

STATEMENT OF Robin John FALCONER - 13th September 1996

I am a Bachelor of Science, a Chartered Biologist and a Member of the Institute of Biology. I have been employed in the Forensic Science Service for over 21 years during which time I have dealt with many cases involving the evidence types described in this statement.

This statement is further to my previous statement dated 21st September 1995.

Further Background Information

I have been provided with the following further information surrounding the submission of items which has led to the additional laboratory work.

1. Derek George (sic) CHRISTIAN had been interviewed by police shortly after the investigation into Margaret WILSON's death started. I understand that reference was made during the interview to the clothing he claimed he had been wearing on the 9th February 1995. No clothing was taken from Mr. CHRISTIAN at the time.
2. On the 24th March 1996 Derek CHRISTIAN was again detained by police and on the 24/25th March 1996 various items of clothing and footwear were recovered from an address at Bridlington (41, Cornfield Crescent), a further address at Driffield (20, New Walk) and from a Peugeot motor car F221 THN. These two addresses and the motor vehicle were, I understand, directly related to Mr. CHRISTIAN in that he used both houses and owned the motor vehicle.
3. Samples of blood were taken from Mr. CHRISTIAN on the 25th March 1996.
4. As far as I am aware Mr. CHRISTIAN was not known to the deceased, Margaret WILSON, and there would be no obvious reason for items of their clothing to have been in contact recently.

My approach to the examination, and my interpretation of the findings has been based around the above information. If any of it is inaccurate, or if further relevant information is made known to me, it may be necessary for me to reconsider both the approach to the examinations and the conclusions drawn from the findings.

Receipt of Further Items

On the 27th March 1996 the following items were received from the Humberside Police at Driffield:

Items relating to Peugeot motor car F221 THN

JWD1	Gloves	-	Passenger footwell
KJB1	Jacket)	
)	Boot
KJB2	Jacket)	

Item relating to 41 Cornfield Crescent, Bridlington

KGF11	Coat	-	Outside shed
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Item relating to 20 New Walk, Driffield

DC2	Hat
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Items relating to 41 Cornfield Crescent, Bridlington

JPK03	Right training shoe
JPK03A	Left training shoe
JPK04	Sweatshirt
JPK05	Jogging bottoms
JPK06	Jogging bottoms

Items relating to Derek CHRISTIAN

HSS1	Blood sample
HSS2	Blood sample

Item relating to Margaret WILSON

JCC15	Coat (re-submitted)
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On the 28th March 1996 the following further item was received from the same force and division:-

Item relating to 41 Cornfield Crescent, Bridlington

JPK02 Jacket

On the 9th May 1995 the following further re-submitted items were received from the same force and division:-

Items relating to Margaret WILSON

JCC1 Left hand bag

JCC2 Right hand bag

JCC21 Body bag

On the 11th July 1996 the following further items were received from the same force and division:-

Item relating to Heather WILSON

HMW1 Pair gloves

Item relating Daphne BRAMBLES

DIB1 Cardigan

Item relating to Patricia HARVEY

PMH1 Cardigan

Items relating to Carol COOPER

CAC1 Gloves

CAC2 Scarf

Item relating to Andrew MELLOR

ALM1 Cloth

Item relating to Michael WRIGHT

MW3 Jacket

Item relating to Anthony OPIE

AO3 Sheet

Item relating to DC 1071 STEPHENS

JDS5 Jacket

Item relating to Rosalie WELLS

RHRW1 Jacket

Item relating to Edwin WILSON

EGW3 Car rug

Items relating to PC 18 KELLY

SJK2 Jacket

SJK3 Jacket

Item relating to Douglas THOMPSON

DRT1 Jacket

Item relating to PC 120 CASEMENT

PC4 Coat

Item relating to DC 1625 ALLIBONE

MJA15 Jacket

Item relating to PC 457 WATSON

JMW10 Jacket

Item relating to Marjorie HOLMAN

MH01A Jacket

Item relating to Jill PALLISTER

JDP1 Jacket

Item relating to Audrey CLAXTON

AC1 Jumper

Item relating to Jeanne SMITH

JMS1 Sweatshirt

Items relating to Mark HOLTBY

MH01 Jumper

MH02 Jumper

MH03 Jumper

Items relating to Glynis WILSON

GAW1 Jacket

GAW2 Sweatshirt

Items relating to Dennis WILSON

DJW1 Jacket

DJW2 Scarf

Item relating to Patricia Margaret WOODCOCK

PMW1 Jacket

Item purchased by DC 1690 LING

NKL12 Jacket

On the 22nd July 1996 the following item was re-submitted to the laboratory from the same force and division:-

Item relating to Margaret WILSON

JCC5 Skirt

On the 29th August 1996 a further 108 items were received from the same force and division. These items will be listed and dealt with in a later statement when examinations have been completed.

