REBECCA VANDYK

Placenta, the Sculpture, and the Invisible Blood of Women

Placenta is a giant, soft model of a human placenta, made from knitted sections of fabric pieced together around a free-standing frame. It was knitted by women out of hand-dyed yarn made from discarded t-shirts. The #placentaproject drew together a team of women (and a handful of men) who believed that it was a socially useful thing to create and exhibit a giant human placenta in order to enliven the amount of public conversation and understanding of the bodily work of women. The work of the sculpting process used a domestic craft as an act of protest—a monument to the unpaid and uncounted labour of women. This article describes the narrative of the process of the sculpting work and explores personal themes about the invisibility of women's reproductive blood, both in health and in society itself. It also describes the anatomic and physiological learning that took place in the process of sculpting and exhibiting the work, which led to a more deeply felt awe at the work of women that often goes unnoticed. Placenta is on tour around Australia and was recently exhibited at the Australian Motherhood Initiative for Research and Community Involvement Conference, held in Sydney, in July 2019.

Placenta is a giant, soft sculpture of a human placenta. It was knitted by a team of women using large handmade needles and yarn made from over nine hundred recycled t-shirts; the entire process included washing, cutting, sewing, dyeing, and then finally knitting. The #placentaproject team was sourced via word of mouth, regional radio, and a Facebook group. The knitting was shared among the women, each of whom knitted one or two sections; the artist knitted the remainder of the pieces and constructed the finished sculpture. But the question many viewers had, as they stood near the sculpture when it was exhibited, was why it was knitted in the first place.

Indeed, the process of trying to find a venue to exhibit the sculpture left the same question floating in my mind. It seemed that this giant reminder of woman's bodily contribution to the species' survival was too strange and too uncomfortable to even consider exhibiting. The beauty of the textile, dyed all in reds and purples, as well as texture of the knitting did not matter because it was still a placenta. Finding a venue to exhibit the work was an anxious struggle. The original focus of the work had been a simple enough concept: to make a huge, hands-on-hips statement that women's contribution is so much bigger than society recognizes. Choosing the mundane domestic work of laundry and craft as the technique for the sculpture was deliberate to highlight that this domestic work contributes greatly to the economy. The choice of the placenta as the form for the sculpture was to highlight the corporeal contribution of the maternal body, so much more than merely a biological incubator. These are not new themes, but the sculpture realized them in a very literal way; they were not hidden by the symbolism that is usually employed by artworks that address the reproductive viscera of a woman.

This article is a narrative about the creation and exhibition of *Placenta* as well as the philosophy underpinning the work that evolved as the project took shape physically. Yet these ideas only crystallized once the work was in the public space, as conversations with mothers, midwives, obstetricians and other healthcare specialists revealed the very invisibility that the work addressed. That invisibility was of the placenta itself in the social psyche as well as the invisibility of the reproductive blood of a mother not only in the health context of the birthing ward but also in the realm of public consciousness.

Placenta—What Is It?

I had previously worked with a human physiology professor to create a suite of medical illustrations that included all the anatomical structures related to human reproduction. This included the structure and function of the placenta, and how it received the mother's blood and donated it to the developing baby. Somehow. However, when I considered artwork that could demonstrate how important mother-work was, the placenta seemed an obvious choice that was not connected to the vagina, since the vagina was already well represented in the aesthetic as being both the site for menstruation and birth as well as a site often charged with sexual connotations (Stevens). Conversely, I saw the placenta as an icon for the recognition of the maternal, but I made an incorrect assumption (despite my previous work on human reproductive physiology) that the baby's blood must surely come from the placenta somehow. This was based on a personal, idealistic concept of mother-as-hero that I had constructed through appreciating the lengths to which mothers earnestly work for their offspring.

The ongoing study into how the sculpture could aesthetically represent a mother's work revealed some of the mysteries of how the placenta works, and with it, a newfound awe at the extent to which the developed world has allowed the reproductive work of mothers to fade out of existence. For example, the dark purple-red chunks on the maternal side of the placenta (the cotyledons) are formed in the first trimester around specialized cells that engineer the speed and amount of maternal blood that enters the placenta's spaces (the extravillous trophoblasts or EVTs) (Ander et al.). The action of these cells relies on the exact conditions of the lining of the uterus at the time of fertilization—the lining that is shed and replenished with every menstrual cycle. Towards the end of a pregnancy, these cells have retreated somewhat, allowing up to 150 ml (about 5 fl oz) of maternal blood (per single uterine spiral artery) to rain into the space, to send nutrients, and to receive waste from across the baby's blood vessel walls. The maternal blood 'donation' is extreme. On a daily basis, the maternal blood volume needed to support the pregnancy rises to as much as two normal blood donations (1250 ml or 44 fl oz) more than a nonpregnant adult (Hytten). Far from being where the baby's blood began (as previously thought), the placenta is this sophisticated manufacturing plant that channels volumes of the mother's blood not directly into the baby; instead, the blood must be broken down into all the components necessary for development and in a size that can pass through a cell membrane. This way, the mother's blood never mixes with the baby's blood because that would start an internal blood cell war. Thus, the biological work of the placenta is highly complex, even to the extent that the latest researchers admit that many of the specific workings of the human placenta are still unknown (Mayo).

