too hot and feel faint so an area to buy food and drink is vital. Toilets are also vital and must be spacious and cleaned and sanitary.



# Rebecca

## Clinical Trials Administrator

Write a message...



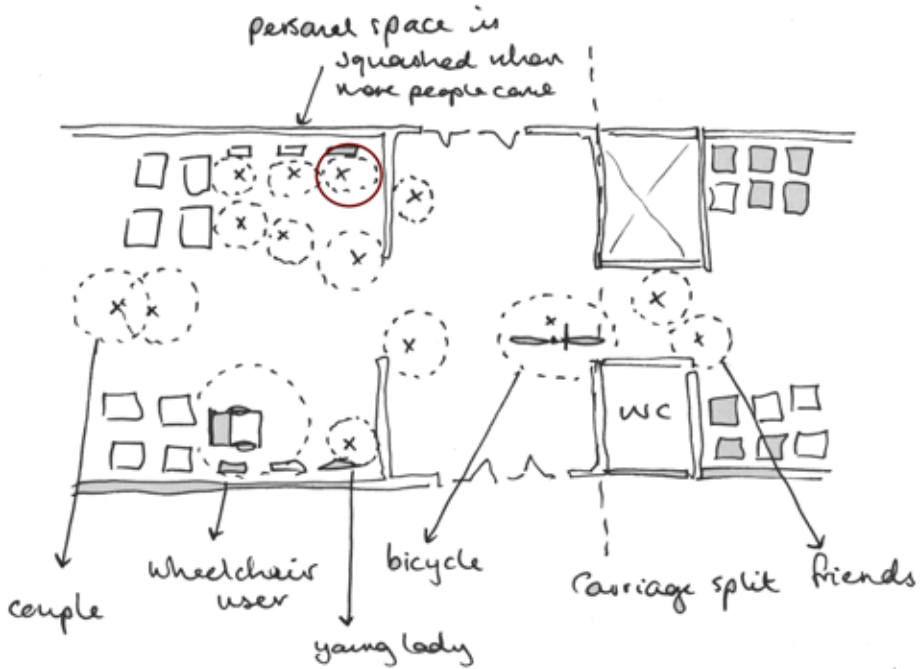
<b>Age:</b>	46
<b>Gender:</b>	Female
<b>Height:</b>	5ft 8
<b>Weight:</b>	Undisclosed
<b>Disabilities:</b>	Asthma
<b>Smoker:</b>	No
<b>Address:</b>	Merthyr Vale
<b>Email:</b>	RebeccaAndrews@heathCampus.com
<b>Length of Journey:</b>	49 minutes

Catches the train from Merthyr Vale to Cathays to get to work. Rebecca works in the Heath Hospital within clinical trials. She enjoys her job but after a long day, hates being on the train during rush hour. She takes the train because she didn't pass her driving test and therefore, depends on public transport. She has three children; two are in university and the third is in nursery. She works extremely hard and her family are her world. Hates mornings.



steamed up windows and wet floor from the rain outside.

Working on laptop.  
Coffee cup on the floor.



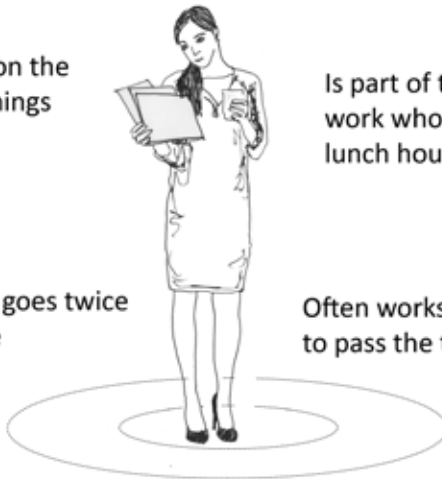
### Personal Space Realm:

Carries a coffee on the train in the mornings

Is part of the running team in work who train during their lunch hours

Loves swimming and goes twice a week to relax alone

Often works while travelling to pass the time



### Needs:

- Space for work
- Coffee cup holder/drinks holder
- Shoe cleaning station
- Mirrors
- Toilets

### Architectural Guide:

Desk space and leg room is essential for a comfortable working environment. However, people will make do with what is readily available, e.g. working on their laps. Cup holders decrease the chance of spillages occurring. At the entrance to a building or train or room, shoe cleaning facilities could help reduce muddy footprints and water. Mirrors are handy in places of commutes, work and education as many people like to check how they look throughout the day. Toilets must be clean and sanitary and have the required female products.



