# AN EXAMINATION OF PORTRAYALS OF SMOKING IN NOIR GRAPHIC/ COMIC NOVELS

HOUGHTON Daisy<sup>1</sup>, HOUGHTON Frank<sup>2\*</sup>

<sup>1</sup>University of Galway, College of Arts, Social Sciences and Celtic Studies, Galway, Ireland <sup>2</sup>Technological University of the Shannon, Social Sciences ConneXions Research Institute, Limerick, Ireland

Article submited: 19.10.2022; accepted: 29.11.2022

#### **Abstract**

Global mortality from tobacco related diseases continues to rise. Most smokers start smoking in adolescence and early adulthood. Graphic novels have a particular appeal to this age group, and are increasingly read by females and males. Prior research examining a range of graphic novels had noted high rates of portrayals of smoking in noir and cyber-punk novels. This research focussed on a random sample of noir graphic novels to explore this finding in more depth. A quantitative content analysis of ten noir graphic novels was conducted. Although there was substantial variability in the number of portrayals of smoking, smoking imagery was prevalent throughout all of the novels examined. Of particular note was the high rate of portrayals of women smoking. This is an issue given the rise in smoking rates in young women and girls in some Western countries. Some examples of substitution and relegation of tobacco products was noted, and tobacco control advocates should seek to work with artists to promote omission, substitution and relegation of such imagery. Further research is suggested to explore in more depth the characterisation of smokers in such graphic novels, and the ongoing recurrence of such imagery in contemporary graphic noir novels.

Keywords: smoking, graphic novel, comic book, adolescents, young adults, noir



#### Introduction

Smoking remains the world's leading cause of preventable mortality and morbidity, resulting in up to 8 million deaths per annum [1-3]. The financial burden of smoking is also a significant factor that should not be under-estimated [4]. Although smoking rates have decreased in many countries they remain unacceptably high, despite widespread adoption internationally of key elements of the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) [5,6]. This includes the widespread adoption by many countries of bans on sponsorship and advertising of tobacco products.

Given the continued adoption of smoking by a significant minority of adolescents and young adults it is important to explore the provenance of pro-smoking influences in this cohort. It must be remembered that the majority of smokers start smoking in their teens or early twenties [7,8]. This period is also critical for identity formation. As such it is opportune to explore media representations of smoking, especially given aspects of performativity, social representation/ group identity and modelling in smoking behaviours.

An established literature already exists detailing malignant links between Big To-bacco and the media dating back to the 1920s [9,10]. Significant payments have been noted by the tobacco industry to ensure the placement of their products in popular films with particular appeal to teenagers and young adults including Superman II (Marlboro cigarettes by Philip Morris) and Supergirl (Eve cigarettes by Liggett) [9]. A significant body of research has already identified the impact of smoking portrayals in movies and TV on tobacco use among young people [11-14].

To date little research has examined the portrayal of smoking in graphic/ comic novels, despite an extensive literature focussing on tobacco adverts in magazines [15-18]. This

is perhaps odd given the appeal of such graphic novels to young adults [19-21], including 'reluctant readers' [22], at a time of crucial behavioural choices, including smoking initiation. Historically such publications may have been located firmly on the margins [23], however in recent years they have moved increasingly into the mainstream [24]. The appeal of graphic novels has also increased beyond their traditionally male dominated audience [25].

Perhaps one of the most high profile uses of a modern graphic novel in the field of Public Health was developed by the Centers for Disease Control and Prevention (CDC) to promote emergency preparedness among students and young adults: Preparedness 101: Zombie Pandemic [26]. Such was the success of this initiative that the CDC's website crashed under the number of hits it received as the campaign went viral [27]. Despite this literature examining this and similar interventions has noted only limited success [28,29], and unanticipated outcomes [27,30,31].

It should be acknowledged that a developing academic literature exists about graphic novels in the fields of education, media studies and health/ medicine. In the health domain graphic novels have been examined around such topics as: healthy eating [32-34]; cancer screening [35]; HIV/STD prevention [36,37]; and thanatology [38]. Other research on graphic novels in health has examined issues such as: the portrayal of disability/ impairment [39,40]; depictions of violence [41] and self-harm [42]; physician education [43,44]; healthy decision making [45]; and the treatment of subthreshold depressive symptomatology [46].

