

# The new external signage system at Coventry University:

Does corporate image have to obstruct wayfinding usability?

by

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## Declaration

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## Abstract

This dissertation studies the signs that were installed on Coventry University campus in the summer of 2002.

The signs only provide directions to the newly named buildings by name. No indication of what schools or facilities reside within the buildings is given.

The directional signs are the main focus of the study. Whether the forces of corporate identity have compromised their design, and their effectiveness as wayfinding aids is tested.

The reason for the research is to find out the background to the signs' conception and learn from the successes and failures of these signs. The aim is to open the door to a project whereby an effective signage system is developed, that meets all the requirements of the university, including corporate identity, whilst not compromising usability, and remaining usable and effective.

Findings of the research are that corporate image was not the main factor in compromising the effectiveness of the signs, rather the poor judgement of the university in choosing companies to undertake the project and the bureaucracy involved.

Usability tests reveal that the provision of only building names makes the signs almost unusable without the user having additional information to hand. Users attempting to locate buildings by their names experience difficulties related to the location of the signs and the information they provide being insufficient.

Testing the signs against criteria set out by experts in the field reveals shortcomings in the design.

The signs are ineffective as standalone wayfinding aids, depending on other components of the campus wayfinding system to an unacceptable level. This is not solely due to the impact of corporate image requirements, but that of poor design and implementation, exacerbated by the poor running of the project by the university.

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# Chapter 1

## Introduction

“The term ‘wayfinding’ is a relatively new term which covers everything to do with how people find their way around environments.” (Miller, C & Lewis, D 1999:11)

Wayfinding is a very broad subject encompassing many elements that work together to provide a wayfinding system. However, each element in a successful wayfinding system must be able to stand up on its own as a wayfinding aid. The unprepared visitor to a site should be able to arrive and find their destination with a minimum of hassle.

In recent years, Coventry University changed the identities of its buildings from a system of lettered “blocks” to the names of famous or historic people and companies. As an interim measure, the old signs were modified but during the summer of 2002, all new signs were installed. This presented a great opportunity for the university, with its proud engineering and design credentials, to come up with a comprehensive and effective wayfinding system that coped with the nature of the ever expanding, city-centre sprawling campus.

The university is obviously proud of its renamed buildings. The new signs seem to reflect this by only providing the names of the buildings, without any reference to the schools or facilities occupying them. The old signs used to provide these details, so why the change to what appears to be a less informative system? Why waste such a good opportunity to follow up an award-winning new library and newly named buildings with equally impressive wayfinding?

The university appears to be prioritising its corporate identity over the effectiveness of its signs, and in doing so, potentially alienating visitors to the campus by subjecting them to an ineffective wayfinding system. A university is made up of academic facilities, which should attract people to its campus. The names of its buildings, no matter how much heritage these hold, are not likely to attract anybody to campus on their own merits. Any visitor unfamiliar with the campus now must be armed with information about what occupies each of these grandly named buildings before they can make any use of the signs.

Is this a case of corporate identity over usability, or are there other factors affecting the signs' conception? Could a pedestrian, unfamiliar to the campus, and without any wayfinding aids other than the new signs, find their destination?

This paper follows the investigation of these questions.

## Chapter 2

### Literature Review

The problem identified for this piece of work was that the new external signs on Coventry University campus, while serving well to improve the look of the campus by replacing the tatty and worn old signs, are ineffective as a wayfinding aid due to the nature of their design and the provision of only building names.

The university has proudly named all its buildings after historic or famous people and companies. Providing only building names on the new signs gives the impression that the university would prefer people became familiar with the new names than find the school or facility they are looking for.

For this reason, the main question was at first “Has the University’s corporate image taken precedence over wayfinding and usability?” and this was refined further to give the title, “The new external signage system at Coventry University: does corporate image have to obstruct wayfinding usability?”

The Literature Review begins with a brief outline of what has been written about wayfinding and sign design and then focuses on what has been written about usability that is appropriate to the cause of wayfinding.

The Literature Review identifies the major writers in the field, and gives a brief evaluation of their work and how it is relevant to the present study. Finally, in the last paragraph, it identifies a need for the research which the author has carried out and which will be described and evaluated in the rest of the dissertation.

Publications on wayfinding, in the context of the built environment, are relatively few; as it is relatively recently that a need was identified for research into how people find their way

(or get lost). Typing the word “wayfinding” into an Internet search engine yields thousands of results, though few of these refer to any useful wayfinding resources, or even take wayfinding in a context applicable to this piece of work.

Many books covering the topics of signage and sign design were read and considered, but contained little relevant information to this work. It seems a narrow field of books to work from, but we are working in what is currently a narrow field in terms of currently published work.

The two wayfinding books used chiefly in this work are *Wayfinding: People, Signs and Architecture* (1992) by Paul Arthur and Romedi Passini and *Wayfinding: Guidance for Healthcare Facilities* (1999) by Colette Miller and David Lewis.

The reason for the lack of books about wayfinding is summed up in the opening paragraphs of Arthur & Passini’s (1992:7) second chapter in which they compare getting lost to other inconveniences placed before us in modern everyday life “it is unlikely that a person will actually die from the stress of getting lost”

The authors of both books find the space, to qualify the need to improve wayfinding systems and the existence of such books. Arthur & Passini include a scenario, which they hope the reader can relate to, whilst Miller & Lewis (writing for healthcare) outline the consequences of patients getting lost in a healthcare site. Arthur & Passini also provide snippets of information throughout the book to remind the reader of the need for good wayfinding. “People have been known to die because ambulance drivers could not find their way to an address in time” (1992:7)

Miller & Lewis have obviously used Arthur & Passini’s book as a source for theirs, but there are some contradictions between

the two. Arthur writes with some passion about the difference in the way people read signs, as opposed to print. This is borne out in his total rejection of the theory that signs written in all upper case are more difficult to read than those written in upper and lower case “The fact is that we are exposed to [electronic variable-message displays and LCD digital watches] in contexts very different from that of reading print. Looking at signs and trying to get information from them has more in common with glancing at our watches than it has with reading a book.” (1992:165)

Another contradiction is that Arthur & Passini (1992:176) could be seen to disagree with using a separate arrow for each destination, even if several are in the same direction. Miller & Lewis (1999:79) have no qualms with repeating arrows.

However, Miller & Lewis published their book seven years later, in which time, Arthur & Passini’s assertions could well have been disproved. In any case, Miller & Lewis provide the recommendations of the Royal National Institute of the Blind, who are very likely to have carried out their own research into what is most easily read by the visually impaired. It therefore seems natural that what is good enough for the visually impaired, must be very good for those of us with normal vision.

Other than these contradictions, there is little to say as regards to contrasting these two books on their advice over sign design. Miller & Lewis do provide a far more comprehensive guide, taking into account users with impairments. Arthur & Passini include a detailed chapter about sign design, though the book is largely about wayfinding as a whole, including the architectural design of a site and how this can affect wayfinding.

