Roman Soldiers of the 1st Century – Armour and Tactics



Photo 1 - A typical battle formation of the 1st century B.C.¹

Introduction

When attempting to discover the background to Paul's analogy of "The Armour of God" in Ephesians chapter 6, we encounter a number of challenges. In the first place, written records describing what soldiers wore are relatively rare. Historians often have to rely upon archaeological excavations, statues and inscriptions on Roman civic sculptures such as the one shown here².

The second challenge we face concerns the fact that the precise details of armour worn changed over time and from one province to another. Paul wrote the letter to the Ephesians whilst imprisoned in Rome, around 62 A.D. Although he was continuously guarded by soldiers we have no idea if his armour analogy was based solely upon their equipment, entirely drawn from Old Testament imagery or (most likely) consisted of a mixture of both.

For example, consider the following passage from Isaiah:

Isa 59:17 NIV He put on righteousness as his breastplate, and the helmet of salvation on his head; he put on the garments of vengeance and wrapped himself in zeal as in a cloak.



Photo 2 - Section of Trajan's Column, Rome, showing the spiral friezes that represent the best surviving evidence of the equipment of imperial Roman soldiers

¹ Taken from <u>https://bossieraim.wikispaces.com/Roman+Empire</u> which operates under a Creative Commons licence {Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) <u>https://creativecommons.org/licenses/by-sa/3.0/</u>}, no changes made ² Photo of Trajan's column taken by Radomił Binek (<u>https://commons.wikimedia.org/wiki/User:Radomil</u>). It was found at <u>https://en.wikipedia.org/wiki/Imperial_Roman_army</u> (accessed on 22 Mar 2017) which is licensed under the <u>Creative Commons Attribution-Share Alike 3.0 Unported</u> license; no changes were made to the photo.

Here, Isaiah describes the armour that God puts on when he can find no justice, righteousness or truth amongst his covenant people. Clearly, Paul has based at least some of his "Armour of God" imagery on the Old Testament (OT).

The armour worn by a Legionary of the 1st century

Most scholars believe that Paul would have been most familiar with the kind of armour shown in the following images.





Photo 3 - Historical re-enactor wearing replica equipment of a Roman legionary about AD 75, standing in front of his contubernia's tent. Note the one-piece, short-sleeved tunic, Imperial Gallic G helmet, Corbridge A body armour, Pompeii-Type Gladius, pugio (dagger) on left hip and scutum or rectangular shield³

Photo 4 - Historical re-enactor wearing replica equipment of a late 1st-century centurion.⁴

However, some caution is required when transferring these shiny, re-enactment examples onto the Biblical text. Modern materials may not properly represent the condition of clothing and metalwork of the 1st century Roman army. Although polished, metalwork was more probably bronze or iron, and less bright and heavily decorated.

I strongly recommend the following video as an introduction to the armour of a Roman Legionary:

https://www.youtube.com/watch?v=darFb6k_QgI

 ³ Photo 3 is a self-published work by Medium69, CC BY-SA 3.0, <u>https://commons.wikimedia.org/w/index.php?curid=37082487</u>.
Found at <u>https://en.wikipedia.org/wiki/Imperial_Roman_army</u>, accessed on 22 Mar 2017
⁴ Photo 4 is a self-published work by Medium69, CC BY-SA 3.0, <u>https://commons.wikimedia.org/w/index.php?curid=37038101</u>.
Found at <u>https://en.wikipedia.org/wiki/Imperial_Roman_army</u>, accessed on 22 Mar 2017

Description of the elements of Imperial Roman armour

The following diagram names the various items of armour worn by the kind of soldier who would have been familiar to Paul. Notice that Paul does not refer to the spear, the dagger or to the loin protection hung from the *balteus*.

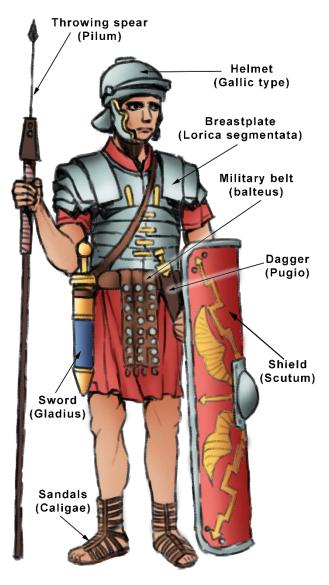


Figure 1 - Roman armour of the 1st century A.D., drawn by Stephen Sharples (Tees Valley Community Church)