# Sam

## Personal Trainer

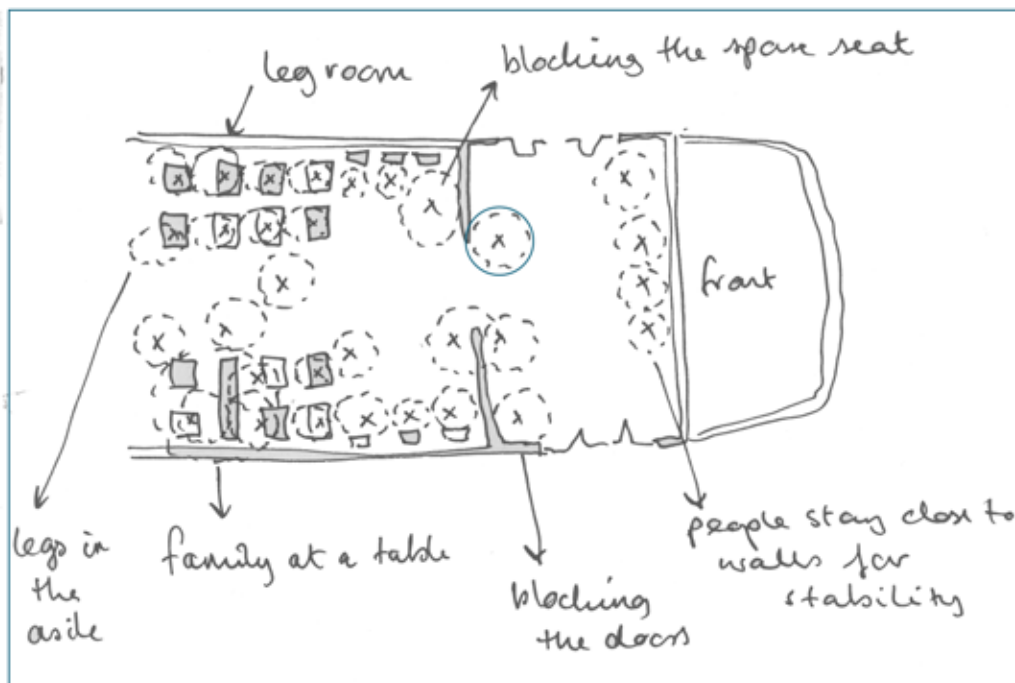
Write a message...



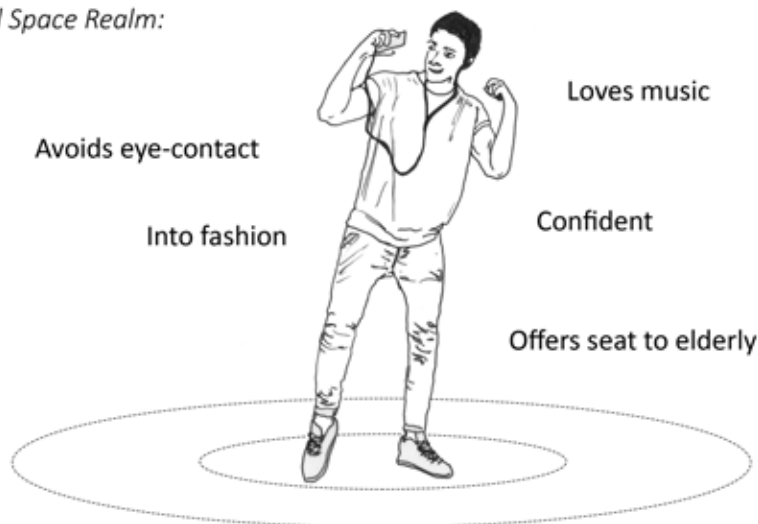
<b>Age:</b>	22
<b>Gender:</b>	Male
<b>Height:</b>	5ft 11
<b>Weight:</b>	68kg
<b>Disabilities:</b>	No
<b>Smoker:</b>	No
<b>Address:</b>	Taffs Well
<b>Email:</b>	sammyboi@hotmail.com
<b>Length of Journey:</b>	18 minutes

Catches the train from Taffs Well to Cathays 4-5 times per week. Has a Young Persons RailCard (16-25yrs). Travels alone to and from university. Listens to music for the duration of the journey. Often goes to the SU for breakfast after the train journey. Carries a rucksack and coat (sometimes a gym bag). Likes to "check out" girls on the platform.

