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Architecture and place: **home is where its safe** - designing environments for childbirth

London, 12 November 2019

Nicoletta Setola
Dept. of Architecture, University of Florence - TESIS Centre
nicoletta.setola@unifi.it

Architecture, places, health

Architecture and people



Entrance of *Santa Maria Nuova Hospital*, Florence, IT

Architecture and health

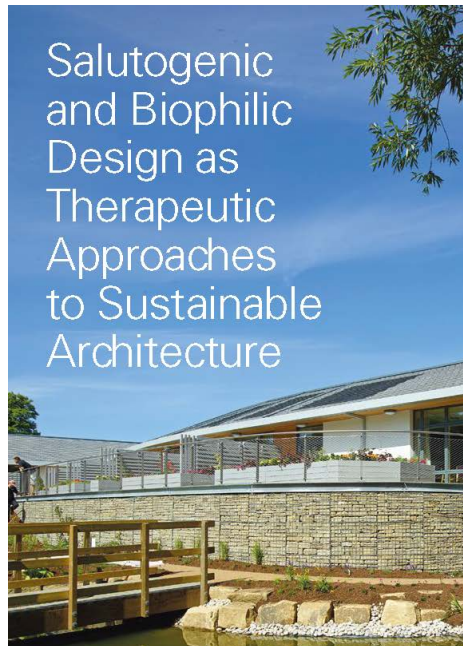


*Glasgow Maggie's
Center, UK, OMA
Architects*



**Cultivating
the
'In-Between'**
Humanising the
Modern Healthcare
Experience

*AD Health n.87/2017
Terry Montgomery*



Salutogenic
and Biophilic
Design as
Therapeutic
Approaches
to Sustainable
Architecture

*AD Health n.87/2017
Richard Mazuch*

*Orbis Medical
Center, The
Netherland,
Holland
Hospital
Architects*



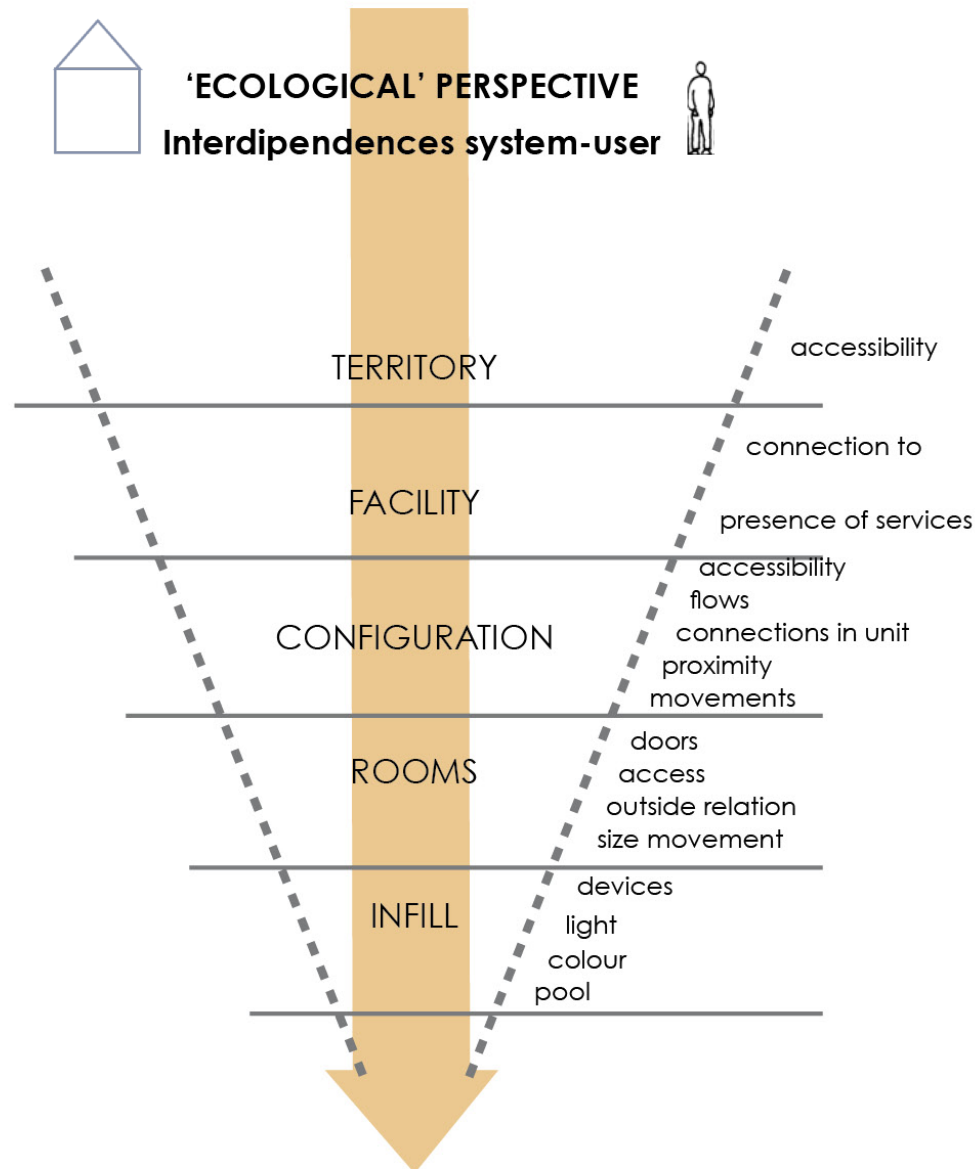
*Meyer Paediatric
Hospital,
Florence, IT, CSPE*



