Introduction

1. Thematic background

In the wide and growing field of Islamic bioethics, over the last decades a great deal of academic attention has been given to the discussion of issues related to prenatal life, including birth control, abortion, the identification of foetal gender, egg freezing, in vitro fertilisation (IVF), etc. As argued by Thomas Eich, during the 1980s considerable efforts in reinterpreting Qur'anic verses in the light of modern science were the fruit of the rapid progress in reproductive medicine together with the growth of an "Islamic awareness".[1] This awareness was built upon the acceptance and assimilation of the ethical issues that should be addressed within a so-called Islamic framework. Mohammed Ghaly identifies two main approaches in studying Islamic embryology: the medico-philosophical approach based on biomedicine and its philosophical meanings and the religio-ethical approach inspired by two major sources – the Qur'an and the Sunna.[2] However, it is also important to remember how notable the role of physicians and their biomedical information was in helping Muslim scholars develop their opinions about Islamic embryology. Looking at many embryological discussions both within and outside the Islamic world by scholars from different academic backgrounds, I noticed a delimitation in the boundaries. Al-Mashriq and, accordingly, Mashriqi scholars receive the most attention in these studies, leaving the rest of the Islamic lands – largely al-Maghrib – in the periphery.[3]

Al-Maghrib was often perceived as inferior, and its scholars were not as valued for their achievements as the Mashriqis.[4] Protesting this injustice, Ibn Ḥazm of Cordoba wrote: "I am the sun shining in the spheres of the sciences, yet my fault is that I rise in the West."[5] And this was the initial

1 Eich 2008, 66.
2 Ghaly 2014, 158.
3 In the first chapter, I focus on the definition of al-Maghrib and al-Mashriq and explain the difference between these two denominations.
4 Fierro, Penelas 2021, 6–7. See also Ibn Khaldūn, *al-Muqaddima* (1967), II, 431.
5 (*Anā al-shams fī jaww al-ʿulūm munīra wa-lakin ʿaybī anna maṭlaʿī al-gharb*). Ibn Khayr, *Fihrist* (1998), 373.

impetus behind this thesis. Being aware of the Maghribi potential, I was very interested in knowing what al-Maghrib had to offer in the field of Islamic embryology. I of course do not seek to make a comparison between al-Mashriq and al-Maghrib, nor do I seek to search for equality between them; rather, I aim to dig deeper and widen the scope of the understanding of prenatal life in the Islamic West.

The study of Islamic embryology, I believe, should not be limited to Mashriqi contributions and should not disregard other distinguished efforts from the other Islamic lands. Particularly because of the "Islamic embryology" denomination, studies should cover all parts, schools of thought and periods. This work, therefore, is one step towards discovering a fundamental part of Islamic embryology and is an effort to shed light on the medieval Andalusi and Maghribi contributions in this field by introducing Abū Bakr Ibn al-ʿArabī (d. 543 H/1148 CE) and Qāḍī ʿIyāḍ (d. 544 H/1149 CE), and studying their hermeneutics.

2. Review of the literature

Islamic embryology is a field that has recently begun to gain traction. Called the "go-to text" by Sara Verskin,[6] Basim Musallam's "The human embryo in Arabic scientific and religious thought" is the first work to study the medieval Islamic approaches of the "one-seed" and "two-seed" theories, combining medical and Islamic religious texts.[7] In an earlier work, Musallam exposes the subject of birth control in medieval Islamic society. He addresses the practice of *coitus interruptus* and raises the issue of ensoulment and its relationship with abortion and the foetus being a human being based on legal, medical and literary sources.[8]

In her article "Islam as the inborn religion of mankind: the concept of *fiṭra* in the works of Ibn Ḥazm", Camilla Adang addresses the issue of the status of the foetus in the code of Ẓāhirī legal opinion – *al-Muḥallā bi-l-āthār* – and discusses how Ibn Ḥazm (d. 456 H/1064 CE) considered the foetus as a human being only after a four-month presence in the womb of its mother, when the afterlife and soul are breathed into it.[9] She also points

6 Verskin, 2020, 6.
7 Musallam 1990, 32–46.
8 Musllam 1983.
9 Adang 2000, 403–5.

out the Ẓāhirī position on the expiation (*kaffāra*) in cases of unintentional or deliberate miscarriage before the period of four months.