Military belt

Made of strong leather, this held the scabbards for the Gladius and the Pugio. Scholars seem to have the greatest difficulty in matching this item with Biblical imagery (Snodgrass, 1996 p. 341ff). I suspect that the following quote from an Archaeologist may assist:

"... the belt to which the sword was fastened became a distinguishing feature of soldierly dress. It became **invested** with meaning to such an extend (sic.) that taking away the military belt of a soldier in public for hours or days was a humiliation used as a disciplinary measure by their superiors⁵. Taking away the military belt permanently after a capitulation or during a dishonourable discharge from the army seems also to have been practised⁶. The significance of the belt as a symbol of 'being a soldier' continued well into the late empire as is demonstrated by the symbolic act of Christian soldier-saints openly refusing to remain in the army by throwing off their military belt in public."⁷

Some scholars, not being familiar with the importance of the military belt, link Paul's imagery to that of Is. 11:5, which describes the nature of the promised Messiah, the Righteous Branch. However, the "belt" mentioned here is more likely to have been a costume accessory without the same level of symbolic importance. In addition, Isaiah's "belt" is linked to righteousness not to truth.

Can there be any doubt that Paul, chained as he was to a Roman soldier, would have known the symbolic importance of the military belt? Could it be that Paul is telling us that truth and integrity should distinguish the Christian from the rest of society, in the way that a soldier's belt marked him out?

The "belt of truth" comes first in the list of items mentioned, because, I would submit, Paul's audience knew how important a soldier's belt was to him. I would suggest this means that truth and integrity in our everyday walk as Christians, is *the* most important part of our armour. Whether the "truth" to which Paul refers is God's truth⁸, or our training in and practice of truth, is immaterial – in my view, both are implied. Arming ourselves effectively begins with knowing the truth and ends with our implementation of it in everything we do. The first line of defence in spiritual protection is truth in all its forms. The father of lies (Jn. 8:44), must hate it when we show integrity.

The obvious question that comes to mind is "how can something as small and so seemingly insignificant as a belt be so important a protective part of our armour"? There are two points to be made in answering this. First, when we

⁵ Livius, XXVII, 13, 9; Frontinus, *Stratagemata* IV, I, 26–27, 43; Valerius *Maximus* II, 7, 9; Plutarch *Luc*. 15; Suet. *Octavian* 24. ⁶ Herodotus, *Hist* II, 13, 8–10; Festus 104, *Codex Teodosianus* XII, 1, 181 §1.

⁷ Hoss, Stefanie (2011) "The Roman Military Belt", in: Koefoed, H., Nosch, M-L. (eds), *Wearing the Cloak: Dressing the Soldier in Roman Times (Ancient Textiles)*, Oxbow Books, ISBN-13: 978-1842174371, pp. 29-44. (emphasis mine)

⁸ His revelation of truth to us (through both Scripture and Spirit), our understanding of it, and His impartation of His standards and values within our hearts and consciousness, along with the ability to perform accordingly.

know the truth, we are less likely to fall prey to deception and are less easily duped. Every Christian should endeavour to delve into Scripture regularly and to the best of their ability. In addition, we should seek God at every turn, listening to His every prompting and asking constantly for His guidance and protection.

Secondly, the very fact that society knows, and comes to trust in our truthfulness, and sees how we act with integrity, makes them more likely to treat us differently. Our friends and colleagues are less likely to ask us to participate in things that would damage our faith. We're less likely to be asked to gamble, drink heavily, join in lewdness, or revel in debauchery, simply because our truth and integrity protects us from being asked! Simple really!

Breastplate

The *Lorica segmentata* shown in Photo 3 became the common torso armour worn by Legionaries in the reign of Emperor Tiberius, early in the 1st century A.D. It was probably only worn regularly in battle or on special occasions. Although it doesn't look exactly like the traditional breastplate that you might imagine, it was often referred to in this way. It replaced the more typical breastplate worn by the "Hastati" ⁹ a century earlier.

"Modern tests have shown that this *lorica* provided better protection to weapon-blows and missile-strikes than the other types of metal armour commonly used by Roman troops, chainmail (*hamata*) or scale (*squamata*), being virtually impenetrable by ancient weapons. However, historical re-enactors have found replicas of the *lorica* uncomfortable due to chafing and could only wear them for relatively short periods. It was also more expensive to manufacture and difficult to maintain due to its complex design of separate laminated strips held together by braces and hooks."¹⁰

"The 'breastplate of righteousness' is from Isaiah 59:17, which describes God's putting on armor to come in judgment. Paul was not writing about judgment, but the fact that the new being is created to be like God (Eph. 4:24). To put on the breastplate of righteousness means that Christians are to reflect the righteous character of God in their actions." (Snodgrass, 1996 p. 342)

Eph 4:24 NIV and to put on the new self, created to be like God in true righteousness and holiness.