Healthy places

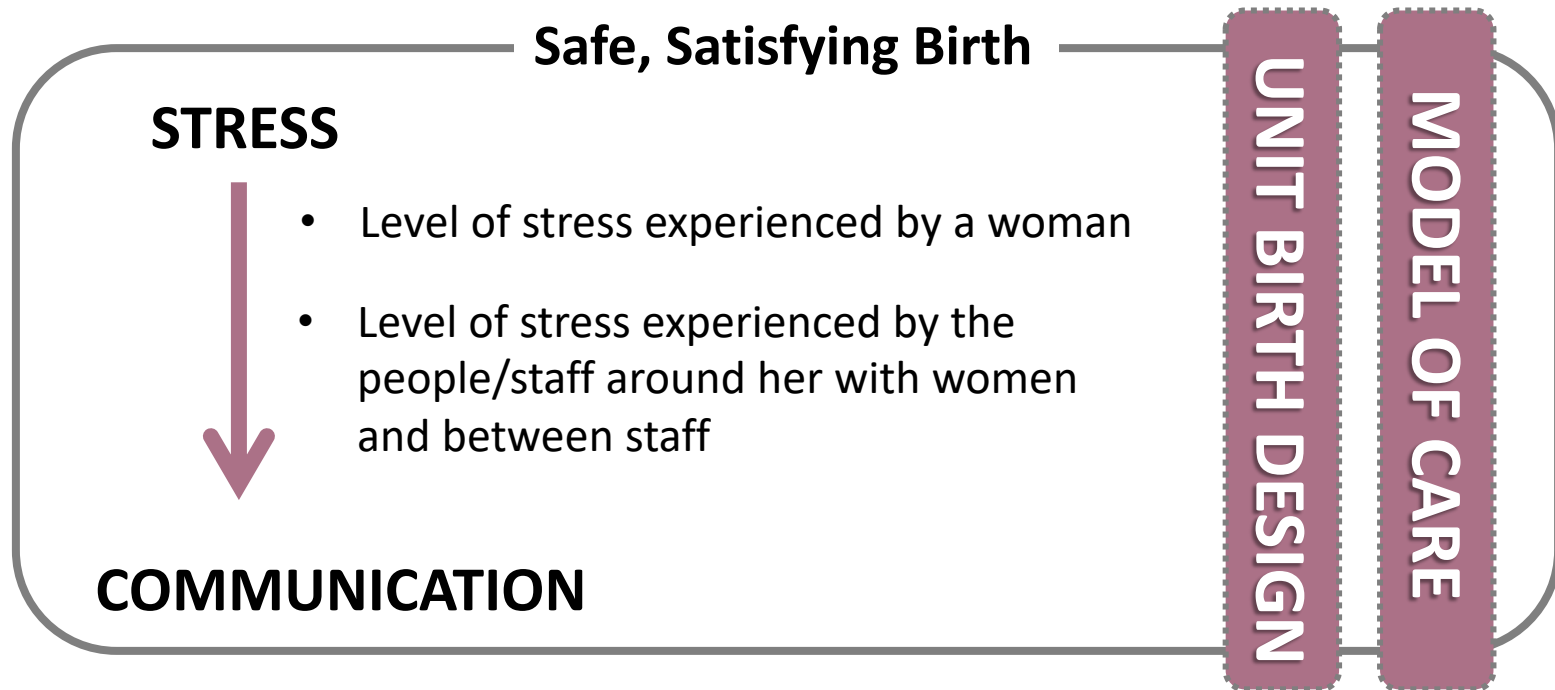


An 'ecological perspective'



What about birth places?

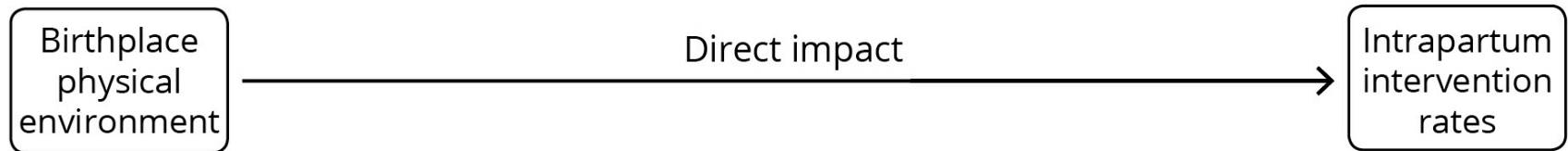
The role of birth design



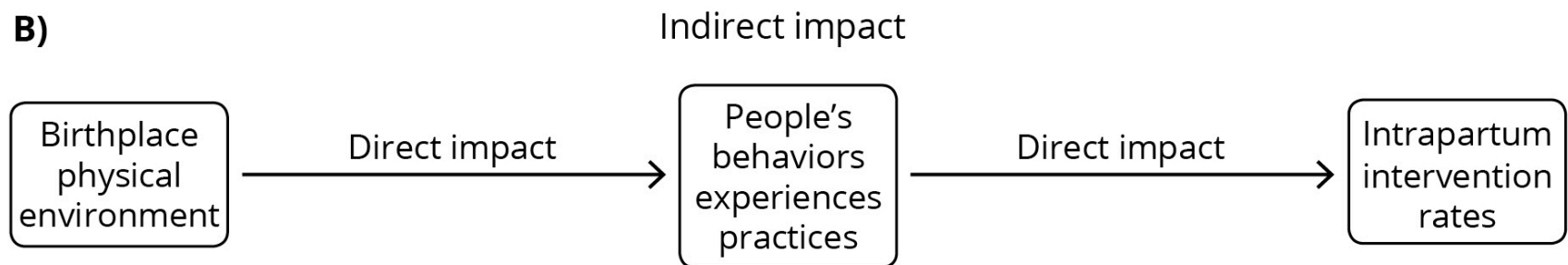
Fourer et al., 2010

The impact of birth environment

A)



B)