Of most relevance to this research are four studies that have examined portrayals of smoking in graphic novels. The first two of these involved an examination of portrayals of smoking in contemporary Japanese Manga graphic novels [47,48]. Both of these studies noted high levels of depictions of smoking. A more recent examination found that although there had been a decline in such portrayals over time, they still remained routine in Manga [49]. Given the now

MEDICINA INTERNACIA R E U V O

almost global popularity of Manga, such examinations are vital as Bouissou has identified that 'to export comics is also to export ideology and values system' [50]. Graphic novels, similar to any media perform the three 'Rs' of cultural transmission, in that they can reflect, reinforce and reproduce specific cultural patterns and behaviours such as smoking.

Manga represents a very different breed of comics and graphic novels to what many of the older generation may traditionally associate with this format. Traditionally 'safe' products associated with this genre, such as Disney's Mickey Mouse and products from the Ecole Franco-Belge such as Tintin and Asterix, have little or nothing in common with contemporary Manga [51-53]. Manga is designed to be shocking and has purposefully opposed societal and cultural norms across a wide range of topics [50,54]. The appeal of such depictions in Manga, it has been suggested, is a direct result of the sterility imposed by censorship: 'the American cartoons, after struggling with the stringent constraints of the Comics Code for half-acentury, gradually became emasculated. The readers were tired of no violence, no sex, no police-bashing, no smoking and no- nothing'

The fourth study of smoking portrayals in graphic novels was based on a random selection of ten graphic novels available in the main library of a provincial Irish city [55]. This research noted three key findings. Firstly, that there was a significant volume of portrayals of smoking in such graphic novels. Secondly, it identified that there was significant variation in the sample chosen, with several having none or very few such images, compared to others that included in excess of 250. Third, this research noted a dramatic gender imbalance in smoking portrayals. This research noted that for every panel that showed a woman smoking there were almost 17 panels showing men smoking. This research also identified two distinct genres of graphic novel that appeared to depict smoking on a significant scale. These were the cyber-punk and noir genres of graphic novel [55].

In light of the ongoing popularity of the noir setting [56], troublesome global rates of smoking among women [57], and the growing appeal of graphic novels to female audiences [23], this research therefore focussed on the noir genre of graphic novel. In Houghton & Houghton's research outlined above, the most frequent depiction of female smoking was in a noir graphic novel featuring the trope of the femme fatal [55]. Critics often view literary noir as a specifically hardboiled American art form produced by archetypal writers such as Hammett [58-61], Chandler [62-66], and Cain [67-69] during the 1930s to the 1950s [70]. These authors produced iconic characters such as Chandler's Philip Marlowe, and Hammett's Sam Spade that had, and continue to have, a significant influence on media forms. Film noirs, also perceived as a typically American art form, are usually thought to have been produced in Hollywood during a two decade period beginning with John Huston's The Maltese Falcon in 1941, starring Humphrey Bogart, and concluding with Orson Welles's Touch of Evil in 1958, which starred Marlene Dietrich [71].

Noir graphic novels usually follow this time period, routinely portraying the dark, gritty and seedy underworld of a corrupt society. Typical tropes include the femme fatale, private investigators, disgruntled and alienated police officers, vigilantes, and host of villains with malign intent. In response to the controversy they caused noir comics were suppressed during the 1950s and beyond and the fate of this genre seemed certain to be extinction. However, there has been a notable current resurgence in crime and noir comics/ graphic novels, that has in turn spawned its own literature [71,72].

#### Method

A random selection of ten noir graphic novels was selected chosen from an amalgamated

list created from four leading online web sites listing popular crime noir graphic novels [73-76]. A quantitative content analysis of examples of smoking and smoking paraphernalia was then conducted on these 10 novels [77-79]. A coding schedule was developed to record the gender of smokers (male, female, mixed). Analysis was conducted on the novels on a panel by panel basis. Details of the texts selected and the results can be seen in Table 1.

Examination of the ten noir graphic novels identified 534 panels containing examples of smoking. 60.3% (322) of these smoking images featured just males, while 38.5% (205) only related to women (see Table One). There was substantial variation in the average number of panels portraying smoking per page, which varied from a high of one smoking related panel every 2.1 pages in Sleeper [80], to a low of an average of one smoking related panel every 8.5 pages in Hawaiian Dick: Byrd of Paradise [81]. Examples of such smoking imagery may be seen in Figure One.