In a chapter dedicated to the issue of abortion in classical Sunni jurisprudence, Marion Holmes Katz scrutinises the different opinions regarding this act in the four Sunni schools of law, in particular, the debates within and among these schools.[10] She also discusses the criteria for considering a foetus a human being and establishes "the relationship between formal requirements and empirical evidence". As a case study, Katz chose al-Ghazālī (d. 505 H/1111 CE) to examine abortion more closely from a philosophical and mystical point of view.

In her study of Islamic alchemy in the tenth century CE, Paola Carusi focuses on embryological extracts from the third maqāla of the alchemical treatise Rutbat al-ḥākim, which, according to Carusi, is attributed to a traditionist named Abū al-Qāsim Maslama b. Aḥmad al-Majrīṭī (d. 964 H/353 CE).[11] While she sheds light on the Aristotelian philosophy present in the *Rutba* in the philosophical approach, in the Qur'anic approach, she focuses on two exegetes who were attentive to the dialogue and conflict between philosophy and religion, namely Fakhr al-Dīn al-Rāzī (605 H/1209 CE) and Ibn Taymiyya (d. 728 H/1328 CE), and their commentaries on the Qur'anic verses about embryonic life.

In *Islamic Bioethics: Problems and Perspectives*, Dariusch devotes a chapter to abortion. He draws attention to the time difference between the two versions of the ensoulment ḥadīths (one hundred and twenty days and forty to forty-five days or nights) and illustrates the opinions concerning aborting before and after the ensoulment.[12] He begins with the Ḥanafīs, showing that a part of the scholars accept abortion before ensoulment, with or without a valid justification. On the other hand, the remainder insist on the reprehensibility of this act, accepting it only in cases with a valid reason.[13] Subsequently, Atighetchi provides an analysis of al-Ghazālī's opinion and argues that, apart from al-Ghazālī, the Shāfiʿī majority allows abortion after forty or forty-two days. As for the Ḥanbalīs, some of them tolerate abortion within the first forty to forty-five days from fecundation, whereas others prohibit it once the embryo is solidified. Atighetchi introduces Ibn al-Jawzī's (d. 597 H/1201 CE) view, which prohibits abortion

10 Katz 2003, 25–50.
11 Carusi 2005, 171–88.
12 Atighetchi 2007, 91–133.
13 Ibid., 95.

from conception onwards. He then moves on to the Sunni school with the strictest view on this issue, i.e., the Mālikī *madhhab*, most of whose scholars argue for the prohibition of abortion even during the first forty days. Atighetchi does not limit himself to the four Sunni schools of law; he also includes the positions of the Ẓāhirīs, Zaydī Shīʿīs, Jaʿfarī or Imāmī Shīʿīs and Ibāḍīs.

In a scientific and philosophical approach, Carmela Baffioni follows a chronological order to trace the embryological evolution and modification from one period to another, striking a balance between Greek heritage and Qur'anic evidence. The first study period lies between the eighth and tenth centuries CE and the second between the eleventh and thirteenth centuries CE. She underlines the influence of the Aristotelian and Hippocratic/Galenic theories on the Islamic understanding of embryonic life. In addition, she compares the Muslim scholars who generally adopted the Hippocratic theory before the ninth century CE. Yet, with the appearance of one of the most innovative physicians and philosophers of the time, Abū Bakr al-Rāzī (d. 313 or 323 H/925 or 935 CE), the Aristotelian position became prevalent.

The idea of the sleeping embryo (*al-rāqid*) is found in Araceli González Vázquez' article. She limits the geographical area of where this idea is accepted to the north of Morocco, with her approach being sociological, based on ethnographic data collected in the same place. However, she links the strong presence of this idea in Morocco, and al-Maghrib in general, to its strong formulation within the Mālikī school of law.[14]

Mohammed Ghaly extensively examined the consequences of Islamic society's reception of Greek works in medicine and biology in different disciplines, especially Islamic law (*fiqh*).[15] He sheds light on the works of five Muslim jurists during the thirteenth and fourteenth centuries CE on human embryology, with a special focus on the Mālikī Shihāb al-Dīn al-Qarāfī (d. 684 H/1285 CE) and the Ḥanbalī Ibn Qayyim al-Jawziyya (d. 751 H/1350 CE). He quotes Ibn al-ʿArabī and Qāḍī ʿIyāḍ with regard to the Ibn Masʿūd's tradition.[16] In another study on pre-modern Islamic