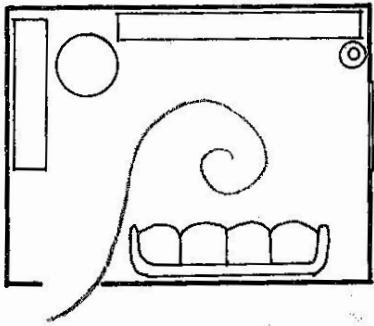


Setola et al., 2019

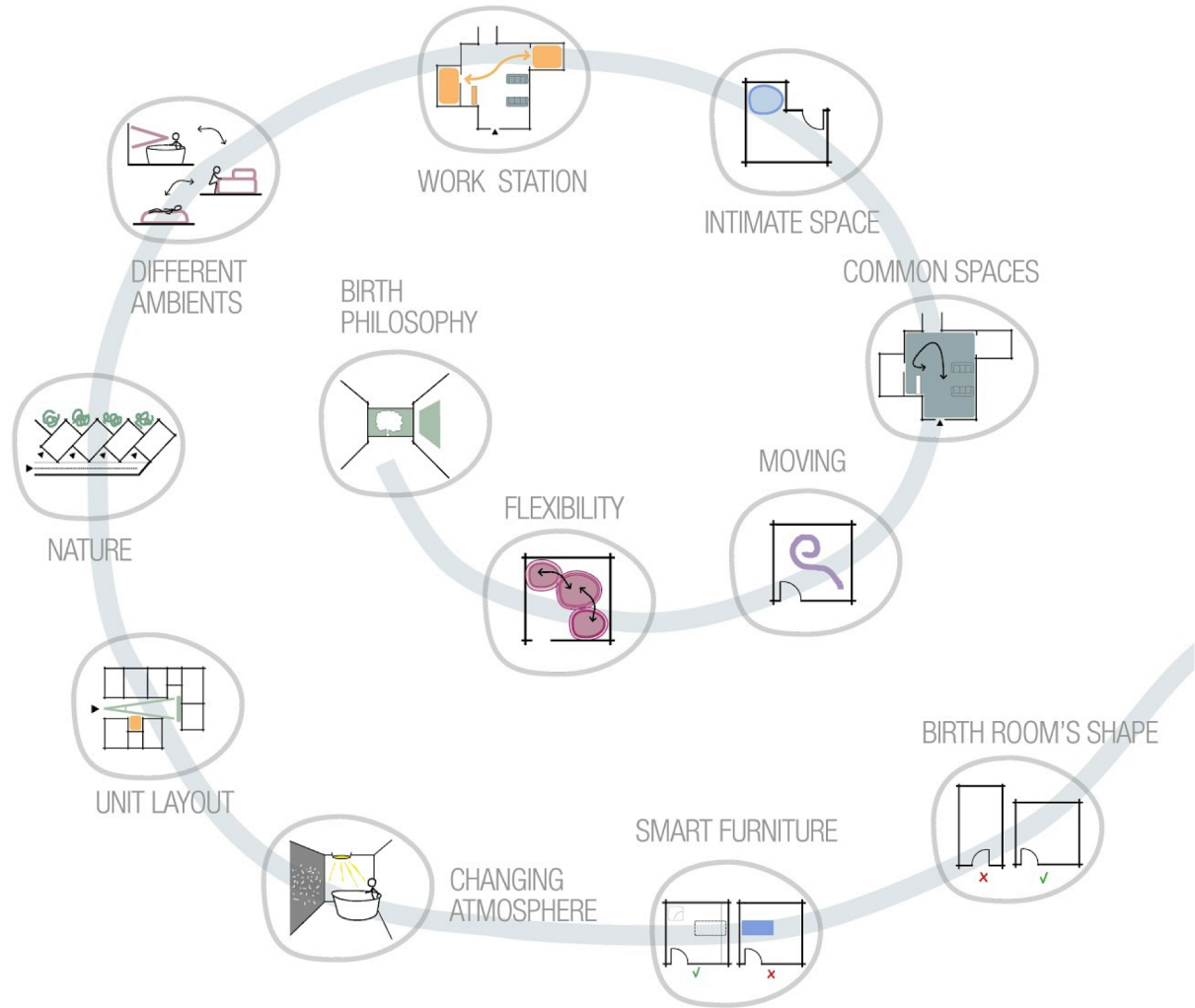
Setola N., Naldi E., Cocina G.C., Bodil Eide L., Iannuzzi L., Daly D. (2019) 'The impact of the physical environment on intrapartum maternity care. Identification of eight crucial building spaces'. *Health Environments Research & Design Journal*, vol. 12, pp. 67-98

Optimal birth environment

lots done - more to do



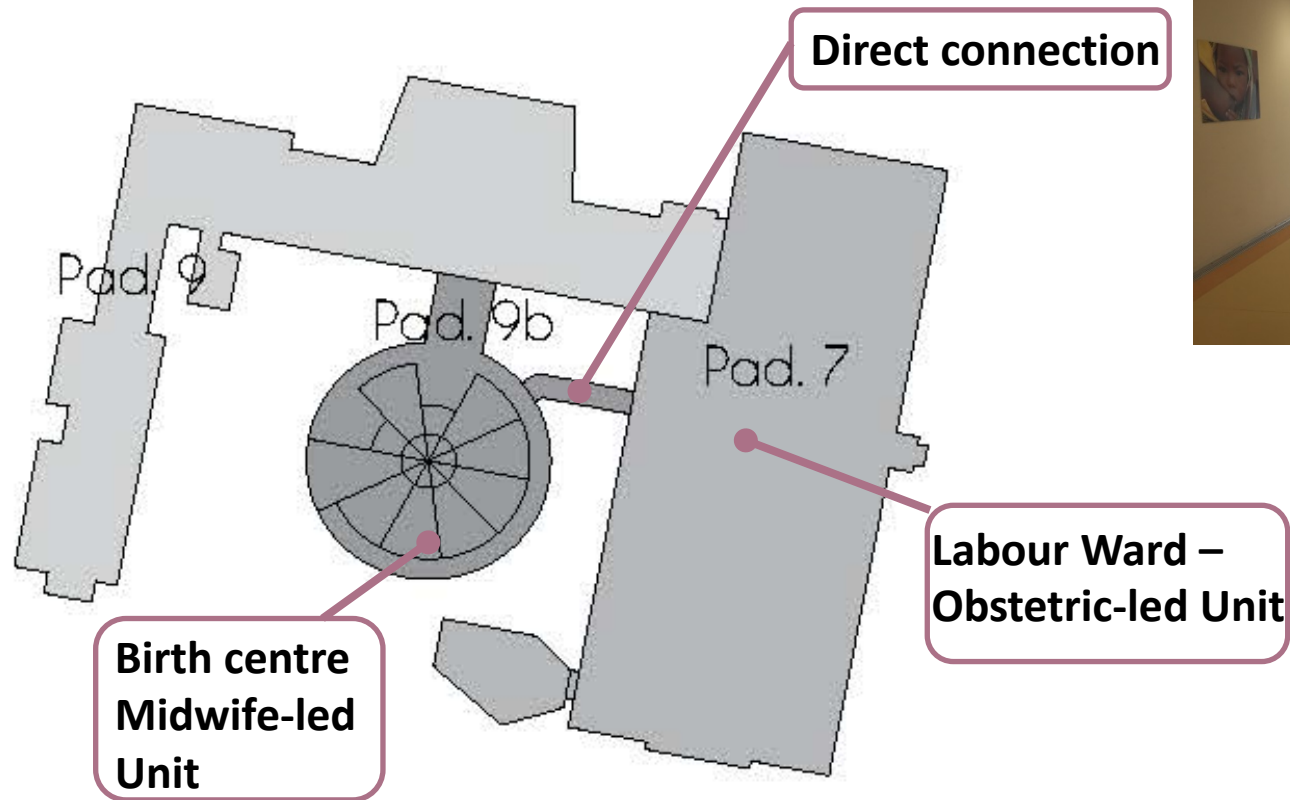
Bianca Lepori 1992



Setola, Naldi, Cocina, 2018

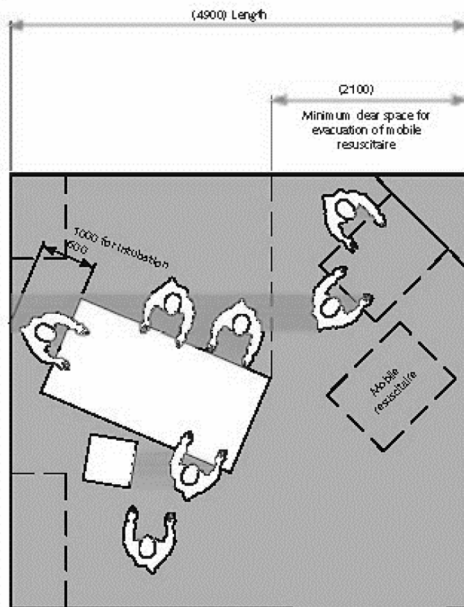
Safety and “feeling safe”