Zombies



Personal Space Realm:



Needs:

- Tall ceiling and leg room
- Stability
- Privacy
- Room for a large gym bag
- Somewhere to put muddy shoes

Architectural Guide:

Always ensure plenty of roof space to avoid people hitting their heads.  
Handrails, seats and leaning corners make people feel a lot more comfortable.  
Space to sit or stand alone makes people feel more comfortable. People also do not like to be in other's lines of sight.  
Larger storage spaces above heads could improve the amount of space in a crowded area.  
Storage for wet and muddy items leads to less damage of furniture and flooring.



# Sam, Jenny, Alice and Ruth Shoppers

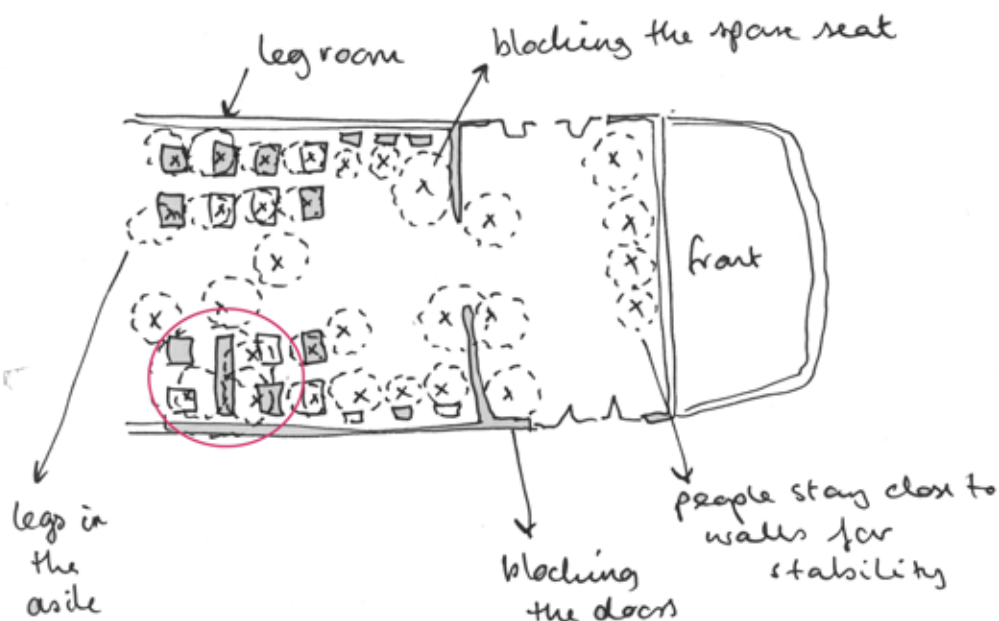
Write a message...



<b>Age:</b>	Undisclosed
<b>Gender:</b>	Female
<b>Height:</b>	5ft 5 - 5ft 8
<b>Weight:</b>	Undisclosed
<b>Disabilities:</b>	No
<b>Smoker:</b>	Yes (3/4)
<b>Address:</b>	Merthyr Tydfil
<b>Email:</b>	ladyshoppers@moneymoneymoney.com
<b>Length of Journey:</b>	61 minutes

Catches the train from Merthyr Tydfil to Cardiff central weekly for shopping trips and lunches together. Sam, Jenny, Alice and Ruth met in school and have been friends ever since. They all have separate jobs and family lives but always meet up as 'the girls' once a week for a gossip and shop. They laugh really loudly at inside jokes and complain when there are not any seats on the train during rush hour.





#### Personal Space Realm:



#### Needs:

- Space for all of them to sit together
- Private area for loud, funny conversations and perfume sprays
- Bag storage
- 

#### Architectural Guide:

Enough seating for groups to sit together or divide off into pairs means that conversations can still be had. Brittle asthma fatal attacks can be triggered by perfume sprays so set zones where these activities can take place will massively benefit those with asthma. Private rooms within the carriage or curtains create zones for people to have private conversations with one another. Dry storage for bags are important as many people have to put their shopping bags on the floor and when the bags are paper, they get damaged by the wet floor in the rain.