Eph 5:8-9 NIV For you were once darkness, but now you are light in the Lord. Live as children of light (9) (for the fruit of the light consists in all goodness, righteousness and truth)



Photo 5 – One of the "Hastati", from the 2nd century B.C. They were the first line of melee infantry, who due to their relative wealth, were able to purchase superior weaponry.

Sandals

Photo 6¹¹ on the next page shows a close-up of the type of leather sandal worn by Legionaries in the Mediterranean region¹². The upper was made from a single piece of leather well-oiled or waxed to prevent decay. The sole was about 15mm thick, with metal studs on its underside. Rugged footwear like this meant that the rapid march

(https://commons.wikimedia.org/wiki/File:Caligae_with_nails.jpg), "Caligae with nails",

⁹ Photo 5 taken from <u>http://sites.psu.edu/successoftheromans/organization-of-the-roman-army/the-armies-of-the-roman-republic/</u>. Created by : Dan Stuckart; Eric Fritz; Travis Denham

¹⁰ Taken from <u>https://en.wikipedia.org/wiki/Imperial Roman army</u>, accessed on 23 Mar 2017

¹¹ Photo 5 – No machine-readable author provided. Matthias Kabel assumed (based on copyright claims).

https://creativecommons.org/licenses/by-sa/3.0/legalcode

¹² Laced leather boots were worn in the colder and harsher, Northern regions of the Empire.



Photo 6 - Caligae Photographed by Matthias Kabel during a show of [http://www.legioxv.org Legio XV from Pram, Austria]

required of Roman armies was possible over the roughest of ground. All ranks of Roman soldiers, from the less well paid *caligati* (lit: "sandalled men" – the basic foot soldiers) to the Legionaries wore this foot attire. They were hard wearing, and all soldiers were responsible for buying their own pairs.

When used in battle (the context of the passage in Ephesians), a soldier shod with these sandals did not need constantly to scan the ground for any traps that the enemy might place in his way. An enemy could be pushed away forcefully or kicked brutally with the caligae, possibly disabling him, at least temporarily.

Some caligae were equipped with toe spikes and/or heel spurs – imagine the damage that could be inflicted by those. In addition, the hob nails gripped the terrain effectively, helping the soldier to stand his ground (Eph. 6:11, 13, 14).

Many commentators quote the following verse as the OT root of Paul's illustration:

Isa 52:7 NIV How beautiful on the mountains are the feet of those who bring good news, who proclaim peace, who bring good tidings, who proclaim salvation, who say to Zion, "Your God reigns!"

However, the good news of which Isaiah speaks is addressed to the people of God, who are told "your God reigns". The good news isn't about salvation promised to outsiders, but to the way God intends to redeem the Nation of Israel – His covenant people:

Isa 52:8-9 NIV Listen! Your watchmen lift up their voices; together they shout for joy. When the LORD returns to Zion, they will see it with their own eyes. (9) Burst into songs of joy together, you ruins of Jerusalem, for the LORD has comforted his people, he has redeemed Jerusalem.

When we understand all of the above, we can see that the emphasis of Eph. 6:15, isn't so much "the gospel of peace" but the need for "readiness". Rather than being ready to share the gospel with non-Christians, Paul urges the soldier of Christ to be made ready by the way the gospel of peace has brought joy to his or her heart. When the peace of God replaces the turmoil of a sinner's heart with His indwelling comforter, they are made ready for the

trials of the battle to come. This part of the armour of God is less about our willingness to evangelise, and more concerned with how prepared and ready we are for the spiritual battle that lies ahead.

Shield

The Roman *scutum*¹³, was constructed in much the same way that laminated timber products are today. Two or three thin planks of wood were "cross-plied" and glued to form a cylindrical shape around 1.2 m high by 0.8 - 0.9 m across. The enemy-facing, convex surface was covered in painted leather or heavy canvass, and could be doused with water to extinguish the flaming arrows



Photo 7 - Roman shield (scutum) circa 70 A.D. There are three soldiers behind the shields. Photographed during a show of Legio XV from Pram, Austria

¹³ Photo 7 – No machine-readable author provided. Matthias Kabel assumed (based on copyright claims)., <u>Scutum 1</u>, <u>CC BY-SA</u> <u>3.0</u>

of the enemy. The edges of the shield might be made from bands of riveted bronze or stitched rawhide; both added to the overall strength of the shield.