Purpose of Examinations

In examining these further items I have sought to determine whether or not there is any scientific support for the view that any of the clothing of Derek CHRISTIAN had been in contact with that of Margaret WILSON.

Technical Background

Fibres

Fibres can be transferred from one garment to another through physical contact between the two garments.

These transferred fibres are likely to be lost from the recipient garment over a period of time. However any remaining on the recipient garment when recovered by the police can subsequently be removed in laboratory examinations and compared with fibres from possible donor garments. The comparisons undertaken will include high power microscopy and if appropriate and possible, dyestuff analysis and comparison of chemical composition of the fibres. The evidential significance of apparent fibre transfers can vary depending on factors such as the nature of the fibres, the number of different fibre types involved and the duration and force with which the initial physical contact between surfaces has occurred.

Garments made from commonly occurring fabrics such as blue or black denim, from very pale or colourless fibres, and from those which do not easily shed their constituent fibres, are not generally suitable as a source for the purposes of a fibre transfer examination.

Examination and Results

My examinations have been conducted with the assistance of scientific support staff. A full record of the work undertaken is contained within case notes made at the time of the examination and these are available for inspection, if necessary, at the laboratory.

Items relating to Derek George (sic) CHRISTIAN

The jacket (KJB1) is a green and purple “fleecy” jacket with knitted, purple cuffs and waistband. It bears the manufacturer's name ‘REGATTA’. The jacket sheds its constituent fibres fairly easily and it would be reasonable to expect that the garment would shed fibres onto other surfaces with which it comes into contact.

Item (JPK04) is an apple green sweatshirt which has a logo on the outside front stating - ‘Carlsberg World Famous’. There is no label giving details of the original manufacturer but there would appear to be two labels missing, one inside the left side seam and the other inside the back of the neck region. The sweatshirt appears to be reasonably well worn and slightly faded. It sheds its constituent fibres quite easily and therefore again represents a reasonable potential source of fibres in fibre transfer work.

Item (JPK05) is a pair of blue/grey jogging bottoms which bear a manufacturer's label described as the ‘USED COMPANY’. They appear to be quite well worn and there are many ‘pills’ (small tufts) of fibrous material on the surface. The constituent material of the jogging bottoms sheds reasonably well and this garment is therefore a potential source in fibre transfer work.

The hat (DC2) is a black knitted item of headwear with a “Sheffield Wednesday Football Club” logo attached to the front. The item sheds its constituent fibres quite freely and this item therefore represents a potential source of fibres in fibre transfer work.

Item (JPK06) is a pair of black jogging bottoms, similar to (JPK05) other than in colour. They also contain a manufacturer's label relating to the ‘USED COMPANY’. The garment sheds its constituent fibres reasonably well and therefore the bottoms are another potential source in fibre transfer work.

The jacket (KJB2) is a green, waterproof jacket which has a very smooth finish and does not shed any constituent fibres. As such the item is unsuitable for fibre transfer work.

Similarly the jacket (KGF11) is a green, waterproof jacket which does not shed fibres and is therefore unsuitable for fibre transfer work. This jacket (KGF11) contains a pair of blue rubber gloves in the right pocket. These gloves too have a smooth surface finish and do not shed constituent material.

The jacket (JPK02) is a 'PUMA KING' waterproof jacket which is black and blue. It has a 'Sheffield Wednesday F.C.' logo attached to the left chest. Constituent fibres are not shed from the surface of the jacket and it is therefore unsuitable for use as a potential source of fibres in fibre transfer work.

The gloves (JWD1) are a pair of padded ski-gloves which do not shed fibres and are therefore unsuitable for use in fibre transfer work.

All of the items of clothing (JWD1, KJB1, 2, KGF11, DC2, JPK02, 04, 05, 06) have been examined for any bloodstaining but none has been found. The training shoes (JPK03, 03A) and the blood samples (HSS1, 2) have not been examined.

Given the time interval between recovery of the clothing of Margaret WILSON and that of Derek CHRISTIAN - some 13 ½ months - I did not consider it realistic to carry out any fibre transfer work in relation to possible fibres from Margaret WILSON's clothes on the items from Derek CHRISTIAN. No superficial fibres were therefore recovered from the clothing of Mr. CHRISTIAN and indeed his clothing was examined on the same laboratory bench as was Mrs. WILSON's over 14 months beforehand.