# Sandra

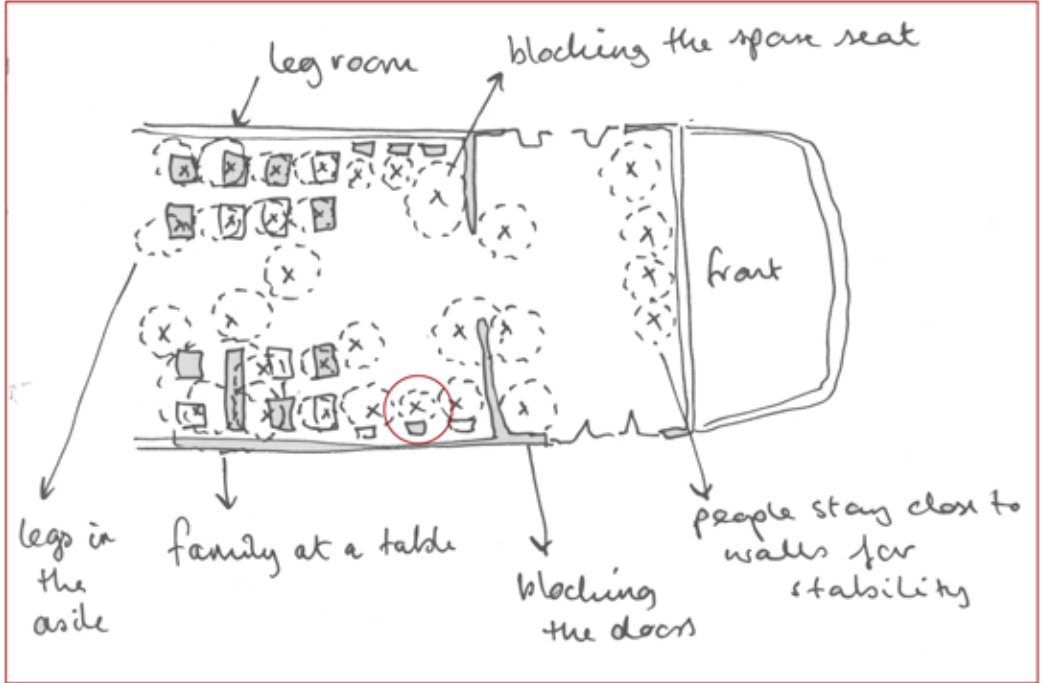
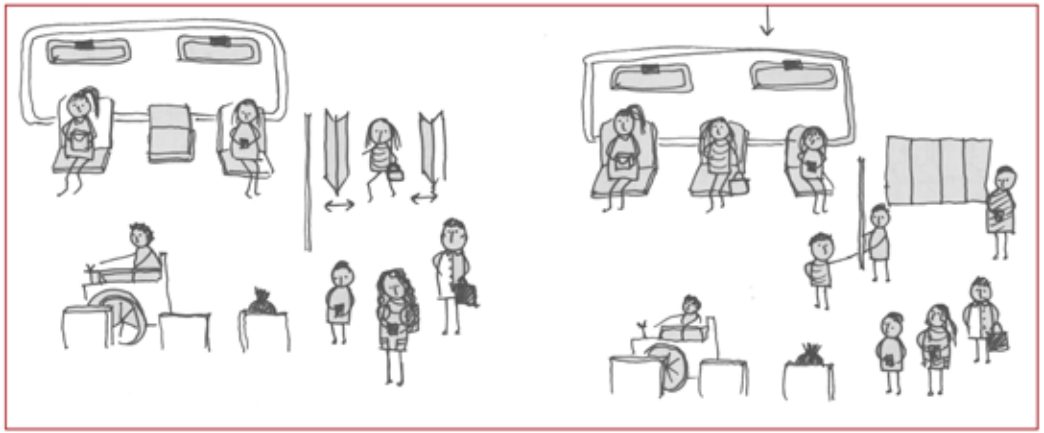
## Retired

Write a message...



