

1. Evidence--rape--testimony on source of DNA--DNA data bank--samples from convicted offenders--no plain error

The trial court did not commit plain error in a prosecution for first-degree murder and first-degree rape by allowing SBI agents to inform the jury of the source of the DNA in the DNA data bank collected from unsolved crimes and samples drawn from convicted offenders, because: (1) defendant did not object to the bulk of the agents' testimony regarding the source of DNA specimens in the data bank; (2) defendant opened the door to testimony that he was incarcerated at the time blood was drawn from him by objecting under the grounds of lack of foundation that the State complied with the requirements of N.C.G.S. § 15A-266.6 without requesting an instruction limiting this testimony; and (3) defendant has not shown that admission of this testimony had a probable impact on the jury's finding of guilt in light of the other evidence and the fact defendant opened the door to such testimony.

2. Evidence--prior bad acts--sexual assaults--motive--similarities--not too temporally remote

The trial court did not err in a prosecution for first-degree murder and first-degree rape by allowing into evidence defendant's prior bad acts under N.C.G.S. § 8C-1, Rule 404(b) including testimony by two female witnesses of prior sexual assaults by defendant on them, because: (1) the testimony was properly offered to show defendant's motive for killing his third victim; (2) the trial court identified the similarities in the three assaults to support a reasonable inference that defendant committed all three assaults; (3) the trial court properly limited the purposes for which the jury could consider the prior two assaults to show motive, plan, common modus operandi, and absence of mistake or identity; and (4) the prior incidents were not so temporally remote as to diminish the probative value of the evidence.

3. Evidence--expert testimony--barefoot analysis--reliability of scientific procedure--admission harmless error

The trial court committed harmless error in a prosecution for first-degree murder and first-degree rape by admitting expert testimony regarding barefoot analysis to determine if the shoes found near the victim's body were regularly worn by defendant even though the expert's own testimony reveals the evidence was not sufficiently reliable at the time of trial based on the fact his research was not yet complete, because: (1) the expert's testimony corroborates the testimony of defendant's wife and defendant's former girlfriend who both stated the shoes looked similar to and were the same size as defendant's shoes; (2) the shoes were not the only physical evidence linking defendant to the crime scene; and (3) DNA evidence recovered from the victim's body linked defendant to the scene.

4. Homicide; Rape--first-degree murder--sufficiency of evidence

The trial court did not err by denying defendant's motion to dismiss the charges of first-degree murder and first-degree rape based on the manner of the killing, the medical examiner's testimony, and the DNA evidence.

Appeal by defendant from judgment entered 29 January 1999 by Judge Jerry R. Tillett in Dare County Superior Court. Heard in the Court of Appeals 22 February 2001.

Attorney General Michael F. Easley, by Assistant Attorney General Laura Crumpler, for the State.

Margaret Creasy Ciardella, Attorney for defendant-appellant.

TYSON, Judge.

A. Facts

During late August of 1993, Janet Siclari ("Janet" or "Siclari"), an ultrasound nurse from New Jersey, vacationed for a week on the Outer Banks of North Carolina. Janet spent the week with her brother, Robert, and several other friends. The group rented a "Friday to Friday rental" cottage in Southern Shores, North Carolina. The group originally planned to return home on Friday, 27 August 1993. However, at the end of the week they decided to extend their vacation by an extra day.

On Friday, 27 August 1993, the group checked out of their cottage in Southern Shores and checked into the Carolinian Hotel located in Nags Head, North Carolina for one final day and night of vacation. Janet and Robert shared "the most expensive room" at the Carolinian. The group spent the day together relaxing, swimming, and playing on the beach. The group ate dinner together at a local restaurant. Afterwards, they went to a comedy club. Robert, fatigued from the day's activities, returned to the hotel room after leaving the comedy club. Janet and her friends, however, continued on to a local bar. Later that night, Janet left the bar and returned to the Carolinian Hotel. Janet walked into her room and saw Robert already asleep. Robert awoke briefly. Janet stated to him "it's only me," lit a cigarette, removed her sandals, and left the room.

On the morning of 28 August 1993, a sanitation worker found Janet lying on the beach in a "puddle of blood" near the steps leading to the deck of the Carolinian. Janet had suffered small stab wounds on the side of her neck, a deep cut around her throat, lacerations on the side of her face and jaw, and cuts on her hands. Authorities located a pair of gray socks and worn, size nine, Spaulding high-top tennis shoes ("Spaulding shoes") near her body. Janet's shorts and belt laid next to her throat soaked in blood.

An autopsy revealed that Janet died from a loss of blood due to the two-and-one-half inch cut across her neck, severing her jugular vein.

Janet also showed signs of hand wounds around her throat and a severed larynx. During the autopsy, the medical examiner discovered semen inside Janet's vagina, samples of which were retained. The medical examiner concluded that Janet had sexual intercourse less than twenty-four hours before her death. Despite intensive investigation, authorities made no arrests for over four years.

In 1996, Thomas Jabin Berry ("defendant") was incarcerated as a result of a probation revocation from an earlier offense. During defendant's incarceration, authorities took a sample of defendant's blood and entered it into the State's Deoxyribonucleic Acid ("DNA") data bank. In April 1997, a computer search matched defendant's DNA with the DNA profile of the semen taken from Janet's body three years earlier. Police subsequently arrested and charged defendant with the rape and murder of Janet.

The defendant informed authorities that he regularly smoked marijuana and crack cocaine around the time Janet was murdered. Defendant admitted to having been in Nags Head the day before Janet's murder to obtain an identification card at the local Department of Motor Vehicles office. Defendant did not remember if he immediately returned home or stayed in the area. Defendant denied knowing Janet. Later, after several hours of questioning, defendant admitted that he could not remember whether he raped and killed Janet, due to his use of crack cocaine during that time. Defendant added that, as a fisherman, he regularly carried knives. When confronted with a picture of the Spaulding shoes found near Janet's body, defendant "remembered having shoes similar to this." Defendant indicated that he wore shoes like that when he performed roofing jobs. Defendant denied raping and killing Janet.