Fibre Transfer Work

In relation to superficial fibres from the clothing of Margaret WILSON, these were recovered onto strips of adhesive tape on clear, acetate sheets - 'tapings' - during the initial stages of examination in February 1995. This is referred to on pages 8 and 20 of my initial statement. I also refer on page 8 in that statement to a search for "any population of highly distinctive fibres that could prove useful to the investigation". By this I meant any highly unusual fibres that may have come from a source other than everyday clothing. I would not describe any of

the constituent fibres of the clothing of Derek CHRISTIAN as 'highly distinctive' in that they would not stand out as dramatically different from the background level of superficial fibres normally seen in this type of examination.

Initially in fibre transfer work the fibres recovered from Margaret WILSON's coat (JCC15) were searched for any green or purple fibres which could have come from the 'REGATTA' jacket (KJB1) from Derek CHRISTIAN. This particular garment was chosen as the initial target source since it shed its fibres readily and it contained three distinctly different constituent fibre types, namely green polyester, purple polyester (both from the panels comprising the main body) and purple acrylic fibres (from the knitted trim at the waist and cuffs). In this initial search a total of 16 fibres were isolated amongst fibres recovered from the coat (JCC15) all of which were microscopically indistinguishable from the constituent material of the jacket. The areas from which these fibres were recovered, and the individual totals of the three fibres types, are listed in the summary sheet of fibre findings (see later). I identify this sheet or chart as item (RJF1) which forms page 17 of this statement. *[Page 11 of this document]*.

In view of these findings further work was conducted in relation to superficial fibres previously recovered from the cardigan (JCC16), blouse (JCC18), gloves (JCC9, 10) and skirt (JCC5). A few further fibres, again microscopically indistinguishable from those constituting the jacket (KJB1), were found. The precise details can be found in the summary sheet.

Following this work the remaining items of clothing from Derek CHRISTIAN which shed their constituent fibres were used as potential sources of transferred fibres i.e. the sweatshirt (JPK04), the jogging bottoms (JPK05), the hat (DC2) and the jogging bottoms (JPK06). The present situation in terms of fibres which are microscopically indistinguishable from the constituent fibres of two of these items - (sweatshirt JPK04 and jogging bottoms JPK05) - is recorded in the fibre summary sheet. At this stage no fibres have been found matching either the constituent material of the hat (DC2) or the jogging bottoms (JPK06).

A proportion of all of the fibres which are microscopically indistinguishable from constituent fibres of Derek CHRISTIAN's clothing have been subjected to further instrumental analysis in respect of their colour. This has reinforced the microscopic comparison. Also in relation to

the synthetic fibre types - polyesters and acrylic - the chemical composition of the fibres has been confirmed by instrumental analysis.

One of the fibres recovered from the coat (JCC15) during the search for fibres matching the jogging bottoms (JPK05) was a 'pill' (small tuft) of fibres. This 'pill' included many fibres which were microscopically indistinguishable from the constituent polyester and cotton fibres of the jogging bottoms (JPK05). In order therefore to compare 'like with like' several fibre pills from the surface of the jogging bottoms (JPK05) themselves were isolated for microscopic examination. Trapped within one of these pills of fibres was a fragment of printed viscose fibre which changed in colour from red to white to blue along its length.

Microscopically this fragment was indistinguishable from printed viscose fibres (of red/white/blue colour) which are a major constituent of the skirt (JCC5) taken from Margaret WILSON. Further instrumental analysis of the colour of the red and blue sections of the fibres has reinforced the microscopic comparison and the fibre composition has been confirmed as viscose. It was however necessary to untangle the viscose fragment from the 'pill' of fibres in order to effect the instrumental analysis.

Debris has been recovered from the body bag (JCC21) but only four fibres have been found amongst this debris. None of these recovered fibres was found to match the constituent fibres which shed from the clothing of Derek CHRISTIAN.

Whilst there is some additional work still to be completed in relation to potential fibre transfer, the vast majority of the work has been completed and forms the core of this statement.

