

Windows to the Womb

Though she came to us under the worst possible circumstances, our granddaughter, like our daughter before her, is a precious gift from Heaven. Not even Alice could have predicted the nature of Jacob and Renesmee's daughter. She is a beautiful child, of course, though perhaps taking more after her father than her mother with her silken black hair and sharp Native American cheekbones. Except for her eyes, the hazel color of my once human eyes, and her skin, which is utterly smooth and almost vampire pale, she resembles her father in most ways. She is tall and willowy, towering over Renesmee. At last measuring, she stretched to nearly 6'3". She is an Amazon of a Quileute and Quileute to her very marrow.

Sarabel Edilia Black, whose name in our new family tradition combines those of her grandparents, was derived thusly:

Sarah + Isabella and Edward + William

Everyone agrees it is a beautiful name, and it honors Jacob's mother, in particular, a woman my side of the family never knew.

We have had the joy of Sarabel in our lives for only eleven human years, but as far as her great-grandfather Carlisle can determine, she is a fully grown woman. Born in the eighth year of Renesmee and Jacob's married life, Sarabel's conception was a surprise to everyone and a dark burden to Alice and myself.

After the announcement and my subsequent demonstration of fury, I was forced to confide the truth to Bella, the reason for my early campaign to separate Renesmee from Jacob Black. When I shared with her Alice's vision of our daughter's horrific and possibly deadly pregnancy, Bella accepted it with an equanimity I couldn't have predicted. I glimpsed her former human self in her reaction,

the dauntless determination she showed after discovering she was pregnant on our honeymoon.

Between mother and daughter, a bond exists that, despite my ability to read my daughter's thoughts, does not extend to me. They share a deep understanding of one another, and I can only presume that she knew Renesmee would choose the same path she had chosen—our daughter would carry the fetus until it was either born or caused her death. Bella quickly became my daughter's greatest ally in preparing for that future.

Perhaps I have learned a little in the years since Renesmee's birth. Perhaps I have learned to trust my wife's intuition more than I did when she was human. After venting my initial uncontrollable wrath upon Jacob, I did not pit myself against the inevitable. It would have made no difference, and perhaps that's the lesson I'd learned.

I didn't need to fight anyway, because Jacob's first reaction to Nessie's pregnancy (and to my fist-punctuated reminder of what it meant per Alice's vision) was to try convincing Carlisle to give his wife something to induce a miscarriage. My father had learned something from experience too, though. First, that his knowledge was limited, especially as it pertained to Renesmee, and he would never risk her wellbeing by chemically tinkering with her mysterious internal ecosystem. If her imperviousness to painkillers was any indication, pharmaceuticals would have no effect anyway.

Second, Carlisle wouldn't attempt forcible surgery, not only because he respected Esme's feelings on the subject, but because neither Bella nor Rosalie would have allowed it. That put Emmett against it by default, and even if I'd agreed to help, Jacob and I could not have managed an intervention by ourselves.

Though Jacob's initial reaction was to ask Nessie to terminate her pregnancy, he remained deeply conflicted and, within a week,

about-faced, threatening me with bodily harm should I attempt to interfere with nature's course.

I speculate that the same strange magic which caused him to imprint on my daughter had reengaged in defense of his offspring. It made sense in a Quileute sort of way—historically speaking, any child of a Quileute wolf would have been critical to the tribe's survival. Imprinting seemed to ensure that a wolf mated with someone likely to propagate the mutant gene. Now the wolf gene had kicked in again, and Jacob's entire being reforged around preventing harm to his developing child. Any Quileute werewolf would die to preserve the future of its species. My question was this: Would Jacob allow his wife to die for it?

We watched in wonder, and often horror, as the repetition of Bella's pregnancy played out in the body of my daughter. We had more information, of course. We deduced that Renesmee would survive best on a blood-centered diet, for example. Though she'd have preferred to drink human blood, Carlisle was unable to procure much for her, and the donated blood of the more-than-willing wolves nauseated her, so she made do with deer, cougar, and the occasional black bear.

The child grew fast, but not as fast as Renesmee had. It made both the progression of Renesmee's decline and our observation of it more subtle. She remained at her and Jacob's home on the reservation too, which made it both easier and more difficult to tolerate the slow grinding of the weeks to her delivery. Carlisle and Bella visited every day—Renesmee once again had banned me from her home, though Jacob was quick to forgive my impetuous attack on him—and as far as Carlisle could make out from the growth rate of the fetus, Renesmee would reach full term in about four months. It wasn't until late in her third month, or fourth trimester, that the trouble began.

Medically, the problem was almost opposite what Bella had suffered while carrying our daughter—Renesmee simply had grown too fast and too large to be nourished and contained in her mother's fragile human body. In contrast, Renesmee's external body is more vampire-like than human. Whereas her organs are soft and her bones breakable, the outer shell of her body is hard and inflexible. Her skin is nearly impervious to puncture and surface injury, which keeps her more vulnerable interior organs from being pierced or crushed (notwithstanding the twenty-five-ton semi-truck that accomplished it).

Gestation began in a normal fashion with Renesmee remaining healthy and active, fully able to hunt and carry on with her everyday life. Alice and I dared to hope that her dire vision had been skewed and that Renesmee would emerge intact from her pregnancy. Unfortunately, that happy phase did not last.

As Sarabel developed and Renesmee experienced more and more movement inside her belly, we realized that her mother's shape was not changing at the same rate the child was growing. Sonograms, which were more revealing for Renesmee than they had been for Bella, showed that the female fetus was changing at a spectacular rate. All arms and legs, at six weeks she resembled a tangle of noodles engulfing two adjacent meatballs. Her limbs were flexible enough to wrap closely around her torso, but the simple truth was that Renesmee's body could only flex so far, and the baby was running out of room.