Arthur & Passini do not include much in the way of information for testing existing wayfinding systems, though the information

given is sufficient to enable anyone studying the book to assess systems they may encounter.

Miller & Lewis, on the other hand, provide site audit tools and questionnaires, though these are difficult to use or even interpret in the context of a university campus. The Good Practice Guidelines on each page of the sign design chapters provide a convenient summary of what design factors are recommended, and those that are to be avoided.

The difference between the books is that Arthur & Passini have produced an academic work to be used as reference, covering all aspects of wayfinding, whereas Miller & Lewis have produced an instruction manual to those wishing to design and implement a wayfinding system, in which signs are a large consideration (specifically NHS healthcare sites). A hospital, like a university campus, is a large and complex site, potentially changing all the time. There are definite parallels between the two in terms of what they require in a wayfinding system. For this reason, Miller & Lewis' book is a very useful asset to this dissertation.

Dumas & Redish, in *A Practical Guide to Usability Testing*, claim to cater for product designers, software engineers and documentation specialists (1999:back cover) but the bulk of references and analogies are to IT applications, making it difficult to relate the theory to anything else, let alone wayfinding. Use of a poor typeface and dull use of language, compared to Jordan, made this book about usability less than usable.

*Pleasure With Products: Beyond Usability* edited by William S. Green and Patrick W Jordan is a collection of essays, as the title suggests, that discuss the notion of not only making

products usable, but that they should be a pleasure to use. It is, however, biased towards consumer equipment.

The Design of Everyday Things (1988) by Donald A. Norman provides a very interesting read into the human factors that affect the usability of almost anything one comes into contact with. This would be a good book to consider whilst designing usability into a product such as a wayfinding system, though like so many sources, working backwards from this and using it as a basis for evaluating and testing something, unless it can be tallied with the (numerous) examples given, is a difficult task.

Again, the amount of material available for usability in a wayfinding context is very limited. Most is aimed at the IT industry. However, Patrick W. Jordan's (1998) Introduction to Usability proved very useful as a general guide to usability testing, without the disadvantage of being context-driven. Jordan explains each type of testing method, with its advantages and disadvantages and sometimes an example of what kind of scenario a particular method is used for.

Jordan also includes useful information about choosing participants, warning against the use of colleagues. This makes sense, as other students from the Information Design faculty will see the signs as items of design, therefore casting a critical eye over them, rather than proceeding with the test as a participant who formed part of the signs' target audience would.

The lack of information available in the field of wayfinding suggests that it is still a very small area of research. A small possibility is that research does exist, but under some other name or category. Doing a dissertation into an area in which so little has already been written is going to be a tough challenge.

## Chapter 3

### Analysis of the problem

Coventry University has renamed all its buildings, changing from a system whereby each building (with a few exceptions) was represented by a letter. Each building is now named, after Coventry (or Coventry associated) people or companies which are still nationally and internationally recognised and famous, and are expected to remain so for some time to come.

(Coventry University Board of Governors Document G58/9 July 1999)

To the uninitiated, the link between the name and the building are, at best, tenuous and, at worst, seemingly unrelated. To coincide with the renamed buildings, new signs have been installed.

The new signs proudly display the University colours and crest. To some Coventry University staff and students, they are more attractive than the signs they replace. To others, they look dull or contrived. In any case, no indication of any school or facility (apart from Main Reception) is to be found on the new signs, just the building names (The Students' Union buildings are not named under the scheme, so are referred to as Students' Union Priory Street and Students' Union Cox Street). The text on the signs is also rather small, though we shall visit the subject of design later.

Signs on a University campus are aimed at people who are unfamiliar with the site. As a university is made up of academic schools and various facilities, it would be logical that these are indicated on signs as people would be most likely to be seeking a school or facility, rather than an entire building.

“Users think of destinations and see them as specific facilities”  
(Arthur, P & Passini, R 1992:86)

Arthur & Passini show empathy with the individual faced with a wayfinding task – in the context of a visitor to campus, the individual is not interested in the name of the building, but whether it contains their destination.

“Institutions of learning, particularly community colleges, make it difficult for prospective students (whose sole aim in visiting them is to obtain information on alternative careers) by their practice of displaying only departmental names on their directories” (Arthur, P & Passini, R 1992:151)

Again, Arthur & Passini seem to have their collective fingers on the pulse of the situation. Their criticism fits the description of Coventry University’s old signs, which at least provided the departmental names. The new signs have gone one step worse by only giving the building names.

The fact that the signs provide little more than arrows pointing in the general direction of the newly named buildings hints that more thought has gone into the university’s pride over their new image than the usability of the signs. One would have imagined that a campus, unique in that it spans a city centre and several public highways, owes a thorough and well thought-out wayfinding system to its visitors.

“Wayfinding information is more than a physical matter of getting visitors efficiently to their destinations. It also involves helping them to determine what their destination is called”  
(Arthur, P & Passini, R 1992:152)

The old system of identifying buildings by letters became outmoded because “Many people, including Governors, have commented from time to time at the inappropriate designation of most of the University’s buildings by letters.” (Coventry University Board of Governors Document G58/9 July 1999)  
However, the old locational signs (outside entrances to each

WSI produced a report and recommended a phased implementation strategy, taking into account the visually impaired and disabled, as well as the corporate identity of the University.

It was not possible to go any further with the interview, as Mr. Read honoured client confidentiality when questioned about whether the University accepted the original proposal and what input it had into the final design.

The interview was not recorded due to a lack of suitable equipment and was transcribed with notes whilst on the telephone, typed up embellished from memory afterwards. The disadvantage to this, in terms of accuracy, is that any subconscious agenda could have potentially altered what was remembered and the meaning given to it by how it was written up.

Naturally, to gain the information denied by client confidentiality, speaking to the client would be the next step. Jeff Wells, Assistant Director of Coventry University's Estates Department was next to be interviewed.

Mr. Wells was very helpful, open and honest and provided some unexpected information. He said that WSI had also been responsible for the old campus signs and that they had spent considerable time studying the Disability Discrimination Act (DDA). He added that WSI had been conducting speaking tours and consultancy about the DDA to all their clients.

When asked about the brief for the signage project, Mr. Wells said that as there was very little signage expertise on campus, WSI (overlooked by the Creative Design department of the University) were responsible for most aspects of the project. Criteria set by the University were that it should be impossible

to chain cycles to the new signs and that they should look more upmarket than the old ones. Graffiti and vandal resistance were also cited as important considerations.

WSI returned a design concept, which was overturned, as it was “too complicated” (the information on the signs was the same, but the design of the signs was of an irregular shape). The second design, which was very similar to the current signs, was approved under the condition of some minor changes. However, during the time between approval of the design and the installation, the design had to be revised in order to satisfy the DDA. Mr Wells had some scale models of the original designs, on which the arrow symbols looked like the Citroën double chevron logo and the text was centre aligned. The locational sign had part of the Coventry University phoenix emblem embossed over the bottom left corner, which was rejected due to the Creative Design department's objection to the University's corporate logo being altered. This seemed a shame, as it looked attractive, and Mr. Wells expressed distaste to some of the pedantic behaviour of said department.