Placental Disgust

If medical science still puzzles over the role of a human placenta, the general population does much more so. In the birthing suite, minutes after a newborn baby emerges, the placenta is also birthed, and generally (following inspection by the attendant midwife or obstetrician) it is then discarded as hazardous waste when the new family leaves the hospital. During the knitting work for the sculpture, many midwives described conversations in the birthing suites with newly delivered mothers in which they offered the woman's own placenta for her and her partner to view. Despite the midwives' enthusiasm for the organ, many new parents openly expressed disgust for it. Like the final sculpture, the real placenta is too strange, too bloody, and too out of place. The new parent's disgust towards the placenta, which only a few minutes prior had been so vital to their new baby's development, perhaps indicates an underlying phenomenon of the developed world—a generalized discomfiture with

women's bodies and women's blood. This discomfort has perhaps created a slow, gradual decline of knowledge that second-wave feminists had gained about their own reproductive apparatus through self-exploration (Burke and Seltz).

Conversations around the sculpture revealed a generalized lack of knowledge about the placenta, as many thought that the placenta was a bag in which the baby grew; some did not even know that they would birth a placenta. Conversely, conversations with mothers who identified with a specific cultural group that did not identify with the Western tradition of birthing were not only comfortable with the placenta as its own entity but also had language to draw on to describe their thoughts and feelings about it. Although these conversations represent anecdotal generalizations, there is a wide basis of anthropological literature that reveals cross-cultural traditions relating to the birthing of the placenta, and the ongoing ritualized respect shown to the organ (Meyer). In the ongoing promotion of the sculpture to prospective yet doubtful exhibitors, it became a source of horrified amazement. Often this conversation was in conjunction with a laughing protest—"You'll have to do more than a placenta to shock us!"—even as they described that the artwork was unsuitable for their organization.

The Invisible Placenta in the Developed World

The invisibility of the placenta in the Australian context to some extent reflects eighty years of a hospital birthing tradition (Pascoe). This tradition is firmly established and includes the ubiquitous clearing away of the mess of birth by the attendant midwives, who procedurally and strategically remove blood and visceral matter to reduce the threat of pathogens that may be present. Helen Callaghan describes this process—now a habitual act on each midwives' to-do list—as being while necessary to maintain a safe workplace; it is also a result of the widely held notion in gynecology that women's reproductive bodies are dirty and full of germs. In conversation with an obstetrician who came to see the *Placenta* sculpture, it was interesting to note that she did not feel that blood and viscera were invisible in the birthing suite, for she saw blood "all the time." However, perhaps this is not what the new mother remembers about her own birthing process, as she herself is a product of the norms of the developed world that require women's reproductive blood to be hidden. This requirement starts early in the dialogue of health education in schools with girls who are approaching puberty (or who may have already begun menstruating), when the concept of the privacy of the menstruating body is asserted and the subtext of the mess of reproductive blood begins (Department of Education). It is perhaps not surprising, then, to hear that newly delivered mothers are shocked and disgusted by such a large and bloodied mass as the

placenta, even though it has been a part of their own bodies for nine months. This reaction illustrates well the human response to blood and detached body parts—a primal revulsion designed by evolving human societies not only to protect the group from danger but also to create real boundaries between what is notionally clean and what is defiled (Douglas; Rozin et al.). This human response is a learned emotion; not only is it perpetuated in the social group by facial expressions and physical withdrawal from the disgust stimuli, but it also felt individually by increased sweating and as a slight drop in blood pressure (Stevenson et al.;Tybur et al.). The social cues for women to be disgusted by their own reproductive emissions are strong. Thus, watching women as they walked around the giant *Placenta*; touching it and deep in thought, was rewarding. Perhaps this giant strange thing could enact one of those strengths of shared art: the reconstructing of meaning by elevating the mundane (Crossley; Lee). By using a domestic craft for the sculpting and nominating a birthing by product usually discarded as its subject matter, *Placenta* highlights mothering work as nothing less than monumental.

Domestic Work, Emotional Work, and Body Work

As the sculpture progressed, slowly, over two and a half years, it was itself an act of mothering work and was typified by the domestic. The first task was to sort the cotton t-shirts from the polyester ones—polyester does not absorb dye pigments—and then to cut them down to rectangles and then to sew new, red seams to create a cylinder of fabric. This process was a constant reminder of the work of women. In cutting and sewing the recycled t-shirts, I thought of the many women employed in the garment industry, mostly in developing countries where there are no employment benefits, and where familial responsibilities must be managed around long working hours. I also thought of the women who had bought the t-shirts, repeatedly washed them, and then discarded them to thrift stores. So many women contributing work beyond what was paid for. The smell of the unwashed garments was strong, and wafted up as the overlocking sewing machine chewed through the new seams. The t-shirts that were put aside for the project—all nine hundred of them—were chosen because they couldn't be sold, due to damage or printed graphics, such as "Fun Run 1995" or "Lionesses Club of Walhalla."