14 González Vázquez 2008, 167.

15 Ghaly 2014, 158–208.

16 A key reference in the ensoulment debate, it reads: "One of you, his creation is gathered in his mother's womb for forty days, after which it becomes a clot of blood (*ʿalaqa*) likewise. Then it becomes a lump of flesh (*muḍgha*) likewise. Later the angel is sent to him, and breathes into him the soul (*rūḥ*), and the angel is ordered to write

medical ethics and Graeco-Islamic-Jewish embryology, Ghaly examines the reception of Greek embryology by Muslim jurists.[17] He traces the reception of Hippocratic ideas by Muslim physicians like the Persian polymath Ibn Sīnā[18] (d. 428 H/1037 CE), Jewish physicians such as Ibn Jumayʿ (d. 594 H/1198 CE) and the emblematic medieval thinker, the Andalusi Maimonides (d. 600 H/1204 CE). Ghaly then follows the way in which two medieval Muslim jurists, al-Qarāfī and Ibn al-Qayyim, received these Graeco-Islamic-Jewish embryological opinions and how they understood and commented on them.

In *Conceiving Identities*, Kathryn M. Kueny explores the ideas of Muslim medieval scholars about women's reproductive power. In the first two chapters, through the analysis of different medieval exegetical works and medical treatises, Kueny studies the relationship between the Greek medical theories, namely the Hippocratic and Aristotelian, and the Qur'anic versions of human creation, delving into resemblance, heredity, sex differentiation, etc. Kueny examines in detail different Qur'anic passages about the extraordinary circumstances of Mary's pregnancy, especially the nature of the breath and its role in reproduction. In addition, Kueny dedicates one part of her work to the explanations given by medieval physicians of the causes of miscarriage, and another part to premature births, providing the example of the eight-month-old child.[19]

The in-depth academic attention that Islamic embryology has received can be attributed to Thomas Eich. "Induced miscarriage in early Mālikī and Ḥanafī fiqh" is a comparative study between the Mālikī and Ḥanafī interpretations of embryogenesis and their position on induced miscarriage.[20] In this study, Eich makes several observations about the ensoulment ḥadīth and about the Ḥanafī position *vis-à-vis* the induced miscarriage that is not punishable before the one hundred and twenty days following conception. He quotes Ibn al-ʿArabī, who did not mention Ibn Masʿūd's tradition in any of his embryological discussions in his exegesis, while Abū ʿAbd Allāh al-Qurṭubī introduced it as an englobing of all the various traditions of ḥadīth material. Eich also discusses the issue of whether the pregnant

down four words: his sustenance, his time of death, his deeds and his fortune and misfortune."

17 Ghaly 2014, 49–58.

18 Latinised as Avicenna. See Goichon, *EI²*, https://doi.org/10.1163/1573-3912_islam_COM_0342 accessed 10 June 2024.

19 Kueny 2013, 19–77.

20 Eich 2009, 302–36.

woman can menstruate or not in Mālikī and Ḥanafī *fiqh* texts. In his work *al-Qabas* in the chapter on *coitus interruptus*, and with a special focus on Ibn al-ʿArabī, Eich demonstrates how Ibn al-ʿArabī endowed the embryo with protection rights that "would have a decisive influence on that legal tradition [for] over 800 years."[21]

Furthermore, in his article "The term *nasama* in ḥadīth with a focus material about predestination and the unborn", Eich analyses the use of *nasama* in ḥadīth material with a special emphasis on two traditions: one on the authority of ʿAbd Allāh Ibn ʿUmar and the other on the authority of Mālik Ibn Anas.[22] His analysis of the term *nasama* is carried out in two different semantic fields: in connection with Adam and relating to *coitus interruptus*. Eich also deals with the idea of the creation of souls before time and the concept of the pre-existence of souls. Another contribution of Eich in the field of Islamic embryology is his paper entitled "Patterns in the history of the commentation on the so-called ḥadīth Ibn Masʿūd", where he examines the Ibn Masʿūd's ḥadīth.[23] He shows that even after the stabilisation of the ḥadīth material in the collections, the wording of the ḥadīth continues to develop and change. In a diachronic approach, Eich highlights the impact of two iconic Sunni ḥadīth commentators, Ibn Ḥajar al-ʿAsqalānī (d. 852 H/1449 CE) and Yaḥyā Ibn Sharaf al-Nawawī (d. 676 H/1277 CE), on later commentaries, evidently within the framework of the prenatal life. In addition, Eich underlines important changes connected with the commentaries on Ibn Masʿūd's ḥadīth that have been witnessed since the second half of the nineteenth century CE. Eich links this development of the commentary tradition to the control of ḥadīth scholars and the influence of modern medicine.