Mr Wells said that Coventry University and WSI carried out a joint survey to decide on the placement and information content of the signs and described how it was difficult to site enough signs due to the nature of the sprawling city-centre campus, as the University does not own all the land. He named a few locations where he was unable to install signs (some of which would be useful for finding locations just outside the ring road, such as the Techno Centre, Alma Building and the Singer and Raglan Court halls of residence). He also said that he tried to start from scratch with the signage system, but was restricted to many of the original sign locations due to land ownership issues.

include the University's corporate blue and that there used to be a colour scheme including yellow, that has been disused for some time. Mr. Wells was also curious about the small typeface used on the signs, especially as his scale models had proportionally much larger text, especially with the influence of the DDA and its requirements for the visually impaired and viewing distances. The consensus was that with some of the long building names, text spreading over more than one line was undesirable and otherwise unavoidable.

As regards information design properties of the signs, Mr. Wells said that the closest destinations were at the top of the lists, with the farthest at the bottom and the rest in chronological order in between. The maximum number of destinations under one arrow was three. Mr. Wells' reasoning behind this was that "people don't stop for long to get information" but conceded that it was possible that the text was small enough for people to find it necessary to stop just to read the signs and that he was generally disappointed with the size of the text.

The signs direct people to the main entrances of buildings, though unfortunately, these are not always the disabled entrances. Mr. Wells added that currently, locational signs are only placed at main building entrances, but that he had other signs ready for installation, which would identify buildings separately from the entrance signs.

Mr. Wells revealed that the original tender for the signs came before the building name changes and that the designs were updated for the new names as well as the DDA in the three years it took from the planning approval stage in early 2000 to actual installation in mid 2002. In July 2000 the locations of the new signs had already been decided. Mr Wells said that WSI had nothing to do with textured surfaces or lowered kerbs, in contradiction to what Mr. Read of WSI had said.

The interview with Mr. Wells was very interesting. Again, it was not possible to record the interview – this time due to technological failure, despite the necessary equipment being present. The interview was conducted from set questions, with notes being taken from what Mr. Wells said, then being formed into a transcript embellished from memory.

It became clear how much bureaucracy, budgeting and other external factors had affected the implementation of the signs. In a way, WSI did the best they could, given the circumstances, though the only regard to information design they seem to have given is the rules set out in the DDA.

The information Mr. Wells provided exposed another dimension to the problem; with only two design concepts provided by WSI, the University was in a weak position to make an informed decision. WSI design and manufacture signs but though they claim to have catered for more universities than other signage companies, they make no claims to being wayfinding specialists or information designers. The systems they proposed and ultimately installed were, from Mr. Wells' description, expensive and difficult to alter (requiring dismantling and being sent back to WSI) in the case of future expansion or change of the campus.

From what has been discovered thus far, it seems that the wayfinding properties of the new signs have been impinged upon from conception, through the requirements set out by the VC and the University's approach to the project – It is recommended to 'shop around' for signs and discuss requirements with a number of sign manufacturers (Miller & Lewis 1999). WSI's apparent lack of understanding as regards usability is also a concern (when asked about usability, WSI MD George Read gave a vague reply). If the University had

perhaps consulted more experts in the field of signage, maybe they would have been given advice convincing them to rethink their requirements, or at least interpret them more effectively.

# Chapter 4

## Usability testing

“The effectiveness, efficiency and satisfaction with which specified users can achieve specified goals in particular environments” (ISO DIS 9241-11)

There is little material available in the area of usability for wayfinding, most of it leaning towards IT applications such as user interfaces and websites or being very specific to a particular environment. There is material about usability in a general sense, and from this, a usability test of the university signs can be designed. Applying the context of the university signs to the ISO description of usability, it is possible to set out criteria for testing.

Particular environment – Coventry University Campus

Specified users – Pedestrians on campus (specifically ones unfamiliar with the campus or the route to their destination)

Specified goals - To find the destination

Effectiveness – how well the task in hand is achieved.

Do the signs achieve their goal of directing pedestrians to their destination?

Efficiency – how much effort is required to achieve the task.

Can the pedestrian rely on the signs to find their destination or must they make extra effort in order to do so?

Satisfaction – whether the user finds the signs acceptable as a standalone wayfinding aid.

Rather subjective and difficult to measure, but useful to collect anecdotal evidence about the signs and their impact on the general public.

### *Participants*

“To get useful results from a usability test, you must know the users – and potential users – of the product.” (Dumas & Redish 1999:120).

Selecting participants for this test is an important consideration. To take participants from the Information Design faculty of Coventry University would be a mistake, as “these people are likely to have a vastly different experience and knowledge of the product as well as differing views and expectations to those of the end-user” (Jordan 1998:84). Jordan goes on to write, “If colleagues must be used, it is best to use those with as little knowledge and experience of the product under test as possible.”

Another consideration regarding participants is the intended audience of the signs. As a rule, people using wayfinding systems are unfamiliar with the site are trying to navigate. This could include people unfamiliar with the campus, such as new or prospective students and staff. With large sites such as a campus, there is also a strong possibility of people who know one or two areas well, but are unfamiliar with the rest of the site because they seldom have reason to venture out. An example of this scenario would be a Business Studies student living in the Stoke area of Coventry, who has little need to visit the campus itself because the two buildings they most often need to visit (William Morris Building and the Lanchester Library) are so close by.

To select participants for the test, it is not necessary to choose people who have never been to Coventry before, as many members of the public will not have explored the campus. Other potential participants include recently recruited members of staff, who may still be unfamiliar with the campus and part-time students who commute from outside Coventry. Full-time students are not excluded from the test as it is likely that few will know the campus fully.

The omission of wheelchair users as a group of participants is deliberate, as the basic effectiveness of the signs as a wayfinding aid is being tested. The social inclusiveness of the signs would form a separate study. However, wheelchair users would not be declined, should they come forward as participants, as it is the signs being tested rather than the user. In addition, there is material available to determine what design factors affect users with impairments, and the signs can be tested against this if necessary.

### *Testing methods*

In “An Introduction to Usability” by Patrick W Jordan, usability tests are split into two categories - empirical and non-empirical. Empirical tests rely on feedback from participants who are asked to use a product and Non-Empirical tests can be conducted by expert appraisal or by measuring the product against usability criteria.

Having evaluated the empirical and non-empirical methods given by P W Jordan, the empirical method of Field Observation was selected, alongside the non-empirical method of Property Checklists.