The next process was the creation of dye baths of deep crimson, with a mix of pigments of golden yellow, deep red, and, sometimes, warm blue. These dye pots were like vats of blood, which were remarked upon by visitors and children alike. Depending on the textile knit and fibre type, the fabric that emerged was richly vibrant—deep purples and browns for the maternal side of the placenta (which is made up of the cotyledons that are big chunky masses centring around the treelike, uterine spiral arteries) and paler oranges and

fire-engine reds for the baby's side of the placenta (which is all smooth and musclelike, with ropey blood vessels branching across the surface). Finally, the yarn was cut, knitted, and assembled, which was reminiscent of the energies of generations of women who knit, click-clacking their way to vast sheets of useful fabric. As I worked on the sculpture, I found I had perhaps an over-romantic picture of all the women in history who had used these technically proficient skills to clothe their loved ones. They had earnestly employed their craft energies, hidden in their homes, and uncounted by history; and had indeed done all these things even while bleeding. These thoughts became like a litany, and with it more resolve in my mind to see this huge sculptural placenta installed like a giant red flag of monument to women's hidden work of labor and blood: how many women in history have used this technically proficient skill to clothe their loved ones?; how many mothers, across so many centuries, have employed their energies while hidden in their homes and who have been uncounted in written history?; and how many women have knitted while bleeding every month? The thoughts, like an emotional litany, building more resolve to see this huge sculptural placenta erected like a giant red flag of monument to women's hidden work of labour and blood.

It Is Personal: Mourning Baby Mothering and Questioning the Disappearance of Blood in the Developed World

It was not until the sections were complete and were wrapped in cloth (with essential-oil aromatics to stave off the deeply-absorbed human scent from returning) that the weight of the personal started to reveal itself to me. In carrying the wrapped, knitted fabric mass, the loss of the sweetness of baby mothering was a profound shock. My own days mothering babies were gone. The simplicity (although less so at the time) of those baby's bodily needs to be met felt sweeter than ever, yet they also felt bittersweet because only now were my tactile senses recalling their value more fully. I recalled memories of birthing lying back, passive, with so little autonomy, of trying to fully experience the birth process from a place of fear yet hope and of remembering the placenta, which loomed so large and bloodied, feeling its significance and yet not knowing how to honor the work of it, now accomplished. Instead of mothering babies, I now mother young teens, with all the complexities of negotiation as they forge their way into their own social spaces. It is now their turn to experience the social rules for women's reproductive blood, as described and modelled in their separate educational and social environments. They are growing up in a society that still counts no value in domestic labour or in the bodily or emotional work of women (Jung and O'Brien; Robertson et al.). "In conversation with children and young people, as they were walking around, touching, and playing under the giant Placenta, I would say "this was the first

thing you made!"; and then I would describe how all the nutrients and oxygen came out of the birthing mother's blood and through the placenta to make them grow.

The phenomenon of women's reproductive blood, rendered invisible by the norms of the developed world, requires more research and many unanswered questions remain. Why does the field of public health know everything physiological about human blood, but researchers still know nothing about the human reaction to blood or the population-wide, sociological results of defining the life of the body (i.e., blood) as inherently dangerous? Why do cultures in the non-developed world place more significance in the meaning and psychological concepts of blood than the developed world, which has a frenetic obsession with removing it, cleaning it, and declaring it hazardous? Why does the developed world place celebrate those who donate blood (approximately 600 ml or 20 fl oz per donation) but disregards the daily blood donation of a pregnant woman or, indeed, the monthly donation of a menstruating woman whose uterine lining requires complete remanufacturing every twenty-eight days or so days? How is it that the taboos surrounding a woman's reproductive blood donation to the species is still so prevalent that young women are disgusted by their own profoundly technical reproductive systems that require so much emotional and physical work? These questions reveal the problems with the West's technically and medically proficient maternal health systems that require a lack of human emotion and stubborn blindness to the social significance and social necessity of the birthing process.

Conclusion

The *Placenta* is a giant sculpture originally intended to alert various audiences to the incredible contribution of women and mothers to their families and communities. Work began on the sculpture before there was strong understanding about the mechanisms of the placenta, but this knowledge grew as the physical structure grew, which created an incredible awe at the amount of mother-work involved, including the physical and systemic effort of the daily, bodily donation to the developing baby and its placenta, via the mother's blood. The sculptural work also created with it a sense of the endless litany of domestic labour, done mostly by women, to ensure the health and welfare of their communities. During the creation and exhibition of the sculpture, the learned emotion of disgust was encountered repeatedly. Disgust is a socially perpetuated emotion, which protects the social group from pathogens that may be in the blood or from the bodily fluids of the reproductive process. The hospital birthing tradition and the societal requirement for the invisibility of menstrual blood have both aided in the disappearance of the work of maternal blood from the public consciousness. The social discomfort

of various health organizations for whom *Placenta*, the sculpture, was offered for exhibition free of cost, shows the current status of taboos relating to the blood of women. It is hoped that *Placenta*, and other artworks that seek to challenge these taboos in viewer's minds will continue the shift towards a societal affirmation of the inherent value of women.

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