#### Results

Tab.1. Analysis of Portrayals of Smoking By Gender in a Random Selection of Ten Noir Graphic Novels

Title	Pages (including cover)	Male/s Smoking Panels	Female/s Smoking Panels	Male/s & Female/s Smoking Panels	
Batman: Year One [82]	132	18	2	5	25
Sleeper [80]	292	28	113	0	141
Gotham Central Book One [83]	244	80	0	0	80
Sin City- A Dame To Kill For [84]	212	27	17	1	45
Hawaiian Dick: Byrd of Paradise [81]	136	12	3	1	16
Criminal: Coward [85]	152	15	39	0	54
Criminal: The Sinners [86]	148	26	0	0	26
Batman: Broken City [87]	146	20	10	0	30
Batman: The Long Halloween [88]	389	48	17	0	65
100 Bullets: First Shot, Last Call [89]	132	48	4	0	52
Total	1983	322	205	7	534

#### Discussion

Noir graphic novels contain a substantial number of portrayals of smoking. Given that a significant proportion of readers of graphic novels are routinely youths and young adults this is particularly problematic. As noted above, this age is a crucial stage in social identity formation and as such these representations are important. It should be noted that none of the representations of smoking portrayed it negatively in terms of its adverse impacts on health, or on the basis

of any other factors such as finances, or environmental impacts.

Prior research examining portrayals of smoking by gender in a mixed genre selection of graphic novels noted a ratio of almost 1:17 in female to male portrayals of smoking [55]. The ratio of such female to male portrayals in this research was dramatically different at approximately 2:3. Given the increase in girls and young women reading graphic novels, this preponderance of smoking imagery associated with women in the noir graphic is potentially highly problematic.



Fig.1. Examples of Panels Containing Smoking From Batman: Year One [82]

The sensual undertones in Figure One, and the more overtly sexualised smoking imagery in Figure Two, clearly demonstrate the link portrayed between sex and smoking in some noir graphic novels. Perhaps of more

concern is the portrayal of such smoking in attractive, self-confident, assertive women. Such depictions must serve to increase the appeal of smoking to girls and young women.





Fig.2. Examples of the Femme Fatal & More Sexualised Smoking Imagery [84,80]

It is interesting to note that the noir novel Hawaiian Dick Vol. 1: Byrd of Paradise featured examples of what may be termed substitution and relegation [81]. Figure Three clearly demonstrates how a cigarette, cigar, or pipe can be substituted for another object, in this case a drinking straw. This panel filled the entire page, a rare event in graphic novels, and as such the replacement is significant. Figure Three also features what may be termed relegation. Many graphic novels contain a selection of extra material after the main story which routinely feature scripts, initial drafts of pictures, and unused art. The picture showing the figure smoking in a do-

orway, although completed, was never used. Although still included in the extra material section, it may be significant that this image was relegated to subsidiary material in the novel which included the least number of smoking related panels per page [81]. Tobacco control advocates might usefully strive to develop links with those working in the arts and graphics fields to disseminate their messages on how such portrayals may serve to not only reflect smoking use, but may also reinforce and reproduce such use. Omission of such imagery is the primary aim, however, substitution and relegation may be useful tactics to minimise harm.

### Substitution



# Relegation



Fig.3. Examples of Substitution & Relegation From Hawaiian Dick Vol. 1: Byrd of Paradise [81]

#### Conclusion

Noir graphic novels are highly problematic in terms of their consistent portrayal of smoking. This research indicates that this genre of novels also routinely include a far higher proportion of women smoking than graphic novels generally [55]. In terms of wo-

men's health this is an important issue, particularly given the positive portrayal of such female smokers. Further research may usefully explore both how the noir genre continues to be linked so substantively to smoking. Further research should also explore the characters associated with smoking to move beyond quantitative content analysis, and facilitate a more nuanced ana-

lysis. Further research might also explore related issues, including: possible changes over time; association between depictions of the consumption of both alcohol and tobacco; character type shown smoking; cigarettes v's cigars and other forms of tobacco consumption.

#### **Compliance with Ethical Standards**

Conflict of Interest: Ms Daisy Houghton declares that she has no conflict of interest. Dr Frank Houghton declares that he has no conflict of interest.

*Ethical approval:* This article does not contain any studies with human participants or animals performed by any of the authors.