1. Location of birth setting

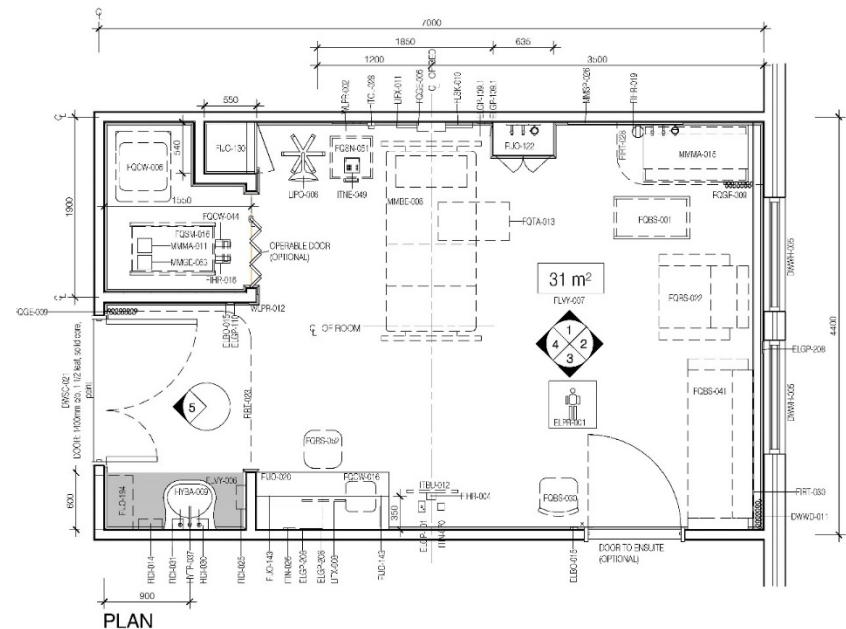


e.g. Margherita Birth Centre at the Careggi Teaching Hospital, Florence, Italy

2. Suitable space in the room for emergency procedures



UK Department of Health.
(2013) *Health Building
Note 09-02: Maternity care
facilities.*



AU Health Facility Guidelines. (2017)
HPU 510 – Maternity Unit.

2.2-2.9.3 LDR and LDRP Rooms

2.2-2.9.3.1 Capacity. Each LDR or LDRP room shall be single occupancy.

2.2-2.9.3.2 Space requirements

* (1) LDR and LDRP rooms shall have a minimum clear floor area of 325 square feet (30.19 square meters) with a minimum wall width at the head of the bed of 13 feet (3.96 meters). This clear floor area includes an infant stabilization and resuscitation space with a minimum clear floor area of at least 40 square feet (3.7 square meters).

- (a) The infant stabilization and resuscitation space shall be an area in the room that is distinct from the mother's area.
- (b) Where a crib and a reclining chair for a support person are provided in the LDR or LDRP room, additional space to accommodate them shall be included.