Although normally a defensive item of armour, the *scutum* was also used offensively. During a charge, the Legionaries would run forward with outstretched, left arm, the edge of the horizontal shield acting as a formidable scythe aimed at the throats of the enemy (cf. Job 15:26). Alternatively, the scutum could be used in the vertical position to thrust, and push the enemy backwards. In addition, the central, iron or bronze *umbo* might be used to bludgeon the enemy.

Many OT passages reference God as being Israel's shield, but only a few link this with something akin to faith:

Psa 28:7 NIV The LORD is my strength and my shield; my heart **trusts** in him, and he helps me. My heart leaps for joy, and with my song I praise him.

Psa 115:9-11 NIV All you Israelites, **trust** in the LORD-- he is their help and shield. (10) House of Aaron, **trust** in the LORD-- he is their help and shield. (11) You who fear him, **trust** in the LORD-- he is their help and shield.

Paul's emphasis is on having faith (trust) in God to keep us from harm, and not upon the strength of our belief. Those whose faith is weak, are no less well protected than those who have unshakeable faith. However, we do need to exercise *some* level of faith, and exert ourselves to nurture it (cf. Eph. 1:19-20; 3:16-17). Without any faith at all, we cannot hope to please God and obtain protection beneath the shield of faith (Heb. 11:6). In other words it is the closeness of our relationship to God which is the decisive factor. The nearer to God we are, the less chance the devil has to sow doubt and the stronger our faith will become.

Whereas the *scutum* had an offensive capability, our faith as pictured here is purely defensive and is rooted in relationship. The image is of the shield raised heavenward as a protection against the flaming arrows rained down upon us by the spiritual forces of our enemy. Just as Paul does not identify what these arrows might represent, we are best to approach the image metaphorically rather than with a literal mind-set. That said –

"Because the Greek and Roman god of passion (called Eros and Cupid, respectively) was said to strike with flaming arrows, some of Paul's readers may have thought specifically of the temptation of lust in this verse, although, Paul probably intended the image to cover more than that danger (cf. Ps. 11:2; 57:4; 58:3-7; 64:3; perhaps 120:1-4; Prov. 25:18)." (Keener, 1993 p. 554)

Helmet

"In the Julio-Claudian era (30 BC- AD 69), it appears that soldiers continued to use the types of helmet used by the army of the Republic since about 250 BC: the Montefortino-type and Coolus-type. From about 70 AD onwards, these were replaced by more sophisticated designs, the so-called 'Imperial Italic' and 'Imperial Gallic' types."¹⁴



Photo 8 – A Roman Montefortino helmet (Archaeological Park Carnuntum)¹⁵



Photo 9 – Bronze Gallic helmet, Coolus-Manheim-type; From the region of Tongeren, Belgium; Now in the Musée du Cinquantenaire, Brussels.¹⁶

¹⁴ Taken from <u>https://en.wikipedia.org/wiki/Imperial_Roman_army</u>, accessed on 25 Mar. 2017

¹⁵ Photo 8 – User:Matthias Kabel (https://commons.wikimedia.org/wiki/File:Helmet_typ_Montefortino_01.jpg), "Helmet typ Montefortino 01", <u>https://creativecommons.org/licenses/by-sa/3.0/legalcode</u>. Image cropped, but otherwise unmodified ¹⁶ Photo 9 – Michel wal (https://creativecommons.wikimedia.org/wiki/File:Musée_Cinquantenaire_Celtic_helmet.jpg), "Musée Cinquantenaire Celtic helmet", https://creativecommons.org/licenses/by-sa/3.0/legalcode. Image cropped, but otherwise unmodified

These simpler helmet types were probably more common amongst Legionaries outside Rome when Paul was writing Ephesians. Rome, being more "advanced", probably adopted the more sophisticated "Imperial Gallic" helmets earlier than elsewhere. Therefore, it is likely that Paul (in prison in Rome) imagined that the "helmet of salvation" looked something like Photo 10^{17} – a lot less ornate and shiny than those of modern reenactors. The boss on the top of the helmet probably held feathers similar to those shown in Photo 5.