At trial, State Bureau of Investigation ("SBI") Agents Mark Boodee ("Boodee") and Mark Nelson ("Nelson") testified that the DNA evidence stored in the data bank originates from persons convicted of certain offenses, and from unsolved crimes. Boodee, an expert in forensic DNA

analysis, performed a DNA analysis of the defendant's blood and the semen found in Janet's body. Boodee concluded that "it was 112 trillion times more likely that the DNA sample [of the semen found in Janet's body] came from [the defendant] than another individual in the white population." Boodee also stated that "it is scientifically unreasonable to think that [the semen found in Janet's body] could have come from anyone other than the defendant, including a close relative."

The jury also heard testimony from defendant's former girlfriend and the mother of two of his children. She testified that defendant carried a knife with him "all the time." She recognized the Spaulding shoes as similar to those belonging to the defendant. She stated that she recognized the shoes "[b]ecause we had went and bought a pair...similar to those." She also testified that defendant wore size nine shoes. When shown a photo of the Spaulding shoes, she immediately recognized a pair of gray socks inside the Spaulding shoes. She testified that defendant wore similar gray socks "mostly all the time."

Defendant's wife and the mother of one of his children also testified as a witness for the State, stating that defendant carried a knife with him "98 percent of the time." She recognized the Spaulding shoes because they were the type and size defendant wore.

The jury also heard testimony that defendant had assaulted two other women prior to Janet's murder. Shelley Perry ("Perry") stated that during 1992, defendant broke into her house, "jumped" on top of her, "snatched" off her underwear, and tried to "penetrate" her. C.R. testified that in early 1992, defendant attempted to touch her in an inappropriate manner when she was 12 years old. C.R. also testified about a second incident later in 1992 where defendant pushed her down, pulled her pants and panties off, and had sexual intercourse with her against her will. Defendant pled guilty to taking indecent liberties with a minor as a result of the second assault on C.R.

The jury also heard testimony from Robert Kennedy ("Kennedy"), a forensic crime scene analyst. Kennedy was qualified and accepted as an expert "in physical comparisons with a specialist [sic] in barefoot comparisons." Kennedy compared the shoes found at the crime scene to shoes known to have been regularly worn by defendant. Kennedy examined the impressions made by the heel, the ball of the foot and the upper portion of the shoe. He concluded that it was "likely" that the shoes found at the crime scene and the defendant's shoes were regularly worn by the same person.

Defendant moved for a dismissal of the charges at the close of the State's evidence. The trial court denied the motion. The jury found defendant guilty on the charges of first degree rape and first degree murder. The jury sentenced defendant to life in prison for the first degree murder conviction. The trial court sentenced defendant to an additional life sentence for the first degree rape conviction, and ordered the sentences to be served consecutively and to commence at the end of defendant's present term of imprisonment. Defendant appeals.

B. Issues

Defendant assigns as error four issues on appeal: (1) whether the admission of testimony regarding the sources of the DNA in the DNA data bank was plain error; (2) whether the admission of testimony regarding defendant's prior assaults on Perry and C.R. was reversible error; (3) whether the admission of Robert Kennedy's expert testimony regarding barefoot analysis was reversible error; and, (4) whether there was sufficient evidence to support the convictions. We find all of defendant's assignments of error on appeal to be without merit.

1. DNA Data Bank Testimony

[1] Defendant contends that it was error for the trial court to allow Agents Boodee and Nelson to inform the jury of the source of the DNA in the DNA data bank. Defendant contends that such testimony implicitly informed

the jury that defendant had a criminal record and had been incarcerated. Defendant argues that this testimony was inadmissible under Rules 403 and 404(b) of the North Carolina Rules of Evidence. Defendant failed to object to this testimony at trial. On appeal, defendant contends that the admission of such testimony amounts to plain error. We disagree.

During the State's case, the court conducted *voir dire* of Nelson regarding how authorities had connected defendant to Janet's murder. During *voir dire*, Nelson testified that North Carolina maintains a statewide DNA data bank. Nelson stated that the DNA in the data bank comes from persons convicted of certain violent and sexual offenses. Each time a convicted offender's profile is entered into the data bank, the computer automatically compares the offender's DNA to all the unsolved cases on file in the data bank. A computer search matched defendant's DNA to the semen found in Janet's body.

Defendant did not object to this testimony on Rule 403 or 404(b) grounds. Defendant did object to the admission of the DNA testimony on the grounds that the State failed to lay a proper foundation that the initial drawing of defendant's blood was done pursuant to the statutory requirements of G.S. § 15A-266.6.

THE COURT: So your objection is what?

DEFENSE COUNSEL: Well, my objection is that there hasn't been a proper foundation laid as far as whose blood that was, whether it was properly drawn as part of the statute.

THE COURT: So you want the State to show that they have complied with [G.S. §] 15A-266.6 and the blood was drawn properly?

DEFENSE COUNSEL: That is correct.

The court allowed further *voir dire*. At the conclusion of *voir dire*, the following exchange occurred:

THE COURT: Is there any part of this proffered testimony that you would have any specific objection to, and if so, basis?

DEFENSE COUNSEL: We just renew our objection on the grounds made previously, Judge.

THE COURT: Which was?

DEFENSE COUNSEL: Noncompliance with the statute and chain of custody.

THE COURT: Anything further?

DEFENSE COUNSEL: No, Your Honor.