USA FGI (2018) Guidelines for Design and Construction of Hospitals

3. Access to drugs, medical high technology care, first aid emergency



Traditional Hospital Labour-birthing rooms

4. Hiding emergency medical equipment within furniture



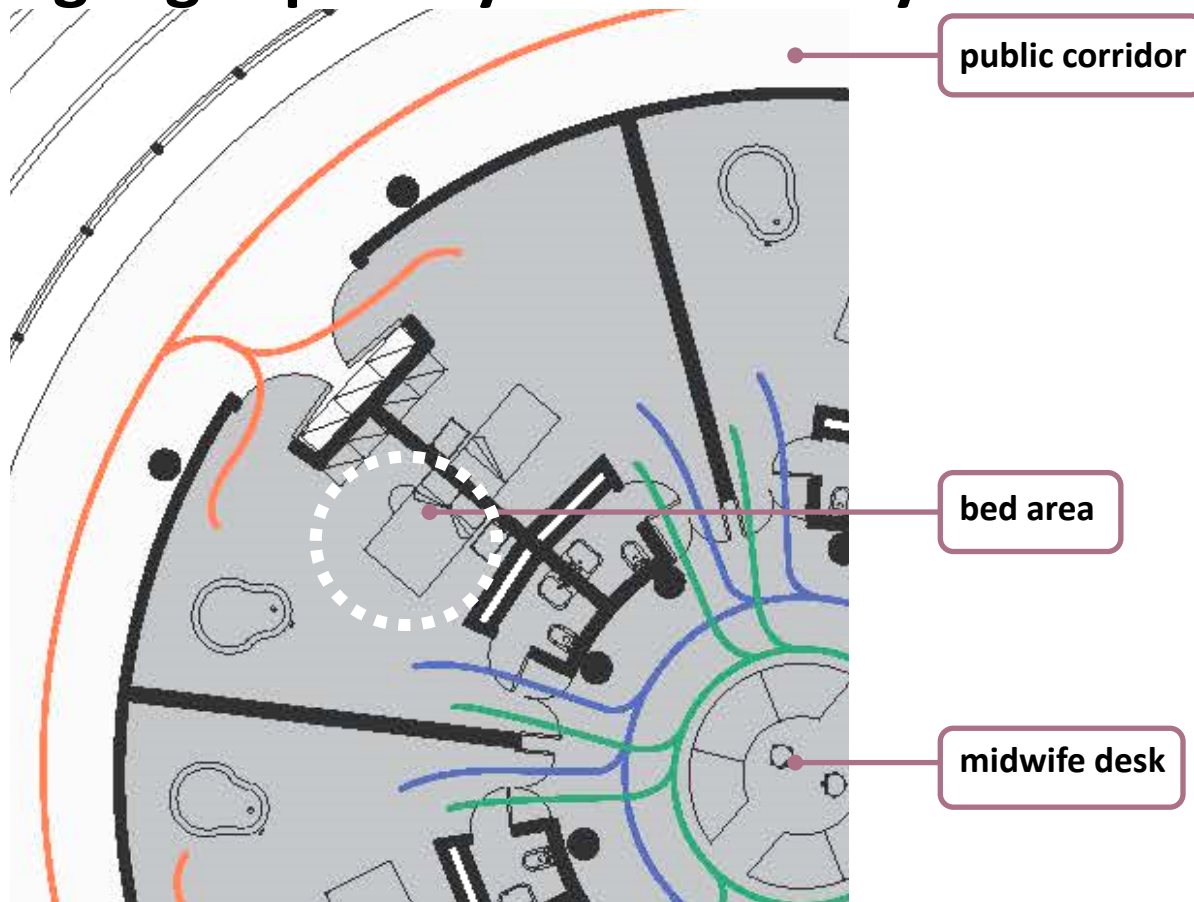
Emergency oxygen

Electrical system



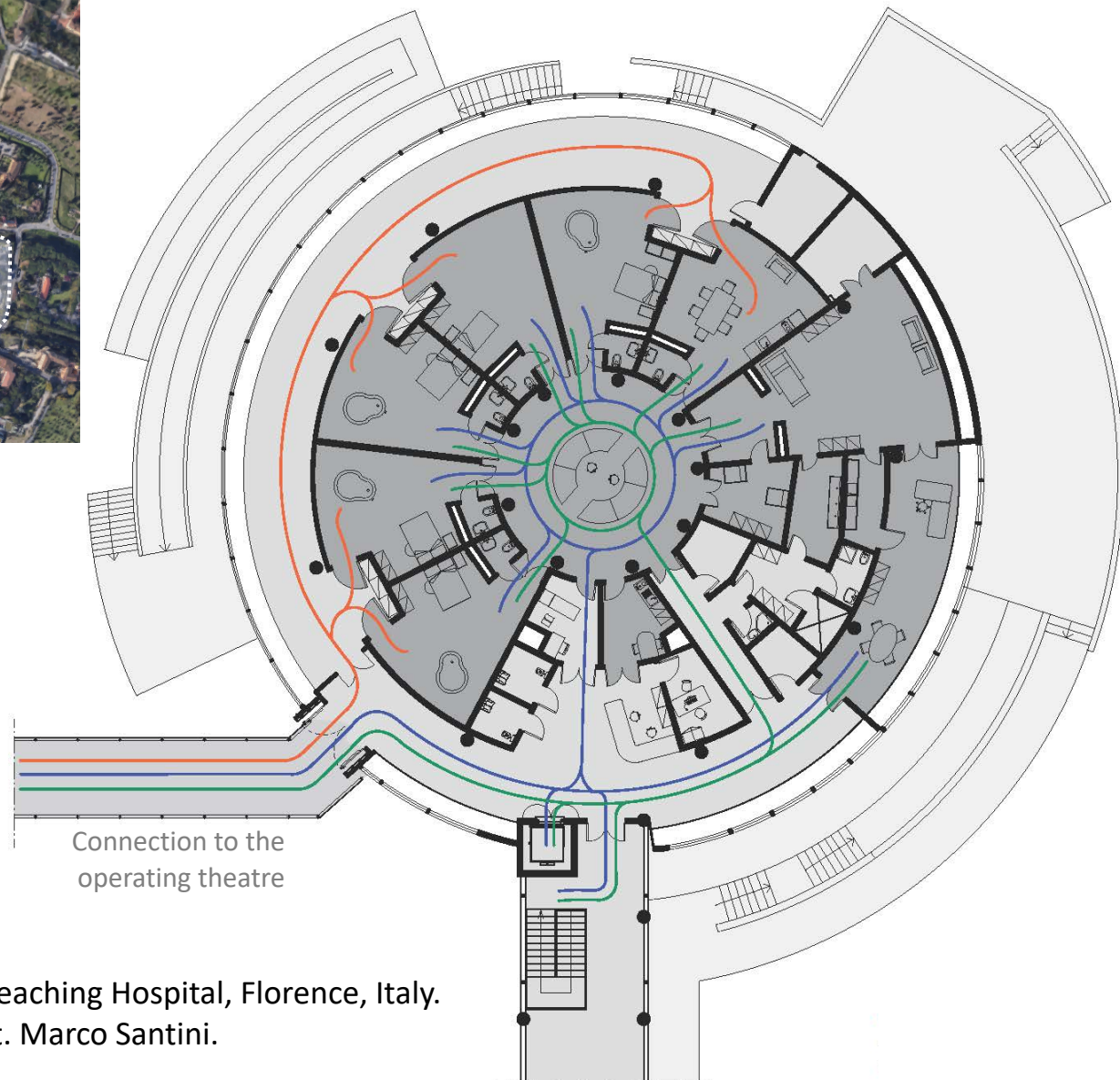
Margherita Birth Centre at the Careggi Teaching Hospital, Florence, Italy

5. Not only location of bed, but use of spaces to highlight privacy and intimacy



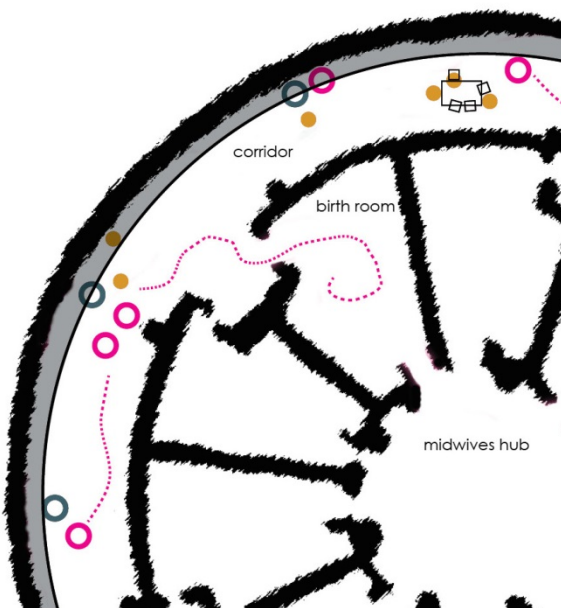
Margherita Birth Centre at the Careggi Teaching Hospital, Florence, Italy

Safety and “feeling safe”