#### Resumo

Tutmonda morteco de tabakrilataj malsanoj daŭre altiĝas. Plej multaj fumantoj komencas fumi en adoleskeco kaj frua plenaĝeco. Grafikaj romanoj havas specialan allogon al tiu aĝoklaso, kaj estas ĉiam pli legitaj fare de inoj kaj maskloj. Antaŭa esplorado ekzamenanta gamon da grafikaj romanoj notis altajn tarifojn de portretadoj de fumado en noir- kaj ciber-punkaj romanoj. Ĉi tiu esplorado temigis hazardan specimenon de noirgrafikaj romanoj por esplori ĉi tiun trovon pli profunde. Kvanta enhavanalizo de dek noir-grafikaj romanoj estis farita. Kvankam ekzistis granda ŝanĝebleco en la nombro da portretadoj de fumado, fuma figuraĵo estis ĝenerala ĉie en ĉiuj la romanoj ekzamenitaj. Aparte rimarkis la altan indicon de portretadoj de virinoj fumantaj. Ĉi tio estas problemo pro la pliiĝo de fumado de junaj virinoj kaj knabinoj en iuj okcidentaj landoj. Kelkaj ekzemploj de anstataŭigo kaj malavanco de tabakvaroj notiĝis, kaj tabakkontrolaktivuloj devus serĉi labori kun artistoj por antaŭenigi preterlason, anstataŭigon kaj malavancon de tia figuraĵo. Plia esplorado estas proponita esplori en pli profunde la karakterizadon de fumantoj en tiaj grafikaj romanoj, kaj la daŭranta ripetiĝo de tia figuraĵo en nuntempaj grafikaj noir-romanoj.

#### References

- 1. GBD 2015 Tobacco Collaborators et al. Smoking prevalence and attributable disease burden in 195 countries and territories, 1990-2015: a systematic analysis from the Global Burden of Disease Study 2015. Lancet. 2017; 389(10082): 1885-1906
- 2. Lim SS et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet. 2012; 380: 2224–60
- 3. World Health Organisation. Tobacco: Key Facts. Accessed on 19/10/2022 at: https://www.who.int/news-room/fact-sheets/detail/tobacco
- 4. Tobacco Atlas . The Tobacco Atlas . Accessed on 19/10/2022 at: https://tobaccoatlas.org/
- 5. World Health Organisation. Framework Convention on Tobacco Control. Accessed on 19/10/2022 at: https://fctc.who.int/who-fctc/ overview
- 6. Houghton F. Colombia's Symbolic & Practical Support for the World Health Organisation's (WHO) Framework Convention on Tobacco Control (FCTC). Epidemiology, Biostatistics and Public Health. 2019; 16(2): e13125
- 7. Evans D, O'Farrell A, Sheridan A, Kavanagh P. Youth Smoking in Ireland: A special analysis of the Health Behaviour in School-aged Children (HBSC) study, Report prepared on behalf of the Tobacco Free Ireland Programme, Health Service Executive. Dublin: HSE; 2018
- 8. Sheridan A, O'Farrell A, Evans D, Kavanagh P. Adult Smoking in Ireland: A Special Analysis of the Healthy Ireland Survey and The Irish Longitudinal Study on Ageing (TILDA). Report prepared on behalf of the Tobacco Free



Ireland Programme, Health Service Executive. Dublin: HSE; 2018

- 9. Chapman S, Davis RM. Smoking in movies: is it a problem? Tobacco Control. 1997; 6(4): 269.
- 10. Lum KL, Polansky JR, Jackler RK, Glantz SA. Signed, sealed and delivered: "big to-bacco" in Hollywood, 1927–1951, Tobacco Control. 2008; 17(5): 313-323
- 11. Sargent JD. Smoking in movies: impact on adolescent smoking, Adolescent Medicine Clinics. 2005; 16(2): 345-370
- 12. Sargent JD, Hanewinkel R. Impact of media, movies and TV on tobacco use in the youth. In Loddenkemper R, Kreuter M (eds) The Tobacco Epidemic. 2015; 42: 171-180. Basel: Karger
- 13. Charlesworth A, Glantz SA. Smoking in the movies increases adolescent smoking: a review. Pediatrics. 2005; 116(6): 1516-1528
- 14. Tickle JJ, Sargent JD, Dalton MA, Beach ML, Heatherton TF. Favourite movie stars, their tobacco use in contemporary movies, and its association with adolescent smoking. Tobacco Control. 2001; 10(1): 16-22
- 15. King C, Siegel M. The Master S ettlement Agreement with the tobacco industry and cigarette advertising in magazines. New England Journal of Medicine. 2001; 345(7): 504-511
- 16. Hamilton WL, Turner-Bowker DM, Celebucki CC, Connolly GN. Cigarette advertising in magazines: the tobacco industry response to the Master Settlement Agreement and to public pressure. Tobacco Control. 2002; 11(suppl 2): ii54-ii58
- 17. Krupka LR, Vener AM, Richmond G. (1990). Tobacco advertising in gender-oriented popular magazines. Journal of Drug