Just as the role of Ibn Masʿūd's ḥadīth is pivotal in understanding the conceptualisation of the unborn in Islam, the ḥadīth of Hudayfa Ibn Asīd is also considered fundamental. Eich therefore devoted an extensive study to "The Topos of the Unborn in Early Islamic Predestination Debates: A Study of the *hadīth* of Hudayfa Ibn Asīd in *Sahīh* Muslim".[24] Eich also goes back to the late antiquity debates about the unborn. After presenting a large amount of biographical material, he then analyses three parts of the ḥadīth *matn*: the framing story, followed by the part describing the

21 Ibid., 333–34.
22 Eich 2018, 21–47.
23 Eich 2018, 137–62.
24 Eich 2021, 5–57.

angel and the physicality of the unborn, and finally the part relating to the predestination. Additionally, Eich examines the specific arrangement of the prophetic traditions and their variants at the beginning of *Kitāb al-qadar* in Muslim's Ṣaḥīḥ and its effects. Lastly, he demonstrates how, in the first centuries of Islamic history, Muslim held that the tripartite *nuṭfa-ʿalaqa-muḍgha* together lasted forty days and that the ensoulment was on the fortieth day. The idea of one hundred and twenty days only became widespread among Muslim religious scholars after Muslim's lifetime.

Ultimately, Eich turns his focus to the Mālikī perspectives on abortion.[25] He discusses the premature loss of the unborn from a legal point of view, especially in the case of divorce. In light of the importance of the determination of the nature of the substance lost by the woman, Eich shows how the Mālikī law relies on the woman's testimony about her bodily functions as well as the testimony of expert midwives, and how this determination of the nature of the expelled entity does not rely on visible criteria such as human shape or the appearance of limbs. He explains, therefore, why, in early Mālikī legal discussions, the ensoulment did not gain much attention because there was a greater focus on foetal development. Following this, Eich compares two different Mālikī positions toward the *nuṭfa* and the protection rights of the unborn at this stage. On the one hand, a group of Mālikī jurists – among them the traditionist Abū al-ʿAbbās al-Qurṭubī (d. 656 H/1258 CE) – conceptualise the *nuṭfa* stage as a phase where the man's semen does not merge with the woman's, and accordingly argue that protection rights must start from the *ʿalaqa* phase. On the other hand, jurists such as Abū Bakr Ibn al-ʿArabī insist on protection rights at a much earlier stage. Incidentally, the Mālikī opinion in the late twentieth century was more inclined towards Ibn al-ʿArabī's position.

In her recent insightful and comprehensive work *Barren Women*, Sara Verskin addresses the legal, medical and ethical approaches to women's infertility in medieval Islamic societies and their implications. In the fourth chapter about the gynaecological theory in Arbo-Galenic medicine, Verskin follows the circulation of ideas and assumptions regarding women's anatomy and the female contribution to the embryo from the Hippocratics to Galen until reaching the Arabic medical literature. She describes the one-seed and two-seeds theories of reproduction and meticulously covers the

25 Eich 2021, 137–45.

medieval Islamic treatments offered by midwives and physicians to infertile women.[26]

3. The problem and the questions

To the best of my knowledge, there is, as of yet, no complete and detailed study about the conceptualisation of the unborn in the Islamic West. Few studies have dealt with the imagination of prenatal life where isolated cases and examples from Andalusi and Maghribi exegetical passages, commentaries, or legal rulings have been inserted. In addition to the geographical approach, the chronological approach does not seem to be properly framed within these studies. It therefore became clear to me that if this research, as initially perceived, was to have success, it should provide a comprehensive background of the Islamic embryological conceptualisation in a specific geographical area, i.e., the Islamic West, in a specific time frame, i.e., the twelfth century CE, through the lenses of Maghribi and Andalusi scholars.