Carlisle recognized that before Sarabel grew too large and rotating her became impossible, she must be turned head-down to gestate. In an impressive display of knowledge and technique, Carlisle externally massaged Renesmee's belly and gently maneuvered the child sideways before completely inverting her inside the womb. A human doctor could not have performed this

procedure for it took the hand strength of a vampire to manipulate Nessie's dense skin.

At ten weeks, frequent sonograms became necessary as Sarabel—already a christened member of our family and of the Quileute tribe—began to push the limits of Renesmee's interior space, gradually compressing her mother's stomach, lungs, and heart upward and bladder and intestines downward. The worst discomfort came from the pressure on her lungs, which made breathing difficult. Our daughter requires less oxygen than a full human, but the fetus inside her demanded it, and despite the tank of pure oxygen at Nessie's bedside, her breathing was slowly reduced to a rapid, shallow panting.

The first crisis came at thirteen weeks when the baby's heartbeat grew erratic. She was slowly being crushed as the available space for her became more confined. Oxygen came through the umbilical cord blood, but Sarabel's ribs were compressing her heart muscle. She simply would not survive without more room to grow.

The situation presented an excruciating dilemma for all of us, but the worst of it fell on my father's shoulders. As the only surgeon remotely qualified to operate on Renesmee, he was forced to choose between inflicting unimaginable agony on his granddaughter or sacrificing his great-granddaughter's life. I daresay most doctors would have let nature take its course if confronted with such a lose-lose predicament. Renesmee insisted, however, that her baby's life must be saved at any cost to herself.

I don't know how Carlisle coped. I could not. Like a coward, when push came to shove, I allowed Emmett and Jasper to lure me northward on a hunting trip and left my wife and sister to stand in my place.

You see, the only possible remedy was somehow to create more room for the fetus inside a non-expandable container. The baby was

three-quarters human and nowhere near strong enough to stretch the hard shell of her mother's skin as she grew. Someone had to do it for her.

Though I could not bear to be present for the surgery, I helped my father design the solution. It is an interesting theoretical problem—one most recently tackled by researchers at Ohio State University—of how to gain ongoing access to a living creature's internal organs in order to study, in their case, digestive processes. Veterinary scientists solved it, in effect, by surgically installing a window into a cow's stomach. I proposed a similar approach, creating a window into Renesmee's abdominal cavity, not for study, but simply to create room—a bow window, if you will—into which her womb could grow to accommodate the fetus.

The solution (though easy to write about, impossible to imagine performing) was to make two vertical incisions from just above the bottom of Renesmee's ribcage to the base of her pelvic girdle and insert two long strips of biologically compatible material—gussets—to serve as a stretchable skin. The baby then would be able to grow forward as well as vertically inside Renesmee's body. The means to attach the gussets was straightforward, adhesive would suffice; creating space for them would be the difficult part. The technical solution was to attach posts to the sides of each incision and install steel expansion rods with screws that could be turned as often as required to continually widen the gaps.

The process was not difficult in theory—it's been used to move teeth and to lengthen leg bones in humans, for example—and had Renesmee been other than she was, not horrendously traumatizing. For her, though, the necessary surgery would be brutal and gruesome in the extreme. For one thing, Renesmee's skin, though not as dense as that of her vampire family's—feldspar to our granite—is still difficult to pierce. She can be scratched by a steel blade, but not cut by one. Carlisle would have to use diamond wire and an

oscillating saw to make the incisions and a pneumatic drill to create holes for mounting the expansion hardware. Even that would not have been catastrophic, except we knew from the injuries Renesmee suffered in the car accident that anesthetics and pain medication have absolutely no effect on her physiology.

When Sarabel's heart first showed signs of stress, we knew the time had come to perform the "window" surgery and that is when I made my gutless escape. What I couldn't escape were the memories after the fact, which even from one step removed through Rosalie's memories, were torturous.

Carlisle had extensive experience amputating soldiers' limbs without anesthetic during the course of his life, earning himself the title of "Angel Sawbones" during the American Revolutionary and Civil Wars. Nessie's surgery posed the same problem, but in this case, technology proved a limitation. A diamond-edged Stryker saw could work its way through Renesmee's skin, but not with supernatural speed. She had no choice but to endure the cutting, fully conscious, for the mathematically calculated length of time required to create incisions long enough to let the fetus grow to term. There was no way to mitigate the requirements, though if I ever had to undergo such an ordeal, I would choose Carlisle as my surgeon.

For lack of alternatives, he revived an old war-time practice—filling the patient with enough whiskey to drown a horse just prior to the amputation. We'd discovered on a previous occasion that Renesmee metabolizes alcohol much like a human. Embry gave Jacob a bottle of champagne to celebrate Nessie's homecoming after her accident, and as Jacob tells the story, she was on her face after one glass. Alcohol could reduce her pain, though it could also increase the risk of infection. It was worth the risk. Renesmee herself suggested that Rose give her with a Kevlar-encased block of madrona wood to bite on during the one hundred twenty seconds required to make each long incision to muffle her screams.

From what I observed later in the minds of my sister and father, I was profoundly glad that Renesmee convinced Jacob to leave the Olympic Peninsula on the day of her procedure. The wolf pack would have had a terrible time preventing him from murdering Carlisle during those interminable two hundred forty seconds.

In the heat of the moment, I might have busted my way in to stop the proceedings myself, except I've lived long enough now to know that I have no voice in decisions regarding pregnancy and childbirth.

Edward

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