SUMMARY OF FIBRE FINDINGS

		JCC15		JCC16		JCC18		JCC9		JCC10		JCC5			
		Coat		Cardigan		Blouse		L. Glove		R. Glove		Skirt			
		OSF	OSB	OSF	OSB	OSF	OSB	Palm	Back	Palm	Back	OSF	OSB	Totals	
Regatta jacket (fleecy) KJB1	Purple polyester	3	2	0	0	0	0	0	1	0	0	0	0	6	22
	Green polyester	3	2	1	0	0	0	1	1	1	0	0	0	9	
	Purple acrylic	4	2	0	0	0	0	0	0	1	0	0	0	7	
Green Carlsberg sweatshirt JPK04	Green polyester	13	7	0	0	0	0	5	5	0	2	1	0	33	47
	Green cotton	-	10	-	-	2	-	-	-	1	-	-	1	14	
Pale blue/grey joggers JPK05	Blue polyester	-	8	-	-	-	-	-	-	-	-	-	-	8	9
	Blue cotton	-	1 in pill	-	-	-	-	-	-	-	-	-	-	1	
Totals		23	32	1	0	2	0	6	7	3	2	1	1	78	
		55		1		2		13		5		2			

Key

OSF = Outside front / OSB = Outside back

- = not searched for / 0 = none recovered

A total of 78 fibres of 7 different fibre types has been found.

Interpretation and Comment

In the circumstances known to me - (physical contact is alleged to have occurred between the deceased and her assailant according to witnesses) - there is every chance that fibres would have transferred to Margaret WILSON's clothing from that of her assailant, and vice versa. This, of course, assumes that the assailant was wearing clothing that would shed its constituent fibres. Since the body of Mrs. WILSON appears to have been disturbed very little subsequent to the incident it would seem quite likely that a reasonable proportion of any transferred fibres would remain on her clothing until packaged for submission to the laboratory.

In summary a total, at present, of 78 fibres, made up of 7 different fibre types have been identified as potentially originating from 3 items of clothing taken from Derek CHRISTIAN. The 3 items of clothing concerned are a "fleecy" jacket, a sweatshirt and a pair of jogging bottoms. The 78 fibres had initially been collected amongst other fibres and debris from the clothing of Margaret WILSON during initial examination of her clothing in February 1995.

In my opinion these findings are extremely significant both in terms of the overall number of matching fibres and, more particularly, in terms of the number of different fibre types as opposed to a single type of fibre. The feasibility of the findings being explained as mere coincidence, either from innocent contact prior to the incident or from the assailant happening to wear items of clothing of exactly the same type as that owned by Mr. CHRISTIAN, is much reduced as the number of fibre types is increased.

I would not expect to find the number of fibres, or the different fibre types involved in this instance, to be the result of mere co-incidence.

Obviously it is pertinent to attempt to establish how many of the "fleecy" jackets, sweatshirts and jogging bottoms relevant to this investigation have been sold in this country. It is also reasonable to try and establish if there could be any source of recent, innocent contact of garments containing the same constituent fibres, with Mrs. WILSON prior to her death. Enquiries are continuing into both these aspects of background information and the results of these investigations will form the basis of future statements. Many further items are already at the laboratory and have been/are being processed as part of the "elimination" exercise.

In assessing the distribution of fibres on the clothing of the deceased it is obvious that the vast majority of significant fibres have been recovered from the outermost clothing, namely the coat (JCC15) and the gloves (JCC9, 10). This suggests that very little contact took place with the remaining items (cardigan, blouse and skirt).

The possible transfer of one viscose fibre fragment from the skirt of Margaret WILSON to the jogging bottoms of Derek CHAPMAN (sic) is more difficult to assess. It would require the fragment to have remained on the jogging bottoms for some 14 months. Bearing in mind this time delay, I did not consider it realistic to search for potential fibre transfer from Margaret WILSON to Derek CHRISTIAN. Hence the jogging bottoms were examined on the same laboratory bench as the skirt, some 14 months previously. Had the viscose fragment been a "loose", isolated fibre fragment I would have disregarded its presence since it could be explained as a lingering residue of the previous examination of the skirt, albeit some 14 months earlier. However the fibre fragment was tightly entangled amongst the constituent fibres of the bottoms and as such was, in my opinion, very unlikely to be a residue from the earlier examinations of the skirt. Whilst I believe this single fibre could be of significance in terms of increasing the likelihood of contact having taken place between the clothing of Margaret WILSON and Derek CHRISTIAN, the value of this single fragment should not be overstated given the background circumstances in which it was found.

Summary/Conclusion

1. 78 fibres which could originate from the clothing submitted from Derek CHRISTIAN have been found on the clothing of Margaret WILSON.
2. A single fibre fragment, which could originate from the skirt of Margaret WILSON has been found trapped in a 'pill' of fibres on a pair of jogging bottoms taken from Derek CHRISTIAN.

Taken collectively these findings provide, in my opinion, very strong scientific support for the view that some of the clothing (specifically 3 items - jacket, sweatshirt and jogging bottoms) of Derek CHRISTIAN has been in contact with the clothing, primarily the coat and gloves, of Margaret WILSON.