“Field observation involves watching users in the environment in which they would normally use a product” (Jordan 1998:63)

A wayfinding task can be set and participants monitored on their progress. The advantage to a field observation is that it “comes closest to being an analysis of a product’s usability under ‘natural’ circumstances” (Jordan 1998:84). However, Jordan also wrote that data analysis of field observation results is difficult. For the purpose of testing the signs, the success rate of participants can be measured, with anecdotal evidence collected to back this up. In addition, lists of reasons for failure and success could be compiled.

“Property Checklists list a series of design properties which, according to accepted human factors ‘wisdom’, will ensure that a product is usable” (Jordan 1998:76)

Using the existing material on wayfinding design, including:

- Wayfinding: People, Signs and Architecture by Paul Arthur and Romedi Passini
- Wayfinding: Guidance for healthcare facilities by Colette Miller and David Lewis

It is possible to compile a set of criteria by which the signs can be tested.

It is important to give the product a fair test and not to skew the results by deliberately focussing on its identified weaknesses. A well-rounded test will give more accurate results as well as having the ability to reveal unexpected strengths and/or failings.

### *The Test*

As previously mentioned, there is very little material on the subject of usability testing existing wayfinding systems. For this reason, a test has been devised from scratch and its use will most likely reveal the strengths and weaknesses of the test itself.

The empirical test consists of an ethnographic study of the chosen participants as they follow set wayfinding tasks.

Each participant undertakes four tests, navigating from common entry points to the campus in the North, South, East and West, to common destinations inside the campus, such as the Library, Computing Services, the Alan Berry Building (Main Reception.) and the Alma Building (Finance, Housing, Careers etc). The participants will also be asked to navigate from the centre of the campus (near the Humber and Hillman lecture theatres) to other campus locations.

A map of the campus is used to decide on start points and destinations. Each participant is given a task sheet (See Appendix 4) with the five tasks and is followed at a distance for observation. After completing the tasks, the participant is interviewed about their experiences.

The findings are recorded according to where participants failed and succeeded to find their way and how long it took them to complete the tasks. Whether they took the shortest or quickest route will be recorded and whether they had to stop and read signs, rather than read them as they passed. Any use of "you are here" maps will also be noted.

The findings will be noted on results forms comprising of a table with 25 spaces for comments and a separate space for notes from the interview. The table will have columns for failure, success, location and notes relating to each event of the task.

The results forms used can be found in Appendix 4.

This test should ensure almost every sign and route on campus is used.

The non-empirical test will be an evaluation of the signs according to criteria from the above-mentioned sources. Naturally, if the signs are all consistent in design, then factors such as typeface, layout and colour will return the same results. However, factors such as positioning and symbols will vary between them.

The general considerations for sign design comprise of:

- Typeface and type style
  - Sans serif or serif
  - Regular, italic or bold
  - Weight of type
  - X-height
  - Uppercase & lowercase
  - Letter & line spacing
- Type size
  - Viewing distance
  - Suitable for visually impaired?
- Text layout and grouping
  - Differentiation between types of information
  - Alphabetical, functional or directional grouping
  - Number of destinations in one list
- Text and arrow alignment
  - Arrows clearly linked with the text to which they relate?
  - Arrows clearly indicate the appropriate direction?
  - Consistently positioned and aligned on all signs?
  - Lists of less than five words with text left aligned?
- Emphasising information
  - Important destinations emphasised?
- Symbols
  - Familiarity
  - Complexity
  - Size and distance viewable from
  - Positioning
- Use of colour
  - Enough contrast between text and background?
  - Do sign colours make them stand out from the surroundings?

- Positioning of signs

Visible and readable from all directions of approach?

Not potentially obscured?

Placed consistently?

Positioned at eye level?

(Miller & Lewis 1999)

Using photographs of each sign (see Appendix 2), the above factors can be evaluated.

## Chapter 5

### Results and discussion

For ease of reference, all signs have been designated a number. Please use the campus map in Appendix 1 to follow the routes taken by participants and to identify signs as they are mentioned (please note that Alma Building is not featured on this map).

#### *Empirical Test*

The participants of the test consisted of:

- Jean, a part-time mature psychology student who commutes from Solihull, attends lectures and commutes home again.
- Nick, a resident of Coventry who works in Birmingham and has never visited the University campus.
- Matt, a first year Physiotherapy student living in Priory Hall whose knowledge of the campus consists of “where my lectures are, the bars are and where the library is.”
- Kuldip, a second-year Performing Arts student who lives in Coventry’s Stoke district.
- John, a school student on two weeks’ work experience with the Computing Services department. He gets a lift to and from work every day and is based mainly in Sir William Lyons Building and the Lanchester Library.

Each participant was given the five tasks and followed at a distance. Their progress was recorded on the Results Form (See Appendix 4). After completing the tests, the participants were interviewed about their experiences.

### *Jean's Test*

**Task 1** started at Coventry Cathedral steps, opposite the Alan Berry Building (Main Reception). The first destination was the Library, the second the Accommodation Office.

Jean noticed the You Are Here map on Sign 6. She spent more than two minutes studying the map before going into Main Reception to ask for directions, where she was given a paper map. She then walked down the side of Alan Berry Building and seemed to know where she was going, until stopping at the Pelican crossing opposite the library, seemingly reading Sign 2. She then turned round to look at the You Are Here map on Sign 15 behind her, before continuing to the library.

When inside the Library, Jean asked at reception for directions to the Accommodation Office and was shown a map attached to the counter. A passing student offered assistance. She then took a long route, crossing many busy roads before giving up and looking at the map she had been given at Alan Berry Building.

**Task 2** started at the car park on the junction of Cox Street and Fairfax Street, opposite the Sports Centre (many visitors to campus park here). The destinations were Main Reception and Computing Services.

Jean could see no indication of where the University was, except for yellow banners on the side of Cox Street Students' Union. She headed for the Students' Union and paused to look around. She saw Sign 5 beside Charles Ward Building in the distance and went to look at it. From there she was able to find the Main Reception.

Jean returned to the You Are Here map on Sign 6 in front of Alan Berry Building. She returned to Main Reception to ask for directions and was handed another copy of the map. She then proceeded to take the same route as she had to the library previously, but carried on till she found Sign 12, directing her to the Sir William Lyons Building.

**Task 3** started at the end of Whitefriars Street, near the Phoenix (formerly Campbell) pub (a common entry to the campus from Stoke, plus there are car parks here). The destinations were Computing Services and Main Reception.

Jean crossed the road to look at the You Are Here map on Sign 4, beside the steps of the Graham Sutherland Building and walked past the William Morris Building to the Sir William Lyons Building.

To get to Main Reception, Jean walked back the way she came, past the Ellen Terry Building and down the side of the Herbert Art Gallery, past Sir Frank Whittle Building, before making her way to Main Reception. Jean did not pass any signs directing her to Main Reception (except Sign 9, which was not facing her) on this route.

By this stage, Jean was getting weary of all the walking and was familiar enough with the destinations of tasks 4 and 5 that she thought it would be futile to continue.