THE COURT: All right. There has been no request for any specific -- objection to any specific portion of the testimony or request for any limited instructions or otherwise to the nature *in limine* to limit such, so the Court does not make any such ruling. I have also independently reviewed some of the testimony and I don't find that, without any specific objection, any part that should be limited at this juncture. If there is a portion of the testimony as it comes in that needs -- that needs to be objected to specifically or some exact portion of the testimony, exact words of the testimony, that objection will need to be made at that time.

DEFENSE COUNSEL: All right.

The jury returned to the courtroom. Thereafter, Agents Nelson and Boodee testified that specimens in the data bank are from DNA data collected from unsolved crimes and samples drawn from convicted offenders. During direct examination, defendant objected to Nelson's comment that the data bank includes the DNA profiles of "sex offenders." The trial court sustained the objection. However, defendant did not object to the bulk of the agents' testimony regarding the source of DNA specimens in the data bank.

"Where evidence is admitted without objection, the benefit of a prior objection to the same or similar evidence is lost, and the defendant is deemed to have waived his right to assign as error the prior admission of evidence." *State v. Ramey*, 318 N.C. 457, 462, 349 S.E.2d 566, 570 (1986) (citations omitted). "Having failed to object, defendant is entitled to relief based on this assignment of error only if he can demonstrate plain error." *State v. Roseboro*, 351 N.C. 536, 552, 528 S.E.2d 1, 12 (2000). "Under the plain error rule, defendant must convince this Court not only that there was error, but that absent the error, the jury probably would have reached a different result." *Id.* (quoting *State v. Jordan*, 333 N.C. 431, 440, 426 S.E.2d 692, 697 (1993)). "[T]he appellate court must study

the whole record to determine if the error has such an impact on the guilt determination, therefore constituting plain error." See *State v. Lee*, 348 N.C. 474, 482, 501 S.E.2d 334, 340 (1998) (citation omitted) (the plain error rule must be applied cautiously and only in exceptional cases).

During *voir dire* of Nelson, defendant objected to the DNA testimony on the grounds that the State had not laid a proper foundation that they complied with the statutory procedures for withdrawal of a blood sample for a DNA analysis pursuant to G.S. § 15A-266.6. That statute provides, in part:

Procedures for withdrawal of blood sample for DNA analysis.

Each DNA sample required to be drawn pursuant to G.S. 15A-266.4 from persons who are incarcerated shall be drawn at the place of incarceration. DNA samples from persons who are not sentenced to a term of confinement shall be drawn at a prison or jail unit to be specified by the sentencing court. Only a correctional health nurse technician, physician, registered professional nurse, licensed practical nurse, laboratory technician, phlebotomist, or other health care worker with phlebotomy training shall draw any DNA sample to be submitted for analysis....

N.C. Gen. Stat. § 15A-266.6 (1999).

The trial court requested that defendant state the specific basis for his objection. See *State v. Black*, 308 N.C. 736, 740, 303 S.E.2d 804, 806 (1983) (trial judge should not have to decide "on his own" the soundness of a party's trial strategy). Defendant replied that the basis of his objection was a lack of foundation that the State complied with the requirements of G.S. § 15A-266.6. Part of G.S. § 15A-266.6 states that blood must be drawn from incarcerated persons at the place of incarceration. Therefore, defendant opened the door for testimony that defendant was incarcerated at the time the blood was drawn. Defendant did not request an instruction limiting this testimony. Defendant cannot now claim that it was plain error for the trial court to not strike such testimony *ex mero motu*.

Assuming the evidence was excludable under Rule 404(b), defendant cites no authority holding that it was plain error to admit testimony

showing defendant had been previously incarcerated under these circumstances. In *State v. Doisey*, 138 N.C. App. 620, 532 S.E.2d 240 (2000), defendant was charged with sexually assaulting a child. The trial court allowed evidence that defendant had set up a camcorder to record activities in his bathroom. *Id.* Defendant did not object to this evidence at trial. On appeal, defendant in *Doisey* argued that the admission of such evidence violated Rule 404(b) and was plain error. *Id.* This Court stated that it was error under Rule 404(b) to admit this evidence. *Id.* However, this Court stated that to constitute plain error, the error must be a "fundamental error, something so basic, so prejudicial, so lacking in its elements that justice cannot have been done." *Id.* at 625-26, 532 S.E.2d at 244 (quoting *State v. Odom*, 307 N.C. 655, 661, 300 S.E.2d 375, 379 (1983)). This Court held that such admission, without defense objection, did not amount to plain error. *Id.*

In the present case, defendant has not shown that admission of testimony regarding the source of the DNA in the data bank had a probable impact on the jury's finding of guilt, when viewing all the other evidence and the fact that defendant opened the door to such testimony. Accordingly, the trial court did not commit plain error when it did not strike this testimony *ex mero motu*.

2. Prior Assaults

[2] Defendant also argues that the trial court committed reversible error by allowing into evidence his prior bad acts. Specifically, defendant objects to the trial court's decision to allow the State to present the testimony by two female witnesses of prior assaults by the defendant on them. We disagree.

Shelly Perry, 29 at the time of the trial, testified that sometime in early 1992 the defendant broke into her home around 3:00 a.m. Perry awoke when the defendant turned on the lights in her bedroom. Defendant removed his pants and "jumped on top" of her. Defendant proceeded to "snatch off"

Perry's underwear and tried to "penetrate" her. Defendant did not attempt to remove Perry's upper body clothing. Perry noticed that defendant's arm was bleeding, apparently from breaking into her house. Perry calmed defendant by telling him she would do "anything he wanted" if he first allowed her to tend to his bleeding arm. Perry walked to the kitchen and fled out the back door. Perry never filed charges.