I approached my inquiry with the following questions in mind: how did the Andalusi and Maghribi scholars read the embryonic passages? How did they accordingly interpret them in their exegetical hermeneutics (Qur'an exegesis and ḥadīth commentaries), and how did they infer their legal rulings in their legal hermeneutics? What sources, other than texts of Islamic normativity, were they using? Did the imagination of prenatal life progress from one generation of scholars to another in the Islamic West? How did the embryological exegetical ideas circulate in the scholarly milieu of exegetes and traditionists within the Islamic West boundaries?

4. Methodological aspects and structure

Hoping to answer the above questions, I follow these methodological steps: first, a detailed examination of primary sources – namely a Qur'anic exegesis, a legal commentary, and a ḥadīth commentary– is conducted for each case; this is then put into further context, analysed, and the cases compared between themselves and others to extract their characteristics and trace their impact. Undoubtedly, and in addition to the aforementioned sources, the foundational texts of Islam, i.e., the Qur'an and different collections

26 Verskin 2020.

of ḥadīths, are fundamental, together with a rich literature comprising historical sources, biographical books (*kutub al-tarājim*), bibliographical inventories (*kutub al-barāmij* and *al-fahāris*),[27] dictionaries and a large number of specialised secondary sources. In this analytical approach, methods vary between the analysis of the historical perspective of Islam in the Islamic West and the history of the development of the Islamic sciences, mainly *ʿulūm al-ḥadīth* and *tafsīr*, to a focalised systematic analysis of the sources and interpretation of the embryological approach, and a comparative analysis of the results within the Andalusi and Maghribi *milieus*.

This book is divided into three chapters. Chapter 1 is an extended introductory and contextualising chapter. It opens with a geographic overview of the Islamic West, dedicating a part to al-Maghrib and another to al-Andalus. The second part of this chapter provides an outline of the relevant historical events between the eleventh and twelfth centuries CE in the area being studied. The last part includes a survey of the Qur'anic verses and prophetic traditions dealing with prenatal life. Furthermore, it discusses the Greek medical theories of generation.

Chapter 2 examines the conceptualisation of the unborn in Abū Bakr Ibn al-ʿArabī's oeuvre. The biographical prelude provides a detailed study of his life. It also focuses on his journey (*riḥla*) to the East and its importance in shaping his scientific personality and developing his intellectual background. Finally, it presents Ibn al-ʿArabī's works that will be used in the analytical embryological part of the study. This is later subdivided into three main parts following the chronological order of the date or period of the work's composition. It begins with Ibn al-ʿArabī's Qur'anic exegesis, known as *Aḥkām al-qur'ān*, before moving to the legal commentary entitled *al-Qabas fī sharḥ Muwaṭṭa' Ibn Anas*, and then finishes with a ḥadīth commentary, i.e., *ʿĀriḍat al-aḥwadhī bi-sharḥ sunan al-Tirmidhī*. After examining these abovementioned works, I provide an analysis of the different passages in which the prenatal life (in its different facets, ranging from the length of gestation period to sex differentiation, to *coitus interruptus*, to ensoulment, etc.) is discussed and emphasise the synergetic relation between embryology and the diverse practical legal implications and decisions (in cases such as the waiting period, the *umm walad* status, the blood money, etc.) observed in the material. In this way, I trace the evolution of Ibn al-ʿArabī's ideas from one work to the next.

27 *Kutub al-barāmij wa-l-fahāris wa-l-maʿājim wa-l-athbāt* are bibliographical dictionaries that focus on the transmission of works in different disciplines.

Chapter 3 presents Qāḍī ʿIyāḍ's life and scholarship before examining the embryological material in his ḥadīth commentary, *Ikmāl al-muʿlim bi-fawā'id Muslim*. In addition to examining Qāḍī ʿIyāḍ's conceptualisation of embryonic life and his readings of selected prophetic traditions, this chapter aims to find similarities and differences between him and his teacher, Ibn al-ʿArabī, and to follow the evolution of the conceptualisation of the unborn between two emblematic scholars of the Islamic West.

5. Notes on translation, transliteration and dates

I have chosen to keep the terms *nutfa*, *ʿalaqa, muḍgha* and *umm walad* in their Arabic original due to interpretive choices that might underlie any translation. All Arabic words are transliterated, apart from those that have become familiar to most readers. I have not transliterated these familiar words and spell them as follows: Qur'an, Qur'anic, Maghribi, Mashriqi and Andalusi. Years and centuries are given according to the Gregorian calendar (CE = Common Era) together with *Hijrī* dates (AH or, commonly, H = *Anno Hegirae*).