Education. 1990; 20(1):15-29

- 18. Pucci LG, Siegel M. Exposure to brand-specific cigarette advertising in magazines and its impact on youth smoking. Preventive Medicine. 1999; 29(5): 313-320
- 19. Evans C, Gaudet F. Comic Strip Readership. Culture études. 2012; 2: 1-8
- 20. Nyberg AK. How Librarians Learned to Love the Graphic Novel. In R.G. Weiner (ed.) Graphic Novels and Comics in Libraries and Archives: Essays on Readers, Research, History and Cataloguing. Jefferson, North Carolina: McFarland; 2010
- 21. Strong Hansen K. In Defense of Graphic Novels. English Journal. 2012; 102(2): 57–63
- 22. Gluibizzi A. The Aesthetics and Academics of Graphic Novels and Comics. Art Documentation. 2007; 26(1): 28-30
- 23. Stewart R. Graphic reading. The Bookseller. Stewart R. Graphic reading. October 29, 2003
- 24. Le D uc D. XX1st Century Graphic Novels, Belphegor. 2005; 5(1): 1-8
- 25. Barnett DM. Kapow! The unstoppable rise of female comic readers. The Guardian Friday 18 Sep 2015. Accessed on 19/10/2022 at: https://www.theguardian.com/books/2015/sep/18/female-comic-book-readers-women-avengers-a-force
- 26. Centers for Disease Control and Prevention. (2015). Zombie preparedness. Retrieved on 03/01/2023 from: https://stacks.cdc.gov/view/cdc/6023
- 27. Houghton F, Del Monte K, Glessner D, Goff J, Hopkins E, Loney K, Meratnia G, Toms J. Zombie Pandemic Preparedness: a Cautionary Observation. New Zealand Medical Journal of the Company of the Compan

nal. 2016; 129: 1432

- 28. Fraustino JD, Ma L. CDC's use of social media and humor in a risk campaign—"Preparedness 101: Zombie Apocalypse". Journal of Applied Communication Research. 2015; 43: 222-241
- 29. Kruvand M, Bryant FB. Zombie apocalypse: Can the undead teach the living how to survive an emergency? Public Health Reports. 2015; 130: 655-663
- 30. Houghton F, Hopkins E, Loney K, Luther L, Norris A, Toms J. Examination of the impact of using a zombie pandemic scenario to encourage emergency preparedness among elementary school children: the weapons issue. Washington State Journal of Public Health Practice. 2016; 9
- 31. Houghton F, Toms J, Meratnia G, Loney K, Hopkins E, Del Monte K. Concerns with entertainment-education: Zombie pandemic preparedness and the unanticipated promotion of a weapons culture. Health Education & Behavior. 2016; 1-5
- 32. Leung MM, Green MC, Tate DF, Cai J, Wyka K, Ammerman AS. (2017). Fight for Your Right to Fruit: Psychosocial Outcomes of a Manga Comic Promoting Fruit Consumption in Middle-School Youth. Health Communication. 2017; 32(5): 533-540
- 33. Leung MM, Tripicchio G, Agaronov A, Hou N. (2014). Manga comic influences snack selection in Black and Hispanic New York City youth. Journal of Nutrition Education and Behavour. 2014; 46(2): 142-7
- 34. Shimazaki T, Matsushita M, Iio M, Takenaka K. Use of health promotion manga to encourage physical activity and healthy eating in Japanese patients with metabolic syndrome: a case study. Archives of Public Health. 2018; 76(1): 26

- 35. Wang JL, Acevedo N, Sadler GR. Using Comics to Promote Colorectal Cancer Screening in the Asian American and Pacific Islander Communities. Journal of Cancer Education. 2018; 33(6): 1263–1269
- 36. Willis LA, Kachur R, Castellanos TJ, et al. Developing a Motion Comic for HIV/STD Prevention for Young People Ages 15-24, Part 1: Listening to Your Target Audience. Health Communication. 2018; 33(2): 212–221
- 37. Willis LA, Kachur R, Castellanos TJ, et al. Developing a Motion Comic for HIV/STD Prevention for Young People Ages 15-24, Part 2: Evaluation of a Pilot Intervention, Health Communication. 2018; 33(3): 229–237
- 38. Czerwiec MK, Huang MN. Hospice Comics: Representations of Patient and Family Experience of Illness and Death in Graphic Novels. Journal of Medical Humanities. 2017; 38(2): 95–113
- 39. Wood A. Drawing disability in Japanese manga: visual politics, embodied masculinity, and wheelchair basketball in Inoue Takehiko's REAL. Culture, Medicine, and Psychiatry. 2013; 37(4): 638-55
- 40. Gibson R. Graphic illustration of impairment: science fiction, Transmetropolitan and the social model of disability. Medical Humanities. 2018; 46:12–21.\
- 41. Coyne SM, Callister M, Stockdale L, Coutts H, Collier KM. "Just how graphic are graphic novels?" An examination of aggression portrayals in manga and associations with aggressive behavior in adolescents. Violence and Victims. 2015; 30(2): 208-24
- 42. Seko Y, Kikuchi M. Self-Injury in Japanese Manga: A Content Analysis. Journal of Medical Humanities. 2021; 42(3): 355–369