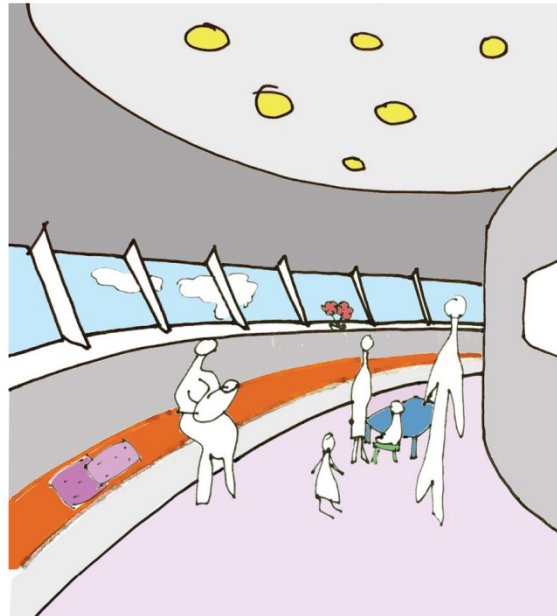


Margherita Birth Centre at the Careggi Teaching Hospital, Florence, Italy.
Designed by arch. Bianca Lepori and doct. Marco Santini.
Picture elaborated by Marta Levantesi

Safety and “feeling safe”



Setola, 2019

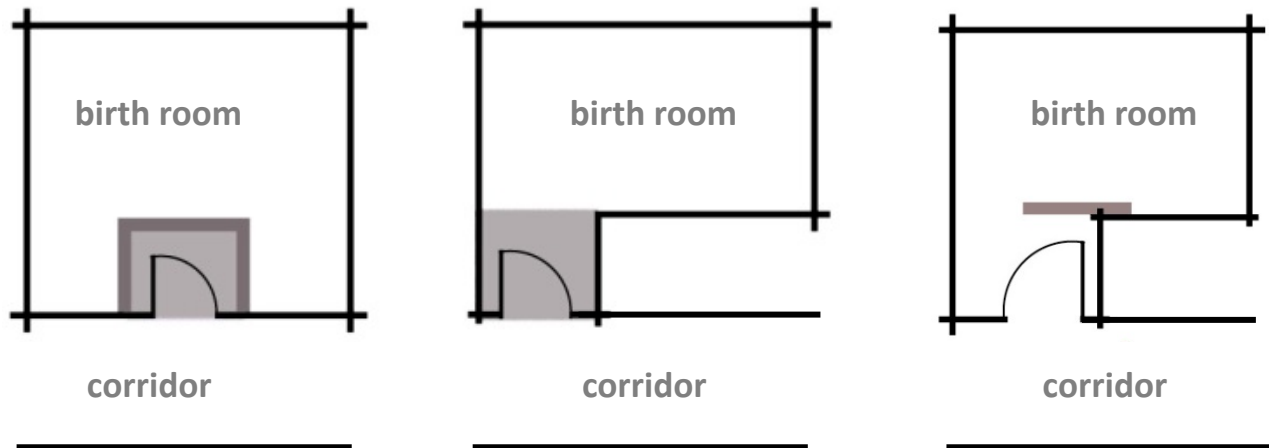


Corridor of the *Margherita Birth Centre* at the Careggi Teaching Hospital, Florence, Italy

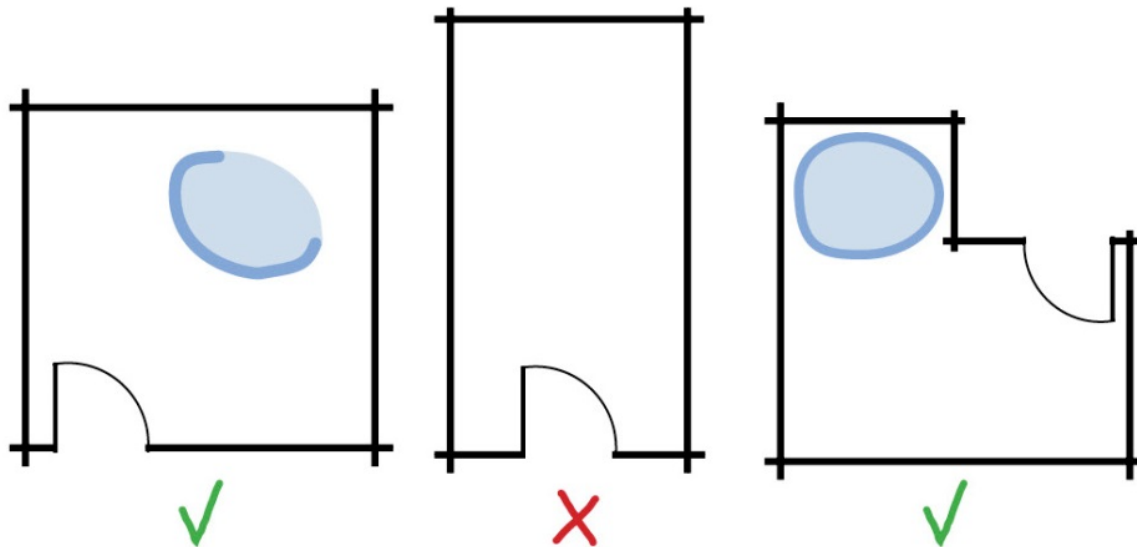


Shaa, Neel; Setola, Nicoletta (2019). Designing space and place of birth. In: Soo Downe, Sheena Byrom. Squaring the circle. Normal birth research, theory and practice in a technological age, pp. 219-230, London: Pinter and Martin