C.R., 19 at the time of the trial, was 12 years old at the time defendant assaulted her. C.R. testified that in early 1992, she was in her mother's bedroom watching television with her babysitter. Defendant, a family acquaintance, was also in the home. Defendant placed his hand up and into C.R.'s shorts. C.R. pushed defendant's hand away and left the room.

C.R. further testified regarding a second incident involving the defendant. In the spring of 1992, defendant asked C.R. to help him search for his nephew who was "outside somewhere." C.R. suggested that they might be in the woods "where we had forts." C.R. and defendant walked to one fort and, not seeing the nephew, walked to a second fort. Defendant's nephew was not present at the second fort. Defendant pushed C.R. to the ground, pulled off her pants, rapidly pushed her underwear to one side and penetrated her. Defendant instructed C.R. not to tell or he would kill her and her mother. C.R. told a friend, and eventually C.R.'s mother learned of the incident. Defendant was charged with statutory rape. Defendant pled guilty to taking indecent liberties with a minor.

Rule 404(b) of the North Carolina Rules of Evidence states:

Evidence of other crimes, wrongs, or acts, is not admissible to prove the character of a person in order to show that he acted in conformity therewith. It may, however, be admissible for other purposes, such as proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake, entrapment or accident....

N.C. Gen. Stat. § 8C-1, Rule 404(b) (1999). "The list of permissible offenses set forth in Rule 404(b) is not exclusive and 'the fact that evidence cannot be brought within a [listed] category does not necessarily

mean that it is inadmissible.'" *State v. Blackwell*, 133 N.C. App. 31, 34, 514 S.E.2d 116, 119 (1999) (quoting *State v. DeLeonardo*, 315 N.C. 762, 770, 340 S.E.2d 350, 356 (1986)).

Our Supreme Court has held that Rule 404(b) states a clear general rule of inclusion of relevant evidence of other crimes, wrongs or acts by a defendant, subject to but one exception requiring its exclusion if its only probative value is to show that the defendant has the propensity or disposition to commit an offense of the nature of the crime charged.

State v. Barnett, 141 N.C. App. ___, ___, 540 S.E.2d 423, 431 (2000) (citing *State v. Coffey*, 326 N.C. 268, 278-79, 389 S.E.2d 48, 54 (1990)); see also *State v. Doisey*, 138 N.C. App. 620, 626, 532 S.E.2d 240, 244 (2000). "Accordingly, although 'evidence may tend to show other crimes, wrongs, or acts by the defendant and his propensity to commit them, it is admissible under rule 404(b) so long as it also is relevant for some purpose other than to show that defendant has the propensity for the type of conduct for which he is being tried.'" *Blackwell*, 133 N.C. App. at 34-35, 514 S.E.2d at 119 (quoting *State v. Morgan*, 315 N.C. 626, 637, 340 S.E.2d 84, 91 (1986)).

In the present case, the State argues that the prior assaults show defendant's motive for killing Janet. At trial, the State argued "that defendant had wised up; his first victim had gotten away; his second had turned him in, resulting in his incarceration," therefore he could not let Janet "get away." The North Carolina Supreme Court addressed a similar "motive theory" in *State v. Moseley*, 338 N.C. 1, 43-5, 449 S.E.2d 412, 438-39 (1994). In *Moseley*, the defendant sexually assaulted Ms. Fletcher in June 1989. Under somewhat similar circumstances, the defendant sexually assaulted and murdered Ms. Johnson in April 1991. At defendant's trial for the rape and murder of Ms. Johnson, the trial court allowed Ms. Fletcher to testify regarding defendant's 1989 assault on her. The defendant argued that such testimony was improper under Rule 404(b). Our Supreme Court held:

[T]he testimony of Ms. Fletcher was properly offered to show defendant's motive for killing Ms. Johnson: From his experience with Ms. Fletcher, defendant knew that his crime would be reported to law enforcement authorities and that he would suffer the consequences if he left his victim alive. We find no error.

Id. As in the present case, the testimony regarding the prior assaults was properly admitted for a purpose other than to show that the defendant has the propensity to commit sexual assault and murder.

"The admissibility of evidence under [Rule 404(b)] is guided by two further constraints - similarity and temporal proximity [of the acts]." *State v. Lynch*, 334 N.C. 402, 412, 432 S.E.2d 349, 354 (1993) (citation omitted). In *State v. Artis*, 325 N.C. 278, 299, 384 S.E.2d 470, 481 (1989), our Supreme Court stated that "[w]hen the State seeks to introduce evidence of prior, similar sex offenses by a defendant this Court has been markedly liberal in admitting such evidence for the purposes cited in Rule 404(b)." "Indeed, such evidence is relevant and admissible so long as the incidents are sufficiently similar and not too remote." *Blackwell*, 133 N.C. App. at 35, 514 S.E.2d at 119 (citation omitted).

"Under Rule 404(b) a prior act or crime is 'similar' if there are 'some unusual facts present in both crimes or particularly similar acts which would indicate that the same person committed both.'" *State v. Stager*, 329 N.C. 278, 304, 406 S.E.2d 876, 890-91 (1991) (citations omitted). "However, it is not necessary that the similarities between the two situations 'rise to the level of the unique and bizarre.'" *Id.* "Rather, the similarities simply must tend to support a *reasonable* inference that the same person committed both the earlier and later acts." *Id.* "[T]he findings of fact of the trial court are binding upon the appellate court if supported by competent evidence." *Moseley*, 338 N.C. at 37, 449 S.E.2d at 434.