<b>Age:</b>	73
<b>Gender:</b>	Fermale
<b>Height:</b>	5ft 5
<b>Weight:</b>	59kg
<b>Disabilities:</b>	Walks with a stick after a long day
<b>Smoker:</b>	No
<b>Address:</b>	Llandaff
<b>Email:</b>	sandra.phillips@glamorousladies.com
<b>Length of Journey:</b>	15 minutes

Catches the train from Llandaff to Cardiff Central or Queen Street 2-3 times per week. Travels alone or with one or two friends maximum. Takes the train to Cardiff Central for lunches and shopping trips. Often meets her daughter at Cardiff Central Station. Carries a handbag, umbrella and walking stick. Hates dogs. Likes to have a seat on the train and avoids rush hour.



### Personal Space Realm:

Always in a 'chipper' mood

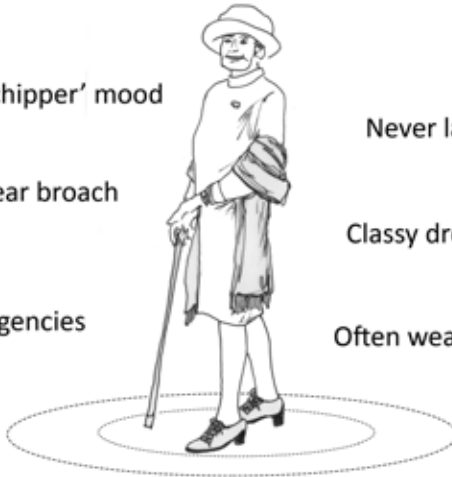
Never late

Polarbear broach

Classy dress

Stick for emergencies

Often wearing heels



### Needs:

- Seat for a long journey
- Food and drink
- Stability
- Interaction (preferred)
- Room for a stick, handbag and umbrella

### Architectural Guide:

Always ensure plenty of seating. Elderly people often like to pause and sit, even when simply going up the stairs. Ensure there is always a place to buy food nearby. Water fountains are vital for all ages. Handrails, seats and leaning corners make people feel a lot more comfortable. Public spaces to interact as well as private are vital. Areas to safely store bags and walking equipment make life easier. Storage for wet items leads to less damage of furniture.



# Stan

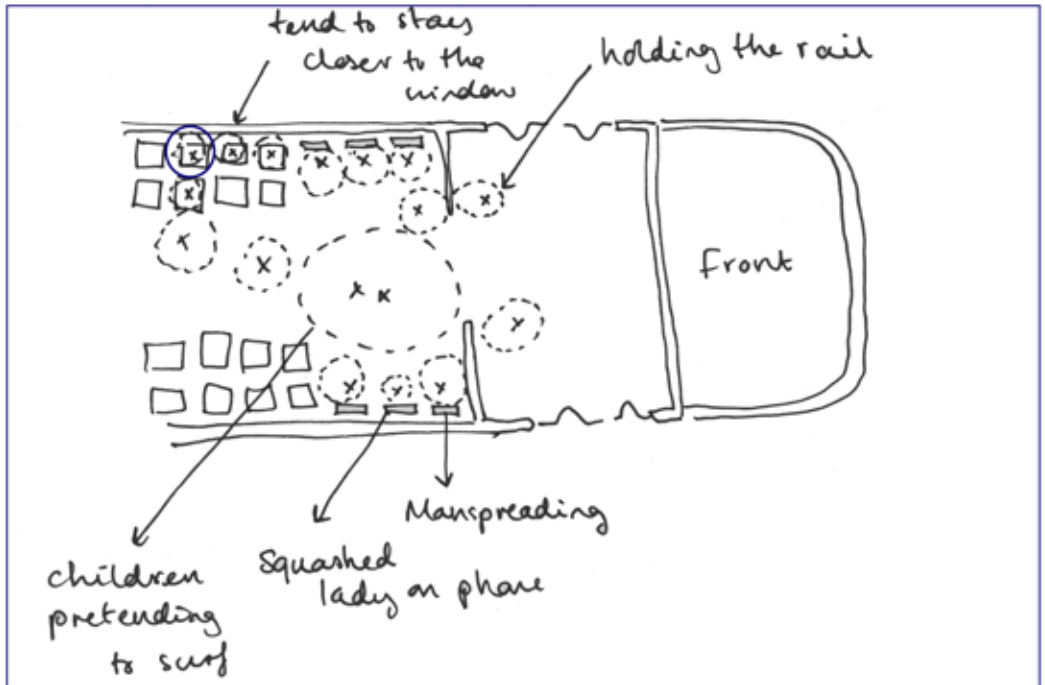
## Retired Teacher

Write a message...

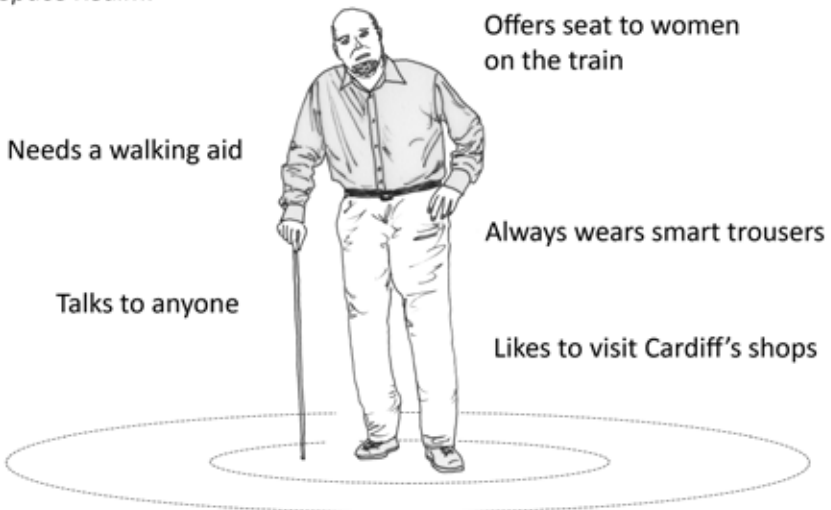


<b>Age:</b>	62
<b>Gender:</b>	Male
<b>Height:</b>	5ft 7
<b>Weight:</b>	70kg
<b>Disabilities:</b>	Walks with a stick
<b>Smoker:</b>	Yes
<b>Address:</b>	Mountain Ash
<b>Email:</b>	stanthomas@mountainashschool.com
<b>Length of Journey:</b>	50 minutes

Catches the train from Mountain Ash to Cardiff Central twice a week to meet his brother who lives in Cardiff. Travels alone and smokes on the platform. Often wears a cap. Does not carry a bag very often because he only needs his wallet and keys to see his brother. Carries a stick with him as a walking aid but sometimes comes across as intimidating. Depends on the rail service because he no longer has a car. Wears reading glasse to read on the train.



#### Personal Space Realm:



#### Needs:

- Like to sit because he has a long journey
- Food and drink
- Somewhere to smoke
- Not too much noise
- Leg room for his bad knees and stick

#### Architectural Guide:

Adequate seating space and relaxing areas to take a break are very important. Ensure there is always a place to buy food nearby. Water fountains are vital for all ages. Designating smoking areas allow smokers to enjoy a space as well as non-smokers who want to avoid smoke. Quiet zones without children and families create more welcoming spaces for the elderly who wish to sit alone. Spaces where the elderly can interact with a younger generations can stimulate both parties. Plenty of storage and leg room/personal space wehn sitting.

# Methodology

*The creation of composite characters:*

Each card is a different composite character based on an ethnographic study carried out over a period of three months - October to January.

Each character has been drawn in order to create the vision of somebody you could encounter on the train, without giving away specific identities. On every card there is a different type of character based upon 10-20 real life encounters with similar types of people.

The methodology of forming sketched characters has enabled me to emulate real life traits of the current population. These cards can be used for post-occupancy evaluation, as a means of looking at the successes of designs based upon users and different user groups.

## What, Who and How?

I have looked at how different personas handle and react to different types of spaces. I have learnt the ways in which people inhabit semi-public and public spaces through the use of their belongings and limbs.

I have created composite characters so that others can analyse their designs and learn more about creating successful spaces for a specific audience(s).

These cards and research can be used by architects, urban designs, interior designers and psychologists. They can also be used by the general public to analyse and compare spaces they use daily. This project is also a means of evaluating personal behaviour and social interactions and conversations skills.

Overall, I think that this project has been a success in terms of learning about types of people and people profiling as a means of analysing space.