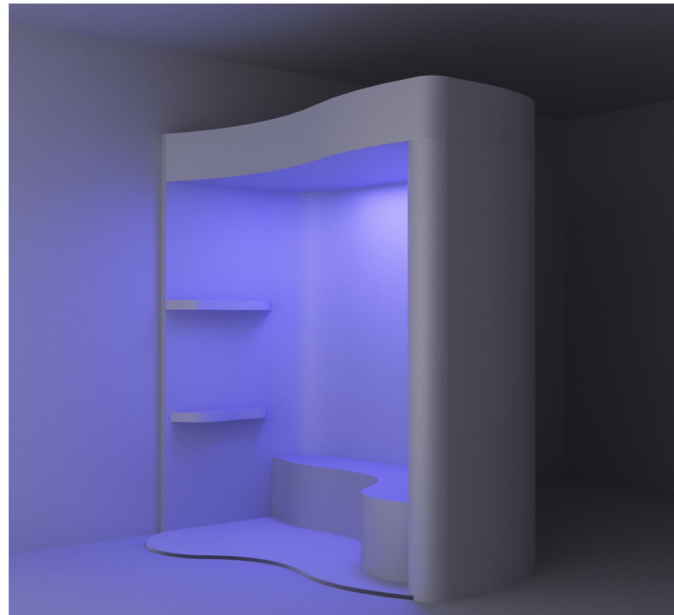
6. ‘Filter’ to create calm environment



7. Creating an intimate space

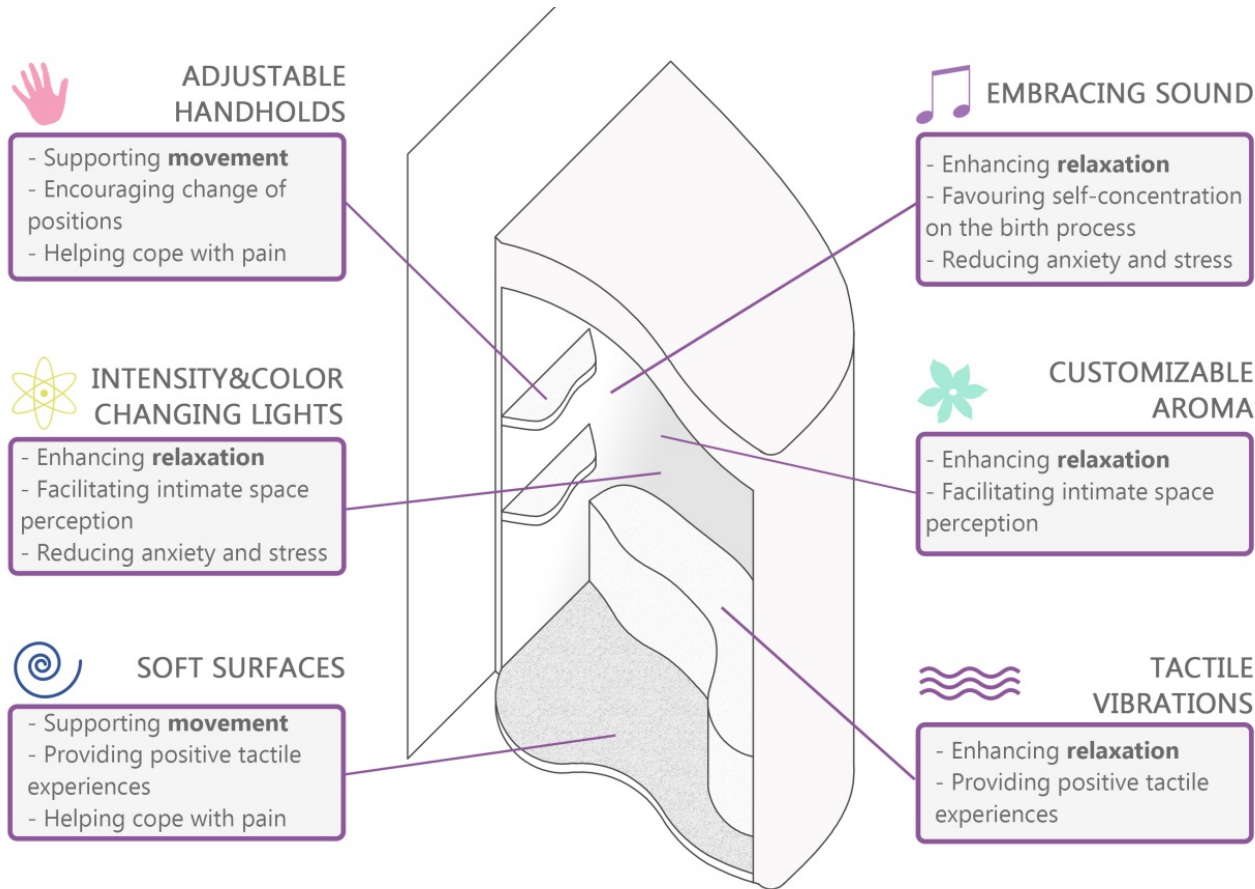


Sensory prototype to create an intimate space



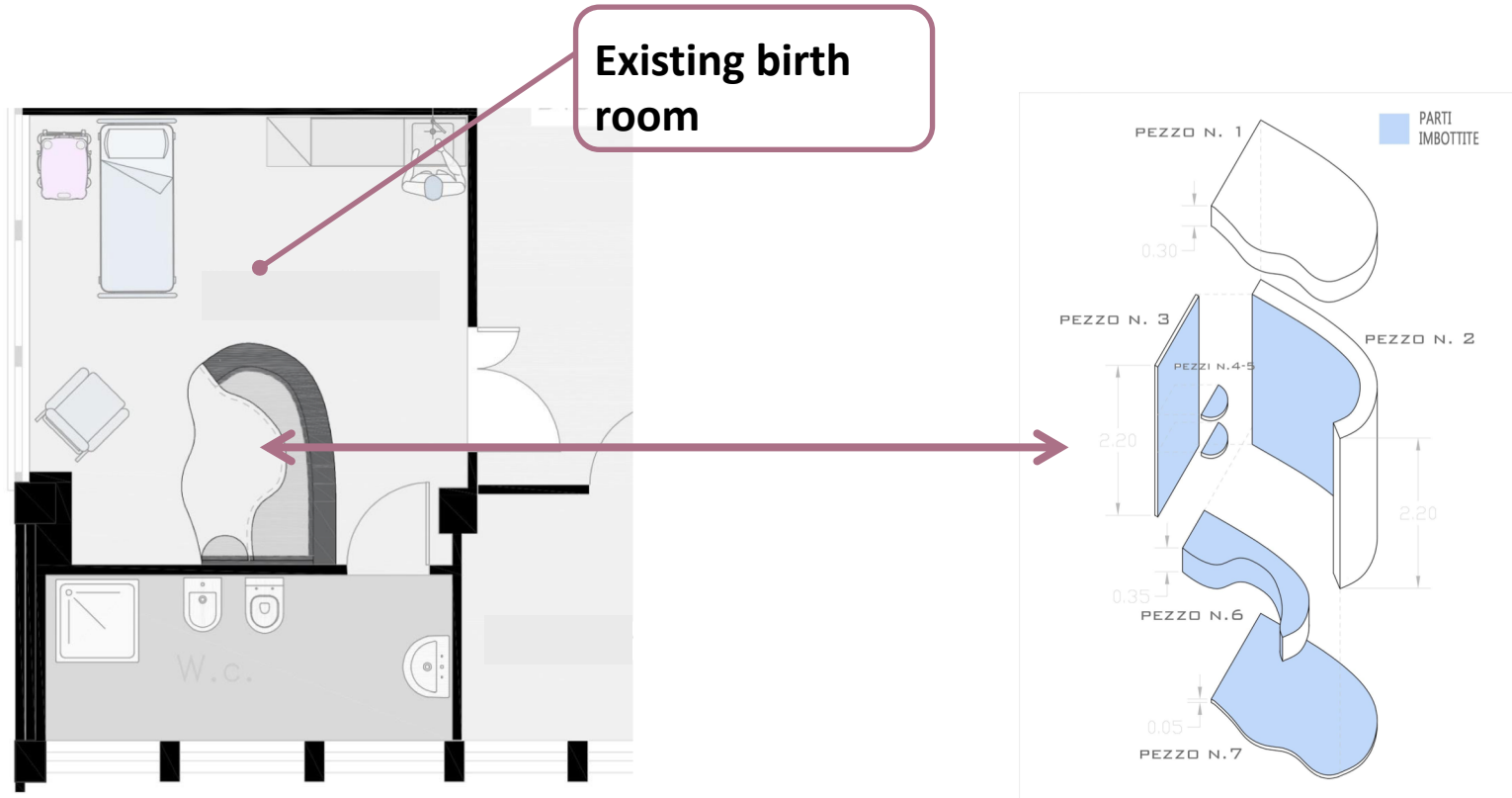
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Safety and “feeling safe”