The trial court recognized that there were some dissimilarities between the three assaults. However, the trial court identified the following similarities in the Perry and Siclari assaults: (1) both offenses

occurred around the same time of night; (2) both victims were petite; (3) there was evidence of rapid removal of underpants; (4) there was no removal of the upper body clothing; (5) only vaginal intercourse was "attempted or performed"; and (6) defendant made "some sort of claim of consent" in both matters. The trial court identified the following similarities in the C.R. and Siclari assaults: (1) both offenses occurred in isolated areas; (2) both victims were petite; (3) both incidents involved the use of threats, direct or indirect; (4) only vaginal intercourse was performed; and (5) defendant claimed the encounters were consensual. Based on these findings, the trial court properly found there were sufficient similarities to support a reasonable inference that the defendant committed all three assaults, and thus making the prior acts admissible under Rule 404(b). See, *Artis, supra* (evidence of attempted rape and manual strangulation of a woman ten years earlier properly admitted in case of murder prosecution where victim had been raped and manually strangled); *Moseley, supra* (evidence of sexual assaults on wife properly admitted in case of sexual assault and murder of stranger).

Furthermore, the trial court properly limited the purposes for which the jury could consider the Perry and C.R. assaults. The court repeatedly instructed the jury that the prior assaults were to be considered for:

limited purposes...That is to show motive, plan, common modus operandi, absence of mistake or identity, to the extent it does so. It is not offered, nor may it be considered by you for any other purpose. [The prior assaults] [c]annot be considered by you specifically as to any evidence of guilt in this case.

Finally, the prior incidents were not so "temporally remote" as to diminish the probative value of the evidence. The Perry and C.R. assaults occurred in the spring and summer of 1992. The defendant was incarcerated from September 1992 until February 1993. The Siclari rape and murder occurred in August 1993. It is proper to exclude time defendant spent in prison when determining whether prior acts are too remote. *Blackwell*, 133 N.C. App. at 36, 514 S.E.2d at 120. In *Blackwell*, this Court held that "a

six year interval between...prior acts and the conduct relating to the crime charged" was not too temporally remote. Furthermore, in the present case, defendant conceded at trial that: "I am not going to address remoteness...I think these two incidents were certainly close together in time." A six to seven month interval between assaults in the present case does not render the prior assaults too remote to be admitted. See, *Stager*, 329 N.C. at 307, 406 S.E.2d at 893 (the death of defendant's first husband ten years ago was not so remote as to have lost its probative value in a prosecution of defendant for the first degree murder of her second husband).

Therefore, the trial court did not err by admitting testimony of defendant's prior sexual assaults where (1) the prior assaults were admitted for purposes other than to show defendant had a propensity to commit the crimes charged; (2) the trial court instructed the jury to limit its consideration of the prior assaults to those proper purposes; (3) the trial court found that the assaults bore several similarities; (4) there were sufficient similarities to support a reasonable inference that the defendant committed all three assaults; and (5) the prior assaults were not so temporally remote as to diminish their probative value. After considering all these factors, we overrule this assignment of error.

3. "Barefoot Impression" Testimony

[3] Authorities found a pair of size nine, medium, high top, Spaulding athletic shoes near Janet's body. Before trial, Robert Kennedy ("Kennedy"), of the Royal Canadian Mounted Police, compared the Spaulding shoes with two pairs of shoes known to belong to the defendant. Kennedy also examined "inked impressions" and photographs of the defendant's feet to determine if the Spaulding shoes were regularly worn by the defendant. At trial, the trial court accepted Kennedy as an expert "in physical comparisons with a specialist [sic] in barefoot comparisons."

Kennedy stated that he has been conducting "barefoot research" since

1989. Kennedy defined "barefoot research" as "the research into the uniqueness of bare feet found inside of shoes at crime scenes and mud or blood, to insure that the bare foot is unique enough to do a comparison on." Kennedy testified that he has "collected 10,000 [inked impressions of] feet, that is 5,000 people...and still adding to the data base." Kennedy has also collected and analyzed the shoes of soldiers in the Canadian Army. Kennedy stated that he has testified "for the past 28 years on physical comparisons...hundreds of times." Kennedy added that he has testified about "barefoot comparison" "approximately 20 times." Kennedy has written and published articles and presented lectures on numerous occasions regarding barefoot analysis. Kennedy explained that his "hypothesis" regarding "barefoot impression" analysis:

[A] barefoot [is] unique to an individual. Research is not done yet so obviously we can't say they are [unique]....We don't believe at present that we can identify a barefoot impression until our research is done. The research is showing that the barefoot is unique to the individual but obviously my research is ongoing, so I can't do research to prove that and before it's done say 'yes,' we can.

During redirect examination, the following exchange occurred:

STATE: Okay, you feel like your research indicates that -- that eventually you will feel it's a positive means of identification?

KENNEDY: I think it's definitely going in that direction.

STATE: You just can't say that at this point because your research is not complete?

KENNEDY: Yeah, I wouldn't do a positive yet, no.

STATE: You said that some person could have left the same similarities in those shoes as the defendant if he had the same features as to the wear in the uppers of the shoe, the same features that you saw as to the wear in the soles of the shoe and also as to the wear pattern of the overall shoe. So it would take similarities in all of those for another person to have worn those shoes such as the defendant, is that what you are saying?

KENNEDY: That is correct, yes.

STATE: You believe, Sergeant Kennedy, from your research that the individual persons have individual characteristics as to their bare feet and as to the way they wear shoes and the way the shoes are worn?

KENNEDY: Yes. We have done research on that particular area and they definitely have unique areas, unique patterns on the out sole of the shoe, unique patterns on the inside uppers and they leave very good unique features inside the insole.

At the conclusion of *voir dire*, the Court asked the following questions regarding Kennedy's credentials and barefoot comparison:

THE COURT: Let me ask you, Sergeant Kennedy, you are employed as a forensic crime scene analyst?

KENNEDY: That is correct, yes.