Decembro 2022



- 43. Sutherland T, Choi D, Yu C. "Brought to life through imagery" animated graphic novels to promote empathic, patient-centred care in postgraduate medical learners. BMC medical education. 2021; 21(1): 66
- 44. Babaian CS, Chalian AA. "The thyroidectomy story": comic books, graphic novels, and the novel approach to teaching head and neck surgery through the genre of the comic book. Journal of Surgical Education. 2014; 71(3): 413–418
- 45. Montgomery M, Manuelito B, Nass C, Chock T, Buchwald D. The Native Comic Book Project: native youth making comics and healthy decisions. Journal of cancer education: the official journal of the American Association for Cancer Education. 2012; 27(1 Suppl), S41–S46
- 46. Imamura K, Kawakami N, Furukawa TA, Matsuyama Y. Shimazu A, Umanodan R, Kawakami S, Kasai K. (2014). Effects of an Internet-based cognitive behavioral therapy (iCBT) program in Manga format on improving subthreshold depressive symptoms among healthy workers: a randomized controlled trial, PLoS One. 2014; 9(5): e97167
- 47. Nakahara S, Ichikawa M, Wakai S. (2005). Smoking scenes in Japanese comics: a preliminary study. Tobacco Control. 2005; 14: 71
- 48. Jimbo M. Japanese Manga and Smoking: Puffing Away. International Institute Journal. 2012; 2: 1
- 49. Lee YH, DeJong J. Depictions of Tobacco and Alcohol Use in Contemporary Japanese Shōnen Manga: A Content Analysis. Journal of Health Communication. 2019; 24(11): 848-855
- 50. Bouissou JM. Manga goes global. Critique Internationale: Culture populaire et po-

litique. 2000; 7: 1-36

MIR N-ro 2 (119)

- 51. Lefèvre P. The construction of national and foreign identities in French and Belgian postwar comics (1939-1970). Comicalités [En ligne], Histoire et bande dessinée: territoires et récits. 2012; http://journals.openedition.org/comicalites/875
- 52. Zanettin F. Translation, censorship and the development of European comics cultures. Perspectives; 2018; 26(6): 868-884
- 53. Smoodin E. Cartoon and Comic Classicism: High-Art Histories of Lowbrow Culture. American Literary History. 1992; 4(1): 129-140
- 54. Wong WS. Globalizing Manga: From Japan to Hong Kong and Beyond. Mechademia; 2006; 1: 23-45
- 55. Houghton D, Houghton F. An Examination of Portrayals of Smoking in Graphic Novels/ Comic Books: A picture is worth a thousand words. Tobacco Prevention & Cessation. 2020; 6: 41
- 56. Tilley CL. The dark night returns: the contemporary resurgence of crime comics. Consumption Markets & Culture. 2016; 19(6): 603-606
- 57. Jafari A, Rajabi A, Gholian-Aval M, Peyman N, Mahdizadeh M, Tehrani H. National, regional, and global prevalence of cigarette smoking among women/females in the general population: a systematic review and meta-analysis, Environmental Health & Preventive Medicine. 2021; 26(1): 5
- 58. Hammett DS. Red Harvest. New York: Alfred A. Knopf, Inc.; 1929
- 59. Hammett, DS. The Dain Curse. New York: Alfred A. Knopf, Inc.; 1929
- 60. Hammett DS. The Maltese Falcon. New