The helmet protected the head and neck from an enemy slashing with their sword in an attempt to severe the head from the shoulders. At times, a soldier's helmet was his only salvation if, for example, he had been knocked to the ground.

As with the "breastplate of righteousness", the OT roots of Paul's imagery is Is. 59:17. Once again, Paul alters the original meaning from that of God, in vengeance donning his war armour to bring salvation, in the form of justice,



Photo 10 – Imperial Gallic Helmet (Archaeological Park Carnuntum)

to His people. The plain import of the Ephesians image is that we, as believers, *put on* our salvation as a helmet.

Since Paul omits to identify the significance of the "head" which is protected by this helmet, we must not be too prescriptive. Many interpreters claim that knowledge of our salvation protects our minds, but this stretches Paul's imagery too far. In a parallel passage, Paul uses similar metaphors:

1Th 5:8-9 NIV But since we belong to the day, let us be sober, putting on faith and love as a breastplate, and the hope of salvation as a helmet. (9) For God did not appoint us to suffer wrath but to receive salvation through our Lord Jesus Christ.

Here Paul tells us to put on "faith and love" along with the "hope of salvation" (cf. the famous triplet of 1Cor. 13:13). It seems unlikely that Paul was referring merely to knowledge of our salvation when he pictured it as the helmet part of our armour.

Sword



Photo 11 – A Roman Gladius (Pompeii type)

The basic design of the Roman *Gladius* (Photo 11¹⁸ above) changed little over the centuries from its first use by the Roman army in around 250 B.C. It was a "simple" stabbing (as opposed to slashing) weapon about 460 mm in length, intended for close quarters combat. Used in conjunction with the *scutum* (shield) it proved highly effective against both infantry and cavalry units. Even though the shield, and toe-spiked sandals could be used to attack an enemy, the sword is the only truly offensive weapon listed by Paul.

In parallel with the writer of the book of Hebrews, Paul specifically identifies the sword as the "Word of God":

Heb 4:12 NIV For the word of God is alive and active. Sharper than any double-edged sword, it penetrates even to dividing soul and spirit, joints and marrow; it judges the thoughts and attitudes of the heart.

We should never underestimate the power of Scripture to demolish Satan's schemes. When Jesus was tempted in the wilderness (Mt. 4:1-11, Mk. 1:12-13 & Lk. 4:1-13) He defeated the Devil with nothing more powerful than three

 ¹⁷ Photo 10 – User:Matthias Kabel (https://commons.wikimedia.org/wiki/File:Helmet_typ_Weissenau_01.jpg), "Helmet typ Weissenau 01", https://creativecommons.org/licenses/by-sa/3.0/legalcode. Image cropped, but otherwise unmodified
¹⁸ (https://commons.wikimedia.org/wiki/File:Roman_gladius-transparent.png), "Roman gladius-transparent", rotated 45 degrees by Gordon Smyrell, https://creativecommons.org/licenses/by-sa/4.0/legalcode

Scriptures (Deut. 6:13; 8:3 & Ps. 91:11, 12). Truly, the sword of the Spirit penetrates (thrusts, stabs?) to the heart of our enemy's weaknesses. When we submit ourselves to God and draw near to Him in faith, we can see the Devil flee from us when we resist him with Scripture (cf. Jas. 4:7-8).

A number of Scriptures make the link between the sword, the Word of God and Jesus Himself:

Isa 49:1-2 NIV Listen to me, you islands; hear this, you distant nations: Before I [the Servant of the Lord – the Messiah] was born the LORD called me; from my mother's womb he has spoken my name. (2) He made my mouth like a sharpened sword, in the shadow of his hand he hid me; he made me into a polished arrow and concealed me in his quiver.

Rev 1:16 NIV In his [Jesus] right hand he held seven stars, and coming out of his mouth was a sharp, doubleedged sword. His face was like the sun shining in all its brilliance.

Rev 2:12-16 NIV "To the angel of the church in Pergamum write: These are the words of him [Jesus] who has the sharp, double-edged sword. (13) ... (16) Repent therefore! Otherwise, I will soon come to you and will fight against them with the sword of my mouth.

Rev 19:15 NIV Coming out of his [Jesus] mouth is a sharp sword with which to strike down the nations. "He will rule them with an iron sceptre." He treads the winepress of the fury of the wrath of God Almighty.