THE COURT: And you are a member of professional organizations that are involved with identifications and comparisons?

KENNEDY: Correct, both in the international and local, Canadian.

THE COURT: Among those organizations and professionals and experts in your field of forensic crime scene analysis, is barefoot comparison generally accepted?

WITNESS: Definitely, yes.

THE COURT: And are the tests, data, methodology employed by you and used by you reasonably relied upon by other experts in your field?

WITNESS: Yes, they are. As a matter of fact, I have doctors of podiatry and anthropology adding to the collection of the database. The quicker we finish it, the quicker we get results so they can use the database also in their expertise.

After this colloquy, the defendant objected to the admission of the testimony, and asked the trial court to make findings of fact. The trial court overruled the objection, and denied the request:

THE COURT: Well, the objection is overruled. He is allowed as an expert. I am not required to make findings of fact. I am considering 109 [N.C. App.] 184, 189, however, notwithstanding I do find that there is scientific, technical or other specialized knowledge that this witness has that will assist the trier of fact to understand the evidence and determine facts which may be in issue. Also, this witness is qualified as an expert by his knowledge, skill, experience and training or education and may therefore testify and form an opinion, if appropriate.

Kennedy then explained barefoot comparison analysis to the jury. Kennedy informed the jury that he examines the impressions left by the heel, the ball of the foot and the upper portion of the shoes. Kennedy

stated that after examining barefoot impressions in shoes he can make one of four conclusions: (1) the shoes were positively worn by the same person, (2) the shoes were positively not worn by the same person, (3) the shoes were "highly likely" worn by the same person, (4) the shoes were "likely" worn by the same person. Kennedy stated that he has never made a positive identification. In this case, Kennedy found many similarities in the impressions left in the Spaulding shoes found at the crime scene, to other shoes known to belong to the defendant, and to the characteristics of defendant's bare feet. Based on his examinations, Kennedy concluded that it was "likely" that the Spaulding shoes found at the crime scene and the defendant's other shoes were regularly worn by the same person. Kennedy explained that he could only conclude it was "likely" that the shoes were regularly worn by the same person, because of a lack of clarity in the impressions, not because of any dissimilarities between the impressions. On cross-examination, Kennedy admitted that barefoot impressions were not a "positive means to identify somebody at present because my research is not finished to prove that. Others do feel that it is a positive means to identify somebody."

Defendant argues that Kennedy's own testimony reveals that barefoot impression evidence is not yet scientifically reliable, and its admission was unduly prejudicial. We agree that, based on Kennedy's own testimony, this evidence was not sufficiently reliable at the time of trial. However, after reviewing the entire record, we find the admission of Kennedy's testimony to be harmless.

Rule 702(a) of the North Carolina Rules of Evidence provides:

If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion.

N.C. Gen. Stat. § 8C-1, Rule 702 (1999). "Thus, under our Rules of Evidence, when a trial court is faced with a proffer of expert testimony,

it must determine whether the expert is proposing to testify to scientific, technical, or other specialized knowledge that will assist the trier of fact to determine a fact in issue." *State v. Goode*, 341 N.C. 513, 527, 461 S.E.2d 631, 639 (1995).

The acceptance of a witness as an expert and "the admission of expert testimony are within the sound discretion of the trial court and will not be upset absent a showing of an abuse of discretion." *State v. Willis*, 109 N.C. App. 184, 192, ___ S.E.2d ___, ___ (1993) (citing *State v. Parks*, 96 N.C. App. 589, 386, S.E.2d 748 (1989)). "The expert is not required to have specific credentials, *State v. Bullard*, 312 N.C. 129, 322 S.E.2d 370 (1984), and it is sufficient if the scientific technique supporting his testimony is reliable." *Willis*, 109 N.C. App. at 192, ___ S.E.2d at ___ (emphasis supplied) (citation omitted). Our Supreme Court has stated that:

This Court is of the opinion, that we should favor the adoption of scientific methods of crime detection, where the demonstrated accuracy and reliability has become established and recognized. Justice is truth in action, and any instrumentality, which aids justice in the ascertainment of truth, should be embraced without delay.

State v. Temple, 302 N.C. 1, 12 273 S.E.2d 273, 280 (1981) (citation omitted) (emphasis supplied). "As recognized by the United States Supreme Court in [*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 125 L.Ed.2d 469 (1993)], the admissibility of expert scientific testimony...requires a preliminary assessment of whether the reasoning or methodology underlying the testimony is sufficiently valid and whether that reasoning or methodology can be properly applied to the facts in issue." *Goode*, 341 N.C. at 527, 461 S.E.2d at 639.

"In *State v. Bullard*, 312 N.C. 129, 322 S.E.2d 370 (1984), [our Supreme Court,] addressing the reliability of footprint identification, gave a comprehensive review of the law concerning the determination of whether a proffered method is sufficiently reliable." *Goode*, 341 N.C. at 527, 461 S.E.2d at 639. The *Bullard* Court stated the following rule with regards to assessing the reliability of a scientific method:

In general, when no specific precedent exists, scientifically accepted reliability justifies admission of the testimony of qualified witnesses, and such reliability may be found either by judicial notice or from the testimony of scientists who are expert in the subject matter, or by a combination of the two.

Bullard, 312 N.C. at 148, 322 S.E.2d at 381 (quoting 1 Henry Brandis, Jr., *Brandis on North Carolina Evidence* § 86, at 323 (2d ed. 1982)).