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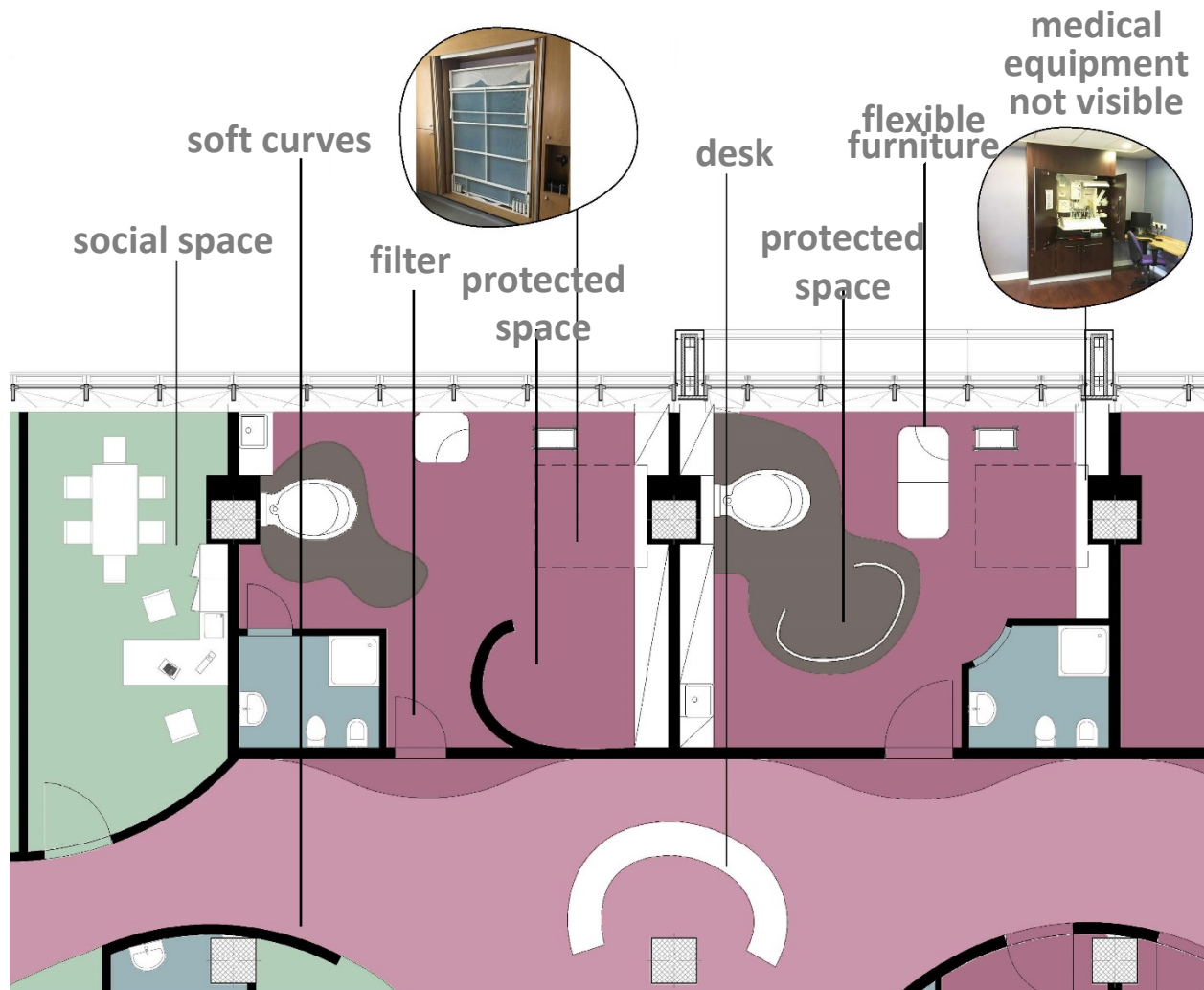
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Safety and “feeling safe”



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Transforming standard layout



Our work

Architects



Alessia Macchi,
Nicoletta Setola,
Eletta Naldi,
Grazia Cocina

Midwife



Laura
Iannuzzi



Improving birth environment in Italy



Transfer of knowledge



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SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

Azienda Unità Sanitaria Locale di Reggio Emilia
IRCCS Istituto in tecnologie avanzate e modelli assistenziali in oncologia

Presidio Ospedaliero Provinciale Santa Maria Nuova
Direzione Medica Arcispedale Santa Maria Nuova



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sud est
Servizio Sanitario della Toscana



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DI GENOVA



POLITECNICO
DI TORINO



European Midwifery Unit Standards 2018

Section «Facilities and
Environments»



GBDN
Global Birth Design Network



'Homelike' is where its safe

1. All places can be *re-designed* to feel like home, that is safe

2. Activate a co-design process is key

Listening users

What is *home* in different cultures?

3. 'Homelike' is more than smart comfortable furniture and beautiful colors

Idea of safety and feeling safe and protected

4. Safety is not only related to improve security, to 'make it safe'; in defining safety the users' perspective, the individual concept of '**feeling safe**' needs to be included

Setola N., Naldi E., Cocina G.C., Bodil Eide L., Iannuzzi L., Daly D.
**The impact of the physical environment on intrapartum maternity care.
Identification of eight crucial building spaces.**
Health Environments Research & Design Journal, vol. 12/2019, pp. 67-98

Setola, N.; Iannuzzi, L.; Santini, M.o; Cocina, G. G; Naldi, E.; Branchini, L.; Morano, S.; Escuriet Peiró, R.; Downe, S. **Optimal settings for childbirth.** MINERVA GINECOLOGICA, vol. 70/2018, pp.687-699

Shaa, Neel; Setola, Nicoletta (2019). **Designing space and place of birth.** In: Soo Downe, Sheena Byrom. Squaring the circle. Normal birth research, theory and practice in a technological age, pp. 219-230, London: Pinter and Martin

Thank you for your attention!

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