- York: Alfred A. Knopf, Inc.; 1930
- 61. Hammett DS. The Thin Man. New York: Alfred A. Knopf, Inc.; 1934
- 62. Chandler R. The Big Sleep. New York: Alfred A. Knopf, Inc.; 1939
- 63. Chandler R. Farewell, My Lovely. New York: Alfred A. Knopf, Inc.; 1940
- 64. Chandler R. The High Window. New York: Alfred A. Knopf, Inc.; 1942
- 65. Chandler R. The Lady in The Lake. New York: Alfred A. Knopf, Inc.; 1943
- 66. Chandler R. The Long Goodbye. Bloomsbury, London: Hamish Hamilton; 1953
- 67. Cain JM. The Postman Always Rings Twice. New York: Alfred A. Knopf, Inc.; 1934
- 68. Cain JM. Double Indemnity. New York: Alfred A. Knopf, Inc.; 1936
- 69. Cain JM. Mildred Pierce. New York: Alfred A. Knopf, Inc.; 1941
- 70. Bukoski A. The Noir Thriller, Studies in the Novel. 2002; 34(4): 468-470
- 71. Wandtke T. The Dark Night Returns: The Contemporary Resurgence of Crime Comics. Rochester, New York: Rit Press; 2015
- 72. Spicer A, Hanson H. (eds) A Companion to Film Noir. Hoboken, NJ: Blackwell Publishing Ltd.; 2013
- 73. Ranker.Com. The Best Crime Comics to Ever Hit the Shelves. Accessed on 19/10/2022 at: https://www.ranker.com/list/best-noir-comics/rhune-kincaid
- 74. Crimefictionlover.com. Crime Fiction Lover. Accessed on 19/10/2022 at: https://cri-

- mefictionlover.com/2015/09/cis-the-10-best-classic-crime-comics/
- 75. Slingsandarrows. Graphic Novel Guide. Accessed on 19/10/2022 at: http://theslingsandarrows.com/
- 76. Comicsverse.com. 5 Noir Comics You Must Read! Accessed on 19/10/2022 at: https://comicsverse.com/5-noir-comics/
- 77. Domas White, M, Marsh EE. Content Analysis: A Flexible Methodology. Library Trends. 2006; 55(1): 23
- 78. Patterson C, Semple S, Wood K. et al. A quantitative content analysis of UK newsprint coverage of proposed legislation to prohibit smoking in private vehicles carrying children. BMC Public Health. 2015; 15: 760
- 79. Krippendorff, K. Content Analysis: An Introduction to Its Methodology. California: Sage; 2013
- 80. Brubaker E, Phillips S. Sleeper. New York: DC Comics; 2003
- 81. Moore BC, Griffin S. Hawaiian Dick Vol. 1: Byrd of Paradise. Orange, CA: Image Comics; 2003
- 82. Miller F, Mazzucchelli D. Batman: Year One. New York: DC Comics; 2005
- 83. Brubaker E, Rucka G, Lark M, Block L. Gotham Central Book One: In the Line of Duty. Burbanks, CA: DC Comics; 2008
- 84. Miller F. Sin City: A Dame to Kill For. Milwaukie, Oregon Dark Horse Comics; 1995
- 85. Brubaker E, Phillips S. Criminal Coward. Berkeley, CA: Image Comics; 2015
- 86. Brubaker E, Phillips S. Criminal Vol.5 The Sinners. New York: Marvel; 2010





Decembro 2022

87. Azzarello B, Risso E. Batman: Broken

City. London: Titan Books; 2005

88. Lobb J, Sale T. Batman: The Long Halloween. London: Titan Books; 1998

89. Azzarello B, Risso E. 100 Bullets: First Shot, Last Call. New York: DC Comics; 2000

30-a volumo MIR N-ro 2 (119) Decembro 2022

#### FOR AUTHORS

#### **SUBMISSION**

Manuscripts in English, Esperanto, Spanish, Italian, Polish (or any other conference language), can be submitted via electronic mail or Open Journal System (OJS). Each article has to have an abstract in English or Esperanto if only one version is submitted, the second wil be translated by the editors (free of charge).

#### FILE FORMAT

Manuscripts should be saved in native format, offered by text processing software (preferably .docx, .doc, .odt). All figures (apart from being embed in text, or marked) should be saved and submitted in native separate files (.jpeg, .cdr, .cpt, .svg, .tiff) with resolution suitable for printing typically 300 dpi (or greater) for color photographs and at least 400 dpi (or greater) for black-white and gray scale drawings.

#### **TEXT**

Layout of the manuscript should be left as simple as it is possible. Text has to be in single column format. Use Times New Roman 12 with 1.5 interline throughout the manuscript and avoid unnecessary formatting. Paragraphs have to be clearly separated from each other. Italic and bold face fonts can be used just as subscripts and superscripts etc. Options in word-processing software for text justification and word hyphenation must not be used.

Mathematical formula should be written in single line format (e.g.  $(2+2)^{-2}[(2*2)-2]=2/x^{-2})$  or written in LaTeX<sup>®</sup>Chemical formulas should be provided in a chemical drawing software format (rarely a high resolution .tif or .jpeg can be accepted but at the redaction discretion).

During publication, most of the formatting codes will be deleted and/or replaced by our editors to fit the manuscript into journal layout.

All lines of text should be numbered. The maximum number of characters depends on the type of article:

Letter to the editorial board: 1000

Short article: 3000

Original publication: 6000

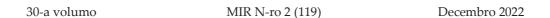
Review publication: 7000

#### TITLE

Should not be exceedingly long and should state the main research goal and methodology.

#### **ABSTRACT**

The abstract should be written in English and Esperanto, left short and state briefly research goal, results, and the most important conclusions. As *Medicina Internacia Revuo* is readily willing to accept papers from authors who speak neither Eng-





lish or Esperanto, this task might be fulfilled by the editorial board on these special occasions. References in the abstract should be avoided. Abstract should be prepared in a way allowing its presentation as a stand-alone note. The maximum number of characters is 250.

#### **KEYWORDS**

Up to six keywords can be defined, and should allow others to find the article in search forms.

#### REFERENCES STYLE

Vancouver, example:

Smith M, Kowalski A, Johanson MK. Medicinal activity of *Bacopa monnieri*. Med Int Rev. 2013; 1(2): 54-62.

INSTRUCTIONS FOR CITATIONS OF REFERENCES IN THE JOURNAL

In the text, sequential numbers of citations should be in order of appearence (NOT ALPHABETICALLY) in parentheses.

## TABLE OF CONTENTS / ENHAVO

MYCE	ELIAL CULTURES AS A MODEL TO STUDY THE ACCUMU LATION OF MEDICINAL COMPOUNDS – HISTORICAL PERSPECTIVE
	TREPA Monika, SUŁKOWSKA-ZIAJA Katarzyna, KAŁA Katarzyna, MUSZYŃSKA Bożena50
POSS	BILITIES OF USING CRANIOSACRAL OSTEOPATHY AFTER HEAD INJURIES IN KICKBOXING PRACTITIO- NERS MAŃKO Grzegorz, FELIKSIK Monika
INTER	RELATIONS OF BODY COMPOSITION AND QUALITY OF LIFE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE  FEKETE Monika, PAKO Judit, CSICSELY Katalin, TOTH Katalin, SZABO Monika, HORVATH Dorottya, BALAZS Peter, FORRAI Judit, FAZEKAS-PONGOR Vince, SZOLLOSI Gergo, VARGA Janos Tamas
LEUKO	OCYTE AND PLATELET-RICH FIBRIN (LPRF) THERAPY & LEPROSY: THE NEED FOR CAUTION AND RESEARCH AMONG MARGINALISED GROUPS IN LOW RESOURCE SETTINGS  HOUGHTON Frank, STRITCH Margaret Moran, TAMANG Krishna, WINTERBURN Michael
A CHI	LD WITH OTITIC HYDROCEPHALUS  ABDOLSALEHI Mohammad Reza, MEMAR Elmira Haji Esmaeil, GHAHREMAN LOO Mahya, KHEZRI Mahsa, ZAMANI Sara, JALALI Fatem
LIFE S	TYLE AND STRUCTURE DIFFERENCES BETWEEN SPECIES OF FRESHWATER FISH  ZUTS Viktoria, KELEMEN-VALKONY Ildiko, OTVOS Ferenc, REPAS Zoltan, KO- VÁCS Andras, TÓTH László, KISS Attila A, LŐRINCZ Ádám, SZABÓ Balázs P, GAJ-

DÁN Krisztina, KERTAI Zoltán, HOUSHMAND Nazanin, SZUTS Marcella, OBISTIOIU



-a volumo MIR N-ro 2 (119) Decembro 2022

	Diana, VELCIOV Ariana B, HALASY Katalin, DEIM Zoltan, DEAK Dalma, GÁL sef, CSANADI Jozsef, DOMONKOS Ildiko	
an ex	(AMINATION OF PORTRAYALS OF SMOKING IN NO GRAPHIC/ COMIC NOVELS	IR
	HOUGHTON Daisy, HOUGHTON Frank	107
FOR A	AUTHORS	.119
NATUR	RE	.123

# NATURE

# HAVE YOU EVER SEEN...



Geastrum fimbriatum (photo Jacek Lelek)

Phallus impudicus (photo Jacek Lelek)



Calvatia gigantea (photo Jacek Lelek)

Amanita strobiliformis (photo Bożena Muszyńska)