In *State v. Pennington*, 327 N.C. 89, 98, 393 S.E.2d 847, 852-53 (1990), our Supreme Court examined the reliability of a scientific method by setting out the following principles:

Reliability of a scientific procedure is usually established by expert testimony, and the acceptance of experts within the field is one index, though not the exclusive index, of reliability. See *State v. Bullard*, 312 N.C. at 147, 322 S.E.2d at 380; *State v. Peoples*, 311 N.C. 515, 532, 319 S.E.2d 177, 187 (1984)....[W]e have focused on the following indices of reliability: the expert's use of established techniques, the expert's professional background in the field, the use of visual aids before the jury so that the jury is not asked 'to sacrifice its independence by accepting [the] scientific hypotheses on faith,' and independent research conducted by the expert. *State v. Bullard*, 312 N.C. at 150-51, 322 S.E.2d at 382.

Where a scientific method is in its "infancy", our Courts have looked to other jurisdictions. *Bullard*, 312 N.C. at 148, 322 S.E.2d at 381. Our research reveals two recent cases in South Carolina and Texas specifically addressing Kennedy's research.

Kennedy testified as a witness for the State of South Carolina in a first degree murder trial held in Lexington, South Carolina. *State v. Jones*, ___ S.C. ___, 541 S.E.2d 813, (2001). In *Jones*, the only physical evidence found at the crime scene was a "bloody boot print." *Id.* at ___, 541 S.E.2d at 814. The trial court admitted Kennedy as an expert in "barefoot insole impression" analysis. *Id.* at ___, 541 S.E.2d at 818. The State introduced testimony that the "barefoot impressions" in the boot were "consistent with the boots having been worn by the [defendant]." *Id.* at ___, 541 S.E.2d at 819. The South Carolina Supreme Court held:

The State relies most heavily on Kennedy to establish that there is a science underlying "barefoot insole impressions."

While Kennedy testified that he had published several peer-reviewed articles, he also testified that he was still in the process of collecting data in order to determine which standards were appropriate for comparison purposes. Further he candidly acknowledged that earlier work in this area had been discredited...In our opinion, it is premature to accept that there exists a science of 'barefoot insole impressions'....We find, therefore, that the trial judge erred in permitting expert testimony purporting to demonstrate that "barefoot insole impression" testing revealed [defendant's] foot to be consistent with the impression made by the primary wearer of the...[crime scene] boot.

Id. The South Carolina Supreme Court vacated the death sentence and remanded the case for a new trial.

Kennedy also testified as an expert in another murder trial in Lubbock, Texas. *Hurrelbrink v. State*, No. 07-99-0376-CR, 2001 WL 324726 (Tex. App. April 4, 2001). In *Hurrelbrink*, a "bloody sock foot print was found at the crime scene which the State purported to tie to [defendant] through the testimony of two anthropologists [Dr. Gill-King and Dr. Sonek] as to footprint comparison and analysis." *Id.* In *Hurrelbrink*, Kennedy testified as an expert witness for the defendant. *Id.*

Dr. Sonek testified during *voir dire* that there was a "positive identification" between the footprints at the crime scene and the defendant's footprints. *Id.* Kennedy testified that he would not make a "positive identification on that type of evidence because 'the clarity is not to the point where I would want it.'" *Id.* Kennedy stated "that if Dr. Sonek concluded it was likely or probably the same person, [I] would have agreed, but [I do] not agree with a positive identification." *Id.* The trial court, agreeing with Kennedy, "did not believe that sufficient research had been done to opine that no two individuals can ever have the same identical footprint, Dr. Sonek was not allowed to testify to such an opinion." *Id.*

In *Hurrelbrink*, defendant argued that it was error to admit the "barefoot impression" testimony because such testimony "was not grounded in a valid underlying scientific theory." *Id.* The Texas Court of Appeals

held that: "We do not believe that the trial court abused its discretion in allowing this testimony." The Court elaborated that "[b]ased...on the other evidence presented at trial, as well as the limitations imposed on Dr. Sonek's...testimony, we believe that any error [in admitting the barefoot impression testimony] was harmless." *Id.*

In the present case, we agree that, based on Kennedy's testimony, the barefoot impression evidence does not yet meet the requirements for admissibility. Kennedy is undoubtedly an expert in many areas of forensic science. However, Kennedy testified that he was still in the process of collecting data with regard to "barefoot impression" analysis and that his research was not yet complete. Kennedy opined:

We don't believe at present we can identify a barefoot impression until our research is done. The research is showing that the barefoot is unique to the individual but obviously my research is ongoing, so I can't do research to prove that and before it's done say 'yes,' we can.

Therefore, based on Kennedy's own testimony, barefoot impression analysis was not scientifically reliable as of the date of this trial. However, we hold that the admission of this testimony was harmless error.

An error is harmless "unless a different result would have been reached at the trial if the error in question had not been committed." *State. v. Hardy*, 104 N.C. App. 226, 238, 409 S.E.2d 96, 102 (1991) (citation omitted). There have been many cases in North Carolina where the admission of inadmissible expert testimony has been held to be harmless error. See *State v. Figured*, 116 N.C. App. 1, 446 S.E.2d 838 (1994), *disc. rev. denied*, 339 N.C. 617, 454 S.E.2d 261 (1995) (psychologist improperly permitted to testify that children were abused by defendant; harmless error in light of corroborating evidence); *State v. Davis*, 106 N.C. App. 596, 418 S.E.2d 263 (1992) (expert opinion that victim suffered from post-traumatic stress disorder improperly admitted without limiting instruction; harmless error in view of other testimony); *State v. Helms*, 127 N.C. App. 375, 490 S.E.2d 565 (1997) (expert testimony regarding horizontal gaze nystagmus

test improperly admitted in DWI trial where proponent did not lay a proper foundation for the reliability of such evidence; harmless error in light of other testimony).