Once again, as with the sandals, we mustn't fall prey to interpreting the sword of the Spirit as a call to evangelism. All of the elements of the armour are to be used in the spiritual war in which we are engaged. Hence it is "against the rulers, against the authorities, against the world's rulers, of the darkness of this age, against the spiritual powers of evil in the heavenlies", that our armour is directed. Without doubt, evangelism has a place in throwing back the darkness of evil, but that is not Paul's *primary* intention for the Armour of God.

Military Tactics and "the Turtle"

All of the imperatives¹⁹ in Eph. 6:10-18 are plural not singular, i.e., the commands are addressed to everyone acting together rather than on their own. It is wrong to teach that the Armour of God is to be used individually – a mistake that will lead to spiritual vulnerability, even defeat. A Roman Legionary separated from his comrades was exposed to attack and was almost defenceless.

The Roman army became so strong and so feared because no individual Legionary fought by himself. In siege warfare, they formed into a near impervious formation called the *Testudo* (Latin for 'Tortoise'), an early example of which can be seen in Photo 1, and others in Photos 12 & 13.

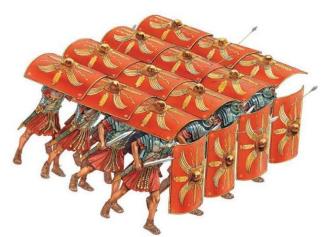


Photo 12 – an artist's impression of a Roman Testudo²⁰



Photo 13 – Re-enactors formed into a Testudo²¹

¹⁹ Such as "be strong", "put on", "stand firm" and "take"

²⁰ Taken from <u>http://www.realmofhistory.com/2016/11/11/10-roman-military-innovations-facts/</u>, *Image Credit: <u>GarretAJ</u>* (*DeviantArt*)

²¹ Taken from <u>http://geddon.org/Shield_wall</u>, which states that the content is available under GNU Free Documentation License 1.2. Accessed on 26 Mar 2017

As soldiers in the army of God, we need each other, and must train to resist our enemy as a united body of believers. The concept of a Christian who is not firmly linked into and securely joined to the "Temple of the Holy Spirit" (another plural image – 1Cor. 3:16-17; 6:19-20; 2 Cor. 6:16; cf. Eph. 2:21) is foreign to the clear teaching of Scripture (cf. Heb. 10:25). Without doubt, each individual Christian needs to "put on" their God-provided Spiritual armour, but that must be done in the context of church.



Photo 14 – Roman turtle formation on Trajan's column (National Museum of Romanian History)²²

We (emphasis on the plural) are called to:

- "be strong" (lit. "be empowered" [plural] Eph. 6:10) in the strength God gives us for the fight ahead;
- "put on" ([plural] Eph. 6:11) and "take up" ([plural] Eph. 6:13) the complete (Gk. *panoplian*) armour that God provides for His army to use;
- "stand firm" ([plural] Eph. 6:14) using the hob-nailed grip of our spiritual *caligae*, not simply that we ourselves don't fall, but so that the phalanx of brothers and sisters alongside us remains strong;
- "stand firm" with the belt of integrity and truth, resisting the sinful aspects of the culture God has placed us into;
- "take up" ([plural] Eph. 6:16) the shield and form a *testudo* over and around our fellow Christians;
- "pray" together (lit. "praying" [plural] Eph. 6:18) using the helmet and sword as we do so;

Is there a case for saying that this final instruction may well be another part of the armour of God in Paul's mind? When he mentions each piece of the armour, it is in a two-part clause (shield-faith; helmet-salvation, etc.). The literal rendering of Eph. 6:18 is "dia pasēs proseuchēs kai deēseōs proseuchomenoi" – "by all prayer and supplication

²² Taken from <u>https://commons.wikimedia.org/wiki/File:Roman_turtle_formation_on_trajan_column.jpg</u>, which declares "Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.2 or any later version"

praying", i.e., prayer-praying. Whether this was in Paul's mind or not, prayer is an essential part of our defence in the battle, and we must not neglect it, nor its corporate aspect.

Bibliography

Keener, Craig S. 1993. *The IVP Bible Background Commentary: New Testament.* s.l. : IVP, 1993. ISBN-13: 978-0830814053.

Snodgrass, Klyne. 1996. Ephesians (NIV Application Commentary). s.l. : Zondervan, 1996. ISBN-13: 978-0310493402.

If we have not attributed or mis-attributed any image, artwork or photograph, we apologize in advance. Please let us know via the 'Contact Us' link on our home page, provided both above the top bar and at the bottom bar of the page.