**In the interview**, Jean said that she had never noticed the signs before participating in this test and that she habitually followed course colleagues to unfamiliar destinations on campus. She thought that the signs did not stand out enough and that there were not enough of them.

Jean said the signs were “not descriptive enough” because “the building names are there but not what the buildings did”

and found it impossible to find the Library on the maps and signs as it was referred to as the “Frederick Lanchester Building.” Jean recalled that when she was asking for help at Main Reception, the receptionist was adamant that the Library was described as such the map. Jean noticed that the signs “didn’t start to lead to buildings until I was almost there.” One of Jean’s observations was that, “You are left wondering if you are still going in the right direction” and that finding the Accommodation Office because she didn’t know that it was in the Alma Building and that even if she did, it was impossible without a map because there were no signs.

### ***Nick’s Test***

**Task 1** started at Coventry Cathedral steps, opposite the Alan Berry Building (Main Reception). The first destination was the Library, the second the Accommodation Office.

Nick walked around looking for a directional sign featuring the library. As he works during the week, his test had to take place at the weekend and there was nobody available to help him. He gave up and asked me for help. I gave him the clue that the Library was commonly known as the Lanchester Library. It was not until he had walked around the back of the Alan Berry Building and seen Sign 11 that he started to walk in a decisive manner. He saw a Sign 8 on his left, almost opposite the sign he just looked at, which seemed, from his body language, to confuse him, but he carried on.

Nick approached a point where he could have kept going ahead or turned right. He noticed a sign, but had to stop to read it, before taking the right turn. He paused at a road crossing for a while, looking around, before carrying on and looking at a You Are Here map by the steps of the Graham Sutherland Building. From here he carried on and found the Library without faltering.

Faced with the task of finding the Accommodation Office, Nick looked at signs 2 and 15 near the Library and began tracing back his steps towards the Main Reception. After finding no clues as to the whereabouts of the Accommodation Office, he became a little irate. Faced with an irate participant, I gave him another clue – that he was looking for building 24 on the map. Nick found a sign with a You Are Here map and memorised the route, not requiring any signs or further assistance to reach his destination, although he did pass sign 13 which pointed towards Alma Building.

**Task 2** started at the car park on the junction of Cox Street and Fairfax Street, opposite the Sports Centre (many visitors to campus park here). The destinations were Main Reception and Computing Services.

Nick knew to head for the Cathedral in order to reach the Main Reception. Again, he walked around, inspecting each sign to find the direction of Computing Services. He then gave up “All I can find is useless building names. You have deliberately set this up to catch me out! All these destinations are the same and none of them are building names except the Library, which isn’t even called the Library!”

Nick’s test was terminated at this point as he had highlighted not only failure of the signs, but also that of the test.

**In the interview**, Nick said that he thought that nobody could use the signs unless they had a separate source of information to tell them what was inside the buildings. In his opinion “only an idiot would give a library a name that didn’t include the word library” and asked “why does the sign over there [Sign 8] not mention the library when the one opposite it does?” He also said “At one point, on the way to the Library, I wasn’t sure

if I was going in the right direction as I could have gone four different ways, but there was no sign to help me.” Asked where this was, he said “near the Colin Campbell [pub now known as the Phoenix].” Asked about his experience finding the Accommodation Office, he responded, “Nobody would ever find that, using these signs. I don’t think I even saw signs for the building it’s in, but if it wasn’t the weekend I would have been able to ask for help somewhere.”

### ***Matt’s Test***

**Task 1** started at Coventry Cathedral steps, opposite the Alan Berry Building (Main Reception). The first destination was the Library, the second the Accommodation Office.

With the Alan Berry Building being close to Priory Hall, where Matt lives, he already knew how to find the Library and walked there without consulting the signs. He had never been to the Accommodation Office, but knew that it was in Alma Building and how to get there.

**Task 2** started at the car park on the junction of Cox Street and Fairfax Street, opposite the Sports Centre (many visitors to campus park here). The destinations were Main Reception and Computing Services.

Matt was familiar with how to reach Main Reception from the car park, as Priory Hall was in sight. He did not know where Computing Services was, so he looked at the maps and signs in the area around Alan Berry Building. He then decided to walk off past Sir Frank Whittle Building and across a zebra crossing before stopping to read the nearby sign. He stopped and looked around, before approaching a group of students to ask for help. He then proceeded past the back of Graham Sutherland building, through the car park and between Armstrong Siddeley Building and Jaguar Building before

having to stop due to building works taking place. Had there been no building works, Matt would have reached Computing Services.

**In the interview**, Matt said he guessed that Main Reception was too far away from Computing Services for it to “register on the signs yet”, so he walked further into the campus hoping to find signs to help him. When he thought he had walked “half way in”, he found himself still unable to find any information on the signs he saw, so he resorted to asking for help. He said “once I knew the name of the building I was looking for it was easy” but thought it was “a bit strange that they don’t tell you what is in the buildings”

At this stage it had become apparent that there were flaws in the test, from repeating destinations and from choosing destinations such as the Accommodation Office, which occupies a building not inside the main campus. The tasks were also proving very time consuming and tiring due to the amount of walking involved.

The test was asking the impossible of the signs. The consensus between the three participants used so far was that an important destination like the Library should have been described as Frederick Lanchester Library rather than Frederick Lanchester Building. They all noticed that Main Reception was listed as a destination on some of the signs.

It was becoming apparent that the signage system relied heavily on the You Are Here maps, which were not subject to testing as this report focuses on the directional signs.

For the two remaining participants, Kuldip and John, a revised test was provided. The Results Form was also revised, as the

original had no provision for recording time, participant name or task (See Appendix 4).

The revised test required that only signs were used, but that You Are Here maps could be used as a last resort. The destinations were given as building names and the buildings familiar to the participants omitted. The number of tasks was reduced to three, with start points being the Cathedral steps, Outside Cox Street Students' Union and Whitefriars Street. There were no repetitions of destinations and the destinations were chosen without first checking the signs.

### ***Kuldip's Test***

**Task 1** started at Coventry Cathedral steps, opposite the Alan Berry Building (Main Reception). The first destination was the Maurice Foss Building, the second the Sir John Laing Building.

Kuldip could find no signs mentioning the Maurice Foss Building in the area around Alan Berry Building. She resorted to consulting the You Are Here map on Sign 6 for 30 seconds before walking straight to her destination. She then studied both sides of Sign 13 before walking to and looking at both sides of Sign 14. She then began walking back past Sir Frank Whittle Building, looked at Sign 11, then Sign 8 before following Sign 10 (having ignored Sign 9) across the road towards Richard Crossman Building. Here she paused, looking around before returning across the road to read the You Are Here map on Sign 10. Kuldip then successfully found Sir John Laing Building.

**Task 2** started outside Cox Street Students' Union. The first destination was Charles Ward Building, the second the Jaguar Building.

Kuldip began looking around her, before going to look at both sides of Sign 13. She then walked back towards Cox Street Students' Union and noticed Sign 5 in the distance. Walking towards the sign, she realised she was walking past her destination. Consulting her task sheet, she then walked decisively back towards Sign 13 before walking to her destination.

**Task 3** started at the end of Whitefriars Street, near the Phoenix (formerly Campbell) pub (a common entry to the campus from Stoke, plus there are car parks here). The destinations were George Eliot Building and Sir Frank Whittle Building.

After looking around for a directional sign, Kuldip spent 20 seconds checking the You Are Here map on Sign 4 before making her way to the correct destination. Whilst walking towards Sign 11, she noticed the locational sign for Sir Frank Whittle Building and stood by the entrance closest to the rear of Alan Berry Building.

**In the interview**, Kuldip remembered the buildings as per the old system of letters, so was unfamiliar with many of the new names. She said that she didn't have much difficulty completing the tasks once she had checked the You Are Here maps, but thought that maybe this was because she was familiar with the layout of the campus and "knew what to expect."

She said "it was a bit mad that sometimes you have to be almost inside a building before the signs have an arrow pointing to it."

Talking about her actions during Task 1 she said that despite checking all the signs in the area, her destination was not listed. Because she knew the "University finished over there [Sir William Lyons Building]" she decided to walk in the

opposite direction until she found another sign. She also commented that it was “stupid because [Sign 11] should have pointed to Sir John Laing when the one right near it did. After that I thought the signs were quite good until I got stuck outside the old library [Richard Crossman Building and had to use the map again.”

Commenting on Task 2, Kuldip said she “felt stupid when I realised how near I was to the destination” and that she’d remembered which sign she’d seen Jaguar Building on “because it wasn’t the name of a person like the rest” Kuldip thought that Task 3 was “easy” because the destinations were close together and she could see the locational sign.

### *John’s Test*

**Task 1** started at Coventry Cathedral steps, opposite the Alan Berry Building (Main Reception). The first destination was the Maurice Foss Building, the second the Sir John Laing Building.

Youngster John Strode enthusiastically around Alan Berry Building, seemingly in denial that the You Are Here map existed. Finally, he stopped to quickly read the You Are Here map on Sign 6 before taking a long route between James Starley and Charles Ward buildings. He started walking toward Sign 5 before changing his mind and walking towards Cox Street, apparently looking at every locational sign along the way. He then saw Maurice Foss Building and walked to the entrance before consulting his Task Sheet.

John then walked over to Sign 13, checking both sides. He then walked all the way to Sign 5 and paused for a while, before walking round it to read the You Are Here map. This took over 30 seconds. John then walked briskly behind Priory Street Students’ Union, Alan Berry Building and past Sir Frank Whittle Building. He noticed Sign 9 after a double take and

walked over to it, stopping to look. He then proceeded to the destination without further delay.

**Task 2** started outside Cox Street Students' Union. The first destination was Charles Ward Building, the second the Jaguar Building.

John walked straight towards his first destination without using any directional signs or maps but by constantly looking up at the locational signs. He then walked straight to his second destination, Jaguar Building, only slowing down to glance at Sign 13 as he passed it.

**Task 3** started at the end of Whitefriars Street, near the Phoenix (formerly Campbell) pub (a common entry to the campus from Stoke, plus there are car parks here). The destinations were George Eliot Building and Sir Frank Whittle Building.

John walked straight over to the You Are Here map on Sign 4. He began to walk away from the sign, but faltered and went back to look at it again. He then proceeded, the whole time seeming to look for the locational signs on buildings, down Cox Street, across the Zebra Crossing and up the steps under James Starley Building, before making his way swiftly to his destination. He then turned round and walked straight to the main entrance of Sir Frank Whittle Building.

**In the interview**, John said that he found the You Are Here maps "a bit confusing at first because I thought I had to follow the green lines." Asked about the directional signs, he said he used them very little, relying on remembering the names on the locational signs as he passed them. He said "the best signs were between [Alan Berry Building] and Sir John Laing, but I had to guess after I went over the zebra crossing." He said that Task 2 was "easy" because he had remembered the

name of Charles Ward Building and that he remembered the Jaguar Building after he had begun the test because it was “green like Jaguars” and that he got dropped off for work outside it every day.

On the subject of Task 3 he said “I knew I had to use the map straight away because there was nowhere for a sign” and that he enjoyed learning the names of the buildings by heart, which helped him find his destination. Asked why he thought there was nowhere for a sign at the beginning of Task 3 he said “It was too busy with traffic and there were no big spaces for people to stand and look at them.”

Recording the results using a clipboard during the test was very difficult, the entries almost illegible as they were written very quickly, often whilst walking. A Dictaphone used to record comments may have been a more suitable solution. Despite this, the revised test was far more successful and showed the shortcomings of the signs themselves, as they were not being disadvantaged by being asked of information they were not designed to provide. However, it was revealed that all directional and locational signs, along with the You Are Here maps worked together to provide a wayfinding system with some success, but some buildings were impossible to find without using the You Are Here maps.

The tests could not really reflect genuine scenarios as the participants knew they were under test conditions and that there would be no negative consequences of getting lost, although in the first test, Nick did become irate.

So how did the signs measure up against the ISO definition of usability?

**Particular environment – Coventry University Campus**

**Specified users – Jean, Nick, Matt, Kuldip and John**

**Specified goals - To find the destination**

**Effectiveness – how well the task in hand is achieved.**

**Do the signs achieve their goal of directing pedestrians to their destination?**

Alone, the directional signs failed to direct the participants to their destinations. The participants more familiar with the campus seemed to find the You Are Here maps more usable than the others. Given that we are primarily testing directional signs, their effectiveness is doubtful. There were some serious anomalies with the signs in the information they provided, their positioning and frequency, such as the difference in information on signs 8 and 11 and the positioning of Sign 9. Charles Ward Building was listed on Sign 8 and was hard to find from the close-by Cox Street Students' Union. Also, many locations on campus were difficult to find from outside Main Reception without using the You Are Here map on Sign 6 .

**Efficiency – how much effort is required to achieve the task.**

**Can the pedestrian rely on the signs to find their destination or must they make extra effort in order to do so?**

Most participants found themselves seeking out signs and not finding the information they required. Not all decision points had signs, participants having to rely on memorising the You Are Here maps or going through a process of elimination by memorising all the building names. The cross roads of Jordan Well, Gosford Street, Whitefriars Street and Cox Street was a regular stumbling block, where a sign would be useful to

reassure people that they were still heading in the right direction. A similar scenario was with the users trying to find Sir John Laing Building, as they crossed the road near Richard Crossman building, they had only a sign directing them straight ahead and some had to go back across the road to read the You Are Here map on Sign 10.

Under observation, the participants did tend to do a lot of pausing and wandering to find signs. In some cases guesswork was definitely involved.

**Satisfaction – whether the user finds the signs acceptable as a standalone wayfinding aid.**

None of the participants had any positive comments about the signs, although they could have been under the impression that criticism was expected. In the task for finding Sir John Laing Building, signs 8, 9 and 10 received praise for having the destination repeated for confirmation that they were following the correct route. However, of the two participants taking the revised test, John, being less familiar with the campus, was the one to notice Sign 9, which is facing a wall, adjacent to any direction of approach.

A common feeling of the participants when the signs failed to direct them was that they blamed themselves.

It should also be noted that whilst the Field Observation was taking place, a prospective student and her mother were observed trying to find their way. They were holding their invitation letter containing information on where to go for the interview and were searching for the “GS Building”. They spent at least three minutes studying the You Are Here map on Sign 6 before going into Main Reception for assistance.

## Non-Empirical Test

This test analyses each directional sign (not including You Are Here maps) against criteria set out in current material on Wayfinding.

The general design shared by all the signs, will be checked against criteria based on the considerations given in Wayfinding: Guidance for Healthcare Facilities by Miller and Lewis as well as Wayfinding: People, Signs and Architecture by Arthur and Passini.

### **General design**

The signs are a simple design, with no hierarchy of information.

Considerations for the design and how the signs compare:

#### *Typeface*

“Select a sans-serif typeface (or one with very small serifs) with a large x-height and consistent, thick stems.” (Miller, C & Lewis, D 1999:73)

“In signage letters, the x-height should be not less than 75 percent of the cap-height” (Arthur, P & Passini, R 1992:155)

- The signs use a sans-serif typeface.
- The x-height is 65 percent of the cap-height.

#### *Typestyle*

“Bold typefaces provide optimum legibility and contrast...Regular typefaces can be used for secondary information...Avoid italicised, condensed or light weights of type...avoid typefaces that are very bold” (Miller, C & Lewis, D 1999:73)

“When [interstices between the horizontal bars of a capital E or F or the counters of letters like O or P] become substantially

less than is desirable by virtue of fattening the letterform, legibility suffers and a less acceptable letterform is the result” (Arthur, P & Passini, R 1992:154)

- The signs use regular typestyle.

*Text Style*

“Royal National Institute for the Blind recommend upper case for the first letter and lower case letters for the rest of the word...People usually read words quickly by recognising the shape of a word, not by reading letter by letter”

(Miller, C & Lewis, D 1999:73)

“The average English word is five or six characters long and to think that each of these tens of thousands of five- or six-letter words has its own distinctive shape is nonsense” (Arthur, P & Passini, R 1992:163)

- The signs use upper and lower case (we shall follow Miller’s advice as it was written more recently)

*Viewing distance*

X-height	Viewing distance (normal vision)	Suggested sign type
15mm	7.5m	Directories
30mm	15m	Door signs
40mm	120m	Internal locational & directional
60mm	30m	Internal & external
90mm	45m	External locational & directional
120mm	60m	Locational
200mm	100m	Fascia

(Miller & Lewis 1999)

“The classic yardstick for determining [legibility distance] is the Helvetica letterform, which, under ideal conditions, yields 15m per 25mm of cap-height...the minimum letter size for

orientation, general information and identification purposes is approximately 25mm cap-height" (Arthur, P & Passini, R 1992:165-166)

- ☑☒ The signs have an x-height of 15mm and a cap-height of 23mm, which, by the above standards, makes them viewable from 7.5m with normal vision. According to Miller, this size is suitable for directories, not external locational signs, though it must be asked how large the signs have to be to accommodate the 40mm or 90mm x-heights recommended for directional signs. The signs do, however meet Arthur & Passini's minimum requirement.

#### *Text layout and grouping*

"Ideally there should be no more than five destinations in one list...Avoid listing destinations in the order in which people will arrive at them as this system is difficult to understand...Lists of destinations should always be grouped using a logical method...Lists of destinations on signs can be grouped by alphabet, by function, by direction." (Miller, C & Lewis, D 1999:76-77)

"No signs should contain more than five or six messages" (Arthur, P & Passini, R 1992:180)

- ☑ The most destinations in one list on any of the signs is four, although the You Are Here maps (not being considered here) show all buildings in one list.
- ☒ The destinations are listed, according to the interview with Mr. Wells, in order the destinations are listed are the order in which people will arrive at them.
- ☒ There is no alphabetical listing on any of the signs, though destinations are grouped by direction under one arrow.

### *Differentiation between types of information*

“Distinguish between the two terms or languages by using different weights or typefaces, different contrasts, lines, space or positioning...Avoid using equal spacing between the two languages or terms – related words need to be clearly grouped together and separated from other different terms” (Miller, C & Lewis, D 1999:83)

“All letters in a sign should be the same size, even if there is a need for a particular emphasis. The assumption has to be that all parts of the sign should be equally legible at all times” (Arthur, P & Passini, R 1992 :166)

- On signs 5,6,7,9,11,12,14 and 14 ‘Alan Berry Building and Main Reception are both presented with the same size, style and weight of type, with no difference of indentation. It could be argued that this leads the user to believe that the two are separate destinations.

### *Text and arrow alignment*

“A single arrow for a group of destinations can be used or each destination can have an individual arrow...Left aligned text is quicker and easier to scan through...Avoid too much white space between text and arrows...Position arrows consistently on all directional signs...Ensure the relationship between the arrow and text is clear” (Miller, C & Lewis, D 1999:79)

“There is no valid reason for repeating the arrows [referring to illustration]...Signs with arrows should still be organised with the text of the whole sign being flush left. The arrows, however, should be on the left or right of the sign, depending on which way they point.” (Arthur, P & Passini, R 1992:166)

- A single arrow for a group of destinations is used.
- The text is left aligned.
- There is a large amount of white space between text and arrows pointing right.

- Arrows are positioned consistently on all signs.

*Positioning of signs*

“Visible and readable from all directions of approach?

Not potentially obscured?

Placed consistently?

Positioned at eye level?

The Royal National Institute for the Blind and the Joint Mobility Unit recommend positioning all signs at eye level (1500mm) including tactile (embossed) and Braille signs. If posts are used for fixing signs, or signs are free standing, they must contrast with the environment so they are visible for people with visual impairment” (Miller, C & Lewis, D 1999:89)

- Sign 9 is not readable from any direction of approach. It is very inconveniently placed. The user has to purposefully make a small detour and stop to read it. It is possible that it would never be noticed. Sign 12 is placed perpendicular to any direction of approach, except if the user is crossing Gosford Street directly opposite (which happens to be a dangerous part of the road to cross at). Sign 2 is only visible to people approaching across the Pelican crossing between Jaguar Building and William Morris Building. Sign 1 (You Are Here Map) is placed perpendicular to the pavement. Sir John Laing Building is set back from the pavement of Much Park Street, with its own pavement running in front. People navigating the campus may miss Sign 1 altogether.
- The bushes in front of Sign 10 could obscure it during late spring/summer. Sign 1 is not viewable from across the road at times, as there are cars and vans parked in front of it.
- The rest of the signs are not likely to get obscured.

- ☒ Due to the nature of the campus, it is difficult to place signs consistently. However, it is difficult to guess where the next sign is going to be, as the participants in the Empirical test found.
- ☒ The signs are very tall, though the directional information is placed at 1500mm-18000 mm on all signs. However, signs 10,13 and 14 are difficult to get close to for the visually impaired, due to their positioning over a wall or in gardens respectively.

19 ticks/crosses, of which 9 are ticks and 10 are crosses. This 47% success rate shows shortcomings with the signs, when compared to what is written by experts in the field.

It has been difficult to devise tests that can prove beyond doubt the success or failure of the new signs on Coventry University campus. Most material available on wayfinding assumes that a new system is being built from the ground up. There is little published about testing existing systems, with most existing material being aimed at very specific environments, such as hospitals.

Both tests revealed failures with the practical implementation and design of the signs. The directional signs do not function well as wayfinding aids on their own, although when used with the You Are Here maps and the locational signs on the buildings, a degree of success can be achieved. However, this success was only achieved when the participants knew the names of the buildings they were trying to find. What if somebody arrived on campus trying to find the School of Art and Design? How would they know that they needed the Graham Sutherland Building? What if they turned up at the University trying to find the hub of academic achievement, the Library? No sign contains the word Library, until you reach Frederick Lanchester Building and see the “opening hours”

signs on the entrance, headed by the words “Lanchester Library.”

There are also anomalies within the system of directional signs, such as signs 8 and 11; these signs are almost opposite each other, yet display strikingly different information. It is arguable that the signs should both contain the same information for left and right (albeit mirrored) and that the only information to be different should be the destinations indicated as straight ahead. As Mr. Wells said that WSI and Coventry University were jointly responsible for the placement and information content of the signs, WSI are jointly responsible for anomalies such as this.

Anomalies can only add to the confusion of users facing a failing wayfinding system.

## Chapter 6

### Conclusion

A wayfinding system is made up of many components, from pre-visit information to spoken directions given by members of staff. However, each component should be able to stand up on its own, in case, for some reason, the others fail. This study focussed on the directional signs.

As shown in the usability tests, the signs do not work well on their own. They rely on users arriving on campus already knowing what building they are looking for. This in turn relies on them having received, read and remembered any pre-visit information. Failing this, they need to obtain more information from somewhere. The University prospectus contains a map of the campus along with a list of building names and what facilities reside within those buildings, as does a map obtainable from Main Reception. However, this relies on the person arriving on campus being able to find Main Reception. If they do find Main Reception, it is possible that the staff there have little time to deal with people who are lost and asking for directions. Meanwhile, the people who are lost are blaming themselves, perhaps feeling embarrassed about getting lost or disappointed that they have been put in such a position. A prospective student and her mother were observed, clutching their letter of invitation to an interview, searching the You Are Here map on Sign 6 for "GS Building" before going to ask at Main Reception.

"Recent hospital research demonstrated that in a facility of some 800 beds, no less than 8000 hours of professional time are lost in redirecting patients and visitors to their destinations. This is exclusive of the time that the professionals themselves

lose in trying to find their way about, particularly when they are new on the job.” (Arthur, P & Passini, R 1992:9)

The original hypothesis was that corporate image, having taken priority over wayfinding effectiveness, holds responsibility for any failure of the new signs. Having proved that the signs have indeed failed, it is also clear from the interview with Mr. Wells that corporate image was a contributing factor, but by no means the main culprit.

The Vice Chancellor’s decision to list only building names on the signs was motivated by the possibility that schools and facilities could move between buildings. This fact went some way to dispelling the theory that corporate image dictated the use of purely building names on the signs.

The construction method of the signs (applied lettering with vandal-proof finish) means that they are difficult to alter. This will cause problems with the ever-expanding campus, particularly with the new sports centre in Whitefriars Street, due to open in 2004.

The anti-vandal properties of the signs are probably designed so that vandalism will not affect their informational properties - that they are not easily dismantled, the lettering cannot be removed, and that graffiti is easily cleaned off. However, almost all of the signs show signs of vandalism, mainly marks from having been kicked. Sign 15 has a large dent in it, and “Priory Hall” on Sign 7 has been partially obscured by a self-adhesive label.

The fact that the university authorities went straight to WSI without “shopping around” was potentially a mistake, as they were less aware as to what was available in the marketplace and could well have been shown a superior system which

offered adjustability, vandal resistance and low price. They could have been introduced to a company who understood wayfinding well. A company may have come forward and enlightened them to different methods or ideas, maybe even one that allowed for the provision of both building names and the schools and facilities residing in those buildings.

That WSI only offered two sign concepts (both with the same design for the information), the only difference being the shape of the signs, could only make a bad situation worse. Viewed cynically, WSI could potentially be seen to be offering only their most profitable, rather than most suitable products.

It is understandable that problems were encountered with sign placement due to land ownership issues, but it is possible that some consideration and thought could have overcome this and compromises could have been reached.

Coventry University Estates department was asked to handle the signing project, as in Mr. Wells' words "The job would have taken longer if Creative Design handled it, as they are pedantic and over-creative." The project took almost three years from tender to installation as it stands. This is indicative of the kind of bureaucracy and in-fighting that can be the downfall of a potentially successful project. Creative Design may well have produced a better design but we shall never know.

What is required for a successful wayfinding system on Coventry University campus? Going directly to a sign manufacturer is probably not the best route.

"It is then important to get together the relevant people to develop a workable wayfinding strategy and then effective wayfinding solutions for your site, within your budget." (Miller, C & Lewis, D 1999:24)

A conversation with Colette Miller, co-author of *Wayfinding: Guidance for Healthcare Facilities* yielded the following advice: The task should be handed to a wayfinding or design consultancy, which can advise and steer the client. The consultancy can do the “shopping around” of sign manufacturers to find the most suitable product within the budget. A sign specification could then be proposed. The client may want to make changes, but the consultancy is always available to give advice. This would hopefully result in a successful system with less bureaucracy and compromise involved.

“If people get lost, are unsure of the route for much of their journey, feel like they have walked further than necessary, or if they ask for directions but receive instructions which conflict with the actual environment, they are very likely to have a negative opinion of your site” (Miller, C & Lewis, D 1999:22)

Coventry University is in danger of living up to Miller’s statement, being remembered as “that place I got lost.” Although we now know that corporate image was not the main obstructive factor in the wayfinding usability of the new signs, had a little more thought and research gone into the new signage system, it would have been a very different story.

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## Appendix 1

Map of the campus

## Appendix 2

Photographs of the new signs

## Appendix 3

Transcripts of interviews

## Appendix 4

Usability: Task lists and forms to record test results