In *State v. Payne*, 312 N.C. 647, 325 S.E.2d 205 (1985), the State presented "hypnotically refreshed testimony" during a first degree murder trial. Our Supreme Court affirmed that the admission of such testimony was error. *Id.* However, the Court held that such error was harmless where the testimony was merely corroborative of other evidence. *Id.*

As in *Payne*, Kennedy's testimony corroborates the testimony of defendant's wife and defendant's former girlfriend. Both women testified that the Spaulding shoes looked similar to, and were the same size as defendant's shoes. Furthermore, unlike the facts before the South Carolina Supreme Court in *Jones*, the Spaulding shoes were not the only physical evidence linking defendant to the scene. In this case, the DNA evidence recovered from Janet's body was another powerful link placing defendant at the scene.

Kennedy testified that he could only state that it was "likely" that the two sets of barefoot impressions from the shoes found at the crime scene and defendant's shoes were made by the same person. He explained to the jury that his research was not yet complete. He stated that, although there were similarities between the footprints, he could not make a positive identification.

We hold that although barefoot impression analysis was not yet a reliable science at the time of trial, the admission of such testimony was harmless error.

4. Sufficiency of the Evidence

[4] Defendant moved to dismiss the charges of first degree murder and first degree rape. The trial court denied the motion at the end of the trial. Defendant argues that there was insufficient evidence to support the jury's finding that defendant murdered Janet with premeditation and

deliberation. Defendant also argues that there was no evidence of force to support the finding of first degree rape. We overrule this assignment of error.

In reviewing the sufficiency of the evidence needed to survive defendant's motion to dismiss, we are guided by several principles. The evidence is to be viewed in the light most favorable to the State. *State v. Thomas*, 296 N.C. 236, 250 S.E.2d 204 (1978). All contradictions in the evidence are to be resolved in the State's favor. *State v. Brown*, 310 N.C. 563, 313 S.E.2d 585 (1984). All reasonable inferences based upon the evidence are to be indulged in. *Id.*....[W]hile the State may base its case on circumstantial evidence requiring the jury to infer elements of the crime, that evidence must be real and substantial and not merely speculative. Substantial evidence is evidence from which a rational trier of fact could find the fact to be proved beyond a reasonable doubt. *State v. Pridgen*, 313 N.C. 80, 326 S.E.2d 618 (1985); *State v. Jones*, 303 N.C. 500, 279 S.E.2d 835 (1981).

State v. Zuniga, 320 N.C. 233, 258, 357 S.E.2d 898, 914 (1987) (quoting *State v. Reese*, 319 N.C. 110, 138-39, 353 S.E.2d 352, 368 (1987)).

Defendant correctly notes that in order to convict him of first degree murder, the jury must have found beyond a reasonable doubt that defendant not only intended the killing, but formed that intent after premeditation and deliberation. *State v. Rogers*, 316 N.C. 203, 341 S.E.2d 713 (1986); *State v. Brown*, 315 N.C. 40, 337 S.E.2d 808 (1985), cert. denied, 476 U.S. 1165, 90 L.Ed.2d 733 (1986). Defendant also correctly states that in order to convict him of first degree rape, the State had to prove beyond a reasonable doubt defendant had sexual intercourse with Janet "by force" and against her will with the use or threatened use of a weapon or that serious injury was inflicted. N.C. Gen. Stat. § 14-27.2 (1999). The State argues that there was sufficient evidence from which the jury could properly have convicted defendant of first degree murder and first degree rape. We agree.

The State Medical Examiner, Dr. Page Hudson, testified that Janet weighed 92 pounds and was less than five feet tall. His autopsy examination revealed that Janet had a series of small, superficial stab wounds on her throat. Dr. Hudson stated that these wounds were consistent

with "compliance or intimidation wounds." Dr. Hudson defined compliance wounds as: "wounds that result from -- well threat or the use of the weapon or the tool, the device in an incomplete sort of way, such as holding a gun to someone's head, might not leave a mark there, or holding someone -- trying to be in command of someone with the tip of a knife. That sort of thing leaves wounds of this sort." Dr. Hudson also identified cuts on the inside of Janet's hands. Dr. Hudson informed the jury that these wounds were "typical defense knife-type defense wounds." Dr. Hudson further testified that the killing was accomplished by a person slicing Janet's neck with a knife, half-way severing her left jugular vein. Dr. Hudson also testified that he found sperm inside Janet's body.

STATE: Do you know, or do you have an opinion, Dr. Hudson, based on what you saw as to the spermatozoa, as to some time frame of when the spermatozoa were put in Janet Siclari's vagina?

DR. HUDSON: Yes.

STATE: What is your opinion, sir?

DR. HUDSON: In my opinion they had been there less than 24 hours prior to roughly the time of her death and most likely a good bit less than that, 12 hours, for example.

STATE: 24 hours --

DR. HUDSON: Or less.

STATE: And you feel like much less than that, is your feeling, is that correct?

DR. HUDSON: Yes. I am saying as much as 24, to be sort of on the safe side as it were, but I think it is probably less and it could -- they could have been there just a matter of -- well, minutes, for that matter.

THE STATE: Before she died?

DR. HUDSON: Right, before she died.

Defendant claims that the evidence tends to show that the sexual encounter with defendant was consensual. There is no evidence that Janet and the defendant were acquaintances. Janet was found on the beach with her pants removed and defendant's semen inside her. The jury could find it unlikely that Janet had consensual intercourse with defendant, a stranger,

and then be murdered by a third person, while still nude from the waist down. Given the manner of the killing, the medical examiner's testimony, and the DNA evidence, we find that sufficient evidence existed from which the jury was entitled to find defendant guilty of the first degree rape and the first degree murder of Janet Siclari.

Defendant received a fair trial by a jury of his peers before an able trial judge that was free of prejudicial error.

No error.

Judges MARTIN and TIMMONS-